03/85

GEOLOGICAL, GEOCHEMICAL, AND GEOPHYSICAL REPORT

Camp 1 and Rice 1 - 4 Mineral Claims

Latitude 49°05' North Longitude 119°05' West

N.T.S. 82E/3E

Greenwood Mining Division
British Columbia

for

REX SILVER MINES LTD.

GEOLOGICAL BRANCHER, Alberta ASSESSMENT REPORT

by

Gardon L. Wilson, B.Sc.

TAIGA CONSULTANTS LTD.

#100, 1300 - 8th Street S.W.
Calgary, Alberta T2R 1B2

February 10, 1984

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AUTHOR'S QUALIFICATIONS

- I, Gordon L. Wilson, of 60 Ranchridge Road N.W. in the City of Calgary in the Province of Alberta, hereby certify that:
- 1. I am a Project Minerals Geologist with the firm of Taiga Consultants Ltd. whose offices are located at Suite 100, 1300 8th Street S.W., Calgary, Alberta.
- 2. I am a graduate of the University of Alberta, B.Sc. in Geology (1977).
- 3. I have worked in the field of mineral exploration since 1973.
- 4. I have personally worked on the claims during the period from July 5 to July 12, 1983.
- 5. I have not received any interest, nor do I expect to receive any interest, directly or indirectly, in the property described herein nor in the securities of Rex Silver Mines Ltd. in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 29th day of February, A.D. 1984.

Respectfully submitted,

Gordon L. Wilson, B.Sc.

CERTIFICATE

- I, James Wilson Davis, of 116 MacEwan Drive N.W. in the City of Calgary in the Province of Alberta, hereby certify that:
- 1. I am a Professional Geologist with the firm of Taiga Consultants Ltd. whose offices are located at Suite 100, 1300 8th St. S.W., Calgary, Alberta.
- 2. I am a graduate of St. Louis University, B.Sc. in Geology (1967) and M.Sc. in Geology (1969).
- 3. I have practised my profession continuously for fifteen years.
- 4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta; and a Fellow of the Geological Association of Canada.
- 5. I have personally directed the exploration work carried out on the claims and described herein, during the period July 5-12, 1983.
- 6. I have not received any interest nor do I expect to receive any interest, directly or indirectly, in the property or the shares of Rex Silver Mines Ltd. in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 29th day of February, A.D. 1984.

Respectfully submitted,

James W. Davis, M.Sc., P.Geol., F.GAC

PERMIT TO PRACTICE
TAIGA CONSULTANTS LTD.

Signature

Date 14/15 Ft
PERMIT NUMBER 12/200

The Association of Professional En

Geologists and Googlessalaists of Alberta.

SUMMARY

During the period July 5 to 12, 1983, a preliminary exploration program was conducted, directed towards identifying extensions of known mineralization. Work done included examination and sampling of surface occurrences, reconnaissance geological mapping, rock sampling, and VLF-EM geophysical surveying controlled by a semi-reconnaissance grid.

In general, metasediments and metavolcanics dominate the northern half of the property while intrusive rocks dominate the southern half. A major fault trending north-south along Rock Creek has influenced the structural geology on the property. Several previously undocumented surface workings were examined and sampled. Most of the surface sampling of outcrop and workings was generally disappointing; however, the study indicated that there is potential in the area near the old Dayton-Gem Camp for the occurrence of precious metals. VLF-EM data indicated several weak conductive zones west of Rock Creek.

Additional exploration work is required to adequately test the potential of the area.

INTRODUCTION

In June and July 1983, a three-person crew carried out a preliminary exploration program on the Camp / Rice property near Camp McKinney. Initially, objectives were to test along strike from known gold occurrences by geophysical methods, and to sample all surface showings located. A semireconnaissance grid was established by flagged lines with 8.3 km of VLF-EM surveying completed. Thirty-seven rock samples and fourteen soil samples were collected and submitted for analyses.

Location and Access

The property is located immediately southeast of Camp McKinney, 11 km north of the Rock Creek bridge on Highway 3.

Access to the central part of the claims is via the Baldy-Canyon Bridge road. The Eldon road, which parallels McKinney Creek, provides access to the western part of the claims.

Property and Ownership

The property consists of three 20-unit claims, one 16-unit claim, and one 9-unit claim. They cover ground that was previously held under the names of Baldy 1-12 and Rice 1-6 (early 1970's) and Hag 1-4 (mid-1970's), now abandoned, by Canex Placer Ltd. The Camp and Rice claims are entirely owned by Rex Silver Mines Ltd. of Calgary, Alberta.

				Record	Date of
Claim	Size	Units	Located	Number	Record
Camp 1	4N24W	16 -	Feb.26/83	3677 -	Mar.29/83
Rice 1	4Sx5W	20 7		3667 ٦	
Rice 2	4Nx5E	20	Feb.26/83	3668	Mar.28/83
Rice 3	4Sx5E	20	reb.20/03	3669	Mai . 20/05
Rice 4	3Sx3W	_ 9_ _ J		له 3670	
		85			

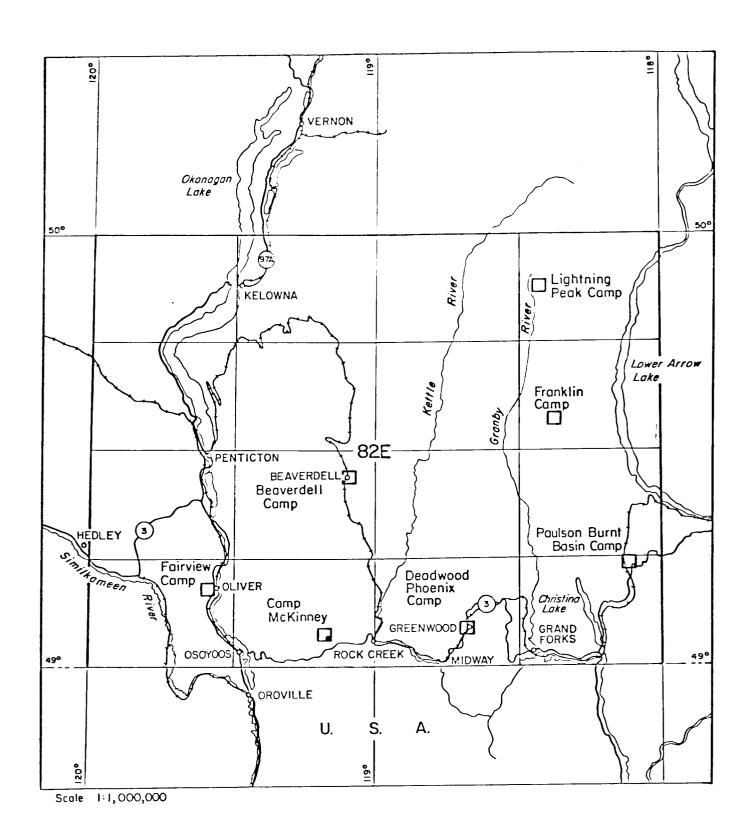
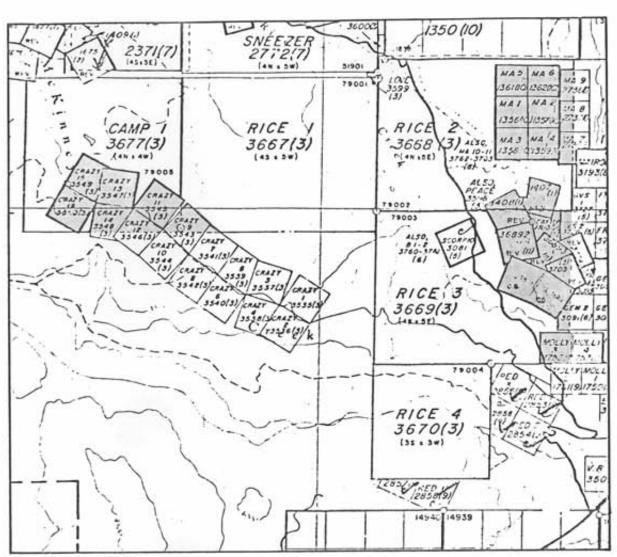


FIGURE 1
General Location Map



Scale 1:50,000

Area excluded from claim group due to pre-existing claims in good standing

Previous Work

The area where the claims lie has been held by various companies over the years. Of most importance, though, is the work done by Canex Placer Ltd., who held a portion of the ground in the mid-1970's. Over several years, work completed included reconnaissance geochemical stream sediment sampling, indicating the area was anomalous in gold and copper; detailed I.P., magnetometer, and VLF-EM surveying; detailed soil sampling; and geological mapping. Results indicated major VLF-EM anomalies in the northern and mid-eastern parts of the property. Other prominent conductors were located elsewhere on the claims and were recommended for trenching and drilling, most of which was never carried out.

REGIONAL GEOLOGY

Due to the presence of a great deal of glacial debris covering the area, compiling a regional geological picture has been difficult for many years. Most recently, however, geophysical data have been incorporated with earlier and present geological information resulting in a more detailed, clearer view of the area.

The property itself is generally uniform topographically, ranging from 780 metres around the Rice 4 claim, to 1500 metres ASL on the Camp 1 claim. The cover is light with jackpine and larch. Pockets of thick second growth are found in areas logged off 25 years ago.

Most of the Camp McKinney area is underlain by the metavolcanic and metasedimentary members of the Anarchist Formation. Within this metamorphic series, members vary greatly in character and composition due to the varying intensity of metamorphism and the original rock types. The sedimentary members consist of altered equivalents of quartzite, limestone, mica schist, and micaceous quartzite. The volcanics are mainly altered greenstones.

The quartzite is grey to green, commonly sheared, and contains considerable mica and in some cases graphite. The mica schist is dark in colour, consisting of similar mineralogy as the quartzite, but chlorite and mica are much more abundant. Graphite is commonly developed. The limestones are blue-grey to white in colour. The greenstones, highly sheared in places, are abundant and apparently represent the altered remnants of both adjacent intrusive and extrusive (dacite) types. All members in the area are folded and badly faulted. In the western part of the area, they are folded into an irregular overturned syncline; elsewhere, they strike northwesterly and dip steeply northeast.

To the south, these are flanked by a northwesterly trending belt of granitic rocks. The $1-3~\rm km$ wide body extends from the shoulder of Baldy Mountain in a southwesterly direction to the main highway at Rock Creek. The rocks are a grey, medium— to coarse—grained material with a granitic

texture. Examination under microscope shows some quartz, abundant plagioclase (andesite), and minor microcline. The ferromagnesian minerals are generally biotite and hornblende. The rocks fall into the general class of granodiorite to quartz-diorite, related to the Okanagan Batholith. As well, local(?) variations are apparently noted southwest of Camp McKinney. These intrusives have only limited development in the area, and contain abundant quartz, microcline, and muscovite resembling gneissic members of the Osoyoos Batholith.

The youngest rocks in the area belong to the Penticton Group, are of volcanic and sedimentary origin, and occur in the southeastern part of the region. They consist of the Marron and the Kettle River Formations, representing the bottom of the group composed of porphyritic andesitic lavas, dark green basalts, breccias, and tuffs.

Middle Eocene	Penticton Group	
	Marron Formation	Kitley Lake member - trachyandesite, andesite
	Springbok Formation	-chert breccia; polymictic conglomerate
Juro-Cretaceous	Okanagan Batholith	-granite, granodiorite
Permian	Anarchist Formation	-quartzite, chert, lime- stone, greenstone

PROPERTY GEOLOGY

Overburden covers a great portion of the property, and pasture lands exist on the Rice 4 claim. Aside from several isolated outcrops on the Rice 1 claim, the main exposures occur near Rock Creek. All of the regional units were observed on the property. Mapping is presented at a scale of 1:5000 on Map 1.

Anarchist Formation

These represent the oldest rocks under the property, consisting largely of metamorphosed sedimentary and volcanic rocks. The sedimentary members include quartzite, chert, and minor amounts of limestone.

Quartzite and chert are dominant and occur principally in the central part of the Rice 2 claim and the northeastern part of the Rice 3 claim.

They are green to blue, highly sheared in places, with weak but notable graphite development.

The volcanic members are chiefly altered greenstone, greenstone, and meta-andesite. The altered greenstone is a massive, light green chlorite-rich rock. It is soft and locally banded by thin layers of dark green chlorite. Adjacent to intrusive contact, it becomes carbonate rich. The greenstone unit is generally greenish-grey in colour, and is generally porphyritic in texture. It is strongly chlorite-altered throughout and contains 1% disseminated pyrite. The meta-andesite is dark grey in colour, is generally massive with local development of thin chlorite bands. Chlorite-rich zones have developed in areas where fracturing is intense.

Okanagan Intrusives

The oldest granitic rock intruding the Anarchist Formation are extensive sill-like bodies belonging to the main mass extending southwesterly from Baldy Mountain to the main highway at Rock Creek. These intrusions range

in composition from granite to granodiorite. The granitic tongues and bodies are thought to have originated from the same source as the ore solutions, and through the Dayton Camp form one of the main wallrocks of some of the fissure veins examined.

Penticton Group

In the extreme southeastern corner of the Rice 2 claim and in the northeastern corner of the Rice 3 claim are several exposures of the Eocene-aged Penticton Group. Two units occur here, one representing the bottom of the sequence, called the Springbok Formation; and the Marron Formation sitting unconformably above the Springbok.

Rocks belonging to the Springbok Formation consist of a dark chert breccia in the lowest part, overlain by a well-layered polymictic pebble and boulder conglomerate. Clasts and fragments are from pre-Tertiary beds and consist of black chert, chlorite schist, greenschist, and feldspathic andesite.

Marron Formation rocks are represented by the Kitley Lake member, consisting of massive trachyandesite and andesite.

These rocks are down-faulted and tilted to the east, and form the western edge of the Rock Creek Tertiary Outlier.

ECONOMIC GEOLOGY

The claim group lies adjacent to Camp McKinney and enclosed several Crown grants covering the Dayton and Gem deposits. The claims have the potential of hosting ore deposits similar to the Cariboo-Amelia which produced over 2.5 million grams of gold and one million grams of silver from 124,452 tonnes of ore.

The deposits of the Cariboo Mine consist of a vein type sulphide-gold structure striking east-west. It is a narrow "persistent" (Hedley, 1940) quartz-filled fissure mineralized with pyrite, chalcopyrite, galena, and sphalerite. It carries a vertical dip generally. It should be noted that the general strike direction indicated by the limited amount of VLF-EM surveying completed over the eastern area is in approximate agreement with the strike of the Cariboo and Dayton veins. The study of outcrops in the vicinity of this area is in favour of the theory supporting vein type mineralization, similar to the Camp McKinney deposits, may be the cause of the low-level anomalies.

Two periods of mineralization occurred in the area. The first occurred in the Jurassic or early Cretaceous, following the emplacement of the Okanagan Batholith and the Osoyoos Pluton. Magmatic solutions carrying Cu, Au, Pb, Fe, Mo, and Ag were forced upward along fissures and shear zones formed chiefly in the cover or pre-batholithic rocks and along formational contacts originating from the compressional stresses initiated by the intrusion. In this area, quartz veins were formed as a result of fissures filling and partly by replacement processes. Some of the examined quartz veins in the Dayton area conform strictly to the schistosity of the enclosing formations.

During the Eocene, these vein fissures experienced further fracturing due to the development of the graben structure to the east, and several sulphide deposits were locally enriched with gold, brought in by mineralizing solutions of the Coryell intrusion further to the east.

Thus, exploration targets on the claim group are fracture-controlled zones carrying massive sulphides.

VLF-EM SURVEY

A reconnaissance VLF-EM survey was conducted along the eastern side of the property in the Dayton Camp area. A grid was placed adjacent to the major deposits, interupted by existing Crown grants covering them. Good VLF-EM data were obtained over most of the area. Proximity of the gas line caused broadening of the nulls and a great deal of noise in the residual field strength readings. All readings were subjected to "Fraser Filtering".

Cross-overs became increasingly weaker and broader progressing west-ward, probably due to the increase in cover evidenced by the apparent thickness of eskers noted in the area, and no outcrop was found anywhere within the Rice Creek drainage basin.

A feature of the Anarchist Formation which is geophysically important is that these rocks are highly variable in composition and consequently are highly variable in electrical conductivity. This is due primarily to the intensity of metamorphism and deformation noted in this area. Some of the gneisses and greenstones contain graphite, which would cause some of the conductors. Some of the vein structures examined in the Dayton area contained larger amounts of graphite which could be responsible for the westerly trending EM signatures determined by the survey.

However, not all EM anomalies within the Anarchist Formation can be attributed to graphite, as a traverse run over the Dayton - Gem deposit area detected a strong anomaly where known vein type sulphide and gold deposits exist and strike roughly east-west. The fact remains that the strike direction indicated by the limited VLF-EM survey basically agrees with that of both the Cariboo vein and existing vein structures in the Dayton area.

The results of the survey are presented at a scale of 1:2500 on Maps 2 and 3.

GEOCHEMISTRY

Rock and soil sampling was restricted to existing occurrences and newly defined mineralized zones. Old workings found on the property were manually cleaned, and mineralized sections were sampled. Many of the workings were badly slumped in, making effective sampling of various structures impossible.

In general, the analytical results were erratic and low. Marginally anomalous gold- and silver-in-rock values occured at:

Station	Au ppb	Ag ppb
GW-33	760	6100
AF-5	152	970
AF-2	142	760
AF-4	18	1580

Geochemical sampling of the Baldy - Rice showing in the northeastern corner of the Rice 1 claim proved to be ineffective, largely due to the depth of overburden. Ten trenches were found to be cut in an area of extremely thick till. All were badly slumped, and returned low values.

Occurrence I. Two relatively clean trenches were examined here, both developed in a highly fractured chert. Malachite and pyrite mineralization is noted to occur along a fault on fissure-controlled zone trending 40° and dipping 70°W. Narrow chert breccia zones have developed along strike. Cutting at 134° are a number of silicified fractures producing irregular zones of intensively fractured, sheared, and brecciated material. Silicification and chloritization are intense here. Fractures are quartz-breccia and quartz-carbonate filled, with all infilling material well hematized. Wallrock is altered to a chlorite-schist in places.

Occurrence II. This occurrence is located in the southeastern corner of the Rice 2 claim and is associated with a strong 80° trending fracture zone. The host rock is a highly sheared limey greenstone,

intensively fractured vertically at 20° and 80°. Quartz and quartzcalcite infilling of fractures has produced 2 - 4 cm veins which are variably mineralized with pyrite. Silicification of the wallrock is moderate to intense with 1% disseminated pyrite noted throughout. A narrow trench investigating this fracture system was mapped and sampled. Sample GW-32 returned anomalous values of 760 ppb Au and 6100 ppb Ag. Further to the east, an open cut, a short shaft, and a trench, all somewhat decayed, investigate the eastward continuation of the fracture system. The country rock is a highly fractured and brecciated chert. Narrow quartz stringers weakly mineralized with pyrite cut the country rock at various orientations. Another short shaft, approximately 150 metres southeasterly, investigates a narrow shear trending north-south, cutting a chlorite-altered limey greenstone lens within the main chert unit. Intensive cross-fracturing has produced irregular breccia zones containing malachite and pyrite mineralization disseminated throughout. This exposure appears to represent the northern extension of the north-south trending zone as it strikes northerly from a Crown-granted claim to the south.

Future geochemical surveying should be restricted to areas where bedrock exposures are abundant and geophysical surveying has identified potential zones of discovery of massive sulphides. As the prime targets are deep-seated fracture-controlled massive sulphide structures, geochemical surveys may still prove unsatisfactory compared to detailed geophysical surveying.

CONCLUSIONS

Limited geological investigations, geochemical sampling, and geophysical surveying have identified several marginally anomalous zones of interest, largely restricted to the eastern half of the Rice 2 and 3 claims. The western half of the Rice 2 and 3 claims and all of the Rice 1 and Camp 1 claims are underlain by thick glacial deposits rendering effective geochemical and geophysical coverage impossible.

Thus, better quality targets and the proximity to the Dayton Camp area argue in favour of concentrating efforts in this eastern region. The most favourable area for mineralization still appears to be along or adjacent to the Anarchist/intrusive interface. The presence of weak VLF-EM cross-overs in the eastern area of the property demonstrates that exploration for gold-bearing sulphides should be concentrated in this area. The search for massive sulphide (gold in pyrite) mineralization must unavoidably include the Anarchist rocks even though electrical methods are hampered by the presence of graphite. Thus, all VLF-EM targets would be favourable since massive and disseminated sulphide mineralization can occur within the graphite-rich zones.

RECOMMENDATIONS

- Detailed magnetic and VLF-EM coverage of the eastern part of the property, from the intrusion on the south to the top of the Rice 2 claim.
- 2. Cleaning of all existing workings, and systematic chip sampling of mineralized structures.
- 3. Detailed soil sampling over established geophysical grid, using 25-metre station intervals.
- 4. Sampling the bed of Rice Creek to a depth of 8 metres by power auger to determine if the overburden is economic.

BIBLIOGRAPHY

Cockfield, W.E. (1935): Lode Gold Deposits of Fairview Camp, Camp McKinney, and Vidette Lake areas, and the Dividend-Lakeview Property near Osoyoos, B.C.; GSC Memoir 179.

Hedley, M.S. (1940): Geology of Camp McKinney and of the Cariboo-Amelia Mine, Similkameen District, B.C.; BCDM Bulletin 6.

APPENDIX I

Analytical Techniques

14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7 (403) 276-8668

SAMPLE PREPARATION

Soil and sediment samples are dried and sieved through 80 mesh nylon screen (maximum particle size 200 microns).

Rock or drill core samples are crushed to approximately 1/8" in a jaw crusher, riffled to obtain a representative sample, and pulverized to 100 mesh (180 micron particle size).



14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7 (403) 276-8668

FIRE ASSAY/AA METHOD FOR GOLD AND SILVER PLATINUM AND PALLADIUM

Approximately 1 assay ton of prepared sample is fused with a litharge flux charge to obtain a lead button. The button is cupelled down to a precious metal prill which is then dissolved in aqua regia. The resulting solution is analysed by atomic absorption spectrophotemetry to determine the precious metals.

APPENDIX II

Geochemical Results



ANALYTICAL REPORT

Job # 83-238

Date

Client Project

Rice Claims

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	Sample	No.	Au	Ag	Cu		
			ppb	ppb	ppm		
AF 83	02	So	4	180	34		
	03	So	4	220	47		
	04	So	2	120	26		
	05	So	4	140	20		
MO 83	11	So	2	140	19		
	12	So	2	180	11		
	13	So	4	90	37 _		
GW 83	15	S	4	150	20		
	16	S	2	160	25		
	37-01	So	-2	180	33		
	37-02	So	2	80	47	•	
		•	ı				



ANALYTICAL REPORT

Job # 83-344

Taiga Consultants

Date Nov.21, 1983

Client Project BC-83-2

Page 1/1

Sampl	e No.	Au	Ag	Cu	Pb	Zn	
		dqq	ppb	ppm	mqq	ppm	
AF - 83	- 01	18	1580	340	1	53	
	02	142	760	230	1	32	
	03	26	1640	2600	4	87	
	04	26	170	210	-1	19	
	05	152	970	680	1	27	
	06	70	1040	1930	-1	75	1
MOD 11:	2 R	-2	210	27	-1	147	ŧ
MO 83	121	760	6100	2700	1	53	
MOD	124	38	270	19	-1	14	
	125	12	200	24	1	11	
	136	-2	150	14	-1	78	
	137	2	580	28	7	73	
MO 83	138	-2	160	9	220	111	
	139	-2	380	51	2	60	
	140	-2	140	60	-1	125	
MOD	141	-2	130	4	-1'	107	
MO 83	142	2	250	29	-1	270	
MOD	143	12	560	22	11	18	

APPENDIX III

Rock Descriptions

- AF-83-02 Trench sample, vein quartz material, fine-grained with 3-5% pyrite.
- AF-83-03 Grab sample from old slumped shaft on Rice 2; silicified, propylitically altered greenstone with some vein quartz developed. Well mineralized with pyrite, galena, and chalcopyrite.
- AF-83-05 Vein quartz, very fine-grained with 2% pyrite and minor galena and chalcopyrite. Sample collected over 2 metres in a trench that exposes a zone of intense shearing.
- MO-83-121 2 metre sample of highly sheared, silicified cherty greenstone. Sample collected over same structure as AF-83-05.

 Mineralization consists of disseminated pyrite, chalcopyrite, and malachite.

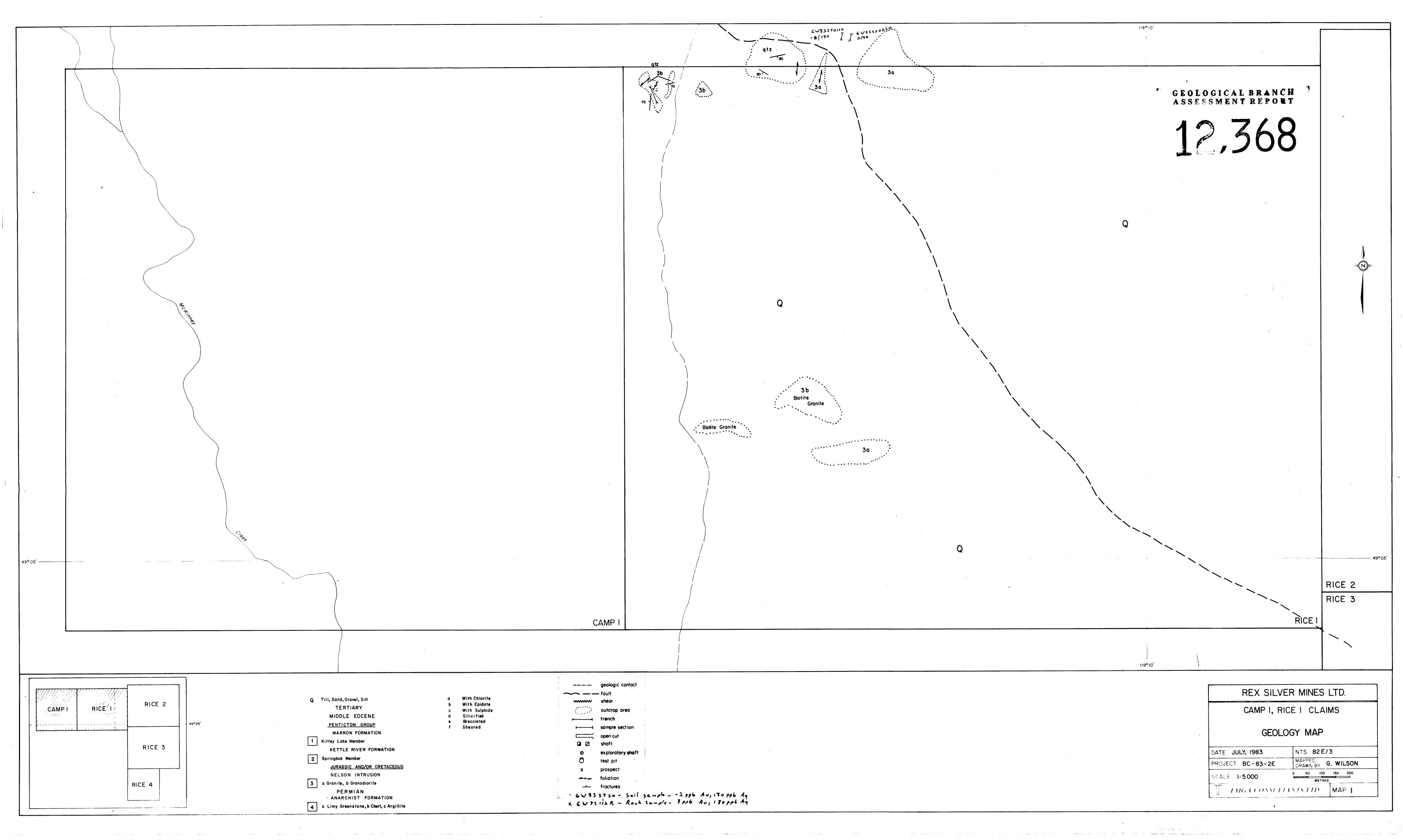
APPENDIX IV

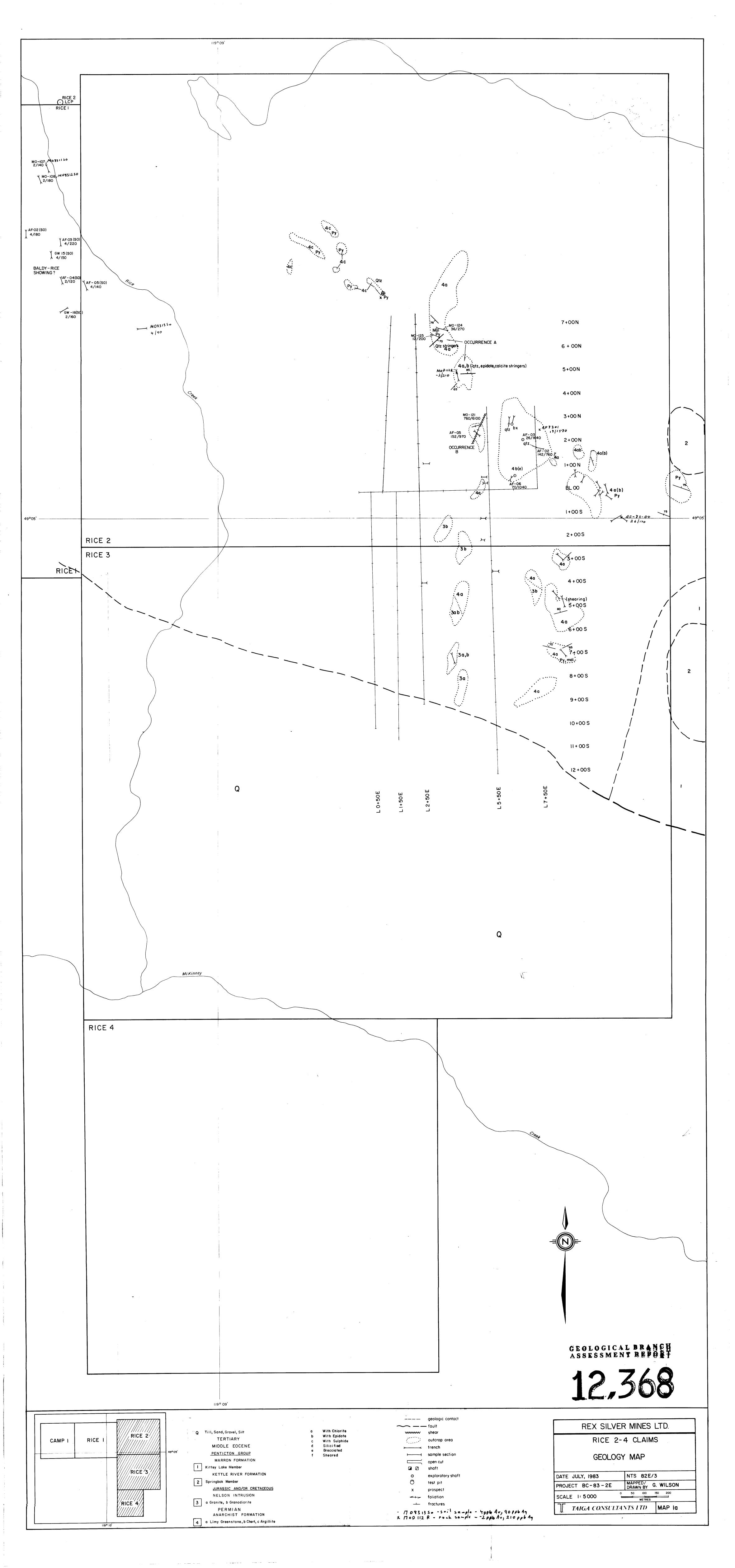
Summary of Expenditures

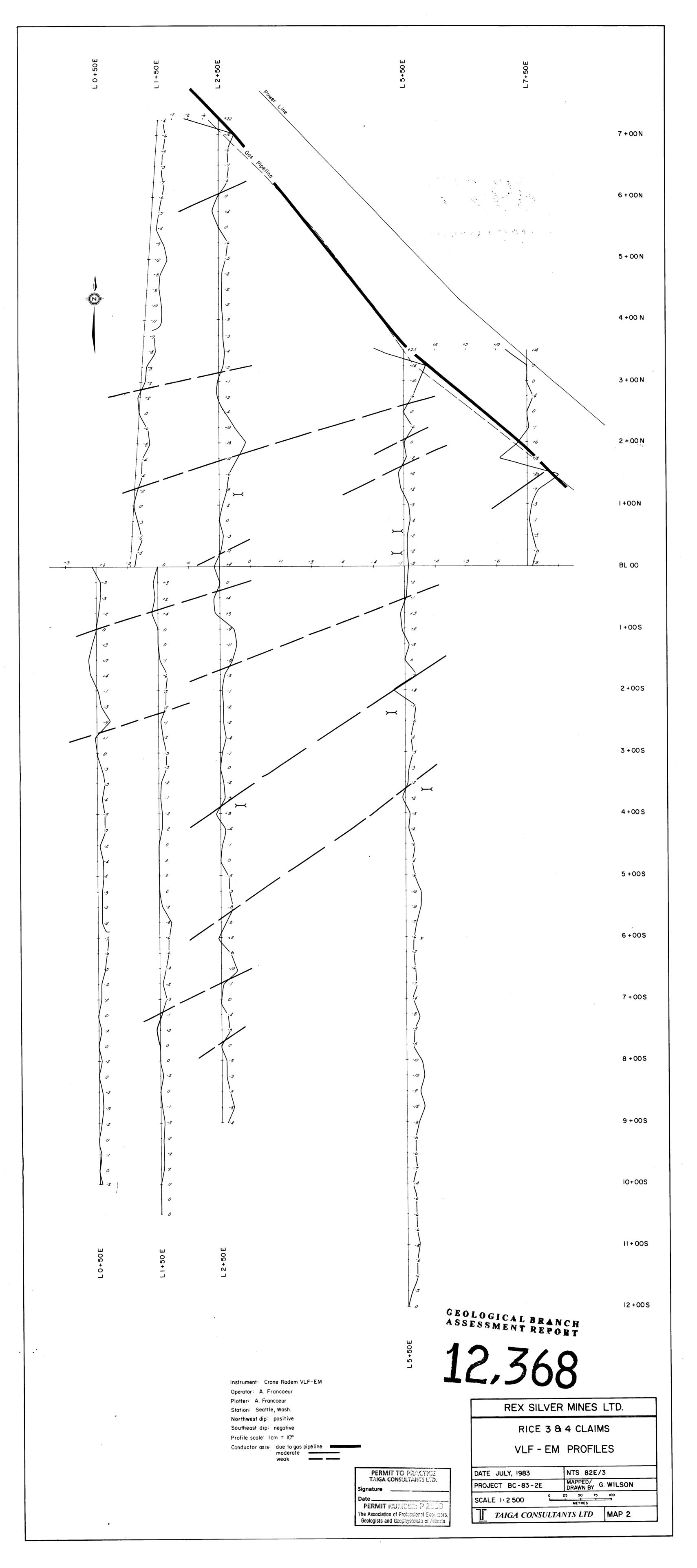
SUMMARY OF EXPENDITURES

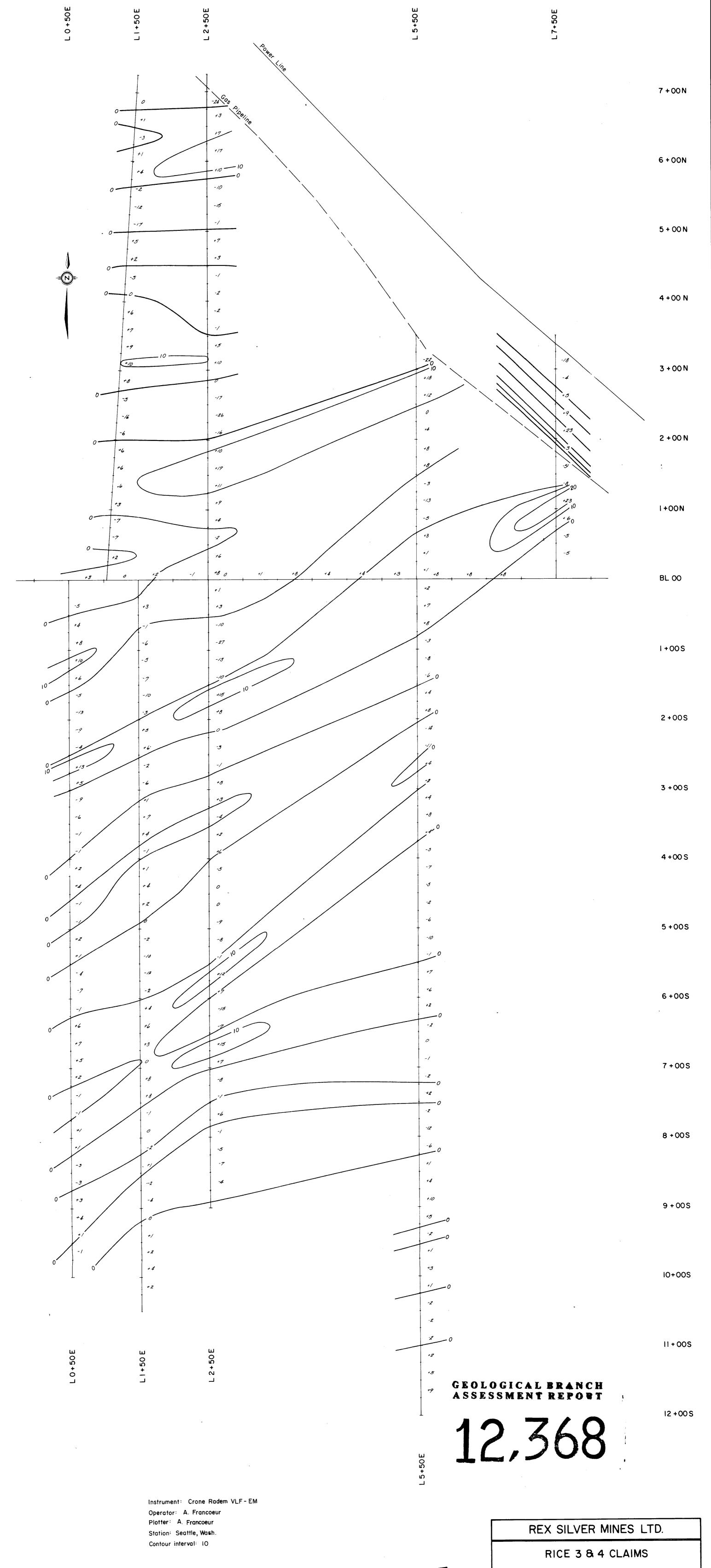
Rice 1 - 4 Claims and Camp 1 Claim Greenwood Mining Division

Pre-Field Preparation		644.00	
Field Personnel Project Geologist 6 days @ \$250/diem	1,500.00		
Junior Geologist 6 days @ \$175/diem	1,050.00		
Geological Technician 6 days @ \$150/diem	900.00	3,450.00	
Transportation and Travel			
Fuel and travel expenses	165.20 *		
4x4 truck rental 6 days @ \$65/diem	390.00	555.20	
Field Accommodation			
Food and lodging 18 man days @ \$40/diem	720.00		
Disposable supplies	70.00 *	790.00	
-Linear of Francis			
Geochemical Analyses			
Rock samples for Au, Ag, Cu, Pb, Zn 18 @ \$11.95	215.10		
Soil samples for Au, Ag, Cu 17 @ \$ 9.80	166.60	381.70	*
		ţ	
Equipment Rentals		1	
Crone VLF-EM 6 days @ \$15/diem		90.00	
Miscellaneous			
Reproductions, telephone, courier, etc.		10.85	*
neproductions, telephone, courter, etc.		10.03	
Post-Field Compilation			
Report writing, data compilation	2,037.50		
Drafting and secretarial	474.00	2,511.50	
	·		
Handling Charge on all third-party expenses	/	75 00	
12% of \$627.75		75.33	
	$ ext{TOTAL}$	\$ 8,508.58	











DATE JULY, 1983 NTS 82E/3

DATE JULY, 1983

PROJECT BC-83-2E

MAPPED/
DRAWN BY

G. WILSON

SCALE 1: 2 500

METRES

MAP 3