SAM PROPERTY

NECHAKO RIVER AREA, BRITISH COLUMBIA
NTS: 093F063 (093F12E)

Assessment Report:

MAGNETOMETER AND VLF-EM SURVEYS

Prepared for:

Southern Rio Resources Ltd.
1410 – 650 West Georgia Street
Vancouver, British Columbia
V6B 4N6

Report Prepared by:

Lindsay R. Bottomer
June 30, 2004

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APPENDICES

Summary

In January 2003, Southern Rio Resources Ltd.. ("Southern Rio") contracted with Scott Geophysics Ltd. ("Scott") to carry out ground magnetometer and VLF-EM geophysical surveys on Southern Rio's SAM Property located in the Nechako Plateau area of central British Columbia. The objectives of the surveys were to provide geophysical information in order to assess the mineral potential of the property. Field work was conducted from February 22-25, 2004 on the SAM #3 (400764) claim.

Description and Ownership

The SAM property includes two contiguous 4-post mineral claims of 36 grid units and 1 4-post, 16 unit, claim approximately 300m west of the SAM 3 claim. The claims cover an area of approximately 1,300 hectares.

The SAM Property consists of the following claims:

Claim	Tenure #	Units	Current Expiry Date
SAM #1	395391	16	July 31, 2004
SAM #2	395392	16	July 31, 2004
SAM #3	400764	20	Feb. 27, 2005

(see map following page 1)

The property resides on Crown land and no private properties lie within the claim area. The SAM Property is wholly owned by Southern Rio.

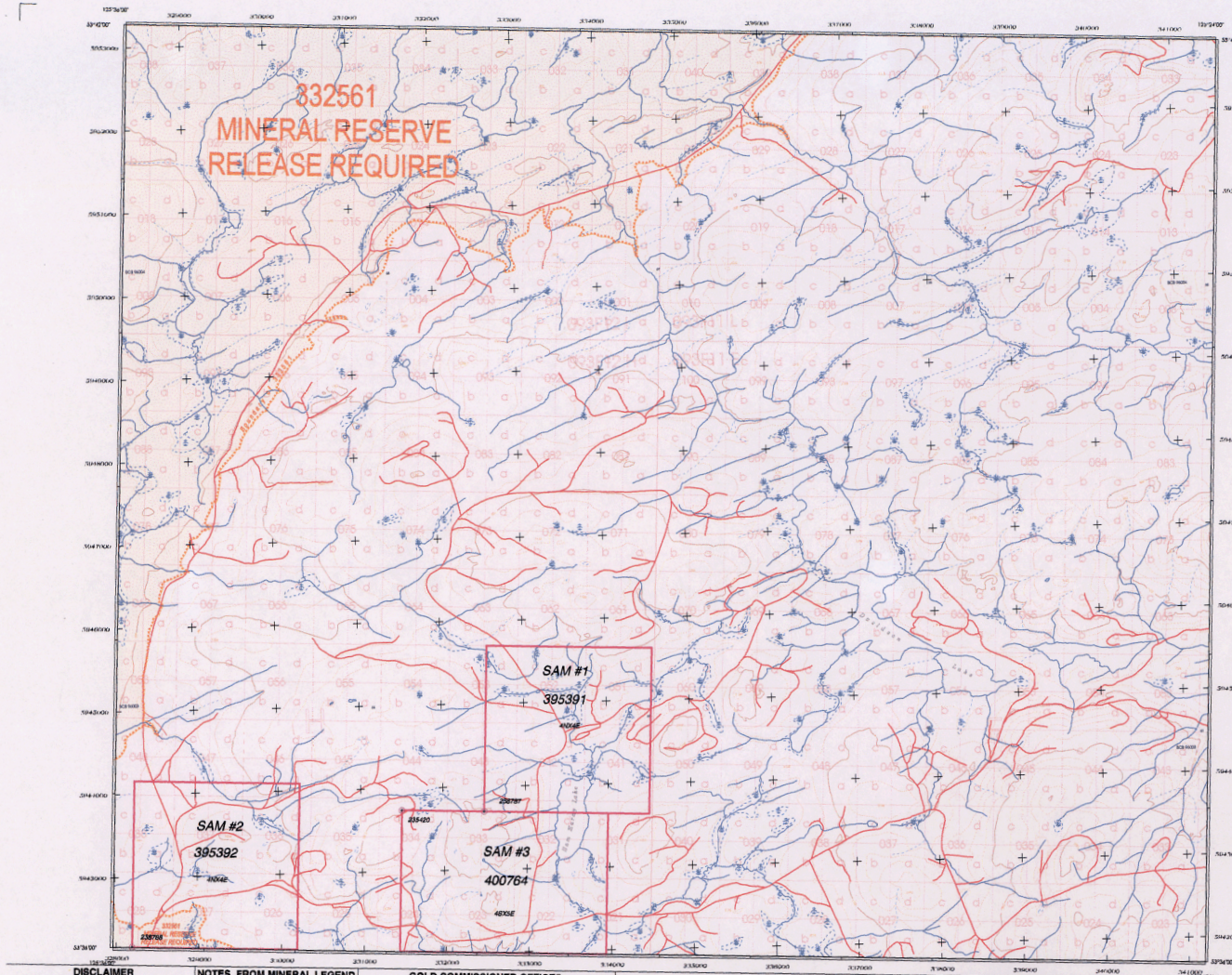
Location and Access

The SAM Property is situated in the interior plateau area of central British Columbia. within the Omenica Mining Division. It is located between Ootsa and Cheslatta Lakes, on the north shore of Intata Reach, approximately 70km south of the town of Burns Lake. The centre of the property (SAM 3 claim) is located at latitude 53°36' N and longitude 125°31' W.

The property is accessible by mainline all-weather logging roads from either Burns Lake of Fraser Lake. Seasonal accommodation is available at several logging and tourist camps nearby. Active clear-cut logging is currently underway on parts of the Sam #1 and 3 claims.

Physiography and Climate

Topography in the area is rolling with elevations ranging from 900 to 1,370 m. Most of the region is covered by a variable mantle of glacial till, with outcrop exposure generally less than 5%. When unlogged, the forest cover consists of mature stands of spruce, fir and pine



M093F063
MINERAL LEGEND

ADMINISTRATIVE AREAS
MINING DIVISION(S):
OMINECA
LAND DISTRICT(S):
RANGE 4 COAST
REGIONAL DISTRICT(S):
BULKLEY-NECHAKO

ADMINISTRATIVE BOUNDARIES
REGIONAL DISTRICT
MINING DIVISION
LAND DISTRICT
PROVINCIAL BOUNDARY
MUNICIPALITY
NO STAKING AREA
PARK
INDIAN RESERVE (SEE NOTES 1)
CONDITIONAL AREA
SUBJECT TO CONDITION RESERVE, RELEASE REQUIRED RESERVE,
OR URANIUM / THORIUM REGULATION (SEE NOTES 3)

MINERAL TENURES
MINERAL CLAIM
MINING LEASE
INDUSTRIAL MINERAL TITLE
MINING LEASE — ML
INDUSTRIAL MINERAL — IM
CLAIM NAME — EXAMPLE
TENURE NUMBER — 234567
TAG NUMBER — 243745
CLAIM SIZE (UNITS) — 4NW
LEGAL POST — SI
WITNESS POST — WP
TENURE HOOK
VERIFIED — VER
SURVEYED — SUR
GLOBAL POSITIONING SYSTEM — GPS
CROWN GRANTED 2 POST CLAIM — CG
F LOT (Real Estate Lot) — F
REVERTED C.G. 2 POST CLAIMS
Reverted C.G. (Not Open for Staking) — RCG
BID LOT — RCG
R.C.G. (Issued under a former Act) — RCG

PLANIMETRIC LEGEND
DRAINAGE AND RELATED FEATURES
COASTLINE, DEFINITE / INDEFINITE
RIVER / STREAM, DEFINITE / INDEFINITE
LAKE, DEFINITE
LAKE, INDEFINITE
DAM
DYKE
SAND / GRAVEL BAR
FLOODED LAND
SWAMP / MARSH
FALLS / RAPIDS
ICE FIELD / GLACIER
RESERVOIR, DEFINITE — Reservoir
RESERVOIR, INDEFINITE — Reservoir
CLIFF / SCARP
ESKER
SLIDE
LANDMARK FEATURE
MINE
PIER / WHARF
PIPELINE
QUARRY
TRANSMISSION LINE
TRANSPORTATION FEATURES
AIRFIELD
CUTLINE / SEISMIC LINE
RAIL LINE
ROAD, SURFACE PAVED
ROAD, SURFACE LOOSE
ROAD, SURFACE ROUGH / TRAIL
BRIDGE
CONTROL DATA
HORIZONTAL CONTROL POINT, MARKED — A
VERTICAL CONTROL POINT, MARKED — C
MAJOR CONTOUR
MINOR CONTOUR
CONTOUR INTERVAL - 20 METRES

DISCLAIMER
This map is prepared only as a guide to the location of mineral tenure as shown on the lessee's sketches. For current or more specific information, application should be made to the appropriate Gold Commissioner.

SOURCES OF INFORMATION
Planimetric and topographic information obtained from the Terrain Resource Information Management (TRIM) base mapping program. For more information contact, Base Mapping and Geomatic Services Branch Ministry of Sustainable Resource Management.
Source Date: 2001 OCT 10

Cadastre produced from spatial data obtained from the Crown Land Registry Services (CLRS). For more information contact the Crown Land Registry Services, Ministry of Sustainable Resource Management.
Source Date: 2002 AUG 08

This map depicts only the mineral tenure theme. For the placer tenure theme see appropriate placer map and for the coal tenure theme see appropriate coal map.

Additional tenure information is available on the Internet:
http://smmwww.gov.bc.ca /mta

NOTES FROM MINERAL LEGEND
1. For Uranium and Thorium Regulations, please refer to Mines Act.

MISCELLANEOUS NOTES
Staking is not permitted over all Crown Granted Lots issued since August 15, 1966. (B.C. Reg. 138 / 84)

Staking is not permitted within tidal waters. (B.C. Reg. 100 / 68)

Surface title with mineral rights are not shown.

Please refer to the Mineral Tenure Act , Mineral Tenure Act Regulation, Mines Act, and the Guide to Staking in British Columbia for more complete information.

GOLD COMMISSIONER OFFICES
CARIBOO
102 590 Barlow Ave.
Quesnel BC V2J 2C1
Public Query: (250) 992-4313
FAX: (250) 992-4314
Mining Division: Cariboo

VANCOUVER ISLAND
6th floor, 1810 Blanshard Street
P O Box 9322 Stn Prov Govt
Victoria BC V8W 9N3
Public Query: (250) 952-0567
FAX: (250) 952-0541
Mining Divisions: Alberni, Nanaimo, and Victoria

OMINECA
1300 Murray Street Bag 5000
Smithers BC V0J 2N0
Public Query: (250) 847-7207
FAX: (250) 847-7232
Mining Division: Omineca

COAST / LIARD
300 865 Hornby Street
Vancouver BC V6Z 2G3
Public Query: (604) 660-2672
FAX: (604) 660-0988
Mining Divisions: Alin, Clinton, Liard, Lillooet, Skeena, New Westminster, and Vancouver

KAMLOOPS / OKANAGAN
290 450 Columbia Street
Kamloops BC V2C 6K4
Public Query: (250) 828-4244
FAX: (250) 828-4253
Mining Divisions: Kamloops, Nicola, Okanagan, Revelstoke, Similkameen, and Vernon

EAST KOOTENAY
100 Cranbrook Street North
Cranbrook BC V1C 3P9
Public Query: (250) 426-1241
FAX: (250) 426-1244
Mining Divisions: Fort Steele and Golden

KOOTENAY
310 Ward Street
Nelson BC V1L 1S4
Public Query: (250) 354-6100
FAX: (250) 354-6407
Mining Divisions: Greenwood, Nelson, Slocan, and Trail Creek

GUIDE TO BCGS MAPPING SYSTEMS
BRITISH COLUMBIA GEOGRAPHIC SYSTEM (BCGS)
064H
(UTM) UNIVERSAL TRANSVERSE MERCATOR
CROSS HAIRS EVERY 1000 METRES
1 : 20 000 BCGS MAPSHEET

GUIDE TO THE MINERAL TITLES ONLINE GRID SYSTEM
GROUP
BLOCK
094E016
010

T.N. 21°15'E
MAGNETIC DECLINATION AS OF 2004
CHANGING 12.0' W ANNUALLY

093F072	093F073	093F074
093F062	093F063	093F064
093F052	093F053	093F054

INDEX TO ADJOINING MAPS

1000 m 0 1 km

ORIGINAL PRODUCED AT 1: 20 000

LAST MAP UPDATE: 2004 MAY 7
Version Number: 0001

BRITISH COLUMBIA
MINISTRY OF ENERGY AND MINES
MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT
MINERAL TITLES REFERENCE MAP

M093F063
North American Datum - 1983
U.T.M. Coordinate System - Zone 10
Compilation Date: 2004 MAY 07

interspersed with aspen and alder. Valley bottoms are often occupied by swamps and/or small lakes. The mountain pine beetle infestation is well established in the region.

The area is located within the interior plateau of central British Columbia, and subject to cold, relatively dry winters and warm to hot summers. In recent years, a combination of hot dry summers and the mountain pine beetle infestation have made for high to extreme fire risk in the months of July and August.

Regional Geology

The Sam claims occur within the central part of the northwest trending Intermontane Belt of the northern Cordillera. The oldest rocks in the area are of the upper Triassic Takla group, which consists of an island arc sequence of intermediate to mafic volcanics overlain by shale, conglomerate and greywacke. These rocks are in turn overlain by the early to mid Jurassic Hazelton Group, consisting of calc – alkaline basaltic to rhyolitic volcanics overlain by a sedimentary group of greywacke, argillite and conglomerate. The Hazelton Group is unconformably overlain by the Eocene Ootsa Lake Group, which consists mainly of felsic to intermediate sub-aerial flows and pyroclastics. These rocks are in turn overlain by the flat lying andesitic to basaltic flows of the Miocene Endako Group.

The dominant structural fabric of the region is defined by north to northwest trending extensional block faulting. This fabric is echoed by the distribution of mineral deposits and prospects in the region, trending from Blackdome in the southeast to Equity Silver in the northwest. Mineralization styles in this trend range from porphyry Cu – Mo at the Chu prospect to transitional poly-metallic base and precious metal deposits such as the past-producing Equity Silver, to epithermal gold and silver prospects such as Blackdome, Capoose, 3Ts, Clisbako, Trout, Laidman, Fawn, Wolf and Sam. Within the overall northwest trend, many north and northeast trending structures have been developed and these are locally important in controlling mineralization. Emplacement of the precious metal mineralization occurred in at least three distinct time periods, ranging from Late Jurassic to Eocene.

Local Geology and Mineralization

The Sam claims are underlain by felsic volcanics of the Ootsa Lake Group. Previous operators have identified three units on the property: flow banded rhyolite; rhyolite tuff and rhyolite breccia and lahar. All units are affected by varying degrees of silicic and argillic alteration. Correlation with diamond drill data indicates that the rhyolites strike 013° with a dip of 25° to the east.

Previous operators defined 14 separate zones of epithermal style alteration and/or mineralization over about a 300 hectare area. Subsequent work focused exploration on the two of these zones that showed the most potential, the Silver Discovery Zone and the Barb Zone. The Sam 1 claim covers most of the Silver Discovery zone while the Sam 2 claim covers the Barb Zone. At the Silver Discovery zone, gold and silver mineralization is controlled by a north - northeast trending fault where brecciated rhyolite is healed by grey to black amorphous silica. Geophysical surveying, trenching and drilling have defined this zone to be at least 900 m long by 100 to 200 m wide. The only sulfides identified to date are a trace to a few percent very fine grained pyrite. Only trace amounts of base metals are reported from assays. Gold and silver values do not seem to directly correlate to sulphide content, although a correlation with gold and arsenopyrite is apparent. Alteration around the zones of intense silica flooding is described as strong argillization with minor chloritization.

Property History and Previous Work

They were staked to cover zones of silicification and argillization that work in the late 1980's and early 1990's indicated to have the potential to host bulk tonnage and/or lode gold mineralization. In the early 1980's, Selco conducted geological and geochemical surveys. No serious work was conducted in the area until Mingold staked the Rhub 1 to 14 and Barb 1 claims in 1985. Mingold, followed by Equity Silver, carried out geological, geochemical and geophysical surveys as well as rotary and core drilling through to 1990.

Work by these previous operators on the Sam claims has demonstrated the presence of a large epithermal system that is locally mineralized with gold and silver. The best developed mineralization occurs on the Sam #1 claim where a 900 m long by 100-200 m wide zone of brecciation and silicification is localized around a north – northeast trending fault. Drilling of this zone has yielded results of up to 7.12 g/t gold and 27.5 g/t silver over 1.53 m and 0.03 g/t gold and 156.7 g/t silver over1.53 m. Numerous other zones of epithermal alteration occur in the area, the most developed of which is covered by the Sam #2 claim. Here, drilling has returned results of up to 2.14 g/t gold and 6.12 g/t silver over 1.52 m from two vein sets trending at 140° and 045° respectively.

Geophysical Surveying

A total of 16.2 line-km of ground magnetometer and very low frequency electromagnetic (VLF-EM) surveying was performed on the SAM property during the current field program. Readings were taken at 12.5 metre intervals along east-west cut gridlines.

The geophysical survey results are presented in Appendix II.

The magnetometer survey results show that north-northeasterly trending magnetic highs occur throughout the grid area; these highs parallel the strike of the rock units on the property (Figure 4 of Pawliuk, 2004). The magnetometer survey results also show a magnetic high on the western side of the grid, in an area underlain by lobate rhyolite flows with abundant black, cherty silica (Figure 4 of Pawliuk, 2004; Appendix II). In addition, the magnetometer survey results show a northeasterly trending linear feature or break extending through the central part of the surveyed area (Appendix II).

The VLF-EM survey results show a series of weak to moderately strong northerly trending conductors that parallel the strike of the rock units in the area (Appendix II). The VLF-EM survey results also show a northeasterly trending, linear break extending through the central part of the surveyed area. This feature coincides with the linear break in the ground magnetometer data.

Conclusions

The northeast-trending, linear break extending through the central part of the surveyed area, seen in both the ground magnetometer and VLF-EM results, is probably the expression of a fault structure within the underlying bedrock. No northeast-trending faults were recognized during geological mapping of the grid area (Pawliuk, 2004).

The northerly-trending VLF-EM conductors and the northerly-trending magnetic features are likely a due to underlying, northerly-trending rock units in the local bedrock.

Statement of Qualifications

for

Lindsay R. Bottomer

of

698 Wellington Place
North Vancouver, BC
V7K 3A1

I, Lindsay R. Bottomer, hereby certify the following statements regarding my qualifications and involvement in the program of work on behalf of Southern Rio Resources Ltd. at the SAM Property, Nechako River Area, British Columbia, as presented in this report of June 30, 2004.

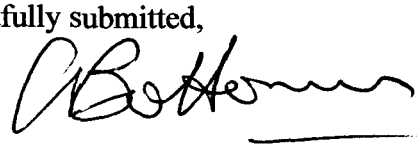
The work was performed by individuals sufficiently trained and qualified for its performance.

I graduated from the University of Queensland with a Bachelor of Science degree (Geology) in 1971, and a Master of Applied Science (Mineral Exploration) from McGill University in 1975.

I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I have been practicing my profession as a Geologist in the field of Mineral Exploration since 1971 .

Respectfully submitted,



Lindsay R. Bottomer, M.Sc(App)., P.Geo.

References and selected bibliography

Anderson, R.G., Snyder, L.D., Grainger, N.C., Resnick, J. and Barnes, E.M. (2000) Tertiary geology of the Takysie Lake and Marilla areas, central British Columbia; Geological Survey of Canada Current Research 2000 – A13, 11p.

Dawson, J. G. (2003) Summary Report on the Sam #1 and Sam # 2 Claims; private report prepared for Southern Rio Resources Ltd.

Pautler, J. (2002) Rhubarb target examination, Burns Lake, B.C.; private memorandum prepared by JP Exploration Services Inc.

Pawliuk, D.J. (2004) SAM project, exploration progress report on geochemical rock sampling, prospecting and geological mapping, Omineca Mining Division, central British Columbia; report prepared for Southern Rio Resources Ltd.

Tipper, H.W. (1963) Nechako River map-area, British Columbia; Geological Survey of Canada Memoir 324.

APPENDIX I

STATEMENT OF COSTS

SAM Property Surveys 2004

LINECUTTING.....	Contract Charges:	$14,745.15
	Accommodations:	$ 2,665.00
GEOPHYSICAL SURVEYS.....	Contract Charges:	$ 4,874.75
	Accommodations:	$ 390.00
OFFICE OVERHEAD.....	Report Preparation	$ 2,267.49
	Total:	**$24,942.39**

APPENDIX II

LOGISTICAL REPORT

MAGNETOMETER AND VLF-EM SURVEYS

SAM PROPERTY

NECHAKO RIVER AREA, BRITISH COLUMBIA

on behalf of

SOUTHERN RIO RESOURCES LTD.
Suite 1410 – 650 West Georgia
Vancouver, B.C. V6B 4N6

Fieldwork completed: February 22 to 25, 2004

by

Alan Scott, Geophysicist
SCOTT GEOPHYSICS LTD.
4013 West 14th Avenue
Vancouver, B.C. V6R 2X3

March 4, 2004

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Appendix

Accompanying Maps (1:2500 scale)

Accompanying Data Files

1. INTRODUCTION

Magnetometer and VLF-EM surveys were performed on the Sam Property, Nechako River Area, B.C., in the period February 22 to 25, 2004. The surveys were performed by Scott Geophysics Ltd. on behalf of Southern Rio Resources Ltd. This report describes the instrumentation and procedures, and presents the results of the surveys.

2. SURVEY COVERAGE AND PROCEDURES

16.2 line km of magnetometer and VLF-EM surveys were completed on the Sam Property. Magnetometer and VLF readings were taken at 12.5 metre intervals. VLF readings were taken for station NLK, Seattle Washington, at 24.8 kHz.

The magnetometer survey results are presented as data postings, profiles, and contour plans. The VLF survey results are presented as In Phase and Quadrature profiles and as a Fraser Filtered In Phase Contour Plan. All survey data is archived to the accompanying floppy disk.

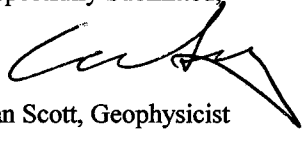
3. PERSONNEL

Ken Moir was the crew chief on the survey on behalf of Scott Geophysics Ltd. David Pawliuk, Geologist, was the representative on site on behalf of Southern Rio Resources Ltd.

4. INSTRUMENTATION

A Scintrex ENVI total field magnetometer/VLF receiver was used for the surveys, along with an ENVI base station magnetometer. All magnetometer readings were corrected for diurnal variations with reference to the base station, which cycled at 10 second intervals.

Respectfully Submitted,



Alan Scott, Geophysicist

Statement of Qualifications

for

Alan Scott, Geophysicist

of

4013 West 14th Avenue
Vancouver, B.C. V6R 2X3

I, Alan Scott, hereby certify the following statements regarding my qualifications and involvement in the program of work on behalf of Southern Rio Resources Ltd. at the Sam Property, Nechako River Area, B.C., as presented in this report of March 4, 2004.

The work was performed by individuals sufficiently trained and qualified for its performance.

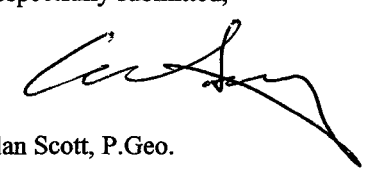
I have no material interest in the property under consideration in this report.

I graduated from the University of British Columbia with a Bachelor of Science degree (Geophysics) in 1970, and with a Master of Business Administration in 1982.

I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I have been practicing my profession as a Geophysicist in the field of Mineral Exploration since 1970.

Respectfully submitted,



Alan Scott, P.Geo.

750W 500W 250W 0 250E 500E

1000N 750N 500N 250N 0 250S 500S

L 900N L 800N L 700N L 600N L 500N L 400N L 300N L 200N L 100N L 0N L 100S L 200S L 300S L 400S L 500S

SURVEY SPECIFICATIONS

survey performed	February 2004
survey magnetometer	Scintrex ENVI
base magnetometer	Scintrex ENVI
type	proton
measurement	total field
units	nanoTeslas
diurnal corrections	base station
data interval	12.5 metres

N

0 50 100 150 200

METERS

SOUTHERN RIO RESOURCES LTD.

SAM PROPERTY

NECHAKO RIVER AREA, B.C.
Magnetometer Survey
Data Postings (nTeslas)

DRAWN BY: ars | DATE: March/04

SCOTT GEOPHYSICS LTD.

SURVEY SPECIFICATIONS

survey performed February 2004
VLF instrument Scintrex ENVI
VLF station Seattle (NLK)
frequency 24.8 kHz
reading interval 12.5 metres

Filtered value In Phase
Filter interval 12.5 meters

contour intervals 5 percent

Note: Only positive values are contoured (conductive responses).

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
27,452

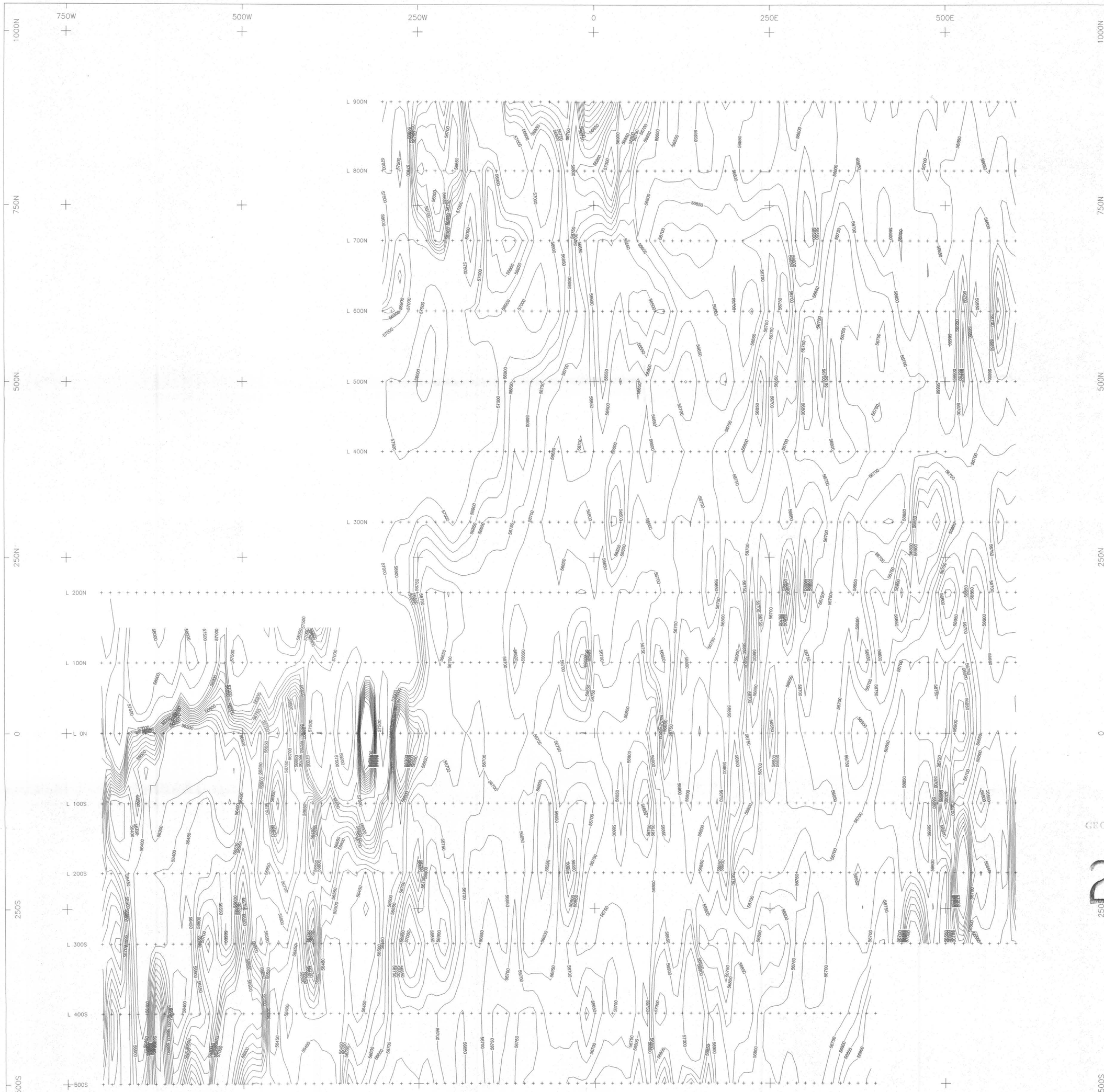
0 50 100 150 200
METERS

SOUTHERN RIO RESOURCES LTD.

SAM PROPERTY

NECHAKO RIVER AREA, B.C.
VLF Survey – Station NLK
Fraser Filtered In Phase

DRAWN BY: ars | DATE: March/04
SCOTT GEOPHYSICS LTD.



SURVEY SPECIFICATIONS

survey performed	February 2004
survey magnetometer	Scintrex ENVI
base magnetometer	Scintrex ENVI
type	proton
measurement	total field
units	nanoTeslas
diurnal corrections	base station
data interval	12.5 metres

Contour Levels:
56300, 56400, 56450, 56500, 56550, 56600, 56650, 56700, 56750, 56800, 56850, 56900, 57000, 57500, 58000

0 50 100 150 200
METERS

SOUTHERN RIO RESOURCES LTD.

SAM PROPERTY

NECHAKO RIVER AREA, B.C.
Magnetometer Survey
Contour Plan (nTeslas)

DRAWN BY: ars | DATE: March/04

SCOTT GEOPHYSICS LTD.

750W 500W 250W 0 250E 500E

1000N 750N 500N 250N 0 250S 500S

L 900N
L 800N
L 700N
L 600N
L 500N
L 400N
L 300N
L 200N
L 100N
L 0N
L 100S
L 200S
L 300S
L 400S
L 500S

SURVEY SPECIFICATIONS

survey performed	February 2004
survey magnetometer	Scintrex ENVI
base magnetometer	Scintrex ENVI
type	proton
measurement	total field
units	nanoTeslas
diurnal corrections	base station
data interval	12.5 metres
profile base	56400 nT
profile scale	200 nT/cm
at map scale of	1:2500

N

0 50 100 150 200
METERS

SOUTHERN RIO RESOURCES LTD.

SAM PROPERTY

NECHAKO RIVER AREA, B.C.
Magnetometer Profiles
Profile base = 56400 nT
Profile scale = 200 nT/cm

DRAWN BY: ars | DATE: March/04
SCOTT GEOPHYSICS LTD.

750W 500W 250W 0 250E 500E

1000N 750N 500N 250N 0 250S 500S

L 900N
L 800N
L 700N
L 600N
L 500N
L 400N
L 300N
L 200N
L 100N
L 0N
L 100S
L 200S
L 300S
L 400S
L 500S

SURVEY SPECIFICATIONS

survey performed	February 2004
VLF instrument	Scintrex ENVI
VLF station	Seattle (NLK)
frequency	24.8 kHz
reading interval	12.5 metres
o---o	in phase
at 1:2500 scale	10 percent/cm
x - x	quadrature
at 1:2500 scale	10 percent/cm

Note: Conductor axis is defined by in phase right wave crossover. (positive to negative heading east)

N

0 50 100 150 200
METERS

SOUTHERN RIO RESOURCES LTD.

SAM PROPERTY

NECHAKO RIVER AREA, B.C.
VLF Survey - Staion NLK
In Phase and Quadrature Profiles

DRAWN BY: ars | DATE: March/04
SCOTT GEOPHYSICS LTD.