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MARCH 1997

DRAFT
SUMMARY REPORT
On the continuing
LAPIN BARITE PROJECT

ORION INTERNATIONAL MINERALS
INDUSTRIAL MINERAL RIGHTS
NEAR ROCK CREEK, BRITISH COLUMBIA

MARCH 1997
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SUMMARY REPORT
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ORION INTERNATIONAL MINERALS
INDUSTRIAL MINERAL RIGHTS
NEAR ROCK CREEK, B.C.

PART A

SUMMARY and CONCLUSIONS

Preliminary geologic mapping, rock chip sampling, soil sampling, trenching and drilling has identified two areas of significant barite occurrence and one area of anomalous barium in soils on Orion International Minerals (Orion) industrial mineral holdings in south eastern B.C. near the village of Rock Creek. Orion's industrial mineral rights cover 188 claim units totaling approximately 4700 hectares.

Initial investigation of the two major barite occurrences within a 900 x 1400 metre soil grid covering the present area of interest has indicated that the barite bodies observed in outcrop, trenching and drill hole intersections, appear to trend northwest and are hosted by Paleozoic graphitic argillites. The northern most portion of the trend shows the continuation of barite into the greenstone-argillite contact. This postulated northwest trend, supported by anomalous soil barium geochemistry, is approximately 500 metres on strike and is an open ended.. Analysis of barite from outcrops, trenches and drill holes within this trend have returned assays ranging from 65.92% to 95.94% with an overall unweighted average for all of the assays obtained to date of approximately 83% barite. A high grade barite outcrop located in the south central part of the soil grid has returned specific gravities of 4.2 and greater to a depth of fourteen metres over a width of five metres. It is postulated that significant tonnages of barite may be found within the northwest trend as presently outlined and that a potential barite resource of up to 450,000 tonnes or greater of commercially viable barite could be developed through continued exploration.

Field observations, drill hole data, and barium soil geochemistry support an east west (110 degree) structurally controlled thin barite zone hosted by graphitic argillites in the south eastern part of the grid. Insufficient data has been gathered along this barite zone and additional investigation is recommended as it is possible this system may intersect the northwest trend which could result in the identification of larger locallized bodies of barite.

Soil geochemistry for barium in the southwestern part of the grid indicates that barite may be found associated with greenstones and expansion of the geochemical program would be required to define the geologic parametres surrounding the anomalous barium values in this area.

With low capital costs to production, including lower environmental costs and a probable short time line to production due to the simplicity of benefication and milling, it is conceivable that Orion could achieve barite production status in 1997 should mineable reserves be found. To this end Orion is completing an application for a bulk sample permit to test the mining parametres, benefication techniques, millability and market viability of the barite. Orion is also recommending the expenditure of $200,000.00 for continued exploration on the property. The majority of these funds would be utilized for a large scale drill program.

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PART B

REPORT

INTRODUCTION

This report describes the area covered, techniques used and results obtained from exploration efforts by Orion International Minerals on its industrial mineral holdings in the southern interior of British Columbia (Figure #1). The area, known as the Lapin Barite Project , is located between the villages of Rock Creek and Bridesville, British Columbia.

Exploration has been directed towards evaluating the barite potential of Orion International Minerals industrial mineral rights covering 4700 hectares.

The potential for the development of a significant barite deposit is the target of the proposed exploration program. Efforts to date have located tabular, vein like and podiform barite bodies in outcroppings and drill hole intersections. The most significant of which is a north west trend hosting barite outcrops that have been observed dipping steeply east north east along a strike length of 100 metres. Drilling will be required to evaluate, along strike the full down dip extension of the aforementioned trend. Local relief and down hole data suggests the known barite occurrence has a vertical extension of at least 64 metres

Preliminary laboratory work on selected samples has indicated that some of the barite in outcrop is of sufficient purity to meet petroleum industry specifications. Additional barite resources are likely to be developed which will require minimal gravity benefication to meet industry specifications. Although bright white barite has been rare in outcrop, further exploration work may develop barite of sufficient whiteness for use in the paint industry providing an additional and higher priced market for Orion.

Current and future exploration plans include geologic mapping, core logging, continued assaying, geochemistry, and drilling the known barite trends to assess tonnage, trace metal geochemistry, barite purity and whiteness. The short term objective is the production of a bulk tonnage sample and the long term goal is the establishment of a

0 100 200 MILES
0 100 200 300 KILOMETRES

LAPIN BARITE PROJECT

ORION INTERNATIONAL MINERAL

PROPERTY LOCATION MAP

GREENWOOD MININIG DIVISION

Drawn by	NTS 82E/3E	Date June	Figure 1

mine and mill complex.

Annual barite usage in the western oil and gas producing provinces is approximately 50 to 60,000 tonnes with the average price of $135.00/tonne F.O.B. mill site. The present demand is strong and the market outlook is positive for continuing usage for five to seven years.

LOCATION AND ACCESS

Orion International Minerals Lapin Barite Project has a ground position of approximately 4700 hectares within the Similkameen Division of the Yale Land District and the Greenwood and Osoyoos Mining Divisions, British Columbia. All of the project area is within twelve (12) kilometers of the International boundary.

The Orion International Minerals industrial mineral holdings are found on map sheets N.T.S. 82 E/3E and more generally, the centre of the claim area is North Latitude 49 03' and West Longitude 119 07' near the village of Bridesville, B.C..

Access to the claims and intervening areas is via interprovincial Highway 3 and numerous branch roads servicing farming, ranching, mining, recreation, and logging activities.

PROPERTY

(Figure #2)

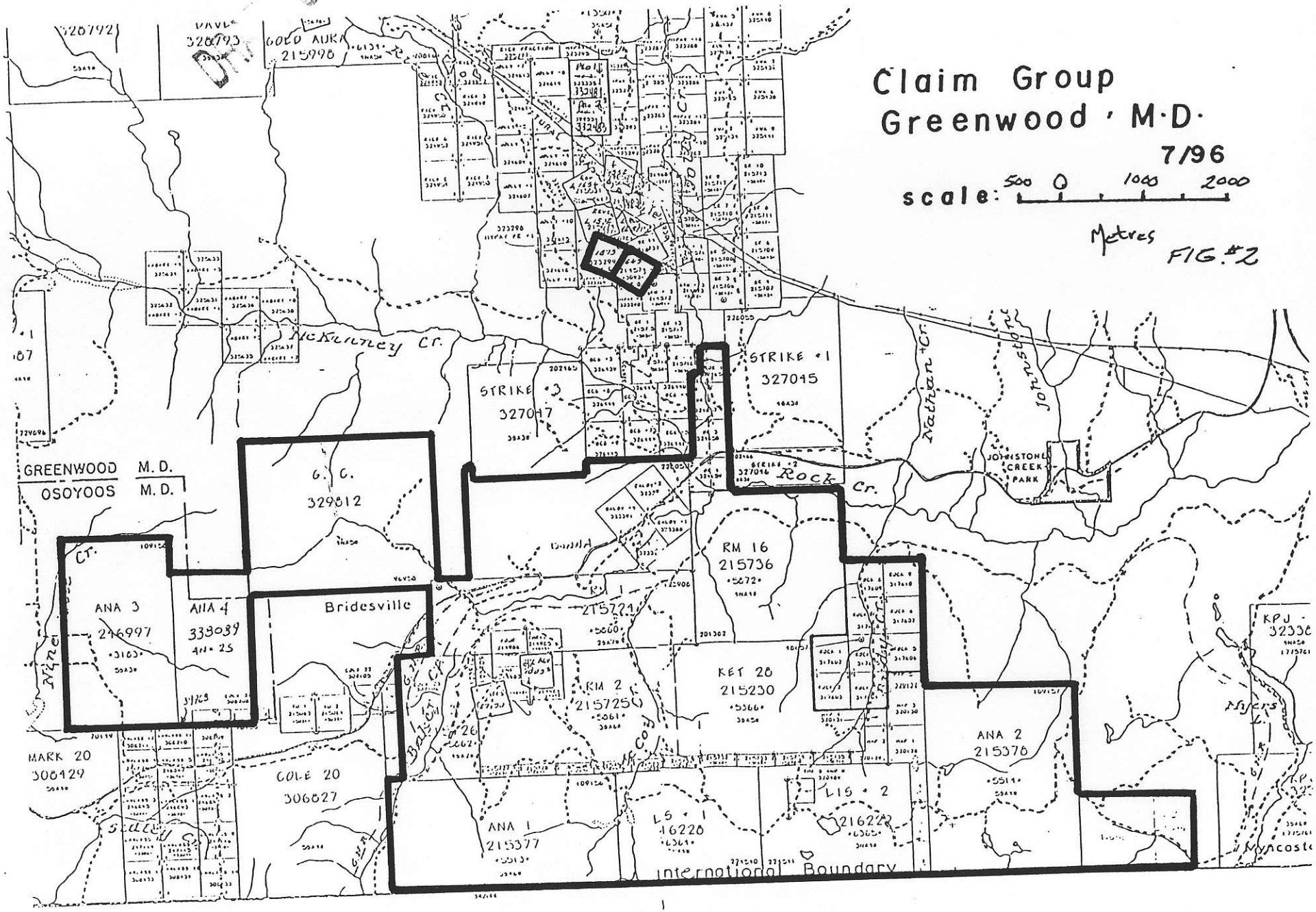
The industrial mineral rights held by Orion International Minerals comprise 188 units. These rights have been obtained from the Rock Creek Gold Trend Joint Venture for which Phoenix Gold Resources acts as the operating partner in exchange for an assignment of the precious metal rights in Orion's wholly owned Rock claims that lie within the Rock Creek Gold Trend. The precious metal assignment was made to Phoenix who then made an assignment to the Rock Creek Gold Trend Joint Venture.

The Orion International Minerals property consists of the following mineral claims:

CLAIM NAME	TENURE NUMBER	UNITS	EXPIRY DATE
Elyshia	323313	9	January 13, 1998
Ket 28	215230	15	March 15, 2006

RM 1	215724	1*	May 2, 2000
RM 2	215725	18	May 2, 2000
RM 3	215726	8	May 2, 2000
RM 4	215727	1	May 2, 2000
RM 5	215728	1	May 2, 2000
RM 6	215729	1	May 2, 2000
RM 7	215730	1	May 2, 2000
RM 8	215737	1	May 1, 2000
RM 9	215731	1	May 1, 2000
RM 10	215732	1	May 5, 2000
RM 11	215733	1	May 5, 2000
RM 12	215734	1	May 5, 2000
RM 13	215735	1	May 5, 2000
RM 16	215736	4**	May 3, 2000
Ana 1	215377	18	July 20, 2000
Lis #1	216228	12	April 9, 1997
Lis #2	216229	12	April 9, 1997
Ana 2	215378	20	July 21, 1997
96 Ana 3	349162	6	July 31, 1997
Ana 4	338089	8	July 27, 1997
Hap 1	320128	1	July 29, 1997
Hap 2	320129	1	July 29, 1997
Hap 3	320130	1	July 29, 1997
Hap 4	320131	1	July 29, 1997
Hap 5	320132	1	July 29, 1997
DR 1	324656	1	April 14, 2006
DR 2	324657	1	April 14, 2006
DR 3	324658	1	April 14, 2006
DR 4	324659	1	April 14, 2006
Toni 1	347289	1	June 28, 1997
Toni 2	347290	1	June 28, 1997
Toni 3	347291	1	June 28, 1997
Dude	342476	4	November 29, 1997
Little Dude	342477	2	December 11, 1997
G.C.	328912	20	July 28, 1998
Rock 1	317602	1	May 17, 1999
Rock 2	317603	1	May 17, 1999
Rock 3	317604	1	May 17, 1999
Rock 4	317605	1	May 17, 1999
Rock 5	317606	1	May 17, 1999
Rock 6	317607	1	May 17, 1999

ORION INTERNATIONAL
MINERALS



Rock 7	317608	1	May 17, 1999
Rock 8	317609	1	May 17, 1999
Rock 9	317610	1	May 17, 1999

Total Units	188

Total hectares 4700

*RM 1, single unit in the south east corner
**RM 16, four southern most units

PHYSIOGRAPHY AND CLIMATE

Local relief is moderate with elevations ranging from 671 meters above sea level in the Kettle River valley to 1362 meters above sea level on Anarchist Mountain. The intervening area consists of grassy, rolling highlands with local steep gradients near the numerous drainages and in particular, along Rock Creek.

Conifers and grassland pasture are found at the higher elevations with grasslands, poplars, willows, and conifers, intermixed with crop and hay lands, at lower elevations.

WATER and POWER

Adjacent to and within the area of interest, Rock Creek flows south through the northern part of the Orion International Minerals claims area to its confluence with the south easterly flowing McKinney Creek. From that point, Rock Creek flows easterly to the Kettle River.

In the southern portion of the Orion International Minerals claims area, McCoy Creek and its tributaries flow north. Budy Creek flows north along the eastern boundary and Baker Creek flows north north-east along the western boundary.
Numerous small lakes, ponds, and swamps are located within and/or adjacent to the area of interest.

Based on existing water well data, adequate supplies of domestic subsurface water may be obtained from depths generally less than 150 meters and possibly from undeveloped springs in the headwater areas of the many drainages.

Water for an envisioned mining and milling operation may be attainable either from a direct source or through completion of holding reservoirs.

A South Kootenay Water Power Company regional electric transmission line

crosses to the north of the Orion International Minerals claims from south east to north west and the power line is paralleled by an Inland National Gas Co. natural gas pipe-line.

SUPPLIES, TRANSPORTATION and LABOUR

Supplies, manpower and equipment related to mining can be moved by general use vehicles and transport trucks along an excellent network of roads including paved Highway 3 and numerous improved gravel roads. The closest commercial airports are at Penticton 100 km northwest and Castlegar 170 km east.

Limited rail service is available but would involve truck haulage to and/or from the Okanogan, Castlegar or Trail areas. Commercial bus routes service the town of Osoyoos, B.C. 42 km to the west and the village of Rock Creek 10 km to the east.

Local supplies are limited generally to food goods and timber industry maintenance parts. The closest sources of major industrial supplies are the Kelowna and Kamloops areas to the north west.

PROPERTY HISTORY
LAPIN BARITE PROJECT AREA

Mineral exploration and development, within the Lapin Project area, commenced around the turn of the century with discovery of the McKinney Creek - Rock Creek placer deposits and mines of Camp McKinney. One of the early lode gold producing areas in British Columbia, Camp McKinney produced 82,000 ounces of gold, with the majority of the production coming in the years 1894-1904. Since 1904 various attempts to revive the camp have been made up until the present time. Camp McKinney lode gold deposits along with the placer gold occurrences of McKinney, Rice, and Rock Creeks are located along and near the north west boundary of the Lapin Project area.

South of McKinney Camp, minor turn of the century production was attained by direct shipping, hand sorted ore from the Dayton Fraction claim that anchors the copper-gold showings of the Dayton Camp prospects and the Victoria-Old England and Gold Standard mines that produced 560 grams of gold and 1430 grams of silver from 27 metric tons of ore from quartz veins and shear zones during mining activities from 1932 to 1934

In 1955, Mr. Brian Fenwick-Wilson, a prospector, first staked a nickel showing between the Rock Creek bridge and the Rock Creek-Bridesville road, now located within the RM 16 claim of the Orion International Minerals, and then restaked the ground in 1966. Since that time Newmont Mining Corp., Nickel Ridge Mines Ltd., and Utica

Mines Ltd., have carried out extensive exploration programs, including drilling that has outlined a minimum of 30,000,000 tons of 0.22% nickel and 0.015% cobalt that appeared to have sub-economic extraction recoveries.

Other small scale sporadic exploration programs, have continued through to the present time and have included the development of shafts, adits, and prospect pits for gold, chrome, molybdenum, and base metals. In more recent times exploration has centered around geochemistry and geophysics usually followed, where warranted, by small drilling programs.

In 1970 Gunnex Limited conducted a wide spaced Induced Polarization survey in the Dayton Camp area. This was followed in 1974 thru 1985 with geochemical and geophysical ground magnetometer and VLF-EM surveys by small companies and/or individuals with the primary objective of finding copper-gold mineralization.

From 1989 to 1990, Crownex Resources Ltd. carried fixed wing airborne magnetometer and VLF-EM surveys over the general area from Anarchist Mountain east to the village of Rock Creek and from the International border to 10 km north. In addition Crownex acquired a land position in the Dayton Camp area just north of the airborne survey. Two areas, the Ket 28 and Dayton Camp, were selected by Crownex for detailed geochemical and geophysical ground based programs followed by seven reverse circulation drill holes in the "Ket 28" area and fourteen reverse circulation drill holes in the Dayton Camp project.

In 1993, Gold City Resources drilled six shallow percussion drill holes at Ket 28 with limited success due to insufficient drill capacity. During this same year Winslow Gold and Northwind Ventures drilled fifteen holes in the Dayton Camp area with the same drill.

The most encouraging results from the 1989 to 1993 drilling at Dayton Camp are; Crownex's 1990 DC #7 hole with a total hole grade thickness (ft) product of 1.29 at a cut-off of .01 opt gold, DC #9 total hole grade thickness (ft) of 3.30 at a cut-off of .01 opt gold, and DC #14 total hole grade thickness (ft) of 2.89 at a cut-off of .01 opt gold. 1993 Gold City Resources LeRoi War Eagle hole intersected 16.77 meters of 1.16% copper from 3 meters to 19.8 meters. Winslow Gold-Northwind Ventures drill holes 93DC2-8 with a total hole grade thickness (ft) of 2.23 at a cut-off of .01 opt gold and 93DCP #7 that intersected 0.392 opt gold from 36.6-38.1 meters. South of Dayton Camp during the same time period, Crownex drilled a reverse circulation hole on their "Ket 28" project, numbered KT #1 which intersected 0.26 opt gold from 11 to 17 meters.

Previous industrial mineral exploitation was limited within the Lapin Barite Project area. Mighty-White Dolomite continues to mine and mill a sized product at its Rock Creek operations. Minor exploration and evaluation programs have been directed towards the siliceous meta-chert? outcrops along the Rock Mountain-Bridesville Road near the summit, and the sporadic outcropping of dolomite south of Rock Creek and south of Bridesville. Barite of unknown quality and quantity was discovered to occur

within the vicinity of the present Rock claims between Ket 28 and the Ana 2 claims in 1989 and 1990.

Very limited recent placer activity was noted along the Rock Creek and McKinney Creek drainages with no evidence of serious production efforts while windrowed piles of sand and gravel along the shores of the creeks attest to the intense historical placer mining effort.

REGIONAL GEOLOGY
(Figure #3a, #3b and #3c)

Permo-Triassic Anarchist Group rocks occur throughout most of the area of interest along the Lapin Barite Project area. The lithologies include amphibolite, greenstone, quartzite, argillite, chert, minor marble, quartz-chlorite schist, quartz-biotite schist, and serpentinite.

Kobau group rocks, similar in age to the Anarchist group, are found to the west of the area of interest where they are mainly comprised of amphibolite, greenschist, quartzite, chert, greenstone, and minor marble.

Nelson plutonic rocks of Jurassic-Cretaceous age consisting of: massive hornblende-biotite, granodiorite, quartz diorite, and granite, intrude the eugeosynclinal Anarchist Formation within the area of interest.

Smaller plugs, dikes, and sills? of biotite, granodiorite, diorite and granite, of Jurassic to Cretaceous age belonging to the Okanogan batholith, are found in the northeast and northwest corner of the claim block area. Additionally, younger intrusive bodies, mainly syenite, of Coryell age, cut Jurassic-Cretaceous intrusions.

Eocene age rocks of the Yellow Lake and Kitley Lake formation are found trending north-south in the north eastern part of the claim area and can in part, be traced to the south near the International border. These Tertiary rocks are composed of phonolite, trachyandesite, trachyte and a sequence of cobble conglomerate with minor sands.

Generally the Anarchist group rocks strike northwest and dip plus or minus sixty (60) degrees north east. Locally the dip and strike is highly variable due to folding and faulting. Tight folds were noted in the metasediment-metavolcanic sequences of the Anarchist rocks along with strong north east, north west and north trending faults. Within the northerly trending graben-like fault zones, minor east-west faulting was noted. Most of the faulting is attended by phyllitic to mylonitic fabrics, slickensides and/or brecciation.

MAP 1736A

GEOLOGY - PENTICTON

Scale 1:250,000

FIG 3a

PROPERTY GEOLOGY and MINERALIZATION STYLES

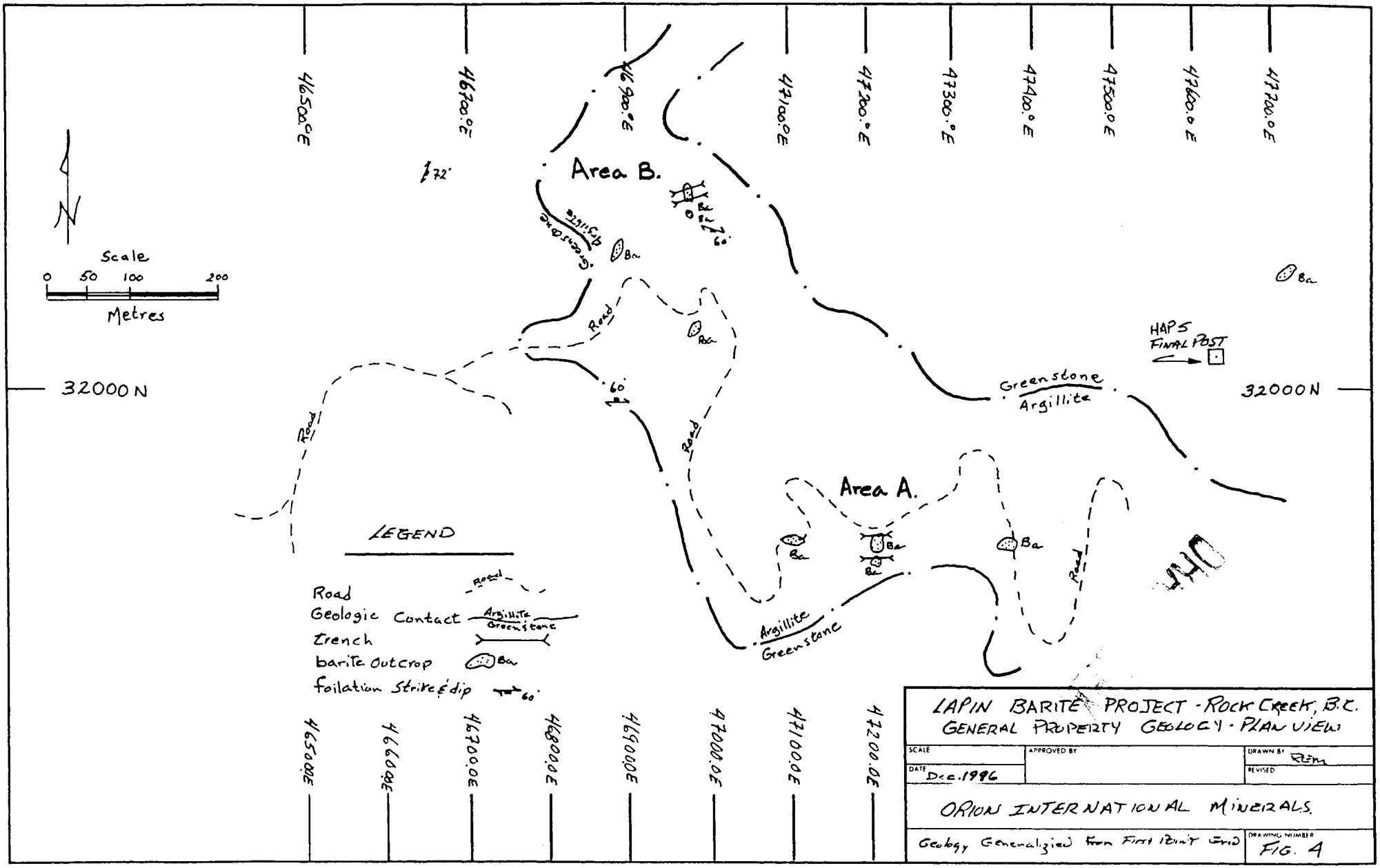
(Figure #4)

Within the Lapin Barite Project area. steeply dipping greenstones, greenstone schists, quartzites, cherts, argillites, and minor limestones of the Anarchist Group are found outcropping on the property. Locally the metasediment volcanic rock package is intruded by diorite, rhyodacite and feldspar porphyry. Along the western edge of the Lis #1 claim a highly foliated greenstone trends N15 E, marking what appears to be the west boundary of a zone of deformation that is generally oriented north-south and is approximately 1.0 kilometer in width. Propylitic alteration with abundant magnetite is present in the highly foliated greenstone. Chlorite, epidote, calcite, quartz veining and ankerite are also present. Some of the pyritic quartz veins, within the rocks of interest, were found to be gold bearing. Overlying rocks of the Eocene age Yellow Lake and Kitly Lake formations occur to the northeast of the property, and consist of mafic phonolite and trachyte to trachyandesite flows and clastic sediment, which have been displaced by northeast trending faults.

Geology in the RM Group consists predominantly of a metasediment and metavolcanic sequence of rocks belonging to the Anarchist Formation. Lithologies on the north end of the project area generally consist of massive quartzite, usually brownish white to pale green with chlorite partings and contains 2-15% sulfides, mainly pyrite. The quartzite is fractured and highly silicified. Minor serpentinite was also noted in the area of the massive quartzite. Both the massive quartzite and the serpentinite, host the Old Nik nickel orebody that occurs on the RM 16 claim of the RM Group. South of the nickel zone dark gray to black silicified argillite, with siltstone and greenstone outcrop. North-south, east-west, and north-west faulting has separated the metasediment-metavolcanic package of rocks into discrete blocks. Within and adjacent to the generally north-south trending fault zone, argillites, siltstone?, cherts, and metavolcanics are highly foliated, and locally fractured, bleached and brecciated with phyllitic to mylonitic fabrics. Free quartz occurs in this stratigraphy as: breccia matrix, veinlets, veins, breccia fragments and as discrete patches. The known strong gold showings are associated with this lithology and more particularly, a pyritic, silicified matrix supported tectonic heterolithic breccia.

West of this north-south tectonic belt, dark green to black greenstones with miner disseminated magnetite appear to be the predominant rock type, while to the east, propylitic greenstones with locally abundant magnetite outcrop.

Mineralization types within the Lapin Barite Project area include: precious and polymetallic quartz veins, mineralized shear zones and breccias, nickel rich silicified replacement ore bodies, base metal skarnification with minon precious metal content, disseminated base metal values in intrusive bodies and extensive barite veins hosted by argillites. The argillites that host the barite are highly graphitic and contain interbedded chert and greenstone. The barite appears to follow some of the structural features of the argillite suggesting a conformable layering of the barite which in turn could indicate a volcanogenic setting for the barite enriched system.


46500°E
46700°E
46900°E
47100°E
47200°E
47300°E
47400°E
47500°E
47600°E
47700°E
Area B.
Area A.
Greenstone
Argillite
Road
Ba
HAP 5
FINAL POST
32000N
Scale
0 50 100 200
Metres
LEGEND
Road
Geologic Contact
Trench
barite Outcrop
foilation Strike & dip
LAPIN BARITE PROJECT - ROCK CREEK, B.C.
GENERAL PROPERTY GEOLOGY - PLAN VIEW
SCALE
APPROVED BY
DRAWN BY
DATE Dec. 1996
REVISED
ORION INTERNATIONAL MINERALS
Geology Generalized from First Point Grid
DRAWING NUMBER
FIG. 4

General alteration patterns related to the mineralization are: massive silicification near the Old Nik prospect where sulfides occur in metaquartzite and/or metachert and/or siliceously replaced metasedimentary beds; hematite, manganese, epidote, magnetite, calcite, and thin quartz veining associated with propylitic greenstones and sheared metasediments generally correlate with the airborne magnetic highs and are closely related to precious metal pyritic breccia zones, extensive ankeritic quartz veining and bleaching near fault zones; hornfelsic development along granodiorite contacts with fine grained clastics at Dayton Camp and garnet skarn with massive sulfide was noted at both Dayton and South Dayton Camp.

WORK COMPLETED TO DATE

In the fall of 1996 geologic mapping of outcrops in the vicinity of known barite occurrences in and near the Rock claims on Orion's industrial mineral rights, was completed by First Point Capital along a precious metal soil grid. During this same period Orion completed detailed mapping and sampling of two significant barite outcrops within the soil grid. These two barite outcroppings are located on the map (Figure #4) as Area A and Area B were tested by limited trenching and core drilling in 1996 and by a more extensive core drilling program in 1997. The Orion exploration program on the Lapin barite project is supported by on going core logging, core splitting, analytical work, surveying and drafting.

RESULTS TO DATE OF THE WORK COMPLETED

(Figures #5, 6, 7, 8, 9, 10, and 11)

Barite, where observed in surface outcrops, in the trenching program and intersected in the drill holes, is hosted by graphitic quartz rich argillites. Relationships at the barite-argillite contact are inconclusive. The contact has been observed to be weakly silicified, subconcordant to concordant and in some cases, structurally controlled. Core recoveries in the area of the contacts is in some cases less than 70% further adding to the problem of discerning the geologic relationships at that point. Sulphides were not observed in the barite or at the point of contact with the argillite. Pyrite, megascopically visible in the argillite was not observed at the contact although iron oxide stain was present near the contact in both the argillite and the barite..

The barite itself varies in colour from; light whitish gray to gray and in some cases the barite shows relic banding of similar orientation ro the enclosing argilliltes. Silica content varies internally in the barite and some of the rare country rock fragments appear to show barite replacement. The northwest trending barite bodies appear to be tabular with variable dips, exhibiting both layered and replacement characteristics. There was no evidence observed that barite cross cuts its host rocks.

Field observations, drill hole data, and barium soil geochemistry support an east west (110 degree) structurally controlled thin barite zone hosted by graphitic argillites in

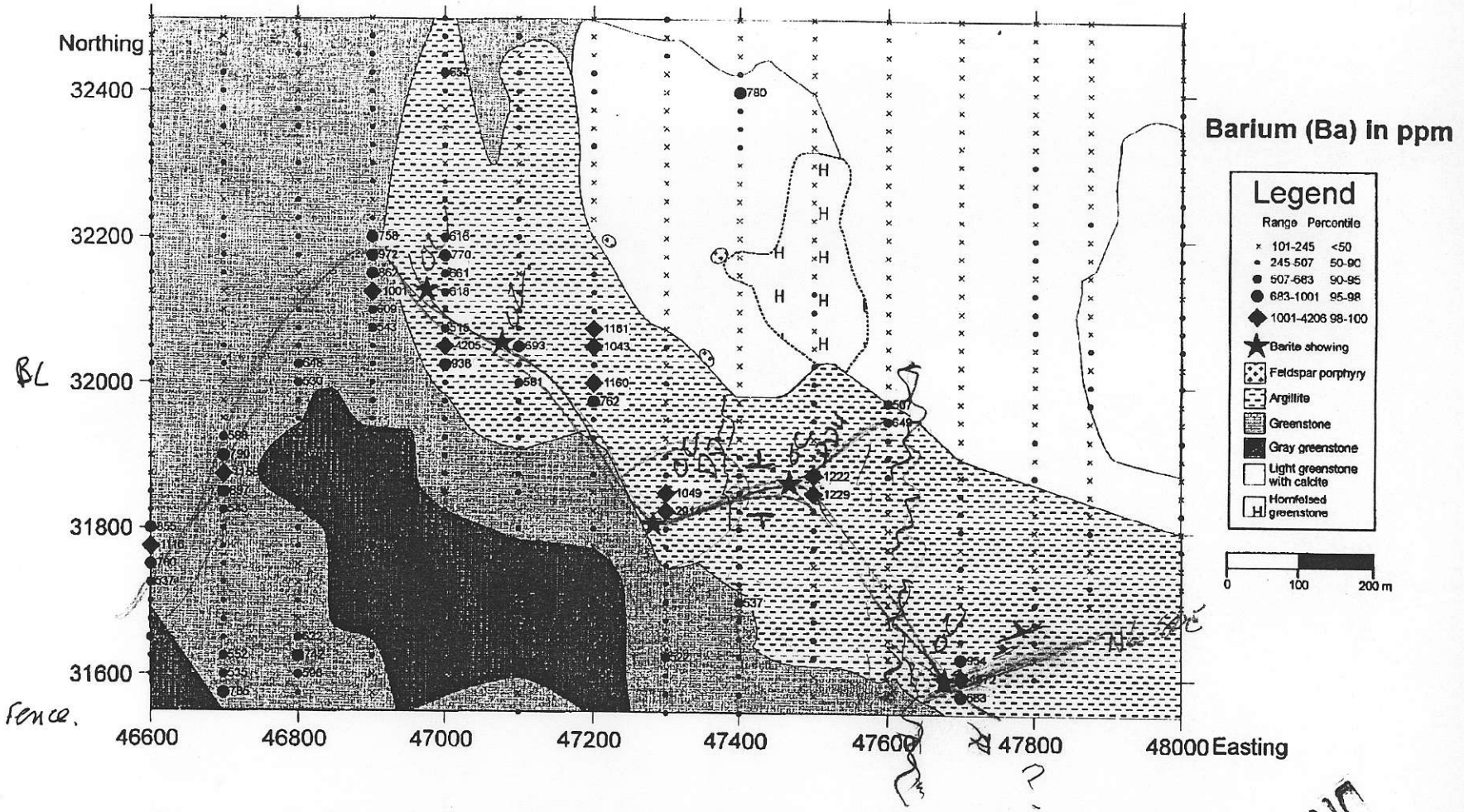


Figure 5 Soil geochemistry for Ba of the Rock Creek grid area, BC.

the southeastern part of the grid. Insufficient data has been gathered along this barite zone and additional investigation is recommended as it is possible this system may intersect the northwest trend which could result in the identification of larger locallized bodies of barite.

Soil samples collected along First Point Capitol's precious metal soil grid were analyzed for barium as part of a larger ICP 32 assay package. The barium results were plotted over the most recent geologic interpretation (Figure #5).

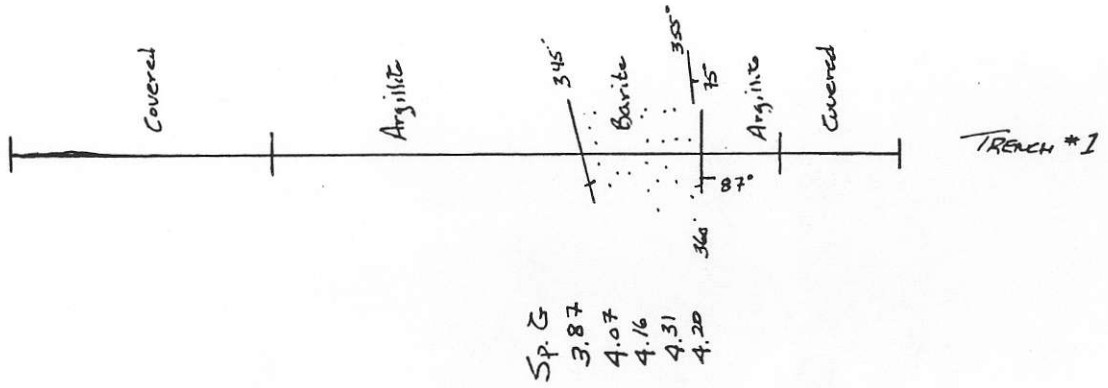
The anomalous barium values as plotted support the northwest trend observed in field mapping as well as the strong association between the barite and the argillite host rock, noting that at the northern end of the northwest trend the anomalous barite in soils appears to be associated with the argillite greenstone contact. The soils map also suggests a barium association with greenstones in the southwest part of the grid and support for the continuation of an east west trend that has been identified in trenching near the high grade barite outcropping trend at 47300E and 31800N.

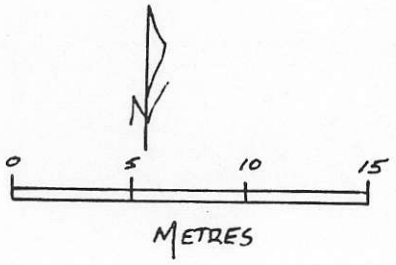
From the soil geochemistry map it is apparent that the grid needs to be extended to the south and west and some fill-in sampling may be required.

Four trenches were dug with an excavator; two in Area A and two in Area B. East-west trenching in Area A exposed a north-south contact between the barite and argillite along the east side of the barite body and the north 15 degree west poorly defined barite argillite westerly contact. A second trench twenty metres south of the first trench in an area of podiform like lenses of barite, revealed an east-west (90-110 degree) 0.5 metre wide barite body with possible strike extensions 100 metres west and 200 metres east (Figures #6 and #7).

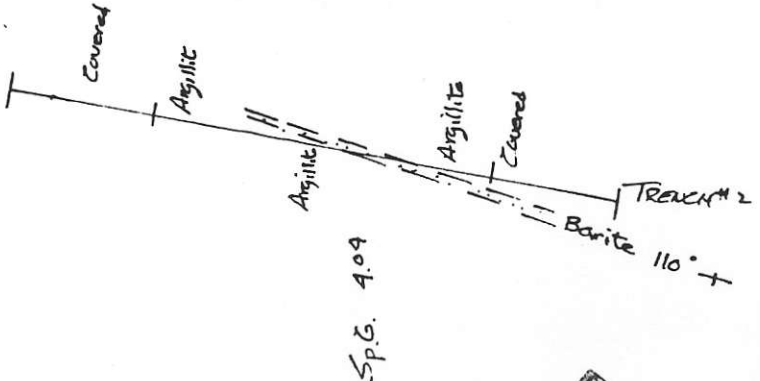
Trenches in Area B were dug along a north 70 degree east line to cross cut the postulated northwest trending barite bodies observed in outcrop. The two trenches are separated by 29 metres and both expose barite systems. Trench number one, the northerly trench, exposed barite along the east and west ends as well as the middle area of the trench. Trench two to the south, uncovered barite along the east end and the middle of the trench. The westerly barite exposure in trench one which did not appear to continue to trench two, was measured on the surface at four metres wide. The middle barite occurrence in both trenches tended to be narrow, measuring one half to one metre with steep dips. The easterly barite occurrence observed in both trenches was the most recessive and appeared to be four metres in width with northeast dips. In all cases the barite observed was hosted by graphitic argillite which appeared to be highly silicified between occurrences. The strike of the barite in outcrop and trenches appears to be northwest with steep dips to the northeast (Figures #8, #9 and #10).

Trenches in both Area A and Area B have been sampled and the samples sent to the laboratory for Trace Element analysis and Specific Gravity determination. The samples for which we have received results, have shown no detrimental heavy metal content. Results from select samples indicate the Specific Gravity is 4.2 or better meeting petroleum industry specifications. From observation of the silica content in the





PLAN VIEW

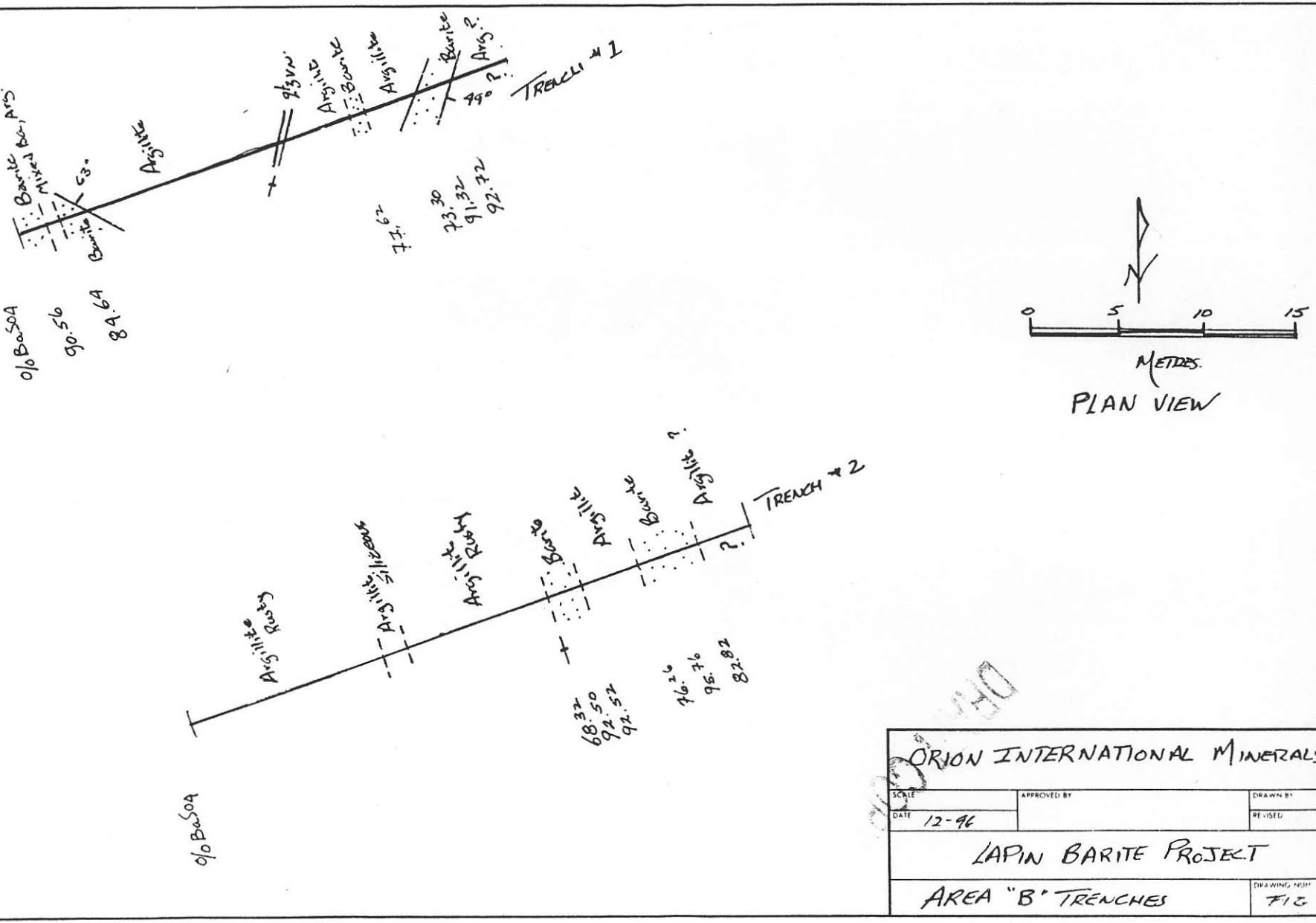


ORION INTERNATIONAL MINERALS

SCALE	APPROVED BY	DRAWN BY
DATE 12·96		REVISED

LAPIN BARITE PROJECT

AREA "A" TRENCHES — DRAWING N. FIG. 6



ORION INTERNATIONAL MINERALS

SCALE	APPROVED BY	DRAWN BY
DATE 12-96		REVISED

LAPIN BARITE PROJECT

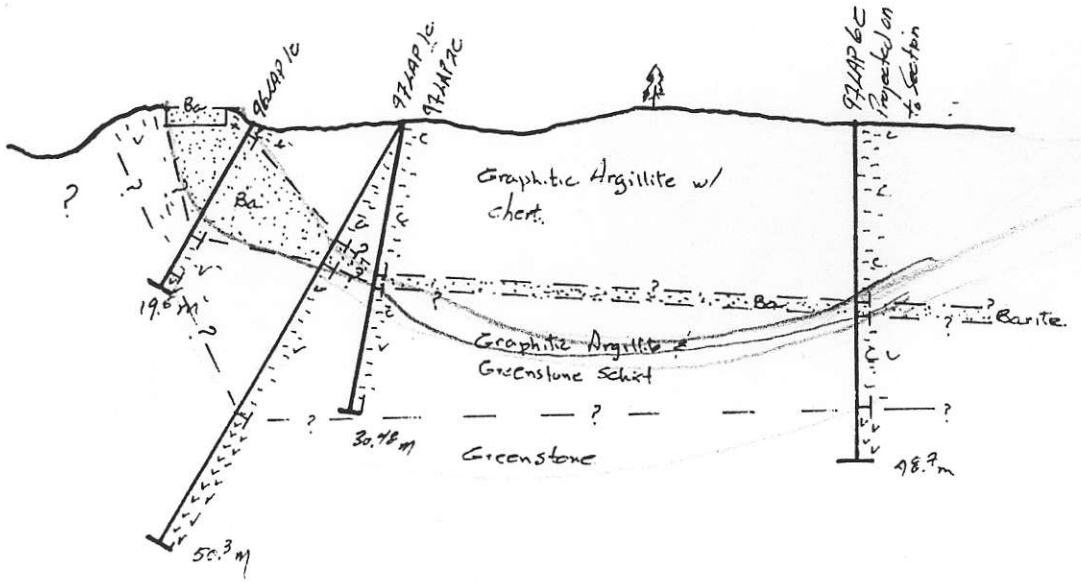
AREA "B" TRENCHES

DRAWING NUM. Fig 7

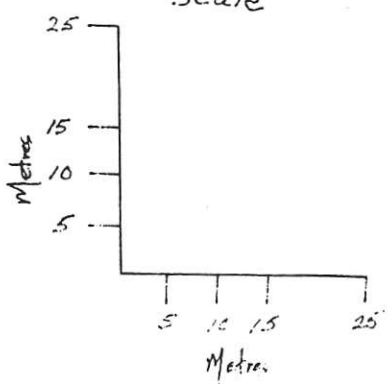
Looking North Area A.

WEST

EAST



Scale

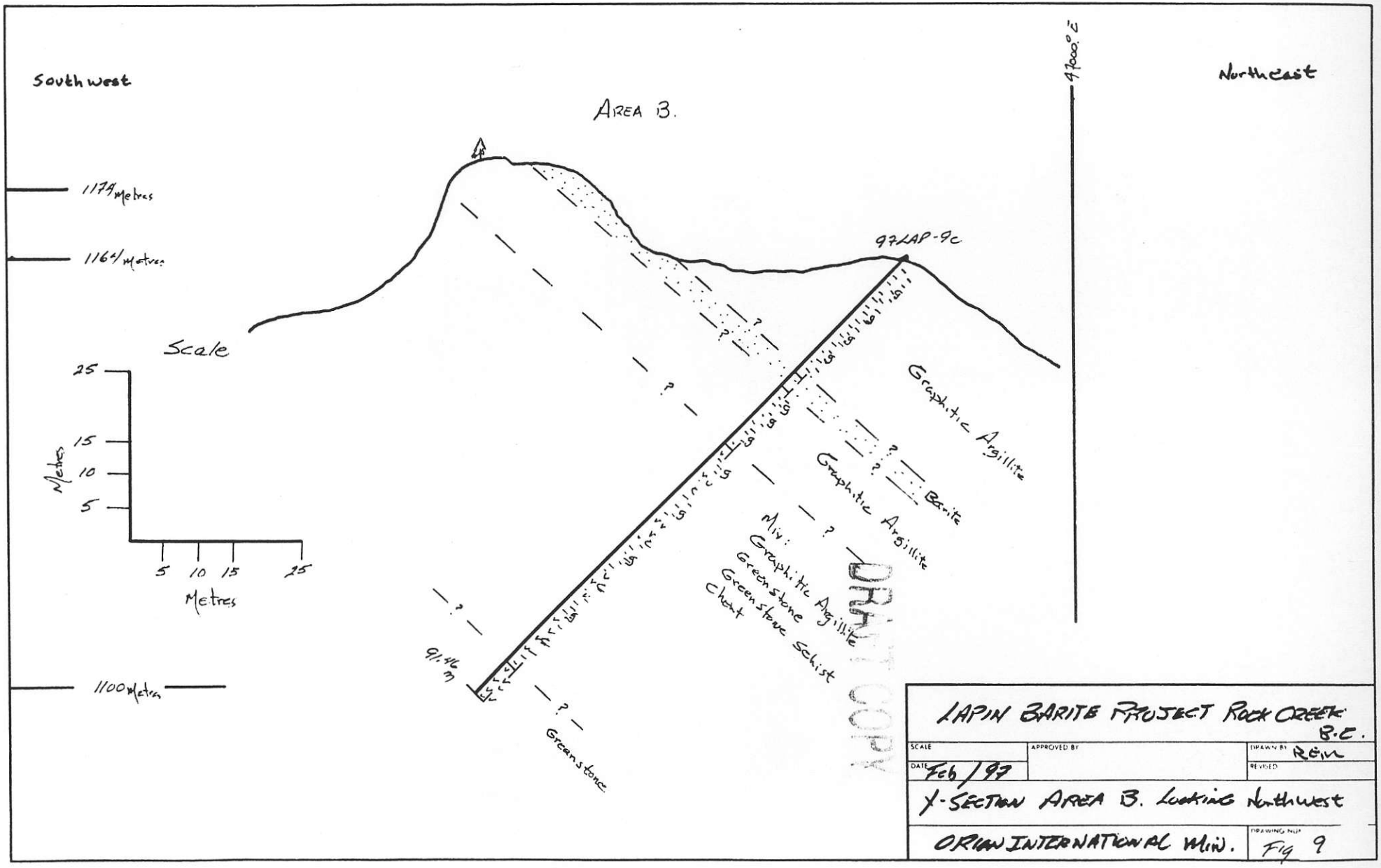


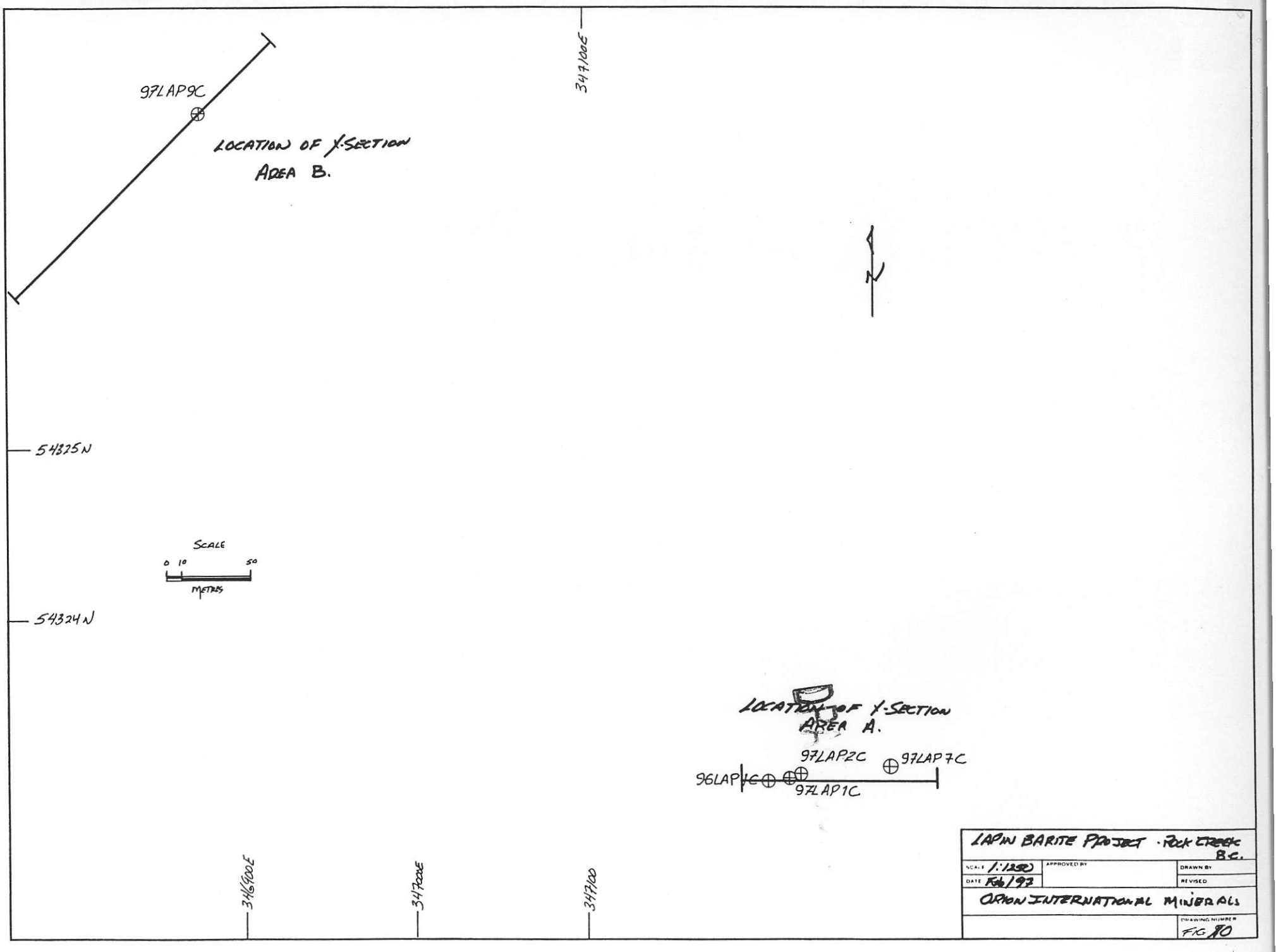
LAPIN BARITE PROJECT ROCK CREEK B.C.

SCALE	APPROVED BY	DRAWN BY
DATE Feb 1997		REVISED

X-Section Area A. Looking North

ORION INTERNATIONAL MIN. | DRAWING NO. Fig 8


South west
AREA B.
North east
4000.0 E
1179 Metres
1164 Metres
1100 Metres
Scale
25
15
10
5
Metres
5 10 15 25
Metres
97LAP-9c
Graphitic Argillite
Barite
Graphitic Argillite
Mix: Graphitic Argillite
Greenstone
Greenstone schist
Chert
Greenstone
LAPIN BARITE PROJECT ROCK CREEK B.C.
SCALE
APPROVED BY
DRAWN BY REM
DATE Feb/97
REVISED
X-SECTION AREA B. Looking Northwest
ORION INTERNATIONAL MIN.
DRAWING NO. Fig 9


347100E
97LAP9C
LOCATION OF X-SECTION
AREA B.
N
54325N
SCALE
0 10 50
METRES
54324N
LOCATION OF X-SECTION
AREA A.
97LAP2C
97LAP7C
96LAP1C
97LAP1C
346900E
347000E
347100
LAPIN BARITE PROJECT · ROCK CREEK B.C.
SCALE 1:1250
APPROVED BY
DRAWN BY
DATE Feb/97
REVISED
ORION INTERNATIONAL MINERALS
DRAWING NUMBER
FIG 10

barite it is suspected that parts of the barite system may have Specific Gravities less than 4.2 which would necessitate benefication to meet industry standards

Sixteen (16) core holes, four of which were BX and twelve of which were NQ, were drilled during the 1996-97 work program totalling 528.39 metres (Figure #11). Drill rates less than ideal and a change had to be made from a top driven hydraulic drill to a Longyear 38 in order to achieve acceptable penetration rates in the graphite quartz rich argillites. Diamond drill bit wear was excessive and some consideration should be given to a reverse circulation drill program prior to diamond drilling in future exploration programs. Core recovery rates were acceptable. Poor core recovery was noted when the barite argillite contacts were intersected.

Barite analytical data requested from the laboratory from the onset of the program has been for specific gravity, percent barite and ICP 32 geochemistry for trace elements. To date the percent barite has been acoeptable ranging from 65.92 to 95.94% and the ICP 32 geochemistry for detrimental metals has shown that the levels are well below acceptable limits. Initial sampling of barite from outcrops and drill holes has suggested that silica is the major contaminant.

The following tables list the assays received to date.

TRENCHING

AREA A Trench #1

Results of chip samples taken from east to west across 5 metres of exposed barite. May approximate width of body.

SAMPLE #	SPECIFIC GRAVITY
96LA - 100R	4.20
96 LA - 101R	4.31
96LA - 102R	4.16
96LA - 103R	4.07
96LA - 104R	3.87

AREA A Trench #2

Results of chip sample across 0.5 metre wide, 90-110 degrees striking barite body.

SAMPLE #	SPECIFIC GRAVITY
96LA – 105R	4.04

Note:

A surface sample collected from the Trench #2 area prior to trenching, assayed 47.70% barium and 15.28% SiO2.

DRILL HOLE SUMMARY - LAPIN BARITE PROJECT

HOLE NUMBER	DEPTH METERS	ANGLE DEGREES	BEARING DEGREES	LOGGED	ASSAYED	FROM METERS	TO METERS	NOTES
96LAP-1C	19.8	-60	270	X	X	1.52	15.72	
96LAP-2C	3.96	-60	270	X	WR	0	1.21	
96LAP-3C	1.21	-90		X	WR	0	1.21	
96LAP-4C	5.49	-60	270	X	WR	0.91	1.21	
97LAP-1C	50.3	-60	270	X	X	14.18	16.6	1132' el.
97LAP-2C	30.48	-80	270	X	X	15.85	16.77	
97LAP-3C	21.95	-45	270	X	WR	3.05	3.96	
97LAP-4C	30.48	-70	220	IP				
97LAP-5C	61.89	-45	220	X	X	8.08	8.69	
						13.72	14.18	
						14.94	16.31	
97LAP-6C	25.9	-60	220	X	WR	7.92	8.08	
97LAP-7C	49.69	-45	180	X	X	26.22	28.05	
97LAP-8C	150.3	-45	225	IP				
97LAP-9C	91.46	-45	225	X	X	24.08	26.83	
97LAP-10C	43.6	-45	315	X	X	35.4	35.98	
97LAP-11C	16.16	-60	180	IP	WR	0	13.12	
97LAP-12C	77.14	-45	225	IP				

WR = WAITING FOR RESULTS
IP = IN PROGRESS

DRAFT

Figure #11

AREA B Trench #1
Chip samples across three separate barite bodies sampled from west to east.

SAMPLE #	% BARITE
96LA – 1R	90.56
96LA – 2R	84.64
96LA – 4R	77.62
96LA – 10R	73.30
96LA – 12A	91.32
96LA – 13R	92.72

AREA B Trench #2
Grab samples from exposed barite in trench

SAMPLE #	% BARITE
96LA – 14R	68.32
96LA –15R	92.50
96LA – 16R	92.52
96LA – 17R	76.26
96LA – 18R	95.76
96LA – 19R	82.82

DRILLING

METRES From-To	DRILL HOLE NUMBER	SPECIFIC GRAVITY G/CC	% BARITE
1.52 - 2.74	96LAP – 1C	4.26	91.72
2.74 - 4.27		4.32	95.94
4.27 - 7.32		4.32	94.34
7.32 - 10.37		4.32	94.16
10.37-13.72		4.29	93.49
14.18 – 15.40	97LAP – 1C	4.17	88.22
15.40 – 16.62		4.33	94.08

15.85 – 16.77	97LAP – 2C	3.94	78.46
8.08 - 8.69	97LAP - 5C	3.75	69.06
13.72- 14.18		3.70	65.92
14.94- 16.31		3.92	76.34
26.22 – 27.13	97LAP – 7C	4.05	90.10
27.13 – 28.05	97LAP – 7C	3.35	68.20
24.08 – 25	97LAP – 9C		84.68
25.0 - 25.91			66.46
25.91 – 26.83			73.34
35.37 – 35.98	97LAP – 10C		71.22

Note:
Assays are pending for 96LAP 2-C, 3-C and , 4-C
97LAP 3-C, 6-C, and 11-C
The only significant result will be from 97 LAP 11-C from which the assay should mirror 96LAP 1-C.

RECOMMENDED EXPLORATION PROGRAM

A continuation of the exploration program is recommended to further evaluate the strong barite showing uncovered by the detailed geologic mapping and further substantiated by trenching and drilling. The continuing exploration program should begin with expansion of the present grid, moderate soil sampling program, expansion of the geology map, moderate prospecting program followed by trenching if deemed advisable. This would be followed by a Reverse Circulation drilling program and an NQ diamond drill program based on the information developed from the RC drill program. Minor time and effort should be expended on a preliminary evaluation for the potential for residual barite within the drainage pattern topographically below the barite outcroppings.

ESTIMATED COST OF THE RECOMMENDED PROGRAM

Stage I

Geologic mapping	$ 5,000.00
Gridding and soil sampling	10,000.00

Prospecting	2,000.00
Reverse Circulation drilling	45,000.00
Chip logging	5,000.00
Assays, field office and field expenses	15,000.00
Equipment rental	10,000.00
Exploration supervision and reports	25,000.00
Contingency	8,000.00
	$125,000.00

Stage II

Diamond drilling 600 metres	$45,000.00
Assays and field expenses	10,000.00
Engineering, supervision and reports	15,000.00
Contingencies	5,000.00
	$75,000.00

Estimated cost of the two-stage program	$200,000.00

The second stage of the recommended program would be contingent of the completion of, and favorable results from, the initial stage.

Respectfully Submitted

R.E. Miller P. Geo.
Geological Engineer

APPENDIX A
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REFERENCES

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