

ASSESSMENT REPORT

GEOLOGY AND LITHOGEOCHEMICAL REPORT

ON THE

FALCON PROPERTY

CLAIMS:	FALCON 1	RECORD NO. 261 (4)
	FALCON 2	RECORD NO. 7246 (8)
	FALCON 3	RECORD NO. 7247 (8)

FILMED

MINING DIVISION:	Omineca
N.T.S.:	930/11W
LATITUDE:	55°42.2' North
LONGITUDE:	123°20.4' West

OWNER & OPERATOR: RHYOLITE RESOURCES INC.

AUTHORS: Douglas J. Brownlee, Geologist
Steven F. Coombes, Geologist

DATE SUBMITTED:

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,839

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INTRODUCTION

A geological and lithogeochemical program was carried out on the Falcon property of Rhyolite Resources Inc. This program was carried out during the period of August 16th to 22nd, 1985 by Douglas J. Brownlee, Geologist, and Steven F. Coombes, Geologist.

The purpose of this program was to check the results of previous work done on the property and to ascertain any potential for enlarging the inferred reserves on the property. In conjunction with this, the program was to test for potential gold associations within the geological setting of the property.

LOCATION AND ACCESS (Figure 1)

The property is located approximately 40 kilometers north northeast of Mackenzie, B.C., within the Misinchinka Range of the Rocky Mountains. This is at latitude 55°42' N and longitude 123°20' W and is covered by N.T.S. sheet 930/11W.

Access to the property is by helicopter from Mackenzie, B.C., or from a logging road 7 kilometers to the west southwest of the property.

PHYSIOGRAPHY

The property is located at an elevation of approximately 1600 meters in the moderately rugged Misinchinka Range. The slopes are generally less than 40° with small localized cliffs and rounded ridge tops.

The property is located at the alpine-timber interface, with Falcon 1 generally in alpine and Falcon 3 in the tree line.

The summers are basically dry and warm, with cold winters and up to 4 meters of snow.

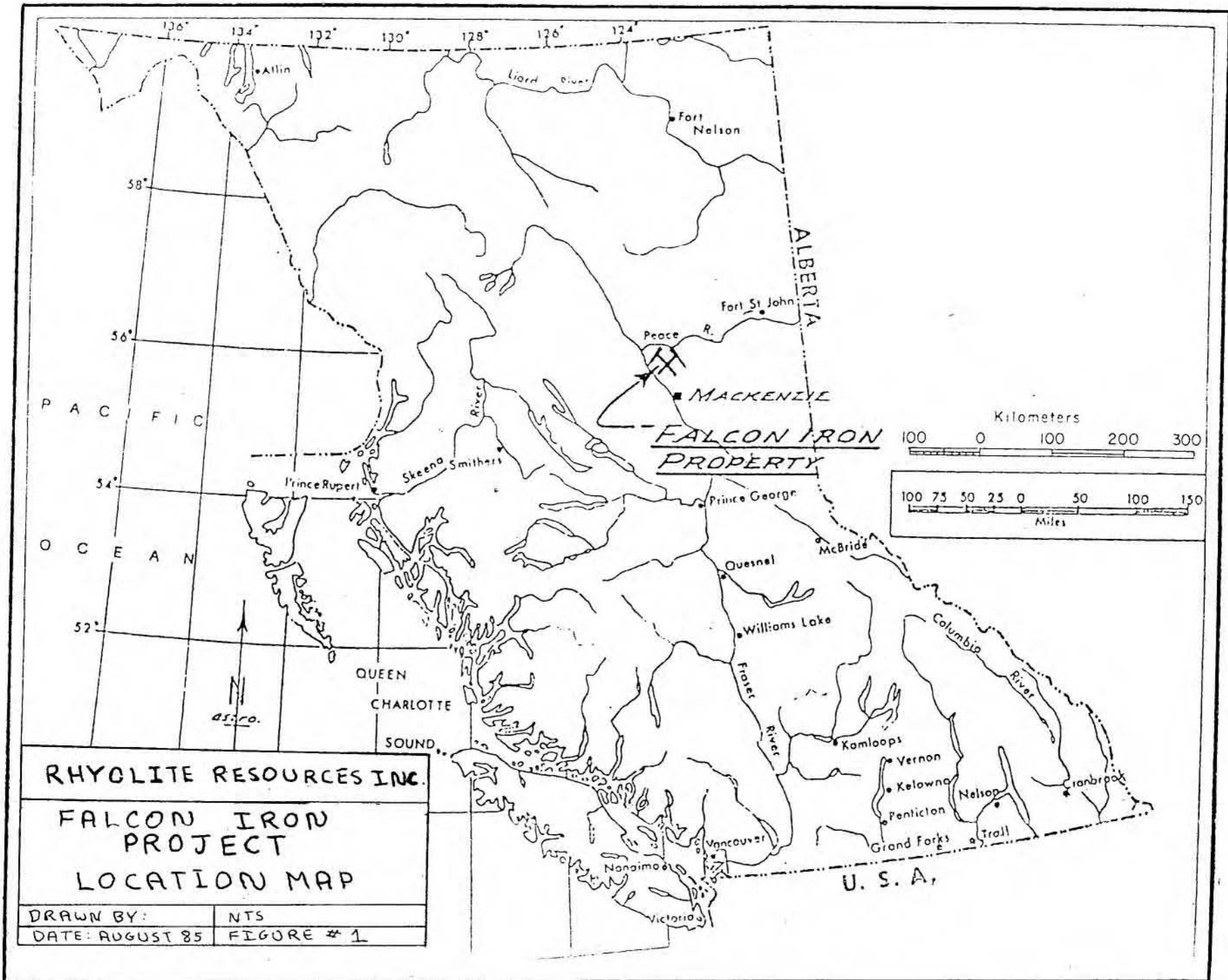


FIG. 1

PROPERTY (Figure 2)

The property consists of three four-post mineral claims, as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Valid Until</u>
FALCON 1	15	261 (4)	April 12, 1976	April 1986
FALCON 2	8	7246 (8)	Aug. 28, 1985	August 1986
FALCON 3	4	7247 (8)	Aug. 28, 1985	August 1986

The claims are located in the Omineca Mining Division and were recorded in Vancouver, B.C.

HISTORY

Prospector A. Potter discovered the Falcon 1 showing in August, 1975, and staked the original Falcon 1 and 2 claims in April, 1976.

Preliminary geological and magnetometer surveys were carried out between April and September of 1976 by Welcome North Mines and Ventures West Capital Ltd. These two companies optioned the property in July, 1976. Preliminary metallurgical tests were also run on some ore samples.

The property was then optioned by J. Sefel and Associates in October, 1978. An airborne magnetometer survey was flown at this time, resulting in the Falcon 3 discovery.

The Falcon 3 discovery was staked in the spring of 1979. R. Kemeny of Stokes Exploration Management Co. Ltd. carried out more metallurgical testing and a preliminary marketing study. J.G. Payne, geologist, Ph.D., supervised a detailed geological and magnetometer survey on the showings during the summer of 1979.

The property reverted back to A. Potter and lay dormant until 1983.

55° 45' N

CLAIM MAP

RHYOLITE RESOURCES INC

FALCON IRON
PROJECT

DRAWN BY: DJB

PTS 930 / 11

DATE: AUGUST 1985

FIGURE # 2

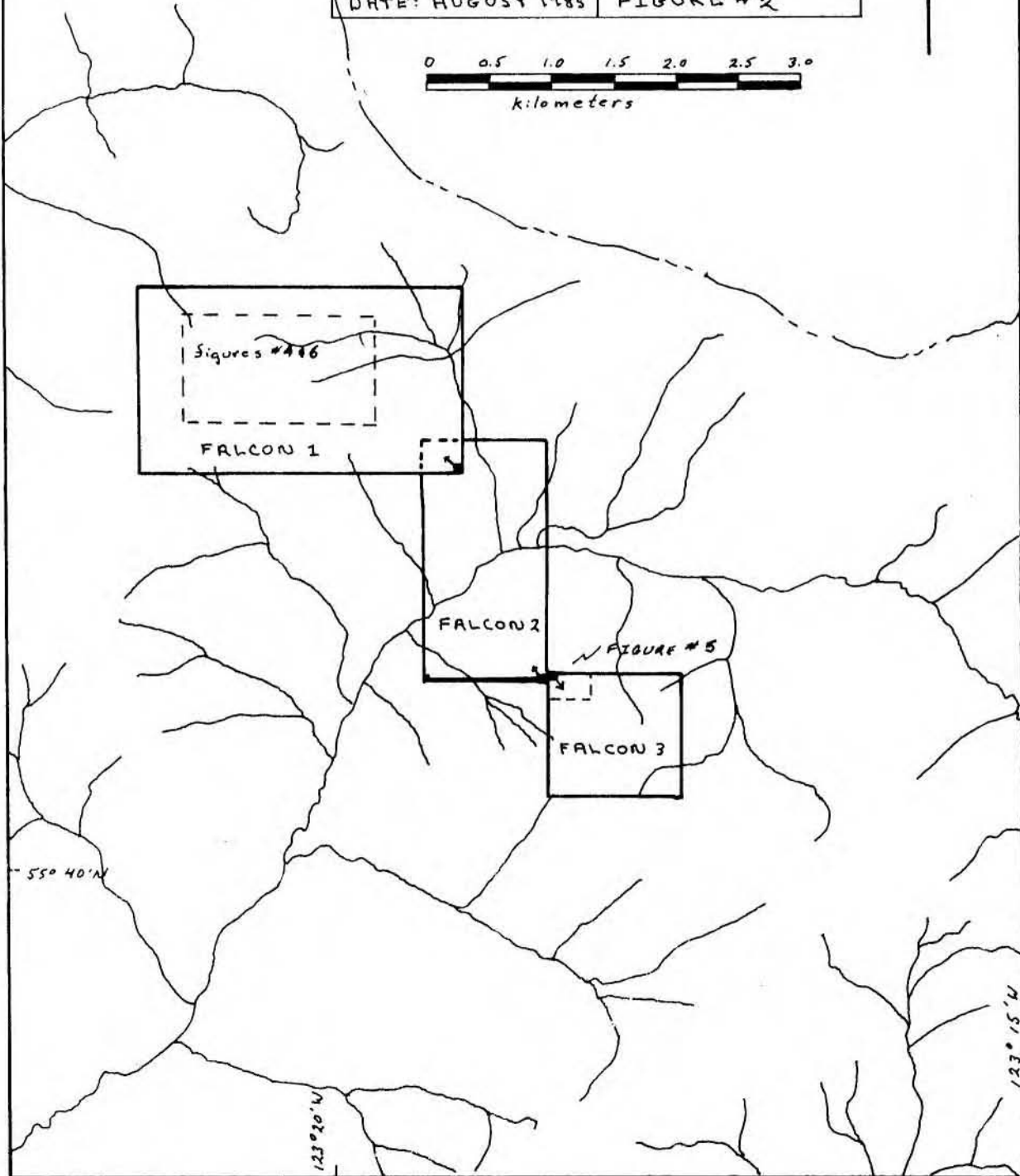


FIG. 2

Rhyolite Resources Inc. acquired 100% interest by Bill of Sale in July of 1983.

A 1.5 tonne bulk sample was taken from several test pits on the Falcon 1 in July of 1984.

REGIONAL GEOLOGY (Figure 3)

The Misinchinka Range is composed of clastic metasediments, with possible associated minor volcanogenic sediments of Upper Proterozoic age. These clastic sediments grade into a carbonate sequence and then grade back into another clastic sequence also of Upper Proterozoic age. This clastic-carbonate-clastic sequence forms the Misinchinka Group. Overlying this is a thick sequence of Cambrian carbonates. The rocks trend northwesterly and the major units can persist over 50 kilometers.

Structurally, the regional units have been folded into inhomogeneous folds with tight parasitical folds in the major fold limbs. These folds trend north northwest, with an overall gentle plunge to the southeast. A series of major thrust faults, generally low angle with an eastward overthrust, have displaced and stacked the gross sequence of rocks. Within the less competent clastic units of the Upper Proterozoic, a pronounced regional axial plane foliation has been developed.

PROPERTY GEOLOGY (Figures 4, 5, 6)

The area of the Falcon property is underlain by the Upper Proterozoic Misinchinka Group. The Misinchinka Group is divided into a lower and upper clastic unit with a middle carbonate unit. The Falcon property proper is underlain by the lower clastic unit. This lower clastic unit is the host for the iron formation found on the property.

J.G. Payne, in his work on the property, divided the lower clastic unit into seven subunits. Only the lower five subunits were recognized during the program carried out.



REGIONAL GEOLOGY

- Pm3 MISINCHINKA GROUP
Grey silty argillite, quartzite, siltite
- Pm2 limestone, dolomites, sandy limestone, quartzite, minor argillite
- Pm1 phyllite, siltite, diamictite, feldspathic quartzite, minor carbonate
- Geologic Boundary, assumed
- Thrust Fault
teeth on upthrust side
- Regional Fold
- syncline, anticline
- Normal Fault

RHYOLITE RESOURCES INC.	
FALCON IRON PROJECT	
DRAWN BY: DSB	NTS 930 NW
DATE: AUGUST 1985	FIGURE # 3

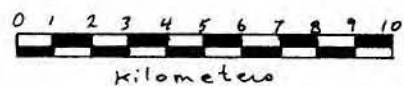


FIG. 3

Unit 1. Lithic-fragment mudstone

A medium grey to black phyllite (siltstone-mudstone) with abundant (0.5-1 cm) angular to flattened fine-grained sedimentary fragments. Pyrite cubes are locally common, as are quartz calcite blebs. The unit weathers a waxy light greyish brown to brown colour.

Unit 2. Tuff, tuffaceous siltstone-mudstone

A light to medium green tuff and tuffaceous siltstone-mudstone. Lithic fragments up to 1 cm are common. The contact with Unit 1 is generally sharp. Unit 2 shows increasing chlorite alteration and content of hematite and magnetite near its contact with Unit 3.

Unit 3. Iron formation

This unit was divided into seven sub-units:

- 1) magnetite-rich iron formation
- 2) cherty iron formation with 10% magnetite ± hematite
- 3) hematite-rich iron formation
- 4) banded iron formation of 1, 2 and 3
- 5) carbonate-rich iron formation
- 6) tuffaceous carbonate-rich iron formation
- 7) silicate facies iron formation

Sub-units 3-5 and 3-6 were not recognized during the program and sub-unit 3-7, as mapped on Falcon 1, was seen to be the same as the iron-rich Unit 2 mapped on Falcon 3.

Unit 4. Tuffaceous siltstone-mudstone

Similar to Unit 2. However, much fewer lithic fragments and the alteration at the contact with Unit 3 is minor compared to Unit 2.

Unit 5. Mudstone-siltstone

Medium to dark grey fissile mudstone-siltstone.

In a cursory examination, it is difficult to distinguish between Units 1, 2, 4 and 5. It is believed by the writers that Units 1 and 2 are the same, except for the chloritic alteration within Unit 2.

The contact between Unit 2 and the silicate facies iron formation (iron-rich Unit 2) is indistinguishable except by use of a hand magnet. This contact is also gradational with 1 to 2 cm bands of iron-rich rock interbedded with barren material grading to solid iron formation within 1 metre of the contact.

STRUCTURE (Figures 4, 5, 6)

A large scale regional anticline is the major structure underlying the property. This anticline trends northwest with a gentle southeasterly plunge. There are numerous close isoclinal parasitical folds on the major folds limbs. The fold axes trend 110-130° with a 20° SE to 20° NW plunge, but with an overall general plunge to the southeast. The axial plane dips 60-80° southwest. This parasitical folding has produced at least a 10x thickening of the iron formation in the nose of the fold.

This folding produced a well developed axial plane foliation (110-130°, 60-80° SW) which destroyed the bedding in the lower clastic unit, except for in the iron oxide formation.

A thrust fault underlies the Falcon 1 showing and overlies the Falcon 3 showing. The thrust is orientated 140-150°, 14-16° SW and is traceable over a strike length of 10 kilometers. The thrust shows an eastward hanging wall movement with the displacement not known, but not more than several hundred meters, if that much. The strike of the thrust fault is at 20-40° to the trace of the fold axis. This has produced a secondary set of fractures (\approx 060°-70° SE) with minor lateral displacement immediately above the major thrust.

MINERALIZATION

The iron formation found on the Falcon property is most likely of the Abitibi type.

According to Payne, the iron formation formed in a reducing environment within a basin (evidence from primary pyrite). Iron and silica were deposited within the basin via exhalative solutions (vent area was not located). The silica iron formation was deposited within the deepest portion of the basin followed by banded iron formation and magnetite facies. Within shallower, more oxidizing portions of the basin, the chert and carbonate facies were deposited.

The footwall sediments show an increase in chloritic alteration towards the contact and a similar increase in hematite, magnetite, quartz and pyrite. This alteration is most likely caused by interaction with the exhalative solution.

The iron formation depositional cycle occurred at least twice, with the major deposition occurring during the second cycle. A possible third period of deposition occurred later in the sequence and is hosted by Sub-unit 5. The period of deposition was very limited in scope, as now known.

LITHOGEOCHEMISTRY (Figures 4, 5)

A total of 22 rock samples was taken; eleven from Falcon 1 and eleven from Falcon 3. A total of eight samples were analysed by Acme Analytical Laboratories Ltd.

These samples were taken to confirm Payne's results with regard to tenor and grade of the total iron and total magnetic iron. These samples were also taken to test for any precious metal content within the iron formation and peripheral to the iron formation.

All samples are chip grab samples taken with a rock hammer and chisel. The samples were prepared by Acme Analytical and then analysed for thirty elements by geochemical I.C.P. analysis. In addition, all samples were run for gold by a preconcentration, fire assay and AA method.

The iron formation samples were assayed for total iron, phosphorus, and sulphur. The iron samples were then sent to General Testing to determine the total magnetic iron content.

The results obtained confirm the results of the 1979 sampling by Payne.

The average grade of the iron formation found on Falcon 1 is as follows (average of Payne and Rhyolite):

	<u>Fe_T %</u>	<u>Fe_M %</u>
Banded iron formation	38.7	30.1
Silica facies	29.3	15.6
Lower horizon	36.4	23.2

TONNAGE AND GRADE

Since the property was found, several estimates of tonnage potential have been calculated. Until Payne's work on the property, the basic assumption was that the iron formation was 20-30 meters wide and dipped steeply to the northwest. This led to estimates of 300-400 million tons potential. Payne's work showed that the iron formation was in the nose of a broad fold and therefore had no depth potential. Payne arrived at the following tonnage and grade estimates for Falcon 1:

Banded iron formation:	3.91×10^6 mt of 35-50% Fe _t	20-45% Fe _m
Silica facies:	4.23×10^6 mt of 22-30% Fe _t	12-18% Fe _m

With the work completed to date, the revised estimate of tonnage and grade was determined to be:

Upper Formation

Banded iron formation:	3.51×10^6 mt of 38.7% Fe _t	30.1% Fe _m
Silica facies:	4.29×10^6 mt of 29.3% Fe _t	15.6% Fe _m
<u>Lower Formation</u>	2.01×10^6 mt of 36.4% Fe _t	23.2% Fe _m

CONCLUSIONS

The Falcon property iron showing is an iron formation of the Abitibi type and has a potential tonnage of 10×10^6 mt of 30% Fe_t and 24% Fe_m on Falcon 1. Falcon 3 has a potential tonnage of 3.0×10^6 mt of 40% Fe_t and 30% Fe_m .

The potential for increasing the inferred tonnage on the property is slight. This is due to the structure of the property. In the nose of the fold, and on its immediate flanks, there has been at least a 10x thickening of the iron formation. On the limbs of the fold, this thickening would quickly disappear leaving an uneconomical thickness of iron formation in relation to the thickness of the overlying rock.

The testing for potential precious metal content within the system showed negligible amounts of gold and silver.

APPENDIX A

Rock Sample Description

Rock Sample Description

Sample No.	Location (UTM)	Description
FR-001	480737, 6170244	1 m chip sample, perpendicular to foliation. greyish blue subslate mudstone, no fragments noted, Subunit 1, hand specimen.
FR-002	480784, 6170225	1 m chip sample @ 60° to foliation. Medium greenish schistose rock, chlorite sericite alt., Sub unit 2, hand specimen.
FR-003	480787, 6170210	8 m chip sample @ 30° to foliation. Moderate number of 0.5-3 cm quartz vein. Sub unit 3. Hematite, magnetite, quartz, no sample between 4-5 m, analyzed, hand specimen.
FR-004	480818, 6170230	1 metre chip sample, quartz vein lense in Sub unit 3, analyzed.
FR-005	480835, 6170225	1 metre chip sample, perpendicular to bedding in Sub unit 3. Hematite chlorite hand specimen.
FR-006	480851, 6170198	1 metre chip sample, perpendicular to cleavage. Light greenish white weathering rock, 50% + chlorite, pyrite cubes, Sub unit 4, hand specimen.
FR-007	480883, 6170132	2 metre chip, Sub unit 3, almost pure magnetite, analyzed.
FR-008	480813, 6170116	Grab sample, Sub unit 3, magnetite, hematite, chlorite.
FR-009	480925, 6170123	Grab sample, Sub unit 3, magnetite.
FR-010	480954, 6170111	Grab sample, Sub unit 2, hematite, chlorite.
FR-011	480963, 6170095	1 metre chip, Sub unit 3, banded iron formation.
FR-012	479415, 6172235	1 metre chip, perpendicular to bedding, Sub unit 2, immediately below contact with Sub unit 3.
FR-013	479415, 6172235	1 metre chip, perpendicular to bedding, Sub unit 3, silica facies, immediately above contact with Sub unit 2.

Rock Sample Description (Continued)

Sample No.	Location (UTM)	Description
FR-014	479490, 6172185	1 metre chip, lower iron formation, perpendicular to bedding, analyzed.
FR-015	479170, 6172370	1 metre chip, perpendicular to bedding, Sub unit 3.
FR-016	479195, 6172375	1 metre chip, perpendicular to bedding, Sub unit 3, banded iron formation.
FR-017	478820, 6172460	1 metre chip, near centre of fold, Sub unit 3, banded iron formation, analyzed.
FR-018	478260, 6172865	1 metre chip, Sub unit 3, magnetite quartz.
FR-019	478215, 6172920	1 metre chip, Sub unit 3, magnetite quartz.
FR-020	478140, 6172920	1 metre chip, Sub unit 3, magnetite quartz, analyzed.
FR-021	478955, 6172580	1 metre chip, Sub unit 3, lower banded iron formation.
FR-022	478680, 6172715	1 metre chip, Sub unit 3, banded iron formation, analyzed.
FR-023	478685, 6172715	Grab sample, quartz veining, analyzed.
FR-024	478450, 6172780	1 metre chip, Sub unit 3, banded iron formation.

APPENDIX B

Geochemical Results

APPENDIC C

Bibliography

Bibliography

- Kemeny, F.L., 1979: "Falcon Iron Ore Deposit. Preliminary Evaluation Report for SEMCO". (unpublished)
- Muller, J.E., 1961: "Pine Pass. Preliminary Geological Map". G.S.C. Map 11-1961.
- Payne, J.G., 1979: "Geology Report for Sefel J. & Associates on the Falcon Property, Williston Lake Area, Omineca Mining Division". (unpublished)
- Sharp, W.M., 1976: "Preliminary Examination of the Falcon Iron Property, Pine Pass Project". (unpublished).
- Stott, D.F., McMechan, M.E., 1982: "Pine Pass (93-0) Map Area". G.S.C. Open File 925.

APPENDIX D

Itemized Cost Statement

FALCON PROPERTY

STATEMENT OF EXPENDITURES

ANALYSES

8 rocks analyzed for 30 element I.C.P.	@ \$ 6.00	\$ 48.00	
8 rocks " " Au (F.A., A.A.)	@ \$ 5.50	44.00	
8 rocks " " Fe, P	@ \$11.00	88.00	
8 rocks " " S	@ \$ 7.50	60.00	
6 rocks " " Fe (magnetic)	@ \$ 9.50	57.00	
8 rocks (sample preparation)	@ \$ 2.75	22.00	
			\$ 319.00

WAGES

Geological Mapping & Sampling (Aug. 12-23, 1985)			
D. Brownlee	12 days @ \$175/day	\$2,100.00	
S. Coombes	9 days @ \$175/day	1,575.00	
Research & Report Preparation (Aug. 2-10, and August 26 to Sept. 3, 1985)			
D. Brownlee	7 days @ \$150/day	1,050.00	
S. Coombes	6 days @ \$150/day	900.00	
			\$5,625.00

TRANSPORTATION

Helicopter	3.1 hrs @ \$450/hr	\$1,395.00	
	3.1 hrs @ \$ 52.60/hr (fuel)	163.06	
Truck Expenses (fuel, oil, etc.)		249.73	
			\$1,807.79

BOARD, LODGING & FIELD EXPENSES

Food		\$ 346.21	
Lodging	(2 nights @ \$38.52/night)	77.04	
Camp Gear	(2 man fly camp)	2,492.27	
			\$2,915.52

MISCELLANEOUS EXPENSES

Typing, reproduction, drafting expenses		\$ 165.50	
Engineering (Consultant's fees)		400.00	
Maps, Enlargements		391.39	
			\$ 956.89
TOTAL EXPENDITURES			\$11,624.20

APPENDIX E

Authors' Statements of Qualifications

STATEMENT OF QUALIFICATIONS

I, Douglas J. Brownlee, of North Vancouver, B.C., do hereby state that:

1. My address is 206 - 161 West 4th Street, North Vancouver, B.C., V7M 1H6.
2. I am a Geologist and have practised my profession since January, 1980.
3. I graduated from the University of Alberta with a B.Sc. degree with geology specialization in June, 1980.
4. I carried out the work described herein from August 12th to 23rd, 1985.
5. I hold no interest in the Falcon Property, nor in Rhyolite Resources Inc.

Vancouver, B.C.
September 16, 1985.



Douglas J. Brownlee,
Geologist.

STATEMENT OF QUALIFICATIONS

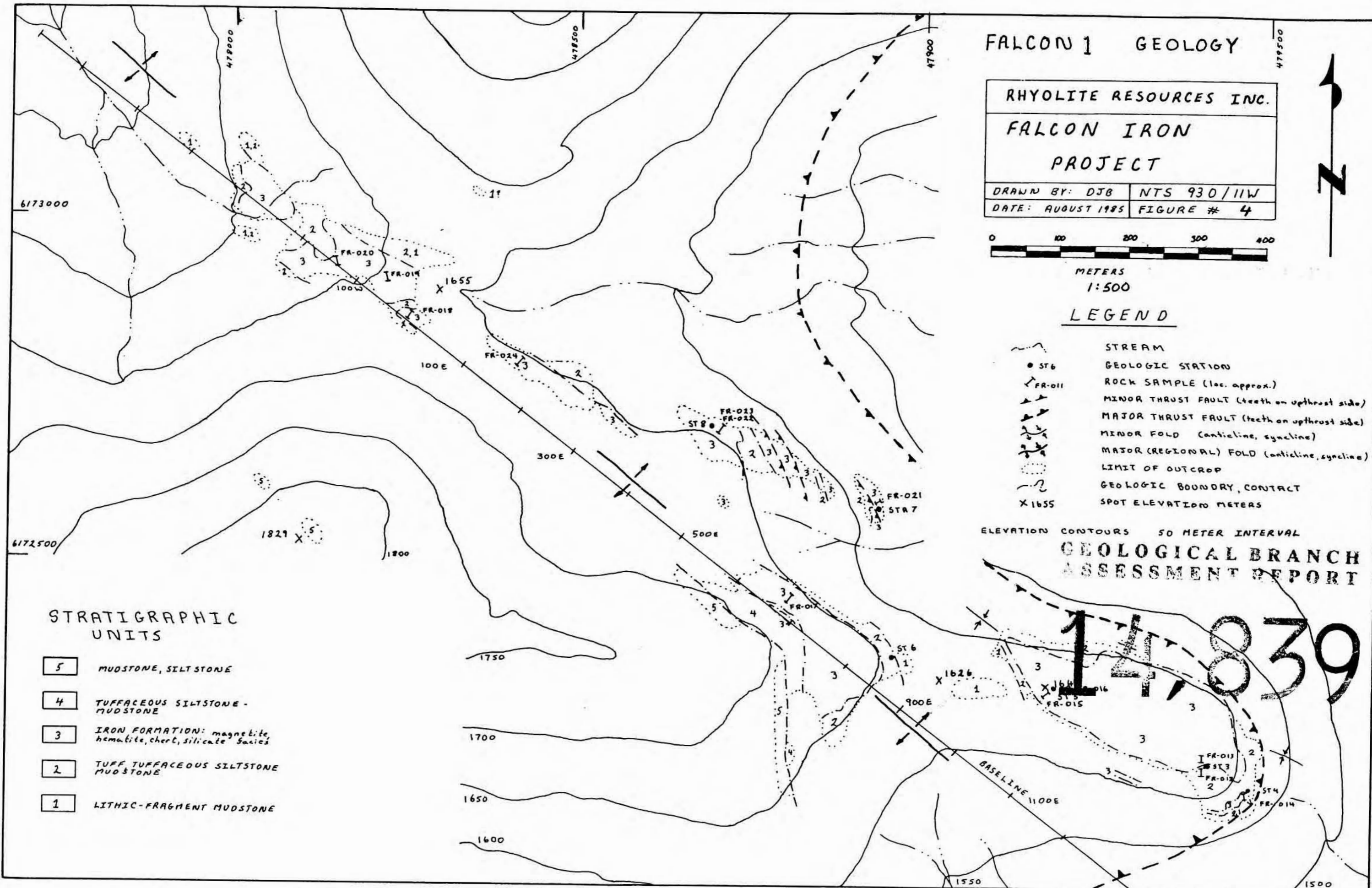
I, Steven F. Coombes, of Vancouver, B.C., do certify that:

1. I am a geologist employed by Rhyolite Resources Inc.
2. I am a graduate of the University of British Columbia with a B.Sc. degree (1983).
3. I have practised my profession in Western Canada for the past two years.
4. This report, prepared at the request of Rhyolite Resources Inc., is based on work that I performed on the Falcon claims during August, 1985.
5. I hold no interest in the Falcon Property, nor in Rhyolite Resources Inc.

Vancouver, B.C.
September 16, 1985



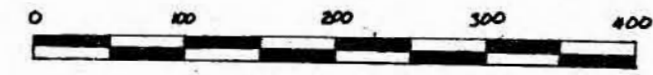
Steven F. Coombes,
Geologist



FALCON 1 GEOLOGY

RHYOLITE RESOURCES INC.
 FALCON IRON
 PROJECT

DRAWN BY: DJB NTS 930/IIW
 DATE: AUGUST 1985 FIGURE # 4



METERS
 1:500

LEGEND

- STREAM
- GEOLOGIC STATION
- ROCK SAMPLE (loc. approx.)
- MINOR THRUST FAULT (teeth on upthrust side)
- MAJOR THRUST FAULT (teeth on upthrust side)
- MINOR FOLD (anticline, syncline)
- MAJOR (REGIONAL) FOLD (anticline, syncline)
- LIMIT OF OUTCROP
- GEOLOGIC BOUNDARY, CONTACT
- SPOT ELEVATION METERS

ELEVATION CONTOURS 50 METER INTERVAL
 GEOLOGICAL BRANCH
 ASSESSMENT REPORT

STRATIGRAPHIC
 UNITS

- 5 MUDSTONE, SILTSTONE
- 4 TUFFACEOUS SILTSTONE - MUDSTONE
- 3 IRON FORMATION: magnetite, hematite, chert, silicate facies
- 2 TUFF TUFFACEOUS SILTSTONE MUDSTONE
- 1 LITHIC-FRAGMENT MUDSTONE

14,839

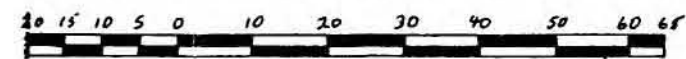
FIG. 4

FALCON 3 GEOLOGY

RHYOLITE RESOURCES INC.

FALCON IRON
PROJECT

DRAWN BY: DJB NTS 930/11W
DATE: AUGUST 1985 FIGURE # 5



METERS
1:1000

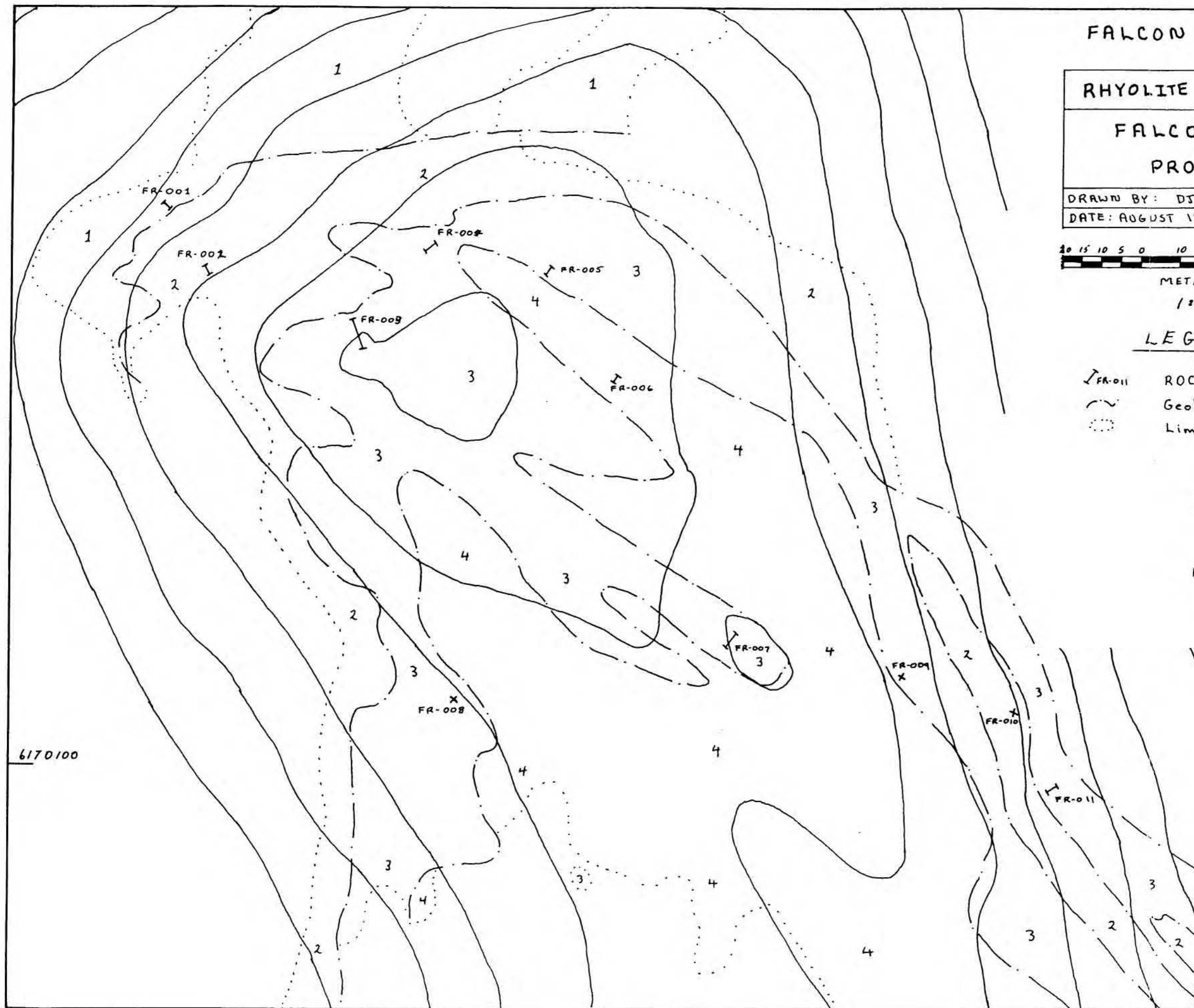
LEGEND

- ↙ FR-011 ROCK SAMPLE (loc. approx.)
- Geologic Contact Boundary
- ⊙ Limit of outcrop

14,839

STRATAGRAPHIC
UNITS

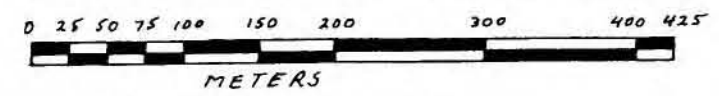
- 4 TUFFACEOUS SILTSTONE-
MUDSTONE
- 3 IRON FORMATION: magnetite
hematite facies
- 2 TUFF TUFFACEOUS SILTSTONE
MUDSTONE
- 1 LITHIC FRAGMENT MUDSTONE



6170100

RHYOLITE RESOURCES INC.
FALCON IRON PROJECT
 DRAWN BY: DJB NTS 930/11W
 DATE: AUGUST 1985 FIGURE # 6

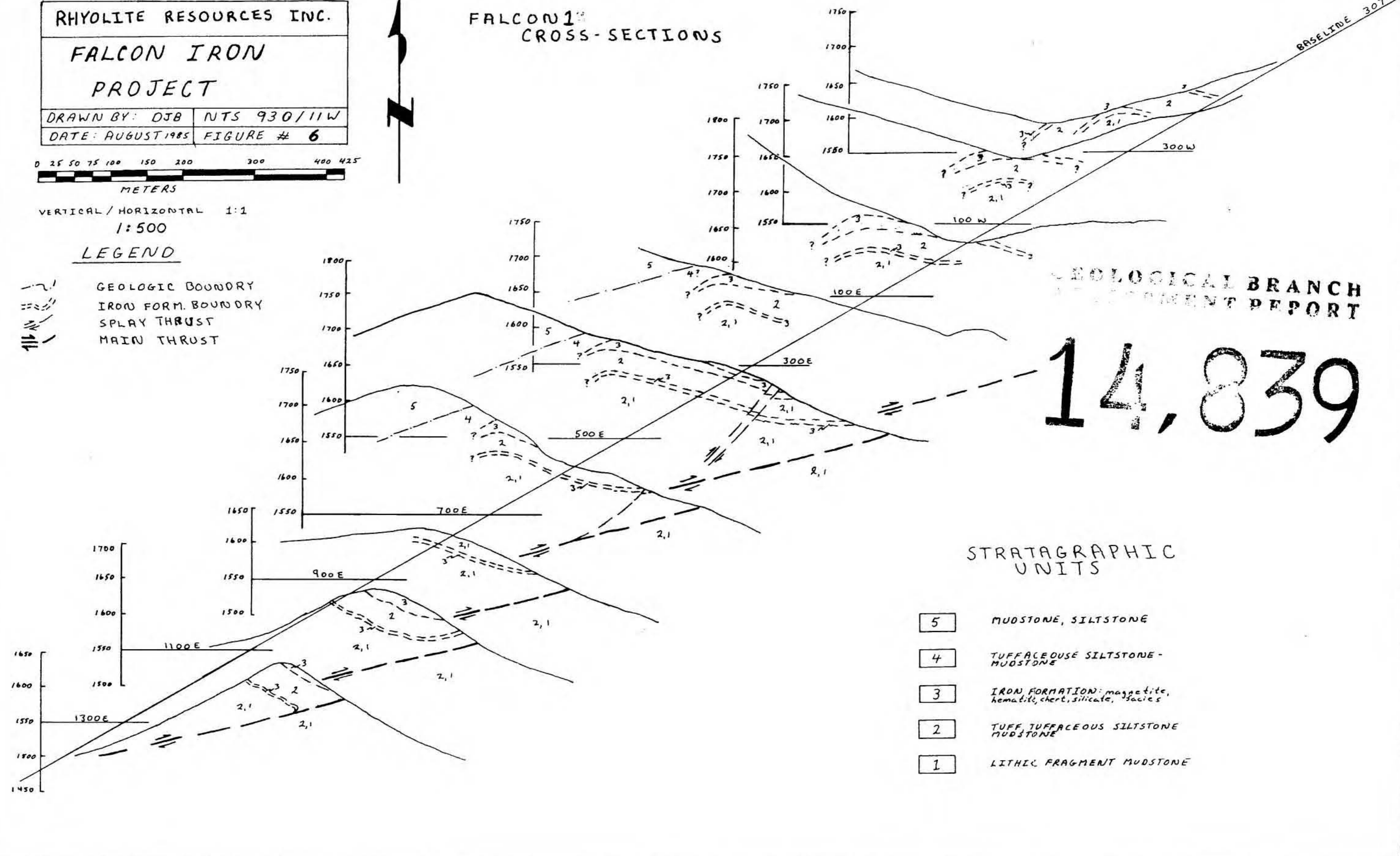
FALCON 1st CROSS-SECTIONS



VERTICAL / HORIZONTAL 1:1
 1:500

LEGEND

- GEOLOGIC BOUNDARY
- IRON FORM. BOUNDARY
- SPLAY THRUST
- MAIN THRUST



GEOLOGICAL BRANCH
 REPORT

14,839

STRATAGRAPHIC UNITS

- 5 MUOSTONE, SILTSTONE
- 4 TUFFACEOUS SILTSTONE - MUOSTONE
- 3 IRON FORMATION: magnetite, hematite, chert, silicate, facies
- 2 TUFF TUFFACEOUS SILTSTONE MUOSTONE
- 1 LITHIC FRAGMENT MUOSTONE

FIG. 6