CRIB MINERAL RESOURCES FILE 12

RECORD IDENTIFICATION
- RECORD NO..... M061880
- RECORD TYPE..... X1M
- COUNTRY/ORGANIZATION. USGS
- DEPOSIT NO..... ODGMI 100-294A
- MAP CODE NO. OF REC..

REPORTER
- NAME..... SMITH, ROSCOE M.
- DATE..... 78 08
- UPDATED..... 81 03
- BY..... FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION
- DEPOSIT NAME..... IRON HAT GROUP

- COUNTRY CODE..... US
- COUNTRY NAME: UNITED STATES

- STATE CODE..... OR
- STATE NAME: OREGON

- COUNTY..... JOSEPHINE
- DRAINAGE AREA..... 17100309 PACIFIC NORTHWEST
- PHYSIOGRAPHIC PROV..... 13 KLAMATH MOUNTAINS
- LAND CLASSIFICATION..... 49

QUAD SCALE	QUAD NO OR NAME
1: 62500	GRANTS PASS

LATITUDE	LONGITUDE
42-21-04N	123-18-32W

UTM NORTHING	UTM EASTING	UTM ZONE NO
4688600.	474550.	+10

- TWP..... 37S
- RANGE.... 05W
- SECTION.. 17
- MERIDIAN. WB & M

- ALTITUDE.. 1680

- LOCATION COMMENTS: SE 1/4

COMMODITY INFORMATION

OCCURRENCE..... AU CU AG

ORE MATERIALS (MINERALS,ROCKS,ETC.):
PYRITE

COMMODITY COMMENTS:
LARGE TONNAGE OF PYRITE

EXPLORATION AND DEVELOPMENT
STATUS OF EXPLOR. OR DEV. 2

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:
GOSSAN, MASSIVE SULFIDE?
FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA
SIZE OF DEPOSIT..... SMALL
MAX LENGTH..... 1000 FT
MAX WIDTH..... 500 FT

DESCRIPTION OF WORKINGS
SURFACE AND UNDERGROUND

COMMENTS(DESCRIP. OF WORKINGS):
A 150 FOOT ADIT WITH SOME DIAMOND DRILLHOLES.

PRODUCTION
UNDETERMINED
2B 30-40 PYRITE, TR CU, TR AU, TR AG

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... PERM-TRI
HOST ROCK TYPES..... METAVOLCANIC

LOCAL GEOLOGY
NAMES/AGE OF FORMATIONS,UNITS,OR ROCK TYPES
1) NAME: APPLEGATE GROUP
AGE: PERM-TRI

COMMENTS (GEOLOGY AND MINERALOGY):
GOSSAN ZONE ENCASES A 200 FOOT THICK SECTION OF MASSIVE PYRITE.

GENERAL REFERENCES
1) RAMP, L. AND PETERSON, N.V., 1979, GEOLOGY AND MINERAL RESOURCES OF JOSEPHINE COUNTY, OREGON; ODGMI BULL. 93, 45P

Inspection never made RR

REQUEST FOR INSPECTION OF PROPERTY
by
State Department of Geology and Mineral Industries

400 East I Street, Grants Pass | 702 Woodlark Building, Portland | 2102 Court Street, Baker

PLEASE READ THIS CAREFULLY BEFORE FILLING IN BLANKS

Every blank should be completely filled in. The reasons are that: We cannot examine all of the properties we are asked to examine because we do not have enough engineers to go around. Our funds and personnel are limited. It costs the State a substantial amount for the examination of your property. We are just as anxious to examine it as you are to have us do so. Therefore, in order that there shall be no loss of time, we must know exactly where your property is, how to get to it, where to meet you or someone who can take us in, and how much there is to be seen. You'd be surprised how often people, in directing us to their own properties, give directions which are not clear or which are confusing or incomplete. Sometimes we lose hours or a full day which could have been saved if the blank had been properly filled in. Please give us a break and put down all the dope!

Fill in accurately all the following blanks as fully as possible (even if the answer is "No"), and mail this form to the office address above, nearest to your property. A field engineer will then get in touch with you and arrange for the trip.

Phone – Provolt 2451

Date 6/6 1963

Inspection requested by:

Name: Harold Anderson

Address: 10866 Williams Hwy G.P.

Owner of property:

Name: Same

Address:

What is property commonly called? Iron Hat

What is your own interest in property? Owner: X Partner: Lessee: Other

Location of property: County: Josephine Postoffice: G.P.

Section: 17 Township: 37S Range: 5W

What is the problem that is bothering you most? In other words, is it geological, metallurgical (milling), mining, how to continue exploration, financial, or what?

Advice needed on how to continue exploration. Contact a couple of days ahead of visit. (Pastor of Murphy Church)

Directions to field man:

Who will accompany field man to property? . . . Owner . . . . . .

Can we drive right to the property? . . . no . What kind of road is it? . . . none . . .

How far must we pack equipment, samples, etc., from the road? . . 1/2 hr. walk . . .

During what months is the property not accessible? . . . none except possible snow . . .

Detailed road and trail directions for getting from nearest Postoffice to property; or to place where field man will meet you or the guide:

. . . Contact owner & he will meet you at Murphy . . .

. . . Store . . . . . .

. . . . . .

. . . . . .

Description of property to be examined:

What kind of property:. .Gold lode? . ✓ . . . .Placer?. . . . . Other? . . . . . .

History: Is the property a prospect?. . . . A past producing mine now idle?. . . . . .

Is it producing now? . no . . During what periods was it in production? . . . . . .

Development: Describe the surface workings (open-cuts, pits, trenches) that are cleaned out so that we can see the rock or ore in place. . . . . .

. . reversal . cuts . & . tunnel . 185 ft. . . . . .

. . . . . .

How many feet of underground workings (tunnels, cross-cuts, drifts, shafts, raises) approximately are open so that we can examine the rock or ore? . . . . . .

. . . . . all . open . . . . . .

. . . . . .

How many dumps are there? . . 1 . . . Do you have a claim map of the property?. not at present

Map of workings? . no . . Assay map?. . no . Mill flow sheet?. no .Engineer's report? no

How many samples have been taken and assayed? . . 4 . . . . . .

* *

FOR OFFICE RECORDS ONLY

Date request received. . . . . 194 Date set for visit . . . . . .194 .

Date property visited. . . . . 194 by: . . . . . .

Cost of inspection: Salary . . . . . .$

Meals and Lodging . . . . . .$

Car Mileage-cost at 4¢ . . . . . .$

Total $

ASSOCIATED GEOLOGISTS
111 N. W. A St.
Grants Pass, Oregon - 97526

Report on the Iron Hat Group of Mining Claims, Sec. 17, Twp. 37, R. 5 W.W.M.

This is not a geological report but an answer to a questionaire presented to the writer. The following answers apply to the attached questionaire.

(1) Iron and Sulfur - Major -. Minor gold and copper.

(2) & (3) Length of deposit 1000 ft. (+)
Width approximately 500 ft.

(4) The deposit is barren of overburden; however, the gossan zone and leached zone is approximately 50 ft. thick.

(5) Approx. ½ mile rebuilt.

(6) Deposit is ½ mile from highway
4 miles from railroad and 3/4 mile from river.

(7) Applegate River

(8) 5 lode claims cover the deposit.

(9) No placer claims

(10) One

(11) None patented

(12) Does not apply

(13) Rev. Harold Anderson, Murphy, Oregon

(14)

(15) Recorded in Vol. 68 - Page 23

(16) Omit

(17) Nil

(18) X-RT core from 200' ft. long -20° diamond drill core available to examination.

(19) There has never been a geological report made on the property. The writer helped the owner over a period of several years. The deposit is basically as follows:

Continued Page (1)

ASSOCIATED GEOLOGISTS
111 N. W. A St.
Grants Pass, Oregon - 97526
479-4116

A gossan zone located in Triassic metavolcanics is visible on the surface for 1,000 ft in length and 500 ft in width. A 150 ft. adit has been driven approx. 50 ft. below the adit near the south end of the deposit. The adit is driven in the leached zone below the gossan. A 200 ft. XRT diamond drill hole was drilled at -20°. This drill hole cut a massive pyrite for the 200 ft. length. A series of fresh post mineralized dykes about 4 ft. wide cut through the massive pyrite. Visual examination of the core indicates the pyrite estimate to be 30% - 40%. Traces of copper and approx. $1.00 in gold.

(20) - (21) It is the writer's opinion based on the surface outcrop plus the diamond drill hole, that a sulfide deposit like the Iron Hat located within the metavolcanics, a mile or more from the nearest quartz diorite stock will go to depth. The writer estimates that the deposit will go 5,000,000 tons to the 100 vertical ft. of 30-40% pyrite plus some gold and copper.

ASSOCIATED GEOLOGISTS

Lloyd E. Frizzell

LEF:mjf

P R O G R E S S R E P O R T

on the

I R O N H A T

for

Condaka Metals, Inc.

Thru May, 1983

Michael D. Strickler

June 22, 1983

TABLE OF CONTENTS

FIGURES

TABLES

PLATES

APPENDICIES

SUMMARY

The Iron Hat sulphide deposit, located 6 miles SSE of Grants Pass, Oregon, has been explored to date by geological mapping, surface and underground sampling, geochemical and geophysical methods, as well as 4 diamond drill holes, one short adit, and numerous prospect pits. The data obtained from the different exploration methods paints a confusing picture and is open to a number of varied interpretations.

Regionally, the deposit occurs within the Triassic Applegate Group (meta-sediments and meta-volcanics), approximately 1 mile east of it's faulted contact with the granitic Merlin batholith (upper Jurassic).

Locally, the Iron Hat is enclosed in a complex series of basaltic to gabbroic rocks. Also mapped are scattered zones of peridotite (?) float, and later dikes of intermediate to basic composition. The basalts occur as both flows and pillows, and locally exhibit brecciated structures. It is uncertain at this time whether the gabbros are intrusive or merely ponded basaltic flows. Field relationships and petrographic work indicate that the units are part of an ophiolite suite with portions of the pillow basalt and sheeted dike complex outcropping in the immediate claim area.

The claim block has been gridded and soil sampled for gold, silver copper and zinc. Anomolous values of each are found throughout the claims.

Recent airborn geophysics (magnetometer and VLF/EM) were successful in delineating possible conductors associated with the Iron Hat as well as within the claim block. Several of the conductors correlate with geochemical highs and outcrops of mineralized basalt.

Two diamond drill holes (total 1440.9') were drilled in April, 1983. Well developed pillow margins in the drill core indicate that the mineralized portions of the Iron Hat itself are contained within the extrusive portion of the ophiolite. The sulphides occur in a silica exhalite as disseminated to massive pyrite with minor chalcopyrite and sphalerite. Numerous exhalite zones are present, ranging in true thickness from less than 1 foot to over 50 feet. The exhalite zones are commonly accompanied by minor to intense silicification of the surrounding basalt.

Sporadic values in gold (up to 0.23 oz/ton over 5') and copper (up to 1.8%) were encountered in the recent drilling, but are not of sufficient length to establish an economic deposit at this time. The strength of the values indicate that the Iron Hat deposit contains substantial concentrations of precious and base metals, and that further work, both on the Iron Hat itself and on the surrounding claim block, is warranted.

INTRODUCTION

The Iron Hat sulphide deposit in Josephine County, Oregon, is currently under option to Condaka Metals, Inc., a wholly owned subsidiary of Condaka Metals Corp., 890-789 W. Pender St., Vancouver B.C. Canada. It is the intent of this report to summarize progress on the property to date.

LOCATION AND ACCESS

The Iron Hat deposit and claim block (see fig. 1) is situated in sections 8, 9, 16, & 17, Twp. 37S, Rng. 5W of the Willamette Merridian. It is located immediately north of the Applegate River, approximately 6 air miles SSE of Grants Pass, Oregon. Access is via Highway 238 (The Williams Highway) from Grants Pass to Murphy, a distance of 5 miles, then east on North Bank Road for 2 miles to Board Shanty Road, then north for 1/2 mile to Tracy Drive. Here the pavement ends, and a dirt road leads to the property, a distance of approximately 3/4 mile.

The claim block consists of 24 unpatented lode claims (see Table I), which include the 3 original claims optioned from Rev. Anderson, as well as 21 lode claims recently staked to cover potentially mineralized ground.

Topography over the claim block is moderate to locally steep. Vegetation is light to moderate (by SW Oregon standards), with major stands of poison oak and manzanita forming the only serious obstacles.

EXPLORATION TO DATE

PRE-1983:

The Iron Hat deposit was originally held by a single lode claim located to cover a broad zone of gossan and pyritized basalt outcrop. This claim was included in the estate of a Mr. Powell and willed to the Murphy Chapel under the trusteeship of the Rev. Harold Anderson in the late 1950's or early 1960's. At this time, there were no roads to the property, with the only development being a number of small surface exploration pits and one adit of 200' length into the leached zone. Responsibility for these early efforts has been lost.

In 1961, Lloyd Frizzell, a geologist from Grants Pass, Oregon, became acquainted with the property and over the course of the next 20 years assisted Rev. Anderson in maintaining the claim and doing minimal exploration upon it.

CLAIM	LOCATED	BOOK	PAGE	ORMC #
Iron Hat	1/2/62 *	68	23	
I.H. East	5/19/82 *	25	1253	0051-603
I.H. West	5/19/82 *	25	1255	0051-604
I.H. 4	5/7/82	25	826	0051-536
I.H. 5	5/7/82	25	828	0051-537
I.H. 6	5/7/82	25	830	0051-538
I.H. 7	5/10/82	25	832	0051-539
I.H. 8	5/10/82	25	834	0051-590
I.H. 9	5/10/82	25	836	0051-591
I.H. 10	5/11/82	25	838	0051-592
I.H. 11	5/11/82	25	840	0051-593
I.H. 12	5/11/82	25	842	0051-594
I.H. 13	5/11/82	25	844	0051-595
I.H. 14	5/17/82	25	1239	0051-596
I.H. 15	5/17/82	25	1241	0051-597
I.H. 16	5/17/82	25	1243	0051-598
I.H. 17	5/17/82	25	1245	0051-599
I.H. 18	5/17/82	25	1247	0051-600
I.H. 19	5/17/82	25	1249	0051-601
I.H. 20	5/20/82	25	1251	0051-602
I.H. 21	4/18/83	36	1792	PENDING
I.H. 22	4/18/83	36	1794	PENDING
I.H. 23	4/26/83	36	1796	PENDING
I.H. 24	4/26/83	36	1798	PENDING

* Relocated notice

TABLE I : IRON HAT CLAIMS

In February 1963, two additional lode claims were located flanking the original claim. A road was put into the property as far as the portal of the adit sometime during the mid 1960's.

In the late 60's, Rev. Anderson personally hand-drilled two short EX diamond drill holes. All physical records from both holes are lost, except for a bag of random core samples. The upper hole was collared at the portal of the adit and was drilled essentially west at a -20 degree angle. Mr. Frizzell, who saw the core at the time, reports that the hole intercepted zones of semi-massive to massive pyrite in a host of basic volcanics. He also states that there was evidence of very fresh dikes cutting the units. The location and results of the second hole are questionable. It is thought to have been collared along the creek some 200' vertically below the adit, but there is no report as to the rocks drilled.

Preliminary geochemical and geophysical surveys were conducted during the 1970's by a number of different workers. These included Homestake, Dennison Mines, and Mr. Don Hansen. The sampling programs (surface soil and rock chip, as well as underground) were generally unimpressive, with the absence of any reportable values the most interesting anomaly found. The geophysical surveys consisted of various ground EM programs. These in every case indicated a sizeable conductor extending to depth.

In 1981, the property was optioned from Rev. Anderson by Associated Geologists, Grants Pass, Oregon. During May 1982, an additional 17 lode claims were located. Most of these were staked to the north and east of the Iron Hat to cover potential mineralized ground and to assure future access to the county road (see fig. 1).

RECENT WORK:

The entire block of 20 lode claims were optioned to Condaka Metals in January 1983. Since that time, Condaka Metals has expended considerable time and effort on the property.

Four additional lode claims have been located east of the Iron Hat, bringing the total claim block to 24 claims (approx. 400 acres). Regional exploration over the claim block has included surface mapping (scale 1" = 500', Plate 1), geochemical soil sampling, and airborn geophysics.

A regional survey grid was established with lines spaced at 400' intervals along a N-S baseline. Samples, run for Au, Ag, Cu, and Zn, were collected at 100' spacings along the lines. Line spacing was shortened to 200' over the zone of known mineralization (existing Iron Hat deposit). This program has resulted in over 11.5 miles of cut line with 615 sample stations.

Gold values (see Plate 4) range from <3 ppb to a high of 75 ppb at the north end of the claim block. Silver (Plate 5) ranges from <.01 ppm to 1.7 ppm, copper (Plate 6) <30 ppm to 273 ppm, and zinc (Plate 7) <30 ppm to 518 ppm.

An airborn magnetometer/VLF-EM survey was conducted over the property during April 1983 by Geotronics Surveys Ltd., Vancouver, B.C., Canada. This survey was successful in delineating several possible conductors within the existing claim block (see fig.2).

In addition to the above mentioned work, the original Iron Hat deposit has been explored by more detailed surface mapping (Plate 2, scale 1" = 100'), underground mapping and sampling, and two BX diamond drill holes. No reportable values were obtained from the adit sampling program.

Drilling:

Both drill holes were collared from a single pad built approximately 100' SE of the portal of the adit. Both holes were logged by geologist Jan Haney.

Hole IH#1 (N40W at -30, TD 911.4') was drilled to test, at a shallow depth, across the entire surface gossan outcrops. Excerpts from Jan Haney's summary log follow:

> From 48' to 201.5' is a series of mineralized units; probable exhalitive horizons, interbedded with non-mineralized basalt...(which) are grey, medium to coarse grained equigranular basalts with 1% to 8% disseminated magnetite. Contacts of the mineralized units with the basalts are generally sharp, 45-65 degrees to the core, but occur ocassionally as sheared or semi-gradational contacts. The exhalitive horizons consist of mineralized grey, soft, intensely chloritic and clay altered basalts (?) with sulphide (pyrite) stringers, aggregates, clots and disseminated crystals. Silica is commonly associated with mineralization. Spheroidal to elipsoidal quartz 'eyes' occur randomly through the mineralized zones. The mineralized horizons average 5% total sulphides with random 1' sections containing up to 25% sulphides....

A gabbroic dike with sheared upper and lower contacts, 50 and 60 degrees to the core, respectively, occurs from 201.5' to 246'. Mineralogically, texturally, and spacially this section correlates with a cross-cutting dike mapped in the upper adit.

Basalt flows with brecciated, pillow, or sharp margins occur to 675'. Mineralization at the margins is common, generally 1% to 5% pyrite, but up to 10% to 310'. Chalcopyrite also occurs through this section as minor clots and rare veins.

A fault occurs from 672.6' to 675.8'... Rock quality (in the basalts below the fault) is poor and chlorite, calcite, and epidote alteration is abundant ... This unit may be part of the extrusive basalts but more likely is a transitional stage (into) the (sheeted) dike complex within an ophiolite suite.

The mineralized portions of IH#1 were split and assayed for Au, Ag, Cu, and Zn, with every fifth sample run for Ni and Co. The results were essentially low grade with a few exceptions. A 5' sample (175' to 180') which included a 0.8' exhalite zone was fire assayed and ran 0.230 oz/ton gold. Also, a short section (+/- 2") at 298' carried 1.80% copper, 0.128% zinc, 0.31 oz/ton silver, and 48 ppb gold.

Hole IH#2 (West at -45, TD 529.5') passed through a similar series of exhalitive horizons as did hole IH#1.

The upper mineralized section 32' to 84.4', averages 8% pyrite with several 1' sections containing up to 40% pyrite. This horizon, unlike the others, has vague basaltic flow margins (?), as pillows (?) and flow breccias (?). Positive identification is difficult due to mineralization and alteration.

The sulphide percentage in the lower mineralized horizons (to 193') ranges from 6% to 35%, with 0.5' sections up to 60%. Trace to 1% chalcopyrite occurs disseminated with pyrite in these horizons.

A series of mineralized units, possibly exhalitive, and basaltic flows occur from 446.5' to 529.5' (end of hole). The mineralized units consist of 30% to 60% (?) grey to transparent silica with +/- 3% pyrite as disseminated sulphides and rare sulphide veins. The remainder consists of a grey gangue material. Relict textures and structures

indicate that the gangue may be a severely altered basalt.

GEOLOGICAL SETTING

REGIONAL GEOLOGY:

The Iron Hat deposit occurs within the Applegate Group, a Triassic series of meta-volcanic and meta-sedimentary rocks, with associated intrusive dikes and sills. Meta-sedimentary rocks include slaty argillites and siltstones, locally phyllitic to shistose, quartzite, chert, conglomerate, and interbedded lenses of limestone (marble).

The meta-volcanics, mapped as greenstones by Diller and Kay (1924), comprise the majority of what is mapped as the Applegate Group. These are largely of submarine origin, and include intermediate to basic flows and pillows interlayered with tuffs, breccias and agglomerates. The Applegate Group contains numerous sheets of ultramafic rocks, as well as dikes of diabasic to gabbroic composition. The Applegate is interpreted to be the remnant of one of a series of ophiolite suites which developed off the western margin of the North American continent during the Paleozoic and Mesozoic eras.

Base and precious metal mineralization occurs throughout the meta-volcanics. Known deposits include volcanogenic strata-bound semi-massive to massive sulphide deposits, as well as numerous auriferous quartz veins and shears. High purity limestone and pods of rhodonite are found associated with the meta-sediments.

The Applegate Group is in fault contact with the granitic Merlin batholith approximately 1 mile west of the Iron Hat deposit. Gold-bearing quartz veins and shears commonly occur along the margins of the batholith. Numerous small high-grade gold deposits (Jewett, Golden Mary, May Queen, and many lodes and placers along Board Shanty Creek and it's tributaries) are found in the Iron Hat area, and are possibly a result of this asociation with the granitics.

LOCAL GEOLOGY:

Rocks outcropping and found as float over the claim block include basalt, diabase, gabbro, peridotite, hemititic mudstone (?), and numerous dikes of intermediate to basic composition. Outcrop is scarce, amounting to approximately 10% to 20% of the claims. Petrographic analysis of a suite of rocks has been completed by Norm Peterson (retired State Geologist, Grants Pass field office), and Gregory D. Harper (see Appendix A). Dr. Harper's work indicates that the

claim block includes portions of the entire sheeted dike complex as well as lower pillow lavas. The association of the dike sequence with the peridotite (found only as float) is unclear. Well developed pillow lavas were logged throughout the recent drill holes, which indicates that the mineralized portion of the Iron Hat occurs within the extrusive portion of the ophiolite.

Sulphide mineralization occurs as disseminated to massive sulphides in a silica exhalite. Numerous exhalites occur throughout the drilled portion of the Iron Hat, ranging in true thickness fron less than 1 foot to greater than 50 feet. The sulphides (pyrite with minor chalcopyrite and sphalerite) are extensively leached at the surface and form a broad zone of limonite and gossan on the ridge above the deposit.

Mapping in the short adit that cuts through the leached zone indicates that the known sulphide occurrances at the Iron Hat have been subjected to minor folding (see Plate 3). The exhalite zones, as well as the fold axies, appear to strike approximately N40E, with an overall dip to the SE. Orientation of A-C joint sets in the adit indicate a minor plunge to the north.

The degree of faulting is unknown at this time, partially due to the lack of outcrop. Two drainages to the north and south of the Iron Hat itself are almost certainly faulted, but this has yet to be proven. Numerous small shears, as well as a few larger faults, were logged in the recent drilling.

DISCUSSION

The Iron Hat deposit gives every indication of being an ophiolitic volcanogenic sulphide deposit in which the mineralization occurs within both exhalitive silica horizons and altered basaltic flows/pillows/breccias structurally below, and lateral to, the exhalitive members. The lack of consistant economic mineralization, while certainly less than desireable, is not at all uncommon in a sulphide occurance of this type. The Turner-Albright deposit of SW Oregon, a 10 to 12 million ton massive sulphide body, has large sections which are essentially barren pyrite.

The structural model represented in Plate 3 is the result of discussions between Dr. Colin Godwin, Jan Haney, and the writer in late April, 1983. As can be seen, the tonnage potential is large if zones of precious and/or base metal enrichment can be located. Recent efforts have been concentrated in a very small portion of the overall potential zone of mineralization. Both the up-dip (to the northwest) and down-dip (southeast) extensions need to be tested. Gold/zinc geo-chemical anomalies as well as

possible conductors delineated during the airborn geophysical survey support investigations up-dip. This could be accomplished via a series of short drill holes along the ridge NW of the adit.

Within the claim block itself, a broad target exists approximately 3000' to 6000' NNW of the Iron Hat along the ridgecrest. Silicified and pyritized basalt, with numerous prospect pits and short adits into mineralized rock, exists through a zone trending NNE and up to 3000' long. Scattered geochemical anomalies (Au, Cu, Zn) occur throughout, and the zone was delineated by the airborn geophysical survey.

CONCLUSIONS AND RECOMENDATIONS

Based on the foregoing, I have reached the following conclusions:

1) The Iron Hat occurs within volcanic rocks of the Triassic Applegate Group, which represents an early Mesozoic ophiolite suite.

2) Rocks known to outcrop in the vicinity of the Iron Hat deposit include pillow basalts, which are a favorable host for ophiolitic exhalitive sulphide deposits.

3) The Iron Hat deposit is volcanogenic in origin, and is characterized by pyritic exhalitive silica horizons. These may be accompanyied by zones of alteration of the surrounding rock, where the basalt had been completely or in part replaced by silica and/or sulphides.

4) Scattered assayed intervals indicate that the Iron Hat contains zones of potentially economic gold/copper mineralization.

5) Silicified and pyritized basalt outcrops on the ridge north of the Iron Hat deposit represent a favorable target for additional mineralization. Geochemical and geophysical anomalies occur in the same area.

It is my opinion that further work is justified on both the known mineralization at the Iron Hat and on the claim block.

Iron Hat:

From past experience on the Iron Hat and related properties in this area, I do not feel that additional geochemical work will benefit the property at this time. A 2-part program of additional drilling (up- and down-dip) in

conjunction with surface geophysics (EM and/or IP) is recommended.

In the absence of ultramafic intrusives, IP has proven to be effective in locating burried sulphide bodies. As no ultramafics have been mapped either on the surface or in the drill holes, I think that IP would be an effective tool, and I would recommend it over a ground EM survey.

The drilling of the up-dip extensions could be accomplished with a series of short drill holes collared on the ridge above the adit and extending to the NW. These would help to firm up the geological model (see Plate 3), and hopefully intercept zones of precious and/or base metal enrichment. Based upon the geological and mineralogical knowledge obtained, a program to explore the down-dip portion could then be planned with a greater degree of confidence.

Claim Block:

I recomend concentrating on the target mentioned above, with closely spaced geochemical sampling (100' X 100' grid), detailed mapping, and ground EM. If substantial targets are discovered, a decision to employ more detailed geophysics and/or drilling could be considered.

This progress report is respectfully submitted this 22nd day of June, 1983, to Condaka Metals, Inc.

Michael D. Strickler
Geologist

PROPOSED BUDGET FOR THE IRON HAT

Note : All funds in U.S. dollars

STAGE I

Purpose : Drill up-dip extension of the known mineralization, confirm model, run detailed geophysics (IP) over deposit, and begin detailed work on the potentially mineralized satellite zone NNW of the Iron Hat.

Geophysics :	$10,000.00
6000' IP w/Interpretation	
Drilling :	$22,500.00
900' at $25.00 per foot	
Cat time - drill pads	$ 2,000.00
Detail soil grid w/ sampling	$ 4,000.00
Includes IP line preparation	
Geological mapping & core logging	$ 3,500.00
Assaying & geochemistry	$ 3,000.00
Supervision	$ 3,000.00
Travel, Support	$ 2,000.00
SUB-TOTAL	$50,000.00
Contingency 10%	$ 5,000.00
TOTAL COST OF STAGE I	$55,000.00

STAGE II

Purpose : Drill down-dip extension, if warrented, and continue detailed work on satellite zone in the hopes of developing a drill target.

APPROXIMATE COST OF STAGE II	$100,000.00

CERTIFICATE OF QUALIFICATION

I, Michael D. Strickler, of Suite A, 207 SW 'G' Street, Grants Pass Oregon, USA, certify that:

1) I am a practicing consulting geologist, and a registered professional geologist in the state of Oregon, USA.

2) I am the sole owner of Litho-Logic Resources, a private consulting firm located at the above address.

3) The report contained herein is based upon my personal experience on, and examination of, the Iron Hat deposit.

4) I have no interest, directly or indirectly, nor do I expect to receive any such interest in the property discussed in this report, or in the securities of the lease holder.

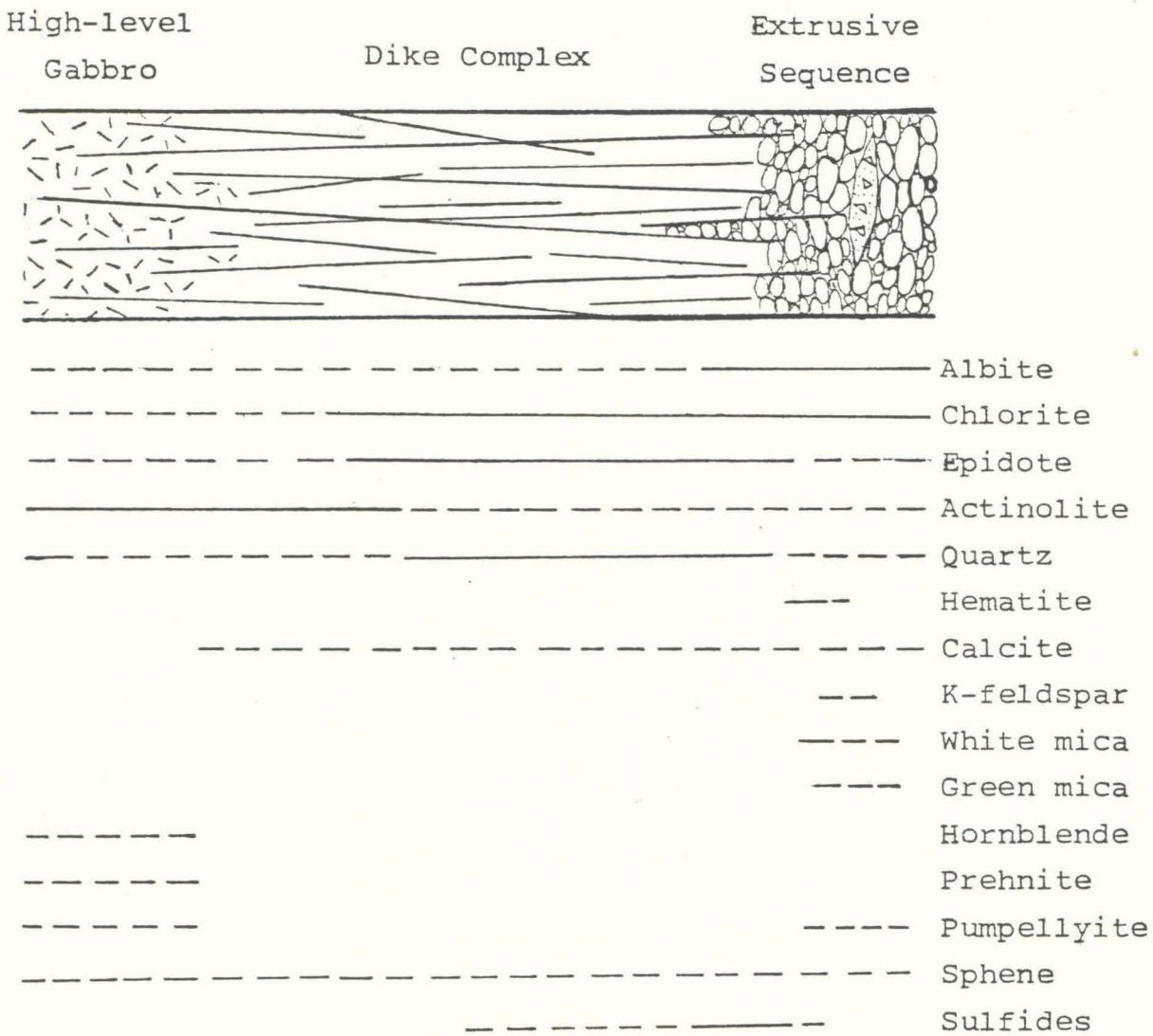
5) I consent to the use of this report in connection with the raising of funds for the Iron Hat project.

APPENDIX A

Petrographic analysis of Iron Hat Rocks

by

Dr. Gregory Harper, U. of Utah


High-level Gabbro
Dike Complex
Extrusive Sequence
Albite
Chlorite
Epidote
Actinolite
Quartz
Hematite
Calcite
K-feldspar
White mica
Green mica
Hornblende
Prehnite
Pumpellyite
Sphene
Sulfides
Plagio-clase
Clinopy-roxene
Fe-Ti Oxide
Igneous Minerals
Preservation of Igneous Texture
Excellent
Good
Poor
Moderate
Moderate to Good

Petrographer Greg Harper / Michael DePangher T.S.# 34+40N 46E Hand Spec. # 34+40N 46E (1) Date 5/13/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Actinolite	25	−	(pale) blue green to green	2° blue		20°		
(albite) Plagioclase	50						n<epoxy	replaces [illegible]
Fe-oxides	2-3							
Fe-poor Epidote	5	—		[illegible] berlin blue				
Quartz	10	+						increases toward veinlet
Chlorite	4		pale green	1° anom blue				increases toward veinlet
Prehnite		+	colorless/none	max 1° yellow anomalous blue greens	60	← check —	> could it	one cleavage that generally parallels the wall of the veinlet. slightly radial ha[illegible] be higher?
Sphene	~2		dark	high colors				

Textures: prehnite + epidote veinlet → Alteration: narrow alteration halo around veinlet

Relict diabasic/ophitic [illegible]

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name metadiabase Parent Rock diabase dike Rock Group

Comments: metamorphosed to greenschist facies

Meta assemblage, [illegible] prehnite vein

[illegible] the base of the dike [illegible]

Greg Harper/

Petrographer Michael DePangher T.S.# 38N 50E Hand Spec. # (2) 38N 50E Date 5/13/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Actinolite	35	—	blue green to green	max 2° blue		20°		
(calcite) Plagioclase	55						< balsam	
Fe oxides	7							occurs intimately associated with actinolite
Epidote	2		v. pale yellow to med. yellow					
								occurs along shear surfaces and
Phyllosilicate	2		lt. golden brown / none	1° yellow		∥		occurs in isolated patches with hematite

Textures: subophitic

Alteration:

actinolite ± Fe oxides are the mm product of cpx?

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name metadiabase Parent Rock diabase dike Rock Group

Comments: This rock has been metamorphosed to greenschist facies

(The phyllosilicate may be a clay mineral)

Petrographer Greg Harper / Michael DePangher T.S.# 26N 58E (3) Hand Spec. # 26N 58E Date 5/17/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Plagioclase	45						< basalm	
Actinolite	45		green to blue-green					
Chlorite	3							
Opaques - (Fe-oxides)	4							
Epidote	3							

Textures: porphyritic

Alteration:

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name greenstone Parent Rock basalt (like?) Rock Group

Comments:

Petrographer Greg Harper / Michael DeLaughter T.S.# IH-1 Hand Spec. # IH-1 Date 3/17/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Plagioclase	45						n < balsam	
Actinolite	30							
Opaques – Fe-oxide	10							
Epidote	10							
Montmorillonite	? 5	—	weathering?					

Textures: Alteration:

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name greenstone Parent Rock basalt flow Rock Group

Comments:

Petrographer Greg Harper / Michael DePangher T.S.# IH-2 Hand Spec. # IH-2 (5) Date 5/17/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Actinolite	35		very pale green					
Plagioclase	25							
Epidote / clinozoisite	25							
Quartz	1							
Opaques - Fe-oxide	1							
~~Sphene~~	8							
[illegible]??	<2							

Textures: qtz + epidote veinlet
Totally recrystallized / Very fine grained — Faint diabasic texture clearly visible in hand specimen

Alteration: [illegible] recrystallized
(Continued [illegible])

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name greenstone — Di[illegible] Parent Rock Diabase dike Rock Group

Comments:
Thin section is too thick. Textures are difficult to discern because of this.
Very strongly recrystallized
Abundant actinolite [illegible] of [illegible] dikes,

Greg Harper/ ⑥

Petrographer Michael DeLaughter T.S.# IH-3 Hand Spec. # IH-3 Date 5/17/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
(albite) Plagioclase	50							
Actinolite	40							[illegible]
Fe oxide Opaques (mt)	7	—	long + thin					
Epidote	5							
(Montmorillonite	<1		pale to med. brown	[illegible])		∥		radiating habit

Textures: Microporphyritic — plag + cpx (→act)
Fine-grained groundmass

Alteration: [illegible]
[illegible]
long thin needles magnetite

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name greenstone Parent Rock Rock Group

Comments: [illegible]

Greg Harper (

⑦

Petrographer Michael DePangher T.S.# IH-4 (Adit) Hand Spec. # IH-4 (Adit) Date 5/13/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Quartz	43							
white mica	35		colorless	max 2° yellow		∥		
Chlorite (?)	15		brown, isotropic					[illegible]
Fe oxides opaques	5							look like small, oxidized biotites. They have an elongate, platey morphol
Fe-oxide	2		needles					in veinlets (sparse)
Limonite ?	3		V ——— →					→ [illegible]
Some albite ?	—	—	would need to X-Ray to determine					v. fine, [illegible]

Textures: "amygdaloidal" - amygdules are qtz - filled

Alteration: silicification of phenocrysts (?)
silica-filled amygdules (?)
silica veins with silicified halos

Rock is weathered, very porous

Photograph (# and explanation)

Chemical Analysis (yes or no)(#)

Chemical Rock Name

Petrographic Rock Name Qtz - sericite rock

Parent Rock felsic? flow

Rock Group

Comments: Since this rock is amygdaloidal, it is either a flow or a shallow intrusive. The long dimension of ovoid amygdules has a definite, preferred orientation. However, this could occur in both flows + dikes so this is not diagnostic. Field relations should clarify this problem.

[illegible] This [illegible] a silicic [illegible] [illegible]

Petrographer Greg Harper / Michael DeLaugher T.S.# IH-5 (core) (8) Hand Spec. # IH-5 (core) Date 5/13/83

Mineral Name	%	+/-	Color/Pleochroism	Birefringence	2V	Extinction	Relief	Misc. Characteristics
Sulfides	5							probably pyrite
Biotite	1		green/brown	2° yellow				in growth contact on sulfide rims, with some in groundmass
Quartz	20							
Chlorite	30		pale green					alt of bt. & in groundmass
non sulfide opaques	12		dk grey thin magnetite unknown, isotropic	& dark brown,	translucent			
Plagioclase	30							very fine in groundmass. Laths.
Epidote	1		colorless	2° blue				

Textures: fine grained groundmass of qtz + plag + chlorite Alteration: abundant secondary qtz + chl in fine groundmass
Laths of plagioclase ⇒ relict cataclastic texture; suggests originally mafic rock

Photograph (# and explanation)

Chemical Analysis (yes or no)(#) Chemical Rock Name

Petrographic Rock Name hydrothermally altered metabasalt/andesite Parent Rock mafic/intermediate flow? Rock Group

Comments: Tr abundant, dark brown-g mineral that looks opaque on low power - don't know what it is?
This rock was probably a very fine grained rock of intermediate or mafic composition. It has been significantly altered with much textural change. Some hydrothermal recrystallization accompanied by extensive recrystallization of metamorphism.