

Q.P.

GEOLOGICAL - GEOCHEMICAL REPORT

Q.P. #1 - #3 Mineral Claims

Omineca Mining Division

Tetachuck Lake, Fraser Plateaux

NTS 93F/5E

Latitude $53^{\circ}24' N$

Longitude $125^{\circ}34' W$

Dates of Work

July 9, 1980 - April 1, 1981

by : Gordon G. Richards, P.Eng.

owner : J. S. Christie

April 15, 1981

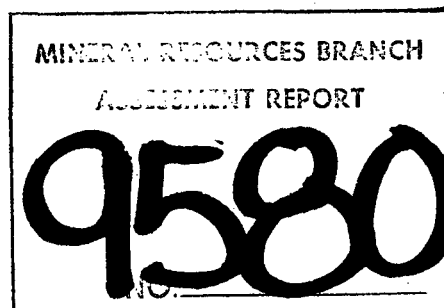


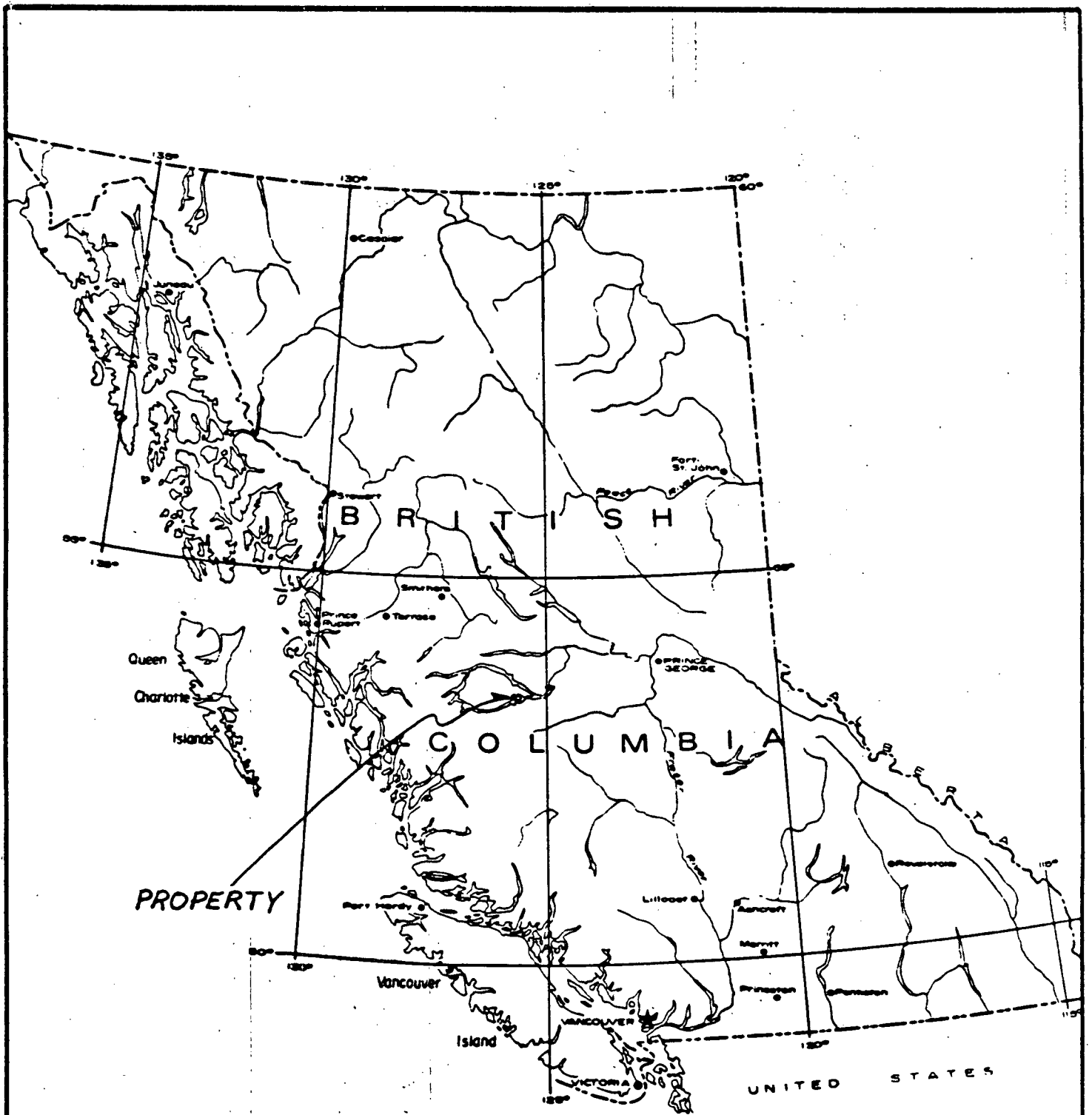
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LIST OF ILLUSTRATIONS

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JMT SERVICES CORP.			
<i>FIGURE 1.</i>			
PROPERTY LOCATION MAP			
SCALE			
Mile 136		136 Mile	
Prepared by:	Date:	NTS MAP AREA 93 - E	DRAWING No.
Drawn by:	Revised:		

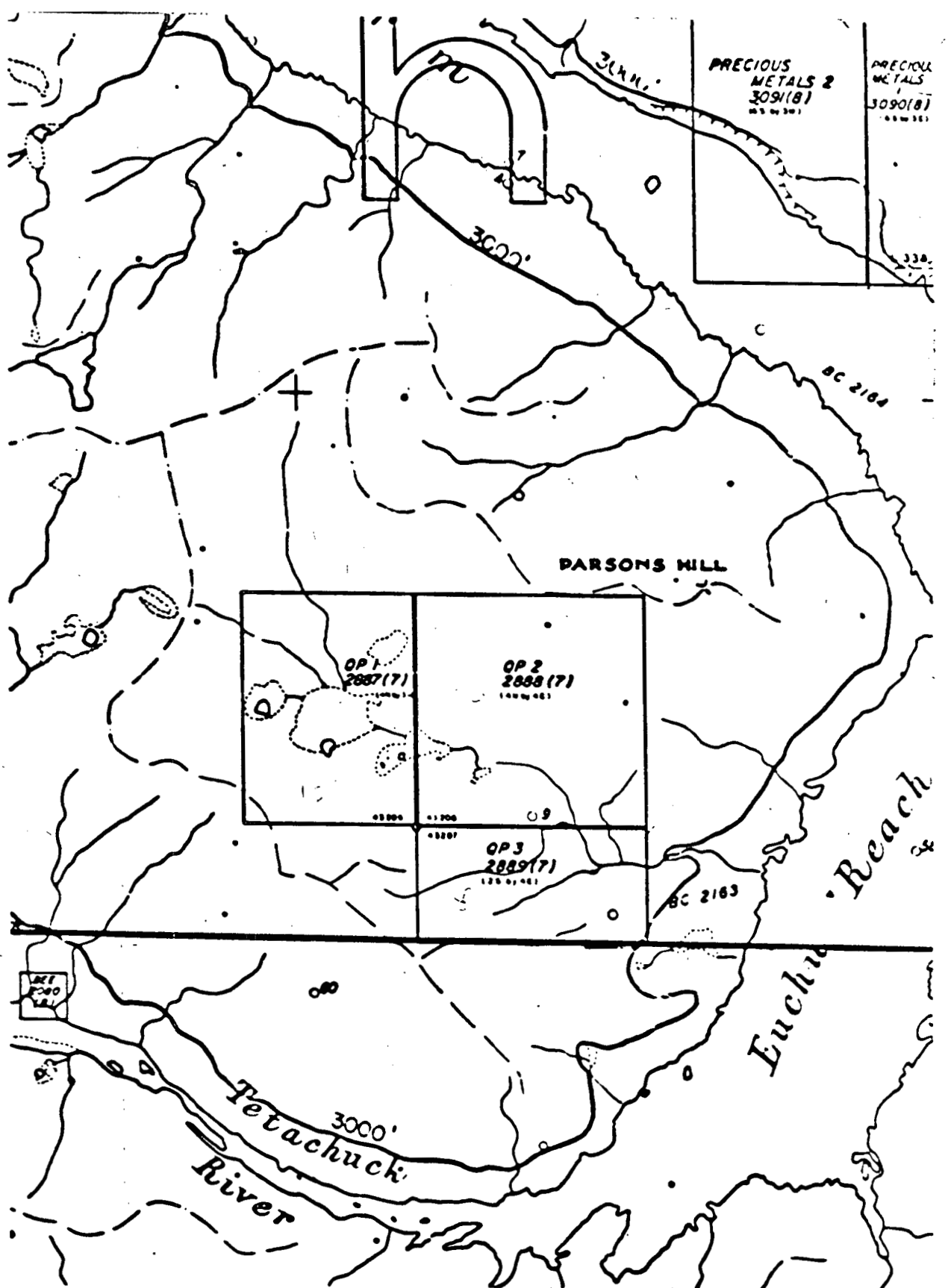


Figure 2: Claims Map.

In June 1980, G. Richards examined a cancelled claim block east of Tetachuck Lake. A skid trail visible from the air led to an area of drilling near a swamp and small lakes. Outcrops in the area contained interesting amounts of molybdenite associated with quartz veinlets and 1/2 per cent pyrite. Several intrusive phases were also noted, particularly aplite, quartz-feldspar porphyry and a pre-mineralization quartz diorite.

Mineral claims QP #1 - #3 were staked June 4, 1980. The property was mapped and key outcrops sampled during the period July 9-12, 1980.

LOCATION AND ACCESS

The property lies 130 km southwest of Vanderhoof, 95 km south of Burns Lake and 3 km northeast of the east end of Tetachuck Lake.

Access can be made by helicopter to open swamps near the mineralized outcrops and old drill sites. A road leads from the drill area 4 km southeast to Euchu Reach. Crawler tractors and drill equipment can be barged to this road from Ootsa Lake or Kenny Dam and moved onto the property via this road.

TOPOGRAPHY AND VEGETATION

Elevations on the property range from 3000 feet to 3750 feet above sea level. The main area of interest is covered in swamps and surrounded by thick jackpine forest. Hills to the south have gentle to moderate slopes.

MINERAL CLAIMS

The following claims were staked

<u>CLAIM NAME</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>
Q.P. #1	12	2887	July 3, 1980
Q.P. #2	16	2888	July 3, 1980
Q.P. #3	8	2889	July 3, 1980

OWNER: J. S. Christie

GEOLOGY

Takla Group volcanics and sediments are cut by several intrusive phases. The oldest intrusives are hornblende-biotite quartz diorite in the west half of the map area and a mafic rich hornblende diorite in the east half of the map area. See Figure 3. A later white aplite plug 900 meters x 600 meters in area intrudes Takla volcanics and is itself cut by northerly trending quartz-porphyry dykes measuring up to 200 metres wide.

Disseminated and fracture-controlled pyrite forms 1/2-1% of rock volume in a few scattered outcrops throughout the area of interest. Molybdenite occurs as disseminations throughout the western one-third of the aplite plug. Molybdenite also occurs along fractures usually with quartz veinlets less than 1 cm wide cutting hornfelsed Takla volcanics and the hornblende-biotite quartz diorite south and east of camp. Chalcopyrite occurs as rare disseminations with pyrite. This style of mineralization occurs in the two outcrops sampled by R871 and R872 and also in subangular float within this area. This area of mineralized outcrop and float lies on the south side of a large swamp approximately 500 metres across.

The sulphide mineralization has variable silicate alteration with it. The aplitic phase has pervasive weak to moderate clay alteration in feldspars and chlorite altered mafics coincident with the disseminated molybdenite and pyrite in the western third of the plug. Small amounts of fracture pyrite and very rare sericitic fractures also occur within the aplite plug. The takla volcanics are cream coloured and are pervasively hornfelsed to albite (?) and minor biotite with clots of chlorite + pyrite. Pyrite and quartz veinlets also occur within the hornfelsed volcanics. The hornblende-biotite quartz diorite contains fracture pyrite and pyrite-quartz veinlets with sericite-clay-pyrite envelopes up to several metres wide but generally less than 10 cm wide. Molybdenite occurs within many of the veinlets.

GEOCHEMISTRY

A total of 61 rock, ~~silt~~ and soil samples were taken by JMT Services personnel and 14 rocks and soils by Prism Resources; all were analyzed for Mo and in addition some were analyzed for Cu and/or W. Copper and molybdenum analyses were done by nitric perchloric solution of -80 fraction material and aspiration of the solution through atomic absorption spectro-photometer. Tungsten was analyzed by fusion of the -80 fraction and colorimetric analysis. All analyses were done by Vangeochem Labs Ltd.

Twelve soil samples and sixty three rock chip samples were collected.

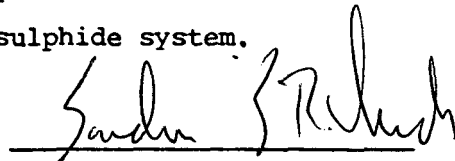
RESULTS AND RECOMMENDATIONS

Samples taken during the programme were anomalous for Mo throughout the area of pyrite mineralization and quartz veining. Seven diamond drill holes have been drilled in this area. Samples P457-P475 taken in an area south of the drilled area exhibit background values in Mo (1-3 ppm Mo) except for a single sample anomaly (16 ppm Mo) in rusty hornfels adjacent to the quartz diorite contact approximately 1000 metres south of DDH 3. Soils taken in the area of the aplite body have scattered anomalous values, 22-80 ppm Mo. Two mineralized alaskite samples in float from a trench near DDH 1 contain minor molybdenite.

Copper values from alaskite area, in samples taken by Prism are moderately anomalous, except for one silt sample which contained 990 ppm Cu., possibly enriched by reducing conditions in the swampy terrain.

Diamond drill core found on the property was examined. All holes are shallow (approximately 200 feet in depth). Mineralization and alteration improves with depth in DDH 1 and in the most northerly holes, suggesting the drilling done may have only tested the outer alteration zone of a larger porphyry system.

Continued prospecting in the northern part of the property is recommended. An induced polarization survey to the northwest should be carried out to define the limits of the sulphide system.

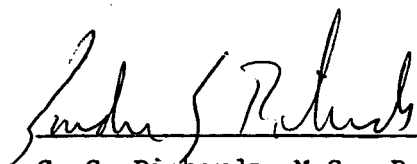


Gordon G. Richards, M.Sc., P.Eng.

April 15, 1981

Q.P. PROPERTYPROPOSED 1981 BUDGET

1. Preparation of base maps and air photo blowups	\$ 250
2. Reconnaissance IP Survey	
a) Mobilization-demobilization Vancouver - Prince George 6 men x 2 days, wages, rooms, meals, airfare, and freight	4,000
b) Survey 20 kilometres @ \$500/line-km	10,000
3. Reports, drafting, typing and reproduction	<u>1,000</u>
TOTAL	<u>\$15,250</u>

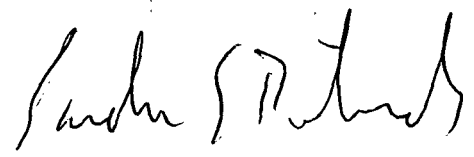

G. G. Richards, M.Sc., P.Eng.

April 15, 1981

STATEMENT OF QUALIFICATIONS

I, Gordon G. Richards of Vancouver, British Columbia, do hereby certify that,

- 1. I am a Professional Engineer of the Province of British Columbia residing at 6195 Lynas Lane, Richmond, B.C., V7C 3K8
- 2. I am a graduate of the University of British Columbia B.A.Sc. 1968, M.A.Sc. 1974
- 3. I have practised my profession as a mining exploration geologist continuously since 1968.
- 4. This report is based on my personal knowledge of the district, and mapping of the geology at the property.



Gordon G. Richards, P.Eng.

STATEMENT OF COSTSTIME

G. Richards - July 9($\frac{1}{2}$), 10, 11, 12, 13, 14($\frac{1}{2}$) 5 days @ \$175/day \$ 875.00
 B. Price - July 9($\frac{1}{2}$), 10, 11, 12, 13, 14($\frac{1}{2}$) 5 days @ \$175/day 875.00

FOOD - 10 days @ \$25.00/day 250.00

AIRFARE - 2 men 1 way Vancouver-Prince George 162.00

HELICOPTER 600.00

MOTEL 40.00

SUPPLIES - tent, coleman stove, fuel, sample bags, flagging,
 string, etc. 300.00

GEOCHEM 154.20

REPORT, typing, drafting, reproductions 1,500.00

Sub Total 4,756.20

TIME

G. Cavey - Sept 19, 20($\frac{1}{2}$) 1 $\frac{1}{2}$ days @ \$93.79 140.69
 D. Howe - Sept 19, 20($\frac{1}{2}$) 1 $\frac{1}{2}$ days @ \$80.87 121.31

DRIVING TIME - D. Howe 50.55

G. Cavey 58.62

HELICOPTER - September 19 680.00

TRUCK RENTAL - 106.25

GAS 15.00

FOOD 113.06

Sub total 1,285.48

TOTAL 6,041.68

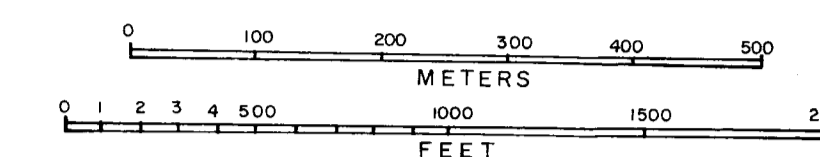


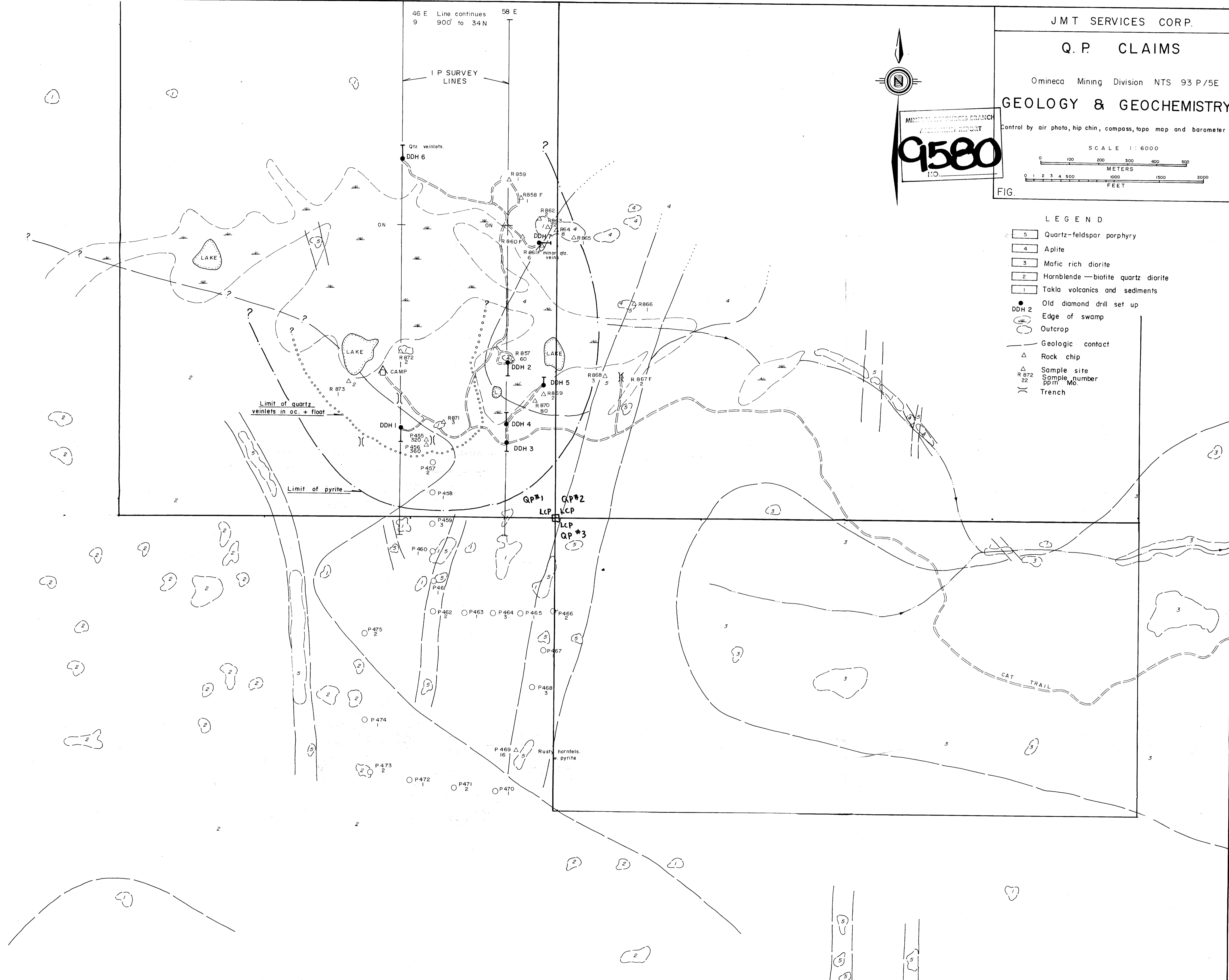
FIG.



MINERAL RESOURCES BRANCH
ACCESSORY REPORT
9580
NO.

LEGEND

- 5 Quartz-feldspar porphyry
- 4 Aplite
- 3 Mafic rich diorite
- 2 Hornblende-biotite quartz diorite
- 1 Taktla volcanics and sediments
- Old diamond drill set up
- DDH 2 Edge of swamp
- Outcrop
- Geologic contact
- △ Rock chip
- △ R 872 Sample site
- △ 22 Sample number
- () pp in Mo.
- () Trench



46 E Line continues
9 900' to 34 N

58 E

I P SURVEY
LINES

Qtz veinlets.

DDH 6

?

R 859

R 858 F

R 862

R 863

R 864 4

R 865

R 866

R 867 F

R 868

R 869

R 870

R 871

R 872

R 873

R 874

R 875

R 876

R 877

R 878

R 879

R 880

R 881

R 882

R 883

R 884

R 885

R 886

R 887

R 888

R 889

R 890

R 891

R 892

R 893

R 894

R 895

R 896

R 897

R 898

R 899

R 900

Limit of quartz
veinlets in oc. + float

Limit of pyrite

CAMP

DDH 1

P 455

P 456

P 457

P 458

P 459

P 460

P 461

P 462

P 463

P 464

P 465

P 466

P 467

P 468

P 469

P 470

P 471

P 472

P 473

P 474

P 475

P 476

P 477

P 478

P 479

P 480

P 481

P 482

QP#1

LCP

QP#2

LCP

QP#3

LCP

QP#4

LCP

QP#5

LCP

QP#6

LCP

QP#7

LCP

QP#8

LCP

QP#9

LCP

QP#10

LCP

QP#11

LCP

QP#12

LCP

QP#13

LCP

Rusty hornfels.
w. pyrite

CAT TRAIL