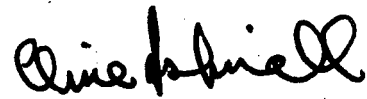
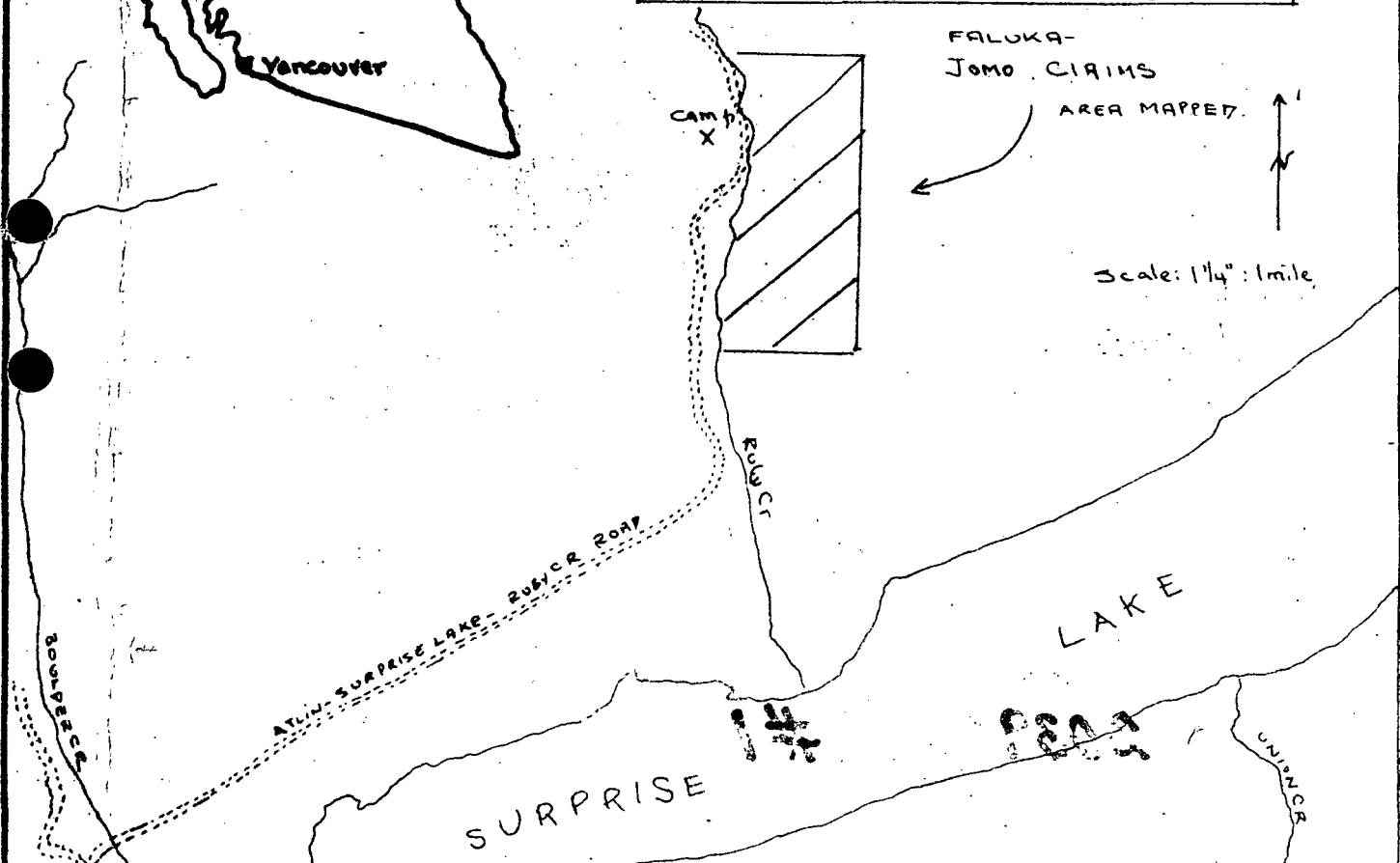
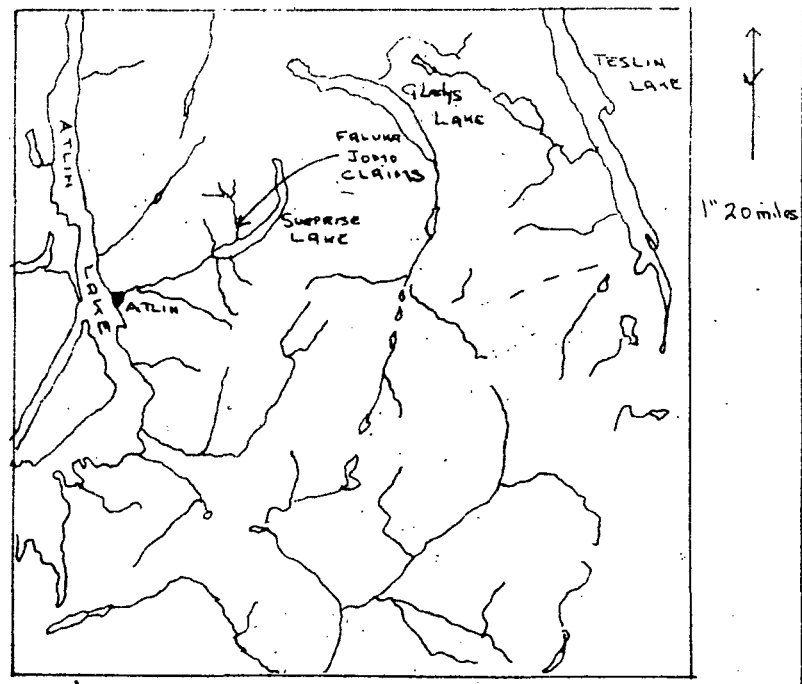
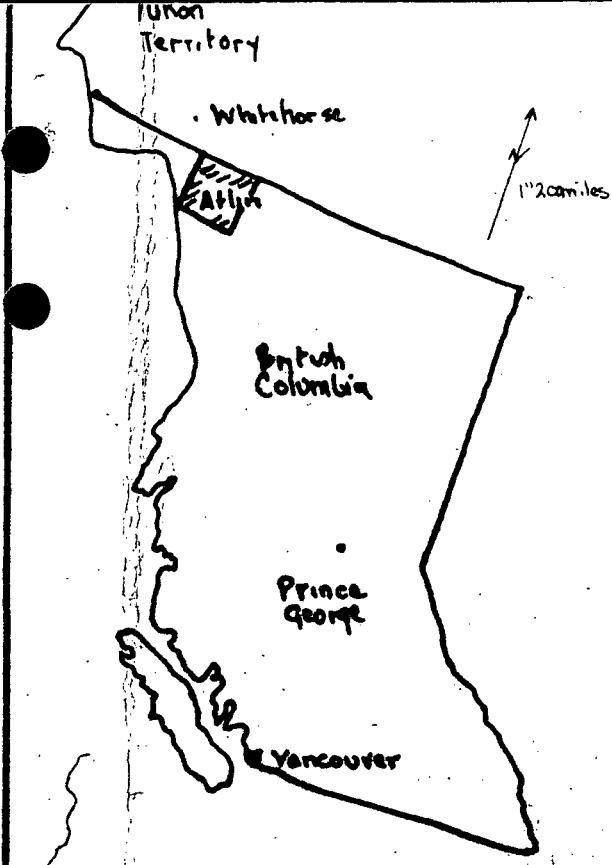


20389

Report on  
Geological Mapping of  
M.C's Faluka 1-8, Jomo 3,4,7,8  
located on  
Ruby Creek, Atlin, M.D. B.C.  
(Claims are located in the Atlin  
Quadrangle 15 miles NE of Atlin,  $59^{\circ}$ N,  
 $133^{\circ}$  WSE )  
owned by  
Canadian Johns-Manville Co. Ltd.  
Box 1500, Asbestos, Que

Geological Mapping July 4-25, 1969  
Report: October 15, 1969

  
Clive Aspinall, B.Sc.  
Atlin, B.C.



**CANADIAN JOHNS-MANVILLE CO., LIMITED**  
 EXPLORATION DEPT. - ASBESTOS, QUE., CANADA

**LOCATION MAPS OF  
 FALUKAJOMO M.C.s. ATLIN M.D.**

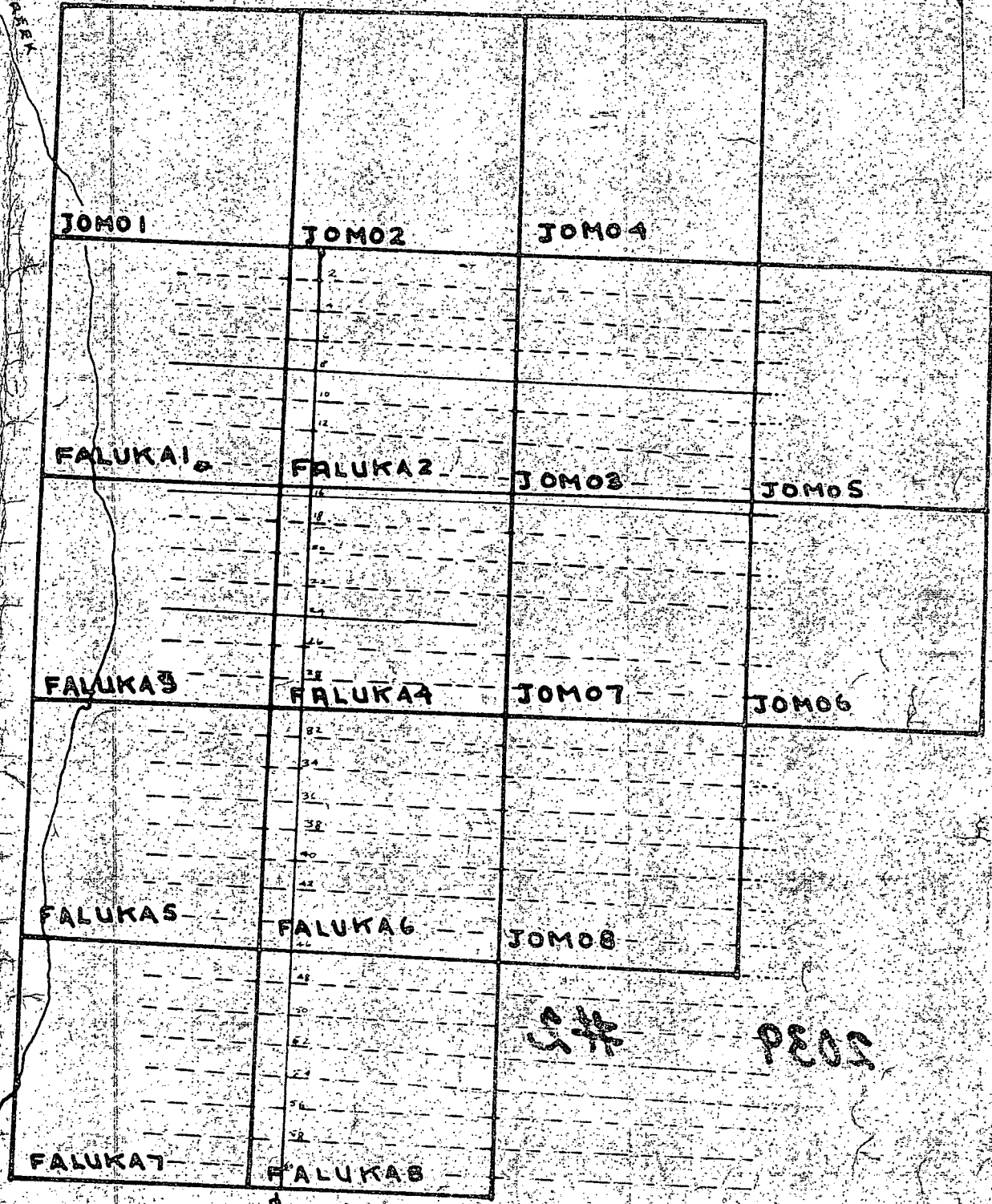
SCALE: AS SHOWN      DATE: 15<sup>th</sup> Oct '69

DRAWN	TRACED	CHECKED	APPROVED
CA			

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. **2039** MAP **#1**

200 FT CASEN



LEGEND

Cut and Chained  
LINE ————  
PLACED AND  
Chained LINE - - - - -

CANADIAN JOHNS-MANVILLE CO., LIMITED  
EXPLORATION DEPT. — ASBESTOS QUE. CANADA

**CLAIM AND GRID PLAN  
FALUKA-JOMO Mcs ATLIN**

SCALE: 1" = 1500'      DATE: 15/10/69 M.D.

DRAWN / TRACED / CHECKED / APPROVED

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. **2039** MAP **#2**

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Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 2039 MAP.....

## INTRODUCTION

The area was mapped by P. Turner, a third year Geology student from the University of Wales and Monmouthshire, Cardiff. The writer acted primarily in a supervisory capacity. The Attached Geological map with this report was compiled by Turner, while the report was compiled by myself. It will be noted there slight differences in opinion between the notes on the map and these in the report, concerning the ages of the rock types studied as well as their mode of deposition.

Until more work brings to light the exact age and mode of deposition of rocks in the area mapped, the writer welcomes different points of view and consequently both views are expressed.

Scope of this Report:

This report is based on Geological mapping of the following claims: Faluka 1-8, Jomo 3,7,8 and parts of Jomo 4,5,6.

Property and Ownership:

As an agent for Canadian Johns Manville Co. Ltd. of Asbestos, Que, the writer staked mineral claims Faluka 1-8 and Jomo 1-8 on Sept 26, 1968 and October 1, 1968 in the area covered by this report.

These claims were recorded in Atlin on Sept 27 and Oct 1 of that year respectively. Mineral claims Faluka 1-8, Jomo 3,4,7,8 were grouped and legally transferred to Canadian Johns -Manville co. Ltd on September 12, 1969.

History:

The Company became interested in the Ruby Creek area in the fall of 1967 when a Molybdenum occurrence was discovered and staked at the headwaters of Ruby Creek. In 1968 a Geochemical Creek sampling survey was undertaken in the general area after which it was decided that additional claims should be staked for the Company on Ruby Creek.

Placer gold mining has taken place on Ruby Creek since 1902, and in the 1930's the Columbia Development Company sank a shaft just North West of where Faluka #1 is now situated.



### Location and Access:

The Faluka and Jomo claims are located 15 miles NE of Atlin, and two miles up Ruby Creek from Surprise Lake. The claims are located in the Atlin Mining Division. The coordinates are 59° 42'N, 133°45' W. Access to the claims can be gained by motor vehicle along the Atlin-Surprise Lake-Ruby Creek road from Atlin.

### Physiography:

The Faluka-Jomo claims are located in a wide glaciated valley, drained by Ruby Creek. Although the claims do cover both sides of Ruby Creek, they are essentially located on the East side of Ruby Creek valley. The area covered by the claims slopes gently towards Ruby Creek as well as towards Surprise Lake. The surrounding mountains outside the claims area have elevations up to 6,000' (ASL), but the claims in question are situated between 3,500' to 4,000' (ASL).

Low scoriaceous basalt mounds are characteristic of the valley floor in this area. Ruby Creek has formed a deep canyon through olicine basalts on M.C.'s Faluka 3,5,7.

### Vegetation:

Spruce, pine and some poplar are prominent on glacial deposits. Cottonwood is scarce but grows on the Southern slopes of some of the low scoriaceous basalt mounds. Buckbrush is common throughout the area, and willow prevails near the headwaters of the tributary creeks. The most Eastern part

of the claim group lies on the tree line.

Work Done: Grid Control:

Before Geological mapping could commence a grid had to be laid out. A North South Baseline on the East side of the creek was cut and chained from a point near the initial claim post for Faluka 1,2, to a point near the final claim post for Faluka 7,8. Four thousand feet of East-West offset lines were cut and chained at points 8+OOS and 16+OOS respectively, while 2,000' of offset lines were cut and chained at point 24+OOS. Additional offset lines were only chained and flagged, but were located at intervals of 200'.

Except for lines extending from point 24+OOS, all the lines extended 1,000' to the West and 3,000' to the East. Two local men from Atlin were employed to do this work.

Geological Mapping:

General: A student geologist, supervised by the writer, carried out the Geological mapping. Field work was begun on July 4 and ended on July 25, 1969. The previously mentioned grid was used for control, and an area of 580 acres was mapped at a scale of 1"-200'. One map sheet showing the Geology was produced.

Geology: The basement rocks in the area mapped are Cretaceous Alaskites of the Surprise Lake Batholith. These rocks are exposed in Ruby Creek Canyon on Mineral Claims Faluka 5 and 7, as well as to the West on claims JOmo 3,7,8,. Iron Oxide stains are noted on the weathered surface as well as the fresh surfaces. This staining is attributed to weathered out pyrite veins.

Black manganese staining is also noted in the Alaskites. It occurs along fracture surfaces, but is less common than the iron oxide staining. On the fresh surfaces, the alaskites are noted to be inequigranular and variable in texture, although nowhere in the map area was the quartz porphyry or feldspar porphyry variety found. The alaskites consists of orthoclase, plagioclase, and abundant quartz and a small amount of biotite.

Overlying the alaskites in Ruby Creek Canyon on claims Faluka 3,5,7, is an auriferous bearing gravel. The writer believes this gravel to be Pleistocene glacial till. This till is poorly sorted, unstratified as well as lithologically heterogeneous. Its most outstanding feature is its unconsolidated nature. The till GRAIN SIZE ranges from a matrix of fine silt, sand, and grits, to pebbles, cobbles and boulders. Some boulders observed were estimated to range up to one ton in weight. All the clastics are characteristically rounded and well worn, indicating intensive erosional action. They primarily consist of alaskite and Gache Creek fragments and it is probable that their source is within the Ruby Creek drainage area. The thickness of the till varies, but one section on mineral claim Faluka 5, reveals a thickness of twenty feet.

Overlying the tills are olivine basalt lavas. Aitken suggests these basalts in Ruby Creek valley to be of late Pleistocene age. The source of the basalts are from a small volcanic conelet at the head of Cracker Creek as well as from a strato-volcano west of Ruby Creek.

These basalts are very well exposed on mineral claims Faluka 3,5,7 and in Ruby Creek Canyon. Poor columnar jointing is exhibited. The jointing generally reveals irregularities, contortions, and slight folds. The thickness of this columnar jointed basalt is estimated to be 75'-100' thick as observed in Ruby Creek Canyon. Overlying the columnar jointed basalt is a zone of unconsolidated scoriaceous basalt and lava debris. This zone is considered the top of the lava flow, and is estimated to be 20'-50' thick. Scoriaceous zones are also noted within the lower columnar jointed basalts, indicating the presence of gas at the time of cooling. Only one flow is recognized.

On the weathered surface the columnar basalts exhibit a light grey buff color to a grey mottled color. Hand lens examination of the fresh columnar basalts reveal scattered phenocrysts of translucent olivine and amygdules of a white crystalline mineral. Scattered vesicles are also present. The scoriaceous basalts are purple to red brown in color on both the weathered and freshly broken surfaces. The rock content of this top zone consists of an ill sorted selection of cinders, scoriae, agglomerate and other fragments. These clastics are in sizes up to 3-6" in diameter. The scoriaceous basalts most characteristic features are its unconsolidated and fragmental nature, as well as its vesicular and amygdaloid texture.

Distinctive conical shaped mounds and minor hills are surface

features of this basalt. Only the top is recognizable.

On the East side of Faluka 4,6 a glacial till appears to be sandwiched between the upper scoriaceous basalt and the lower columnar basalt. More investigations are required to prove or disprove this theory.

The writer considers it likely that the basalt flow was deposited as the glaciers in Ruby Creek were retreating and that glaciers did not readvance over the scoriaceous basalts to any great extent as they would have stripped away this unconsolidated debris. It is possible that glacial streams did rework the scoriaceous basalt.

#### Mineralization:

Placer gold is the only economic mineral noted within the area mapped. No economic mineralization was observed in bedrock.

#### Conclusions:

It is evident that Ruby Creek valley was developed to look as much as it does today during Tertiary and Pleistocene times. Gold bearing veins deposited probably during the Nevadan orogeny into the Alaskites or other intrusions were plucked out by glacial and other erosional agents to be deposited in the glacial tills situated below the Olivine basalt.

Aitken suggests that the scoriaceous debris to be derived from a post glacial landslide. All the glacial debris

Recommendations:

This area warrants further academic investigations on the glacial tills and the basalts. However, no further search for metalliferous iodides deposits are required.

*Clive Aspinall*

Clive Aspinall, B.Sc  
Atlin, B.C.  
Oct 15, 1969

STATEMENT OF QUALIFICATIONS

I, Nicholas Clive Aspinall, do hereby certify that:

- (1) I am a geologist employed by Canadian Johns-Manville Co. Ltd Box 1500, Asbestos, Que.
- (2) I am a graduate from McGill University, Montreal, Que, B.Sc '64
- (3) My status with Canadian Johns-Manville Co. Ltd. is that of a senior geologist for Northern British Columbia and the Yukon Territory.
- (4) I do not have any financial interest, direct or indirect in the Faluka-Jomo group of claims.
- (5) This report is based on study of published Geological reports and maps, and field observations compiled by P. Turner, a third year Geology student and by myself.

*Clive Aspinall*

Clive Aspinall

Box 69

Atlin, B.C.

Oct 15, 1969

Costs of Geological Mapping  
and Linecutting

Field Costs:

P. Turner, Student Geologist

- (1) Salary for 18 days work @ \$22 per day .....\$396  
(2) Living expenses for 18 days @ \$6 per day ..... 108

\_\_\_\_\_ \$504

Line Cutting:

16,000 ' of cut and chained line by 2 men @  
\$25 per day each for 6 days .....\$300

N.B. 1 days supervision by the writer, plus additional 104,000'  
of chaining and flagging by two linecutters has not been applied  
for Assessment Work. Transportation costs have also not been  
applied for Assessment Work

*line hill*



Declaration of Work Dates and Employment

(1) The Geological mapping was carried out between July 4-25, 1969

The following men were employed.

P. Turner, third year geology, University College of South Wales and Monmouthshire, Cardiff, Wales.

(2) D. Jack, D. Gougen, of Atlin, B.C.

*Clive Phil*

APPENDIX III

Declaration of Work Dates and Employment

APPENDIX II

Cost of Geological Survey and Line Cutting  
for application to assessment work  
on  
Faluka-Jomo Claims, Atlin, M.D.

APPENDIX I

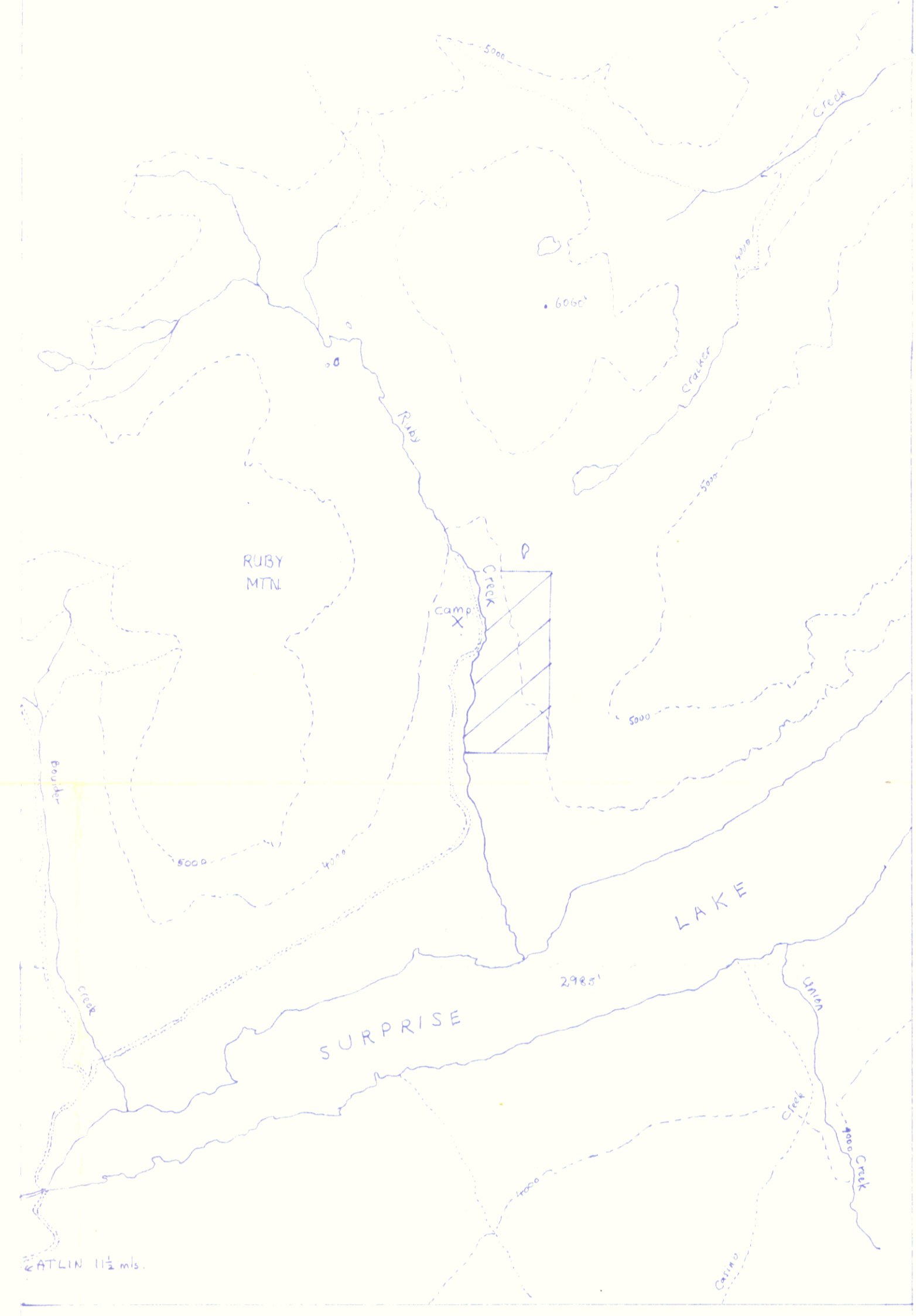
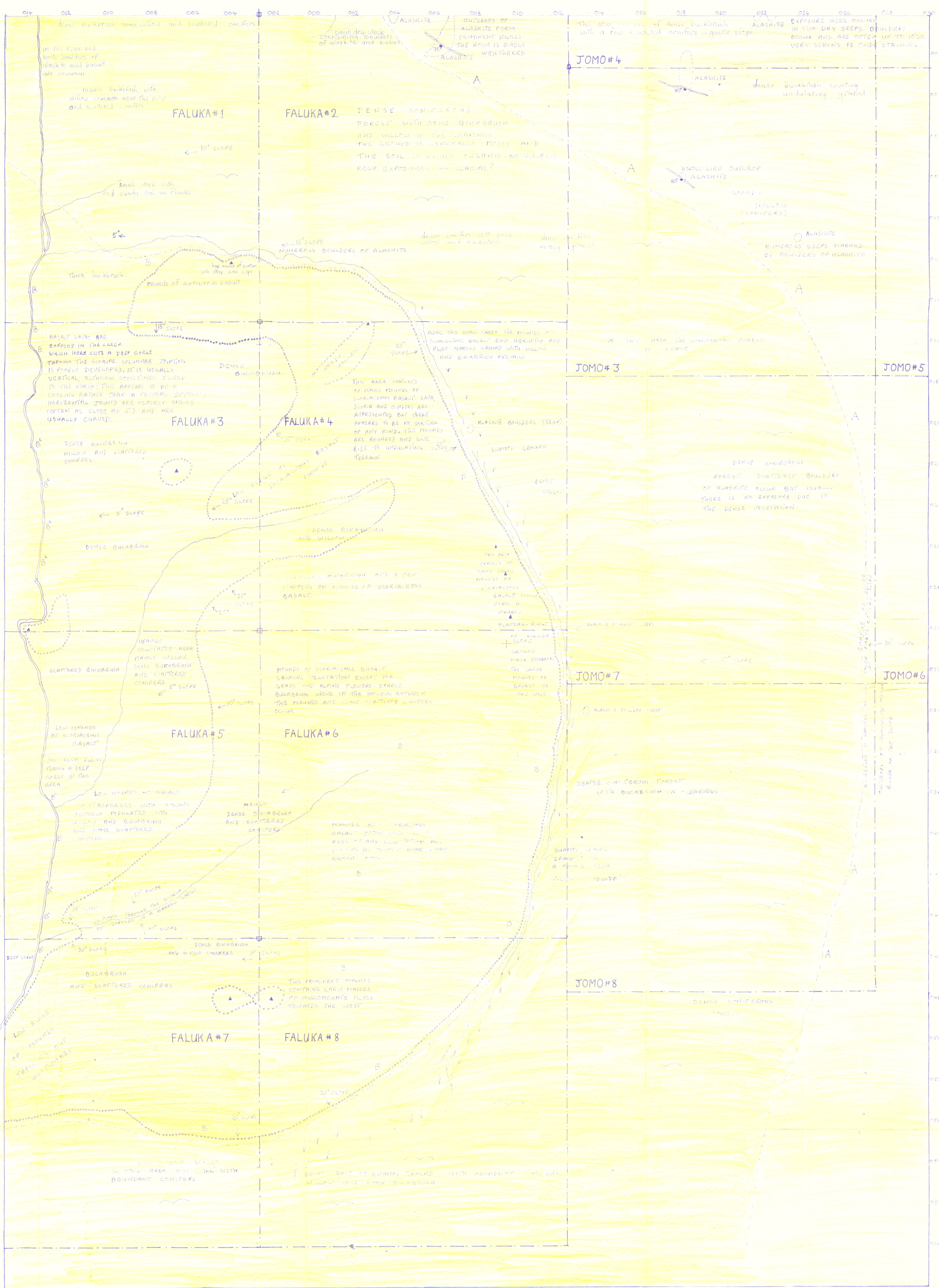
STATEMENT OF QUALIFICATIONS



FEET WEST OF BASELINE (IN HUNDREDS)

FEET EAST OF BASELINE (IN HUNDREDS)

LOCATION MAP OF THE AREA MAPS 6502112-14



THE AREA MAPPED LIES ON THE EAST BANK OF RUBY CREEK A NARROW EAST FLOWING RIVER WHICH DRAINS A WIDE U SHAPED GLACIATED VALLEY. THE MAJORITY OF THE GROUND IS BETWEEN 3,000' AND 4,500' ABOVE SEA LEVEL BUT VEGETATION IS GENERALLY DENSE BUCKBRUSH AND WILLOW ARE CHARACTERISTIC OF THE LOWER SLOPES WHILST CONIFERS (SPRUCE, PINE AND SOME POPLAR IN THE SOUTH) ARE PROMINENT ON THE GLACIAL DEPOSITS. COTTWOOD IS GRASSY BUT GROWS ON THE SOUTHERN SLOPES OF SOME OF THE LARGER MOUNDS OF SCORICIOUS BASALT A NOTICEABLE CHANGE OF SLOPE MARKING THE CONTACT WITH THE ALASKITE IS APPROXIMATELY COINCIDENT WITH THE TIMBER LINE.

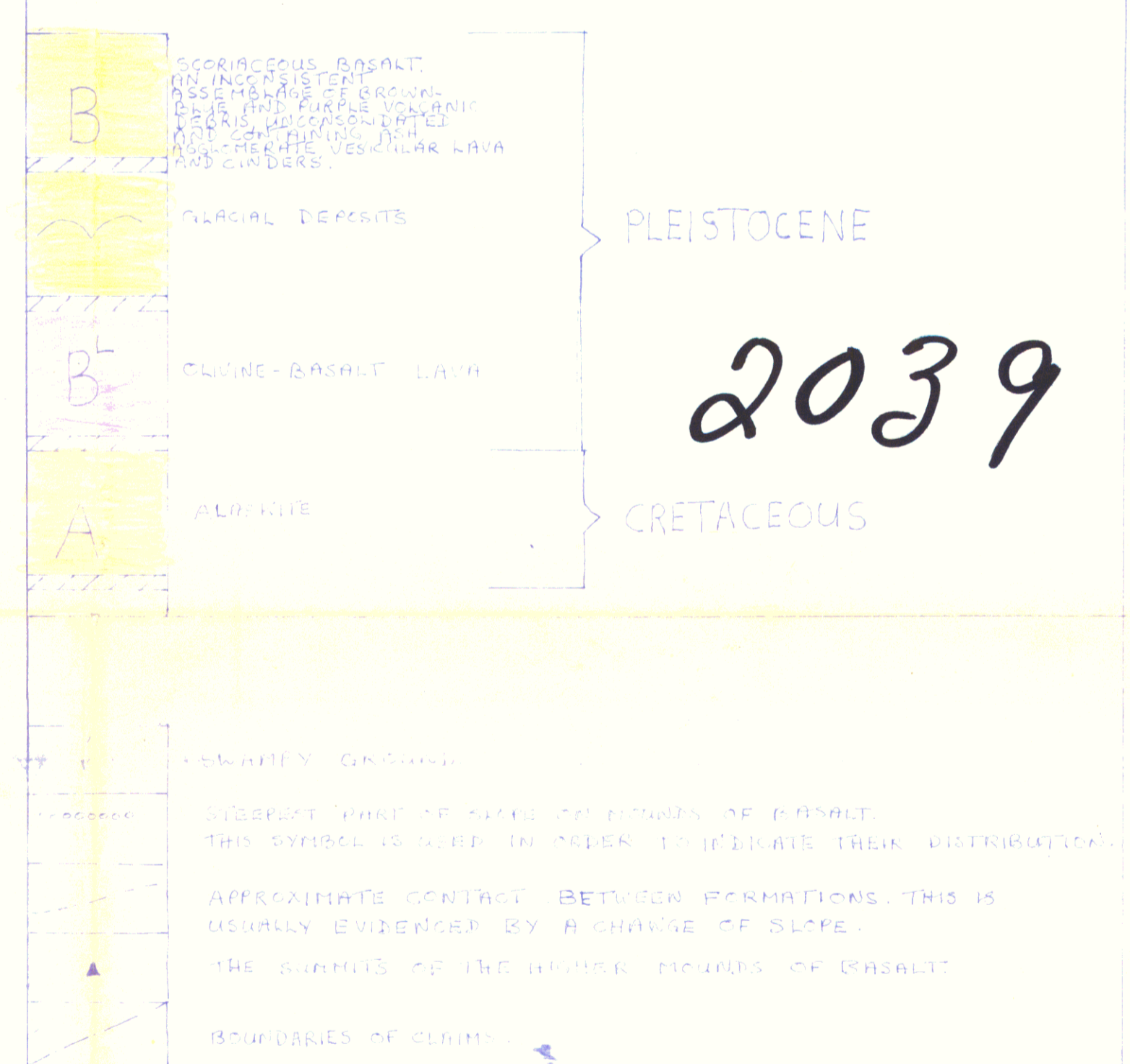
THE BASEMENT ROCKS CONSIST OF COARSE ALASKITE OF THE SURPRISE LAKE BATHOLITH IN ALL EXPOSURES THE ROCK IS BADLY WEATHERED AND RED IRON OXIDE STAINING DEVELOPED FROM PYRITE VEINS IS PROMINENT ALTHOUGH BLACK MANGANESE STAINING IS ALSO EVIDENT BUT IN MUCH LESSER AMOUNTS. THE ALASKITE IS INEQUIGRANULAR AND VARIABLE IN TEXTURE ALTHOUGH FINER IN THE MAP AREA IS THE PARAHYRIC VARIETY FOUND. THE ROCK CONTAINS ORTHOCLASE, PLAGIOCLASE (AN<sub>15</sub>-AN<sub>45</sub>), ABUNDANT QUARTZ AND BROWN BIOTITE IS THE ONLY MAJOR CONSTITUENT AND IT COMPRISES 1% - 5% OF THE TOTAL ASSEMBLAGE.

DURING TERTIARY TIMES RUBY CREEK WAS DEVELOPED AND GRAVELS OVERLIE THE ALASKITE IN THE VALLEY FLOOR. THESE GRAVELS HAVE BEEN WORKED FOR GLACIER GOLD DURING PLEISTOCENE TIMES OLIGINE BASALT LAVAS WERE LAID ACROSS THE VALLEY FLOOR, THEY WERE PROBABLY EXTRUDED FROM THE NEARBY EXTINCT VOLCANO - RUBY MOUNTAIN, ALTHOUGH ANOTHER VOLCANIC PLUG EXISTS DUE NORTH OF THE AREA. THE LAVAS ARE TYPICAL DARK GREY-BLUE BASALTS WITH SPARSE PHENOCRYSTS OF OLIVINE (2mm-4mm). THEY ARE ONLY EXPOSED IN THE FLOOR OF THE CREEK AND COLUMNAR JOINTING IS ONLY ROOKY DEVELOPED BUT SUFFICIENTLY EVIDENT TO SHOW THAT THE LAVAS LIE HORIZONTALLY, ONLY ONE FLOW 140' THICK CAN BE RECOGNIZED.

LATER IN PLEISTOCENE TIMES THE VALLEY WAS FILLED WITH A GLACIER AND GLACIAL DEPOSITS ALTHOUGH NOT EXPOSED ARE WELL EVIDENCED BY A TRACT OF DAMP MOSSY GROUND, HEAVILY FORESTED AND RUNNING N-S BETWEEN THE SCORICIOUS BASALTS AND ALASKITE. THE GLACIAL DEPOSITS FAN OUT SOUTHWARDS AND A CORRESPONDING WIDENING OF THE FORESTED ZONE OCCURS.

OVERLYING THE GLACIAL DEPOSITS AND HAVING A WELL DEFINED CONTACT ON THE NORTH, WEST AND SOUTH SIDES ARE A SERIES OF MOUNDS OF SCORICIOUS BASALTS AND VOLCANIC DEBRIS. THE MOUNDS ARE OFTEN CONICAL AND CONSIST OF AN ILL SORTED SELECTION OF CINDERS, SCORIA, AGGLOMERATE BLOCKS AND LUMPS OF VESICULAR LAVA OF ALL GRADES AND SIZES. VEGETATION ON THE MOUNDS IS SCANTY AND ONLY GRASS AND ALPINE FLOWERS GROW THERE. THEY WEATHER TO A RED-BROWN SOIL. THESE MOUNDS WERE DERIVED FROM A LARGE SCALE POST-GLACIAL LANDSLIDE FROM THE EAST - PROBABLY RUBY MOUNTAIN.

KEY TO SYMBOLS USED ON THE MAP



CROSS-SECTION HORIZONTAL AND VERTICAL SCALES 1"=200'



Department of Mines and Technical Surveys  
 Geological Survey of Canada  
 NO. 2039  
 MAP #3

To accompany Geological Report on the Mapping of M.C. Faluka 1-8, Jomo 3, 4, 7, and 8, located on Ruby Creek, Atlin N.B.C. line official Oct 15 '69.

CANADIAN JOHN-MANVILLE COMPANY LTD.  
 EXPOSITION PERMIT #87  
 VANCOUVER - BRUSH COLUMBIA - CANADA

MAP OF C.J.M. CLAIMS:  
 FALUKA #1-8, JOMO #1-8,  
 ATLIN MINING DIVISION B.C.

Scale 1"=200' DATE 25/7/69 DRAWN J.S.