

Assessment Report
Drilling
TASK 8 Group
(includes Task 8, 11, 12, 13, 14)
Clinton Mining Division

## NS $920 / \mathrm{SE}$

Lat. $\quad 51$ 29' N
Long. 123 35 W


Owner/Operator: Pioneer Metals Corporation

Vancouver, B.C.
January 23, 1990

## GEOLOGICALBRANCH ASSESSMENTREPORT

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Introduction

## Location and Access

The Task 8 group is adjacent to the fish Lake property presently held by Cominco Ltd. The property is located about 250 km north of Vancouver and 120 km SW of Williams Lake. Access is provided by paved highway (No. 20) to Lee's corner, thence by the well maintained Taseko Lake gravel road to Fi ish Lake turn off, followed by 8 km of good dirt road to the Fish Lake campground. Four wheel drive vehicle may be required during spring breakup on the last few kilometres along Fish Creek. Float planes are easily accommodated by Fish Lake.

Topography
The area is part of the Chilcotin plateau with subdued relief; elevations ranging from 1450 to 1600 meters above sea level. Vegetation is generally open with numerous meadows, lightly wooded grasslands and clumps of jackpine and alpine fir. Tributaries to Fish Creek are dry most of the year.

Summary
The intent of this investigation which was run concurrently over a nine day period with the Task 6 and Task 9 groups is to examine the adjacent areas of a large goldenriched porphyry copper system to check for an outward zoning of mineralization, alteration and structures that may control it. Previously in 1988 this work was aided by a dozer and backhoe to provide access and check overburden depths.

Two features of the region hamper this effort. A discontinuous but locally thick cover of post-mineral plateau basalt and a continuous mantle of glacially derived overburden that is particularly thick in low lying areas. previous pitting and trenching in the area in 1988 showed that overburden depths mostly exceeded backhoe limits so an overburden drill was called for. The present program utilized a track mounted reverse circulation rig set up for both tri cone rotary and down the hole hammer percussion drilling. Cuttings were collected through a cyclone and where appropriate were split, sieved and sent for geochemical assay. Twenty one holes were drilled on the Task 8 group of which nine hit bedrock.

## Procedure and Results

The truck-mounted reverse circulation drill supplied by Northspan drilling of Kelowna, B.C. is highly mobile, has its own dozer blade for site preparation and is capable of hole depths exceeding 500' in favourable bedrock. Numerous problems were encountered however in drilling overburden such that numerous holes of less that 60' had to be stopped before bedrock was reached. Tricone rotary was used where possible in thed finer textured overburden with a switch to percussion hammer when boulders or bedrock was encountered. Drilling was mostly dry but in clay rich overburden water injection was found to be essential.

Samples were screened to 75 mesh before analysis for copper and gold. Rock chips were examined by binocular microscope for sulfide or alteration minerals.

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## Drill Results

| Hole No. | Lithology | Assay <br> Cu ( ppm ) Au | (ppb). |
| :---: | :---: | :---: | :---: |
| RC 1 | Overburden (OB) |  |  |
| RC 2 | OB |  |  |
| RC 3 | Medium grained quartz diorite weak alteration, no sulfide | 57 | $<5$ |
| RC 4 | Quartz diorite, weak alteration | 50 | 15 |
| RC 5 | Quartz diorite, mafics altered | 62 | $<5$ |
| RC 6 | Quartz diorite, rare pyrite | 24 | < 5 |
| RC 7 | OB |  |  |
| RC 8 | OB | 65 | 23 |
| RC 9 | Quartz diorite | 40 | < 5 |
| RC 10 | OB | 50 | 23 |
| RC 11 | Coarse grained quartz diorite | 104 | $<5$ |
| RC 12 | OB | 31 | < 5 |
| RC 13 | Basalt, amydaloidal |  |  |
| RC 14 | OB |  |  |
| RC 15 | Basalt, amydaloidal |  |  |
| RC 16 | OB |  |  |
| RC 17 | OB | 40 | $<5$ |
| RC 18 | OB | 51 | < 5 |
| RC 19 | Medium grained quartz diorite | 48 | 16 |
| RC 20 | OB |  |  |
| RC 21 | OB |  |  |



## APPENDIX B

STATEMENT OF QUALIFICATIONS
Dr. S.L. Blusson is a graduate of the University of B.C. (B.Sc. Geology) and of the University of California Berkely (Ph.D. Geology and Geochemistry): Between 1965 and 1981 Dr. Blusson worked as a research geologist for the Geological Survey of Canada and is presently vice-president of Exploration for Pioneer Metals Corporation.


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## Geochenni:a <br> Lat Repora

## A DINISIUN OF INCHCAPE INSPECTION \& TESTING SEKVICES

REPORT: U89-08720.n
DAIF PRINIED: 16-JAN-90 PROJECT: NONE GIVEN

| SAMPLE NUMBER | FL FMENT UNITS | $\begin{aligned} & \text { AU } \\ & \text { PPB } \end{aligned}$ | $\begin{gathered} \mathrm{Cu} \\ \mathrm{PPM} \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| 54 DASH-1 |  | 270 | 11 |
| S4 RC-A |  | < 5 | 91 |
| S4 RC-8 |  | < | 85 |
| S4 RC-C 30-35 |  | < | 32 |
| S4 RC-3 |  | < 5 | 57 |
| S4 RC-4 |  | 15 | 50 |
| S4 RC-4A |  | < 5 | 25 |
| S4 RC-4B |  | < 5 | 31 |
| $54 \mathrm{RC}-4 \mathrm{~S}$ |  | 45 | 35 |
| S4 RC-5 |  | < 5 | 62 |
| S4 RC-6 |  | $<5$ | 24 |
| S4 RC-8 |  | 23 | 65 |
| S4 RC-9 |  | <5 | 40 |
| S4 RC-10 |  | 23 | 50 |
| S4 RC-11 20-25 |  | < 5 | 104 |
| S4 RC-11 26-35 |  | < 5 | 37 |
| S4 RC-11 36-45 |  | $<5$ | 62 |
| S4 RC-12 30-35 |  | < 5 | 31 |
| S4 RC-13 |  | 10 | 53 |
| S4 RC-14 |  | 20 | 37 |
| 54 RC-17 18-31 |  | < 5 | 40 |
| S4 RC-18 19-51 |  | < | 51 |
| S4 RC-19 35-36 |  | 16 | 48 |
| S4 RC-25 20-35 |  | 62 | 22 |
| S4 RC-26 25-30 |  | < | 783 |

$\begin{array}{llll}\text { S4 RC-26 } & 3 n-35 & 721\end{array}$
$R C-1$

> o-13.5 meters overburden, grey glacial clay, silt, gravel, boulcievs no sample
$R C-2$

O-10.5 m overburden, glacial silt, gravel, boulders No sample
$R C-3$

O-5.5 meters overburden, glacial silt, gravel, clay, boulders
5.5-12.0 Quartz diorite, medium grained, non porphyritic
5.5-7.5 Sample - weak alteration, no sulfides
$R C-4$

0-2.5 meters overburden, glacial silt, gravel, boulders.
2.5-7.0 quartz diorite, weak argilic alt. of feldspars
2.5-4.5 Sample

RC -5

0-3.2 meters overburden, glacial sits, clay, gravel
3.2-9.5 Quartz diorite, med. grained, mafics altered.
3.2-5.5 sample
$R C-6$

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\begin{array}{ll}
\text { 0-3.5 meters overburden, glacial gravel, clay, silt } \\
3.5-10.5 & \text { quartz diorite, rare fine grained pyrite } \\
3.5-6.0 & \text { sample }
\end{array}
$$

$R C-7$
o-9.4 meters overburden, grey glacia! siay, gravel, boulders hole abandoned in clay rich gravel No sample.

## Drill Log.

$R C-8$

0-10.6 meters overburden, grey glacial gravel, silt, boulders 6.5-10.6 sample, grey silt, soft shale
$R C-9$

0-2.5 meters overburden, glacial gravel, silt, clay.
2.5-9.1 quartz diorite, weak argillic alteration
2.5-4.5 sample
$R C-10$

0-9.i.meters overburden, grey glacial silt, clay, gravel
7.0-9.2 sample
$A C-11$

0-7.6 meters overburden, glacial gravel, sit, clay, boulders
7.6-13.7 grey soft silty shale
13.7-15.5 Guartz diorite, coarse grained
13.1-15.5 sample
$R C-12$

0-10.6 meters overburden, clay rich silty gravel, hole abandoned
9-10.6 sample - silt rich clay.
$R C-13$

0-2.5 meters overburden, grey clay rich gravel a soft siltstone
2.5-4.8 basalt, fresh amygdaloidel, wo sample

RC- 14
0-15.5 meters overburden, grey glacial boulder and sit t rich gravel. no sample

## Drill Log.

$R C-15$

0-3.5 meters overburden, grey clay rich glacial gravel
3.5-7.5 basalt, fresh amygdaloidal - plateau lavas.
$R C-16$

0-3.5 meters overburden, grey clay rich glacial gravel.
3.5-10.5 brownish soft siltstone, wo sample

RC- 17

0-3.8 meters overburden, grey glacial clay, silt, gravel, boulders
$3.8-10.9$ sraunish soft siltstone, browner with slept
6.5-10.9
sample.
$R C-18$

0-5.8 meters overburden, glacial clay and gravel
5.8-15.5 brown soft siltstone, rusty near base
13.5-15.5 sample, near bedrock?, paleosol?

RC- 19

0-4.5 meters overburden, glacial boulder rich gravel.
4.5-7.5 Quartz diorite, medium grained, weak alteration
4.5-6.5 sample
$R C-20$

0-9.5 meters overburden, grey clay-rich bouldery gravel. wo sample
$2 c-21$

0-10.6 meters Overburden, grey clay rich boudery gravel. No sample


