GEOLOGICAL MAPPING, PROSPECTING AND ROCK SAMPLING

ON THE PEAK 1-6 MINERAL CLAIMS

Fort Steel Mining Division
N.T.S. 82 G 12
Lat 40 49' Long 115 32'

for

CATHEDRAL GOLD CORPORATION

by

Peter R. DeLancey, P.Eng.
Consulting Geologist

Geological Branch
Assessment Report

20,420
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SUMMARY

A program of prospecting, rock sampling and geological mapping was carried out on the Peak Claims, located 7 km. northeast of Fort Steel, B.C. Steeply dipping Proterozoic sedimentary rocks of the Kitchener, Creston and Aldridge Formations underlie the property. Local bodies of greenstone interrupt bedded quartzites, siltites and silty dolomites. The Boulder Creek Fault transects the property. Several new areas of mineralization were discovered on the property. Gold mineralization is associated with local quartz-sulphide veins and iron-carbonate alteration along faults and shear zones. The contact areas between greenstone bodies (basic volcanic/diorite) appears favourable for the location of sulphides. Although the mineralization does not appear to have much size potential, exploration of the areas is very preliminary and more detailed prospecting and sampling is recommended.
2.0 INTRODUCTION

An exploration program consisting of geological mapping, prospecting and rock sampling was carried out on the Peak claims from July 2 - July 23, 1990.

3.0 LOCATION, ACCESS AND TOPOGRAPHY

The Peak property is located approximately 7 km northeast of Fort Steel, B.C., NTS map sheet 82G/12E. The claim group is roughly centred west of Wild Horse River between Boulder and Mause creeks (Figure 1).

Access is by logging roads on either side of the Wild Horse River and along Mause Creek. A somewhat "overgrown" but passable road leads up Boulder Creek to the Big Chief mineral workings. Access to the higher elevations is by foot or by chartered helicopter from Crambrook or Kimberly.

The property is situated on the western flank of the Rocky Mountains. Elevations range from 900 m to 2,450 m.

4.0 CLAIM STATUS

Peak 1 (20 units) and Peak 2 (20 units) were staked by Imperial Metals on Oct., 1983. Four additional claims were staked in Aug., 1988. The Peak 1-6 claims are held by Cathedral Gold Corporation, one of the Imperial Group of companies.

<table>
<thead>
<tr>
<th>CLAIM</th>
<th>UNITS</th>
<th>RECORD #</th>
<th>RECORD DATE</th>
<th>EXPIRY DATE</th>
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On acceptance of this report, all claims will be in good standing until their anniversary date in 1991.
5.0 HISTORY

Wild Horse River was one of the famous placer gold drainages in the East Kootenays. In 1898 the Minister of Mines quotes an estimated placer gold production of $20 million. In the 1930’s hydraulic sluicing removed large volumes of till and gravel along the sides of the river. The remains of Wild Horse Town on the northwest side of the River, is now a historic site. A recent venture at placer mining proved unsuccessful, however the productive section of the river is still held by placer lease. Most of the placer gold was recovered from the bed of the Wild Horse River between Brewery Creek and Boulder Creek. Placer gold has been extracted from Boulder Creek valley. An old shaft found along the bank of the creek attests to this early activity. The early history of lode mining is poorly documented. A small showing of galena was discovered on the west bank of the river. Limited development on this showing and a similar one across the river removed all significant mineralization. The showing is located on Peak 1 claim. The reverted crown-granted claims at the head of Boulder Creek were worked in the late 1800’s and early 1900’s. Workings included several adits. The main prospects are the Big Chief, located on the northeast side of Boulder Creek and the Iron Cap and Guggenheim located southwest of the creek. These prospects were the target of more recent exploration in 1984. The southwestern claims are adjacent to Peak 2,3 and 5 claims. Prospecting of the Peak property led to the discovery of two old workings previously unknown.

6.0 REGIONAL GEOLOGY

The regional geology of the area (after Hoy), is shown in Fig. 3. The Peak property lies on the western slopes of the Rocky Mts. immediately east of the Rocky Mtn. Trench. The claims are underlain by Aldridge, Creston and Kitchener Formations of the Lower Purcell Supergroup of Proterozoic (Hadrynian / Helikian) age. The oldest Aldridge Formation is a thick clastic sequence containing turbidites. These rocks frequently contain disseminated sulphides and host the 180 million ton Sullivan zinc-lead-silver mine. The Creston Formation marks a regression to shallow-water sediments typified by sands, siltstones and mudstones. The overlying Kitchener Formation is composed of variably argillaceous dolomites. These formations are intruded by gabbro bodies of Proterozoic age. The Purcell Supergroup was folded by the Purcell Orogeny at about 850 Ma. Major faults transect the area. The St. Mary Fault can possibly be traced across the Rocky Mt. Trench and up Wild Horse River and Boulder Creek (Boulder Creek Fault).
Abbreviated Legend

PEk = Kitchener Formation
PEC = Creston Formation
PEa = Aldridge Formation

Scale 1:50,000

Figure 3. Property Geology (HoA)
7.0 PROPERTY GEOLOGY

Property mapping was carried out at a scale of 1:5,000 (Fig. 5 in pocket). Areas traversed are shown on Figure 4. Much of the property is underlain by greenish grey quartzites, siltites and argillaceous siltites of the Creston Formation. Beds average about 30 cm thick. Shallow water features such as ripple marks, mud cracks and flute casts are common. These rocks strike NNE and dip steeply to the NW. The more argillaceous sections frequently exhibit moderate to strong steeply dipping foliation at roughly the same strike as bedding. The changes in lithology tend to be gradual, with interbedding of the various units. Locally the quartzitic beds are up to 3 m thick. They frequently host quartz veinlets which appear to have preferentially developed, possibly by "lateral segregation" into fractures, in the quartzites. A wedge of Kitchener Formation underlies the east-central portion of the claims. These rocks are largely thin bedded silty dolomites. Small wedges of Aldridge Formation occur near the outer boundaries of the property according to Hoy's mapping. The distinction between Creston Formation rocks and Kitchener Formation rocks was not obvious at the property scale of mapping.

Dioritic and basic volcanic bodies occur on the property. The two main areas are immediately south of Boulder Creek (PEnc on Hoy's regional map), and along a prominent drainage between Boulder and Fisher creeks. It is difficult to determine if the basic volcanic rocks represented lavas or finer grained intrusives. Narrow sill-like bodies frequently are foliated. The larger coarser-grained dioritic to gabbroic bodies are relatively massive. At the Big Chief prospect, near the headwaters of Boulder Creek, a series of syenite sills are exposed. Although these sills trend toward the Peak property no syenite was noted on the property.

Structurally the area is complex. The Boulder Creek Fault and Fisher Peak Fault and associated splays cut east-northeasterly through the area. These faults dip steeply to the northwest. Contacts between the rock formations are frequently along these faults. Quartz veins and quartz-carbonate alteration occur locally along these faults. Foliation is particularly well developed in the more argillaceous and calcareous units and can completely destroy sedimentary bedding features. Interbeds of quartzite may show local disruption within these zones of structural deformation. The Boulder Creek Fault is characterized by a wide zone of highly foliated to schistose rock, frequently with associated iron-carbonate alteration. The old Iron Cap workings occur along this fault zone.
Although several precious metal prospects occur in the general area of the claims, no mineralization had recently been located on the Peak property. A small amount of galena was extracted from a pocket of mineralization outcropping on the side of Wild Horse River (see History). The Iron Cap workings, located at the head of Boulder Creek, and adjacent to the Peak 2 and 3 claims, were examined. The workings are accessible by an steep old cat-road from the end of the Boulder Creek road. The Iron Cap Adit is about 5 m long and follows a shear in silicified dolomitic and argillaceous siltite. These rocks are highly deformed, showing "kink" folding and considerable displacement. Local galena mineralization, with lesser pyrite and chalcopyrite, is noted as sparse disseminations and fracture fillings associated with quartz-iron carbonate alteration. A sample of dump material ran 8430 ppb gold (0.25 oz/t). Channel samples taken in the adit by Golden Porphyrite Ltd, in 1984, contained only low gold values, suggesting the gold occurs erratically in association with quartz and sulphides. Four new areas of mineralization were discovered on the Peak claims. The "Fisher North" zone is coincident with the Boulder Creek Fault immediately north of Fisher Creek. In addition to old claim posts, a blasted rock face with 3 hand drilled holes attested to earlier work. The rocks along the west side of the gully extending to the ridge top are highly foliated dolomitic, argillaceous siltites. These rocks are probably part of the wedge of Creston Formation underlying this area. Zones of well foliated greenstone are noted; frequently the siltite is chloritic and quartz-iron carbonate alteration is noted locally. Talus of more massive diorite suggests the presence of Purcell diorites and basic volcanics. The rock in the immediate area of the blast holes is a chlorite-quartz-sericite schist. No sulphides were noted and the 2 samples analyzed showed no anomalous metal values. Anomalously high gold values are associated with a steeply dipping fault zone exposed along the ridge between Boulder and Fisher creeks ("Ridge Zone"). Quartz veins with local pyrite occur within and adjacent to the fault zone. A 20 cm wide sample of fault gouge ran 2910 ppb gold, and a narrow quartz vein ran 1160 ppb gold. The fault strikes Az. 220. The presence of quartz veins, quartz-carbonate alteration and the deformation of quartzitic beds in the general area suggests a major fault, possibly a splay from the Boulder Creek Fault. A sample of quartz stockwork with vugs and iron oxide, collected 500 m to the northeast, on the same ridge, ran 1430 ppb gold, 25.7 ppm silver, and 33,672 ppm lead. This area of the ridge is roughly up-slope from several anomalously high gold values in soils collected on a grid centred on the headwaters of Fisher Creek.
An old adit and claim post was discovered adjacent a small creek draining southwesterly into Mause Creek (Mause Showing). The area, approximately 200m by 200m, is marked by a prominent stain zone caused by disseminated and fracture controlled pyrite in silicified, locally schistose rock. Samples did not show any anomalous metal values. Chalcopyrite and lesser pyrite was discovered in siliceous rocks adjacent to massive "andesite" and/or fine grained diorite outcropping immediately south of Boulder Creek ("Copper Showing). The siliceous rocks are cut by a network of whitish quartz veinlets. The veinlets are preferentially developed in these quartzite beds. Minor chalcopyrite and pyrite is also present in the basic volcanic rocks. Unfortunately no precious metal values appear to be associated with the copper mineralization.

9.0 ROCK GEOCHEMISTRY

Thirty-one rock samples were collected from the Peak Claims or immediately adjacent areas. The samples were submitted to ACME Labs in Vancouver for 30-element ICP analyses and gold by AA. Locations of the samples are shown on Fig. 5. Rock sample descriptions and geochemical results are presented in Appendices 1 and 2. Significant geochemical results are discussed under Economic Geology.

10.0 CONCLUSIONS

1. Several previous reports have noted that most of the placer gold was recovered from the bed of the Wild Horse River between Brewery Creek and Boulder Creek and ventured that the source of placer gold might be from the Boulder Creek drainage. Placer gold was recovered further up the Wild Horse at Victoria Creek. The precious metal showings found in the general area, to date, are small and uneconomic. It is suspected that a the location of the placer gold is probably due to favourable geomorphological features at the site of deposition and not to a near-by source in the Boulder Creek drainage.

2. The Peak claims are underlain by steeply dipping Proterozoic sedimentary rocks of the Kitchener, Creston and Aldridge Formations. Local greenstone bodies interrupt these rocks. The Boulder Creek Fault transects the property.

3. Several new areas of mineralization were discovered on the claims.
4. Gold mineralization is associated with local quartz-sulphide veins and quartz-carbonate alteration along faults and zones of shearing. The contact areas adjacent greenstone (basic volcanics and/or diorite) bodies also appear favourable for the location of sulphides.

11.0 **RECOMMENDATIONS**

Although the newly discovered showings due not appear to have much size potential, exploration of is very preliminary and detailed prospecting and sampling should be carried out in these specific areas.

12.0 **REFERENCES**


Peter R. Delancey  P. Eng.
APPENDIX 1

ROCK SAMPLE DESCRIPTIONS
ROCK SAMPLE DESCRIPTIONS

PD-90-1  - greenish-grey silty quartzite, very minor disseminated pyrite
2  - bedded siltstone and shale, local pyrite
3  - large outcrop of interbedded shale and qtzite
4  - talus, altered limestone, cut by narrow qtz-carbonate veins
5  - bedded shale, Az.170/70W
6  - talus, iron-carbonate altered quartzite, qtz. veinlets
7  - as above, qtz. vein in place
8  - as above
9  - large o.c. area across from Vertical Mtn. siltstone, Az. 180/70W
10 - siltstone, cut by white qtz. vein
11 - qtzite and siltstone, quartz veinlets, some Py.
12 - qtzite with qtz. veinlets, silicification?, local Fe-carbonate
13 - greenish volcanic rock
14 - massive greenstone, chlorite
15 - qtzite of silicification?, Fe-carbonate, local pyrite and minor chalcopyrite
16 - greenstone with chlorite and minor chalcopyrite
17 - zone of intense silicification in qtzite?, qtz veinlet network, massive greenstone above
18 - siltstone, Az. 160/40NE
19 - qtzite with qtz veinlets, local chalcopyrite
20 - qtzite with local qtz veining, bedding is contoured, Az. 200/70NW
21 - slumped o.c. of phyllite
22 - phyllite, Az. 240/80NW
23 - adit, deformed calcareous phyllite cut by a silicified fault zone Az. 220/70NW qtz-carbonate alt. is common
24 - silicification with diss. py.
25 - dump sample, Fe-carbonate with diss. galena (2%), py.(1%)
26 - dump sample, qtz vein cutting Fe-carbonate
27 - phyllite, Az. 230/70NW
28 - well laminated, grey to greenish grey dolostone? qtzite, some argillite,local qtz segregations
30 - well bedded dolostone, Az. 200/45-85NW
32 - dolostone-siltstone, rip-up-clasts, local shaley beds, Az. 200/70
33 - greenstone, local qtz.-carbonate, qtz. segregations, may be sill
34 - dolostone, Az. 210/85NW
35 - laminated dolostone,cliff face,Az210/90
ROCK DESCRIPTIONS continued

36 - interbedded dolostone, qtzite, argillites
    AZ. 220/80NW, qtz veining segregations
37 - interbedded qtzite, arg. siltstone Az 210/85NW
    qtzite has qtz-filled fract.
38 - straight fault controlled gully, Az. 270
    bedding in qtzite is deformed Az. 260/45NW
39 - greenish grey bedded arg. siltstones-qtzites
40 - arg. siltstone, well foliated parallel bedding
    Az 210/85NW
41 - Fe-Ox stain zone, old workings & claim post
    white qqtz veins cutting sil. pyritic rock,
    locally up to 20% Py. in schistose rock
    shearing/foliation at Az 260/75NW, gossanous
    zone approx. 200m by 200m, composite sample
42 - sample of above with qtz. veining
42a - float from above
44 - well bedded grey dolostone, Az. 190/85NW
45 - qtz. float with small pocket of chalcopyrite
46 - interbedded qtzite and grey silty dolostone
    Az. 200/80NW
47 - rusty gully, shear zone with qtz. veining
    Fe-Ox after pyrite, 1m wide, Az. 200
48 - grey dolostone Az. 220/85NW
49 - 2 qtz.-carbonate veins, 1 is 2 m wide Az 220/80NW
50 - greenish qtzite & grey arg. siltite
51 - interbedded dolo-siltite, lesser greenish
    qtzite, local qtz-carb breccia
52 - grey dolo-siltite
53 - whitish to greenish qtzite with associated qtz
    veinlets
54 - grey siltite cut be qtz fract. with Fe-Ox
55 - well foliated greenish siltite, qtz. stockwork
    local FeOx
56 - arg. siltite
57 - qtz. veins & associated qtzites in sequence
    of siltite. Bedding is disrupted by
    discontinuous masses of qtzite. Foliation
    Az. 220/80NW
58 - alternating sequences of deformed qtzite &
    grey arg. siltite foliated at AZ.220
59 - qtz. vein with some FeOx, comp. sample
60 - alternating qtzites & fol. siltites
61 - 2m wide shear Az 220, qtz. veins on either side
    with FeOx after Py.
62a - above with Py.
63 - sample of 20 cm wide gouge
63a - qtz. vein, 3" wide
64 - qtz. vein with sulphide
65 - interbedded and alternating qtzite & fol. silt.
66 - atl. sequences of qtzite with qtz veining &
    highly fol. greenish siltite Az 240/80NW
ROCK DESCRIPTIONS continued

67 - chloritic siltite, loc. qtz-carb.
68 - qtz.-carb shear zone 3m wide Az 240/80NW
69 - well fol., loc. kinked chl. siltite
   loc qtz-carb, hematite stained, siderite?
70 - kink folded siltite, interbedded qtz-carb
   old claim tags
71 - zone of fol. greenstone
72 - kink folded siltite, Az 240/80NW
73 - fol. siltite with graph. arg. segregations &
   qtz-carb beds
74 - kinked arg. siltite
75 - fol siltite
76 - greenish qtzite
77 - siltite and qtzite
78 - talus, arg. siltite & qtz-carb some diorite
79 - kinked sericite schist
80 - greenish schistose siltite, qtz-carb. Az220/80NW
81 - chl.-qtz.-sericite schist, 3 blast holes
81a - soil from above
82 - chl-arg-schist
90 - greenish arg qtzite, local qtz. veins
91 - interbedded arg & greenish qtzite
92 - greenstone, minor Py, v. minor Cpy.
93 - massive greenstone probably diorite, minor
   dis. Py.
94 - qtzite
95 - greenstone with qtzite, loc. qtz veins, Fe-carb.
96 - well bedded dol. siltite & qtzite
APPENDIX 2

ROCK GEOCHEMICAL RESULTS
### GEOCHEMICAL ANALYSIS CERTIFICATE

**Cathedral Gold Corp. PROJECT PEAK**  **File # 90-2846**

**800 - 601 W. Hastings St., Vancouver BC V6A 5A6**

| SAMPLE# | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | S | V | La | Cr | Hg | Ba | Ti | B | Al | Na | K | W | Au |
|---------|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|----|---|---|---|----|----|----|---|
| MC-1    | 1  | 25 | 72 | 205 | 1.5 | 28 | 37 | 199 | 9.66 | 37 | 5 | 1 | 81 | 1.5 | 5 | 2 | 85 | 2.84 | 1.35 | 15 | 39 | 3.03 | 58 | .08 | 2 | 3.64 | .05 | .09 | 4 | 3 |
| MC-2    | 2  | 19 | 51 | 31  | .2  | 68 | 42 | 131 | 7.35 | 42 | 5 | 1 | 14 | .4 | 6 | 2 | 101 | .38 | .107 | 3 | 39 | 1.98 | 8  | .02 | 2 | 2.13 | .06 | .07 | 1 | 17 |
| PD-22   | 1  | 37 | 24 | 130 | .1  | 33 | 30 | 1797 | 7.61 | 9  | 5 | 1 | 141 | 7.7 | 2 | 2 | 34 | 3.98 | 1.135 | 11 | 17 | 3.44 | 180 | .01 | 2 | 2.38 | .04 | .10 | 1 | 6 |
| PD-41   | 2  | 8  | 33 | 35  | .2  | 306 | 16 | 109 | 4.34 | 39 | 5 | 1 | 17 | .7 | 6 | 3 | 75 | .11 | .043 | 3 | 547 | 2.86 | 4  | .01 | 2 | 2.35 | .01 | .01 | 1 | 14 |
| PD-42   | 4  | 19 | 71 | 47  | .3  | 194 | 19 | 260 | 3.67 | 39 | 5 | 1 | 10 | .6 | 4 | 2 | 49 | .15 | .061 | 2 | 302 | 1.77 | 27 | .01 | 2 | 1.55 | .01 | .01 | 1 | 5 |
| PD-42A  | 2  | 13 | 27 | 28  | .1  | 263 | 20 | 192 | 7.20 | 69 | 5 | 1 | 6 | .3 | 3 | 2 | 76 | .07 | .069 | 2 | 572 | 2.62 | 4  | .01 | 2 | 2.23 | .01 | .03 | 1 | 5 |
| PD-46   | 4  | 1300 | 42 | 9   | .15 | 20 | 24 | 70 | .84 | 7  | 5 | 2 | 5 | .2 | 2 | 2 | 2 | 1.10 | 1.035 | 9 | 16 | 6.02 | 25 | .01 | 3 | 16 | .02 | .08 | 1 | 1 |
| PD-50   | 1  | 90 | 30 | .51 | .1  | 13 | 15 | 1476 | 6.47 | 3  | 5 | 1 | 342 | .11 | 2 | 5 | 4 | 15.04 | 1.012 | 2 | 5 | 6.72 | 55 | .01 | 2 | 1.3 | .01 | .10 | 1 | 5 |
| PD-56   | 4  | 1124 | 336 | 62 | 25.7 | 12 | 1 | 139 | 3.20 | 53 | 5 | 3 | 4 | 1.7 | 11 | 2 | 1 | .03 | .039 | 5 | 6 | .02 | 11 | .01 | 2 | 1.6 | .01 | .09 | 1 | 1430 |
| PD-61   | 1  | 42 | 58 | 1   | .1  | 1 | 190 | .67 | 4  | 5 | 1 | 19 | .2 | 2 | 2 | 2 | .03 | .012 | 2 | 7 | 21 | 619 | .01 | 2 | 0.9 | .01 | .05 | 2 | 5 |
| PD-63   | 5  | 50 | 183 | 12 | .3  | 40 | 40 | 58 | 1.15 | 14 | 4 | 5 | 7 | 13 | 2 | 2 | 2 | 1 | .01 | .016 | 67 | 13 | .01 | 635 | .01 | 6 | 1.3 | .01 | .08 | 2 | 5 |
| PD-63A  | 2  | 60 | 484 | 25 | .7  | 12 | 12 | 70 | .66 | 2  | 5 | 2 | 2 | 2 | 2 | 2 | 1 | .01 | .006 | 6 | 5 | .01 | 16 | .06 | 6 | .08 | .01 | .05 | 3 | 4 |
| PD-64   | 17 | 503 | 196 | 313 | 3.3 | 64 | 109 | 78 | 4.82 | 16 | 7 | 3 | 21 | 194 | 4.1 | 2 | 8 | 20 | .18 | .139 | 25 | 25 | .15 | 431 | .01 | 2 | 1.4 | .01 | .33 | 1 | 2910 |
| PD-64A  | 3  | 448 | 161 | 11 | 1.0 | 10 | 3 | 256 | .65 | 2  | 5 | 1 | 2 | 2 | 2 | 1 | .05 | .015 | 3 | 8 | .01 | 80 | .05 | 5 | .07 | .01 | .05 | 2 | 1160 |
| PD-64B  | 1  | 33 | 39 | 10 | .2  | 41 | 91 | 252 | 1.65 | 7  | 5 | 3 | 10 | .6 | 2 | 2 | 1 | .03 | .111 | 17 | 7 | 11 | 108 | .01 | 2 | 1.3 | .01 | .10 | 1 | 2 |
| PD-81   | 3  | 6  | 14 | 9  | .1  | 27 | 9 | 441 | 1.33 | 14 | 3 | 1 | 37 | 2 | 2 | 4 | 3.34 | .016 | 1 | 7 | 21 | 600 | .01 | 7 | 4.12 | .01 | .07 | 1 | 1 |
| PD-81A  | 2  | 8  | 22 | 38 | .1  | 32 | 21 | 852 | 5.27 | 45 | 5 | 6 | 17 | .3 | 2 | 2 | 15 | 1.08 | 1.04 | 10 | 24 | 2.32 | 67 | .01 | 5 | 1.91 | .01 | .16 | 2 | 1 |
| STANDARD C/AA-R | 18 | 57 | 39 | 130 | 7.1 | 68 | 31 | 1027 | 3.69 | 38 | 18 | 7 | 37 | 53 | 18.4 | 15 | 19 | 55 | .53 | .093 | 37 | 57 | .67 | 180 | .07 | 33 | 1.84 | .05 | .14 | 14 | 540 |

**ICP - 500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCl-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR K, Fe SR CA P LA Cr K G Ba Ti B W AND LIMITED FOR MA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.**

**SAMPLE TYPE: Rock**  **AU ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.**

**DATE RECEIVED:** JUL 24 1990  **DATE REPORT MAILED:** JULY 31/90  **SIGNED BY:** CLEO J. TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS  **ASSAY RECOMMENDED**
# GEOCHEMICAL ANALYSIS CERTIFICATE

## Imperial Metals Corporation PROJECT PEAK

**File # 90-2419**

800 - 601 W. Hastings St., Vancouver BC V6B 5A6

Submitted by: P. DELANCEY

| SAMPLE# | Na   | Cu   | Pb   | Zn   | Ag   | W1 | Co | Mn | Fe   | As | Au | Th | Sr | Cd | Sb | Bi | V   | Ca | P   | La | Cr | Mg | Ba | Ti | B | Al | Na | K   | W  | Au* |
|---------|------|------|------|------|------|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| PD-90-4 | 1 42 | 43   | 182  | .2   | 161 | 24 | 1523| 6.02| 53  | 5    | ND  | 3  | 553| .6  | 2  | 2  | 66  | 6.01| .218| 30 | 208 | 4.63| 38 | .02 | 2  | 2.61| .02 | .07 | 1 | 1   |
| PD-90-6 | 3 26 | 66   | 14   | .1   | 13  | 3  | 284 | .94 | 10  | 5    | ND  | 5  | 21 | .2  | 2  | 2  | 2   | 3   | .66 | .014| 18 | 14  | .12 | 63 | .01 | 2  | 2.22| .06 | .08 | 1 | 2   |
| PD-90-7 | 2  7  | 24   | 10   | .1   | 7   | 4  | 1812| 1.38| 15  | 5    | ND  | 1  | 14 | .2  | 2  | 2  | 2   | 2   | .10 | .022| 2  | 8   | .06 | 138| .01 | 2  | 2.09| .01 | .01 | 1 | 19  |
| PD-90-8 | 5  1  | 30   | 18   | .1   | 19  | 3  | 847 | 1.88| 4   | 5    | ND  | 1  | 16 | .2  | 2  | 2  | 2   | 3   | .76 | .004| 2  | 12  | .18 | 29 | .01 | 3  | .36 | .01 | .02 | 1 | 1   |
| PD-90-10| 2  5  | 3    | 5    | .1   | 7   | 2  | 744 | .80 | 2   | 5    | ND  | 1  | 3  | .2  | 2  | 2  | 2   | 1   | .05 | .012| 6  | 7   | .03 | 88 | .01 | 2  | 1.13| .02 | .04 | 1 | 1   |
| PD-90-12| 1  1  | 2    | 8    | .1   | 23  | 8  | 1112| 3.55| 2   | 5    | ND  | 1  | 87 | .2  | 2  | 2  | 2   | 1   | 10.54| .004| 2  | 4  | .61 | 11 | .01 | 2  | 0.02| .02 | .01 | 1 | 6    |
| PD-90-15| 2  34 | 2    | 7    | .1   | 7   | 3  | 275 | .95 | 3   | 5    | ND  | 3  | 21 | .2  | 2  | 2  | 2   | 1   | .78 | .024| 9  | 4   | .32 | 37 | .01 | 4  | 1.15| .01 | .10 | 1 | 15   |
| PD-90-16| 1  46 | 3    | 96   | .2   | 21  | 28 | 1243| 7.95| 2   | 5    | ND  | 2  | 59 | .6  | 2  | 2  | 2   | 71   | 2.47| .158| 18 | 12  | 3.08 | 48 | .01 | 2  | 3.45| .03 | .12 | 1 | 1    |
| PD-90-17| 1  498| 5    | 27   | .1   | 10  | 5  | 139 | 1.45| 2   | 5    | ND  | 3  | 3  | .2  | 2  | 2  | 2   | .07  | .013| 8  | 6   | 1.20 | 15 | .01 | 5  | .83 | .01 | .04 | 1 | 4    |
| PD-90-19| 6  898| 3    | 14   | .3   | 17  | 10 | 476 | 1.56| 10  | 5    | ND  | 1  | 19 | .2  | 2  | 2  | 2   | 1.15 | .050| 2  | 1  | 1.61 | 169| .01 | 6  | 2.23| .01 | .08 | 1 | 10   |
| PD-90-19A| 1  2888| 2    | 18   | .3   | 9   | 3  | 172 | 1.51| 2   | 5    | ND  | 3  | 9  | .2  | 2  | 2  | 2   | 1   | .31 | .020| 8  | 5   | .84 | 23 | .01 | 6  | .61 | .01 | .08 | 1 | 21   |
| PD-90-24| 4  41  | 5    | 5    | .1   | 133 | 321| 63  | 3.00| 75  | 5    | ND  | 2  | 5  | .2  | 2  | 2  | 2   | 1.15 | .054| 2  | 13 | .04 | 75 | .01 | 3  | .11 | .01 | .04 | 1 | 41   |
| PD-90-25| 1  7  | 1343 | 60   | 3.8  | 25  | 17 | 2485| 5.35| 8   | 5    | ND  | 1  | 283| 1.3 | 136| 3  | 3   | 18.16| .081| 2  | 1  | 4.89 | 4  | .01 | 2  | .04 | .01 | .03 | 1 | 46   |
| PD-90-26| 10 6  | 4066 | 28   | 6.0  | 14  | 9  | 1556| 3.70| 3   | 6    | ND  | 5  | 136| 1.3 | 144| 4  | 1   | 10.92| .029| 2  | 7  | 4.16 | 11 | .01 | 2  | .06 | .01 | .04 | 1 | 8430 |
| STANDARD C/AU-R| 18| 56| 37| 131| 7.6| 71| 29| 1023| 3.98| 37| 17| 7| 39| 52| 18.5| 15| 20| 58| 51| 093| 38| 59| .93| 187| .09| 34| 1.96| .06| .14| 1| 480 |

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR Mn Fe Sr Ca P La Cr Mg Ba Ti B W and LIMITED FOR Na K and Al. Au DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: Rock
- Au* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 11 1990

DATE REPORT MAILED: JULY 13/90

SIGNED BY: D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

* May be metallics, metallics assay suggested.
APPENDIX 3

COST STATEMENT
COST STATEMENT

Wages

<table>
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<th>Name</th>
<th>Days</th>
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<td>P. DeLancey</td>
<td>July 2-11, 13, 15(1/2), 16, 17, 19, 23(1/2)</td>
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<td>540</td>
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<td>D. Waller</td>
<td>July 15(1/2), 16</td>
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<td>T. Jones</td>
<td>July 3-6</td>
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Board & Room

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Transportation

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Geochemical Costs

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Report, Drafting and Computer

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Miscellaneous Costs

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TOTAL COSTS

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