LOG NO: OCT 3 1 19	91 RD.
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GEOLOGICAL AND
GEOCHEMICAL SAMPLING REPORT
on the
RAINBOW Claims
Omineca Mining Division
Latitude 54°29'30" North
Longitude 127°09'30" West
N.T.S. 93-L/7, 93-L/11
British Columbia

September 30, 1991

on behalf of

SKEENA RESOURCES LIMITED
Vancouver, British Columbia
- and LEEWARD CAPITAL CORP.
Calgary, Alberta

by M. D. Jamieson, P.Geol.

TAIGA CONSULTANTS LTD. #400, 534 - 17th Avenue S.W. Calgary, Alberta T2S 0B1

> GEOLOGICAL BRANCH ASSESSMENT REPORT

21,765

ABSTRACT

The RAINBOW claims, located 30 km south of Smithers, are underlain by Jurassic Telkwa volcanics consisting predominantly of andesites and tuffs which have been intruded by diorite and a few quartz feldspar porphyry and rhyolite dykes.

During July 1991, 16 man-days were spent on exploring the property. The exploration program consisted of systematic stream silt sampling of all the creeks draining the claims area, combined with reconnaissance prospecting, lithogeochemical sampling, and geological mapping.

The stream silt samples yielded background to moderately anomalous gold results (to 136 ppb). The 1990 sample site containing 2080 ppb Au was resampled and yielded 22 ppb Au.

Rock sample ZR-24 from a 4-8 cm quartz-carbonate vein yielded 39600 ppb Au, 300 ppm Ag, 0.32% Cu, 7.3% Pb, and 8.4% Zn. This sample site, located in the creek bed, may explain last year's 2080 ppb Au-in-stream-silt.

Four other rock samples, from a 1.0 m wide mineralized zone 100 m north of the east arm of Webster Creek (and the 2080 ppb Au-in-stream-silt sample site), yielded results of up to 360 ppb Au, 350 ppm Ag, and 10.6% Cu.

An andesite boulder from the RAINBOW 3 claim yielded 10.3% Zn and 626 ppb ${\sf Au}\,.$

TABLE OF CONTENTS

INTRODUCTION	. 1
GEOLOGY	. 4
HISTORY OF EXPLORATION	. 5
1991 EXPLORATION PROGRAM	. 6
SUMMARY AND RECOMMENDATIONS	. 8
CERTIFICATE	. 9
BIBLIOGRAPHY	. 10
APPENDIX: Summary of Personnel Summary of Expenditures Rock Sample Descriptions Certificates of Analysis Analytical Techniques	
<u>TABLES</u>	
1 - Claims Data	. 1
FIGURES	
1 - Regional Location Map	. 2
2 - Claim Location Map	. 3
MAPS	
1 - Compilation Map of the RAINBOW Claims	
2 - Airphoto Interpretation Map	

INTRODUCTION

Taiga Consultants Ltd. was contracted by the Skeena Resources Limited/ Leeward Capital Corp. joint venture to undertake a reconnaissance examination of the RAINBOW 1 to 5 mineral claims, located in north-central British Columbia. The exploration program consisted of systematic stream silt sampling combined with lithogeochemical sampling, prospecting, and geological mapping.

Location and Access

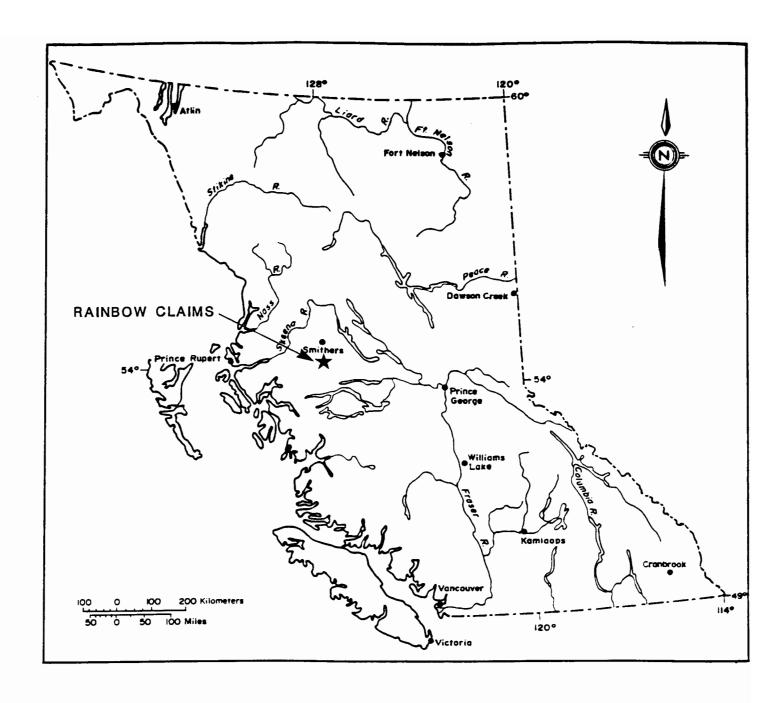
The claims (Figure 1) are located on N.T.S. map-sheets 93-L/6 and 93-L/11 in the Omineca Mining Division. The centre of the claim lies at 54°29′30" North latitude and 127°09′30" West longitude, 30 km south of Smithers. Access to the property is by helicopter from Smithers. The road to the old King Mine along Cabinet Creek passes within 5 km of the property, but is passable only by all-terrain vehicles because of washouts and missing bridges. Logging roads along Goathorn Creek are being developed towards the property boundary.

Claim Status

The RAINBOW property consists of five modified-grid mineral claims, as summarized in Table 1. Assessment requirements are \$100/unit/year plus an assessment filing fee of \$5 per \$100 of work filed. These claims have been grouped for assessment purposes.

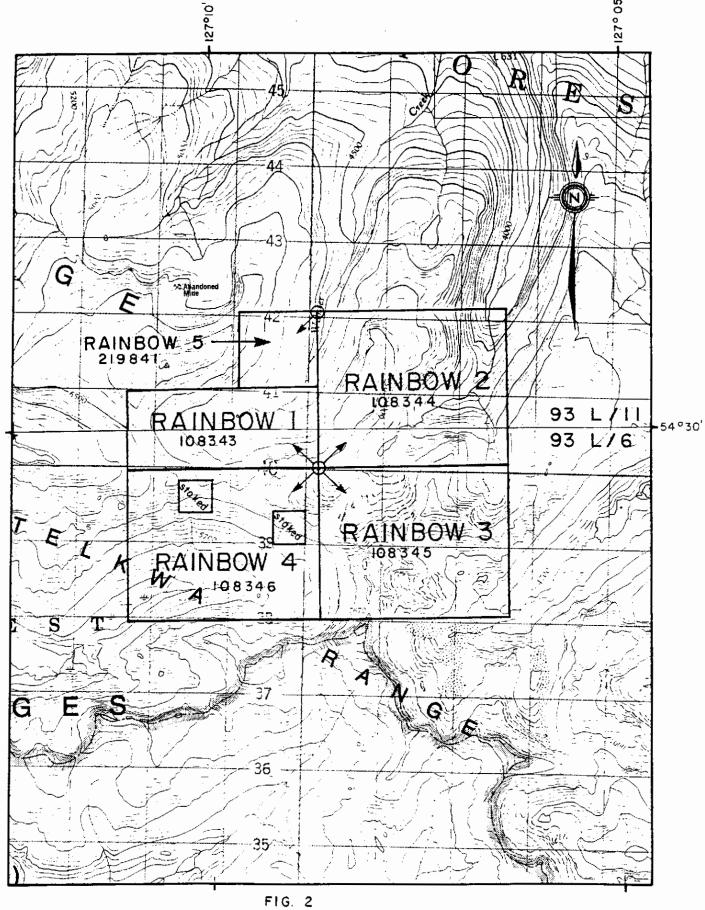
TABLE 1 - Claims Data

Claim Name	Record <u>Number</u>	No.of <u>Units</u>	Date of Record	Expiry
RAINBOW 1 RAINBOW 2 RAINBOW 3 RAINBOW 4 RAINBOW 5	12397 12398 12399 12400 12401	10 20 20 20 20 <u>4</u> 74 unit	Aug. 2, 1990 Aug. 2, 1990 Aug. 2, 1990 Aug. 2, 1990 Aug. 2, 1990 S	1992 1992 1992 1992 1992

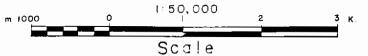


PROPERTY LOCATION MAP

RAINBOW CLAIMS



CLAIM LOCATION MAP RAINBOW 1,2,3,4 & 5



Physiography

Topography on the property is rugged, with a maximum relief in the area of 1005 m ranging from approximately 1220 m at the northeastern corner of the claim block, to 2225 m at the centre of the group.

A substantial part of the RAINBOW 3 claim is covered by a glacier, and there is an arête running northeast-southwest through the Legal Corner Post of the RAINBOW 1 to 4 claims. The entire property is above tree line except for small areas along the creek draining the RAINBOW 2 claim and along Webster Creek. Outcrop is extensive along the ridges and most of the streams. The hillsides and cirques are generally talus covered.

GEOLOGY

The RAINBOW 4 claim is underlain by granodiorite, with the remainder of the property underlain by Jurassic andesites of the Telkwa Formation intruded by a few quartz-diorite, and rhyolite dykes. Sections of alternating quartz-ite/andesite/rhyolite succession containing narrow massive magnetite beds were located. Abundant epidote alteration was noted on the RAINBOW 3 claim.

There are four known copper occurrences on the property, with the abandoned King & Hunter Mine less than 1 km west of the RAINBOW 5 claim boundary. Mineralization (consisting primarily of pyrite, chalcopyrite, galena, and magnetite) is generally found in the volcanics at or near the contact with the dykes.

A number of brecciated andesites containing narrow quartz/pyrite veinlets and one 8 cm quartz/galena vein were located.

HISTORY OF EXPLORATION

Exploration has been on-going in the Hunter Basin area since 1899, when the first claims were staked. Between 1914 and 1941, the combined production from the King and Rainbow mines, which abut the RAINBOW claims, totalled 269 tonnes of hand-sorted ore which produced 8160 g gold, 283,366 g silver, and 42,710 kg copper.

On the RAINBOW 1 to 5 claims, several Au/Cu occurrences were found during the period 1910 to 1920, but little work was done until 1968 when Falconbridge Nickel and Noranda staked large blocks of claims in the area. Between 1968 and 1971, they conducted geophysical and geochemical surveys, minor trenching, geological mapping, and drilling of six holes totalling approximately 1200'. In 1973, Maharaja Minerals undertook mapping and rock sampling. In 1980, Mecca Minerals of Vancouver staked 22 claims and Redfern Resources staked two claims. In the search for Cu and Mo, they conducted geophysical surveys, geological mapping, and geochemical sampling. The average of 30 samples of vein material yielded values of 70.2 g/tonne Ag and 2.21 g/tonne Au. In 1985, two chip samples assayed:

1.6% Cu 13% Zn 7.2% Pb 117.0 g/tonne Ag 3.0 g/tonne Au 3.3% Cu 21% Zn 0.4% Pb 156.0 g/tonne Ag 0.3 g/tonne Au

Reconnaissance prospecting and silt sampling in 1990 outlined several areas of interest on the RAINBOW 2 claim. One silt sample yielded 2080 ppb Au, and several rocks yielded values in the 200 ppb Au range with 1-2% Cu.

1991 EXPLORATION PROGRAM

The 1991 exploration program consisted of 16 man-days on the property by two geologists and two prospectors between July 14 and 18. Systematic stream silt sampling on all streams draining the property, reconnaissance prospecting, rock sampling, and geological mapping were conducted. A total of 97 rock and 45 silt samples were collected and sent to TerraMin Research Labs Ltd. in Calgary, Alberta for Au, Ag, Cu, Pb, and Zn analyses. Sample locations are shown on Map 1; rock sample descriptions, analytical results, and laboratory procedures are presented in the Appendix.

One day was spent on each of the RAINBOW 1, 2, and 4 claims, with the last day split between the RAINBOW 3 and 5 claims.

Systematic stream silt sampling was completed from the creeks draining the RAINBOW 1, 2, 4, and 5 claims. Anomalous gold values were found in the samples from RAINBOW 2 claim (to 136 ppb), and elevated to weakly anomalous values (to 54 ppb Au) were obtained from the RAINBOW 4.

The 1990 stream silt sample site (MS-64) which contains 2080 ppb Au was resampled (ZS-21) and yielded 22 ppb Au.

Anomalous copper values were obtained from the creeks draining the RAINBOW 2, 4, and 5 claims, and weakly elevated copper values from the RAINBOW 2 claim.

Reconnaissance prospecting, geological mapping, and lithogeochemical sampling were conducted on all five claims.

On the RAINBOW 2 claim, four rock samples (XR-35, ZR-20,21,22) from two 1.0 m wide mineralized zones within andesite tuff, 100 m north of the east arm of Webster Creek, yielded results of up to 560 ppb Au, 350 ppm Ag, and 10.6% Cu. Further upstream, rock sample ZR-24 from a 4-8 cm quartz-carbonate vein located in the creek bed yielded 39600 ppb Au, 300 ppm Ag, 0.32% Cu, 7.3% Pb, and 8.4% Zn. These samples may explain last year's 2080 ppb Au analysis from stream silts.

Two rock samples collected from the RAINBOW 3 claim yielded elevated gold (626 and 218 ppb) values with corresponding significant zinc (10.3%) and elevated copper (1.77%) (WR-44 and WR-45, respectively). Sample WR-44 (Au/Zn) is from a sub-angular andesite boulder found quite high in the cirque; sample WR-45 (Au/Cu) was from an outcrop of andesite.

The RAINBOW 4 claim was found to be underlain by extensively pyritic and sericitic altered granodiorite. A few quartz veinlets were located within the granodiorite, some of which contained minor amounts of galena and chalcopyrite. The northeastern part of the claim is underlain by magnetite-rich andesite, from which sample ZR-46 yielded elevated Au (376 ppb) and copper (3100 ppm).

Exploration on the RAINBOW 5 claim located zones of intense epidote/chlorite alteration and limonite alteration in the northwestern corner of the claim. One grab sample collected from this area yielded elevated copper (10800 ppm).

There was no significant mineralization located on the RAINBOW 1 claim.

SUMMARY AND RECOMMENDATIONS

The 1991 property exploration program consisted of systematic stream silt sampling, combined with reconnaissance prospecting, geological mapping, and lithogeochemical sampling.

The stream silt samples yielded moderately anomalous gold values (to 136 ppb) on the RAINBOW 2 claim, and elevated to weakly anomalous gold values (to 54 ppb) from the RAINBOW 4 claim. Anomalous copper values (to 2400 ppm) were obtained from creeks draining the RAINBOW 2, 4, and 5 claims, and weakly elevated copper values from the RAINBOW 2 claim.

Exploration on the RAINBOW 2 claim located two 1.0 m wide mineralized zones within andesite tuff, which yielded anomalous Cu (to 10.6%) and elevated Au (to 560 ppb) and Ag (350 ppm). A narrow 8 cm quartz-galena vein located in the creek bed may explain the highly anomalous stream silt sample collected from this claim in 1990.

An andesite boulder on the RAINBOW 3 claim yielded 10.3% Zn with elevated gold (626 ppb).

The RAINBOW 4 claim was found to be underlain by extensively pyritic and sericitic altered granodiorite; zones of intense epidote/chlorite and limonite alteration were located on the RAINBOW 5 claim. A few samples collected from these areas yielded elevated copper values.

Further work on the property should include stripping and channel sampling on the RAINBOW 2 and 3 claims and possibly the RAINBOW 4 claim to determine the extent and grade of the mineralization found. So far, only a cursory inspection has been completed on the RAINBOW 3 and 5 claims. Further prospecting and rock geochemical sampling should be conducted on these two claims as well as the west end of the RAINBOW I claim. Also, a determined attempt should be made to locate the source of the zinc-rich boulder found on the RAINBOW 3 claim during the 1991 program.

CERTIFICATE

- I, Michael Douglas Jamieson, of 101 7th Street N.E. in the City of Calgary in the Province of Alberta, do hereby certify that:
- 1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 400, 534 17th Avenue S.W., Calgary, Alberta.
- 2. I am a graduate of Queen's University, B.Sc. Geology (1985), and I have practised my profession continuously since graduation.
- 3. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 4. I am the author of the report entitled "Geological and Geochemical Sampling Report on the RAINBOW 1 to 5 Claims, Omineca Mining Division, British Columbia", dated September 30, 1991. I personally participated in the work reported herein.
- 5. I do not own or expect to receive any interest (direct, indirect, or contingent) in the property described herein nor in the securities of SKEENA RESOURCES LIMITED or LEEWARD CAPITAL CORP. in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 30th day of September, A.D. 1991.

Respectfully submitted,

. D. Jamieson, B.Sc., P.Geol

PERMIT TO PRACTICE TAIGA CONSULTANTS LTD.

Signature /

PERMIT NUMBER: P 2399

The Association of Professional Engineers, Geologists and Geophysicists of Alberta

BIBLIOGRAPHY

- B.C. Energy, Mines & Petroleum Resources:
 - Annual Reports: 1899, 1900, 1914, 1915, 1968, 1969
 - Assessment Files: 1605, 1875, 1880, 1922, 4811, 4831
 - Geology, Exploration & Mining in British Columbia: 1970, 1971, 1973
 - Map 69-1: Geological Compilation Map of Smithers/Hazelton/Terrace Areas
 - Minfile: 93L : 034 035 036 037 038 039 040 041 042 043 044 047 049
- Preliminary Map #8: Geological Compilation Map of the Stewart, Anyox, Alice Arm, and Terrace Areas, 1:250,000

APPENDIX

Summary of Personnel
Summary of Expenditures
Rock Sample Descriptions
Certificates of Analysis
Analytical Techniques

SUMMARY OF PERSONNEL

C.H.Aussant	Project Geologist	July 14,16	2 days
M.W.Bowles	Assistant Geologist	July 14,15,16,17	4 days
M.D.Jamieson	Geologist/Prospector	July 14,15,16,17; Aug. 3	5 days
J.M.Hislop	Prospector	July 14,15,16,17;Aug.3	5 days
•	·		16 man days

SUMMARY OF EXPENDITURES

Pre-Field Data Compilation Air Photo Interpretation Pre-Field Mob & Demob	pro rata pro rata pro rata pro rata	1,600.00 690.00 230.00 650.00	3,170.00
Assistant Geologist 4	days @ \$400/day days @ \$350/day days @ \$285/day	800.00 1,400.00 2,850.00	5,050.00
Prospecting Equipment 16 mar	n days @ \$60/day n days @ \$ 5/day l days @ \$65/day ephone, shipping)	960.00 80.00 260.00 250.00	1,550.00
<u>Helicopter</u> 4	hours @ \$688/hour		2,752.00
Geochemical Analyses rocks: Au/Ag/Cu/Pb/Zn/Sb/Co silts: Au/Ag/Cu/Pb/Zn/Sb/Co rocks: Au/Ag/Cu/Pb/Zn silts: Au/Ag/Cu/Pb/Zn Post-Field	25 @ \$15.60/ea 5 @ \$13.10/ea 72 @ \$16.00/ea 40 @ \$13.50/ea	390.00 65.50 1,152.00 540.00	2,147.50 1,400.00
		TOTAL	\$16,069.50

ROCK SAMPLE DESCRIPTIONS

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
Rainbow :	<u>2</u>					
WR-22	14	4.60	2,200	28	73	elev.1490 m; andesite, dark green, with epidote, 1% disseminated pyrite, minor magnetite and malachite
WR-23	6	2.40	910	4	95	elev.1530 m; andesite, yellow-green weathered zone 3 m wide, trends southwest/northeast, dips 65°N, with pyrite veining (~5 mm), 2% pyrite stringers and disseminations, with very fine-grained magnetite throughout; some epidote as stringers and blebs
WR-24	50	8.60	2,500	3	41	elev.1575 m; andesite, grey, intensely fractured, 2-3% very fine-grained mafics (chlorite?), 3% disseminated and stringer pyrite, minor hematite
WR-25	4	0.28	110	4	56	elev.1565 m; andesite, pale grey, very fine-grained, trace-1% very fine-grained pyrite along fractures, up to 4 mm disseminated grains
WR-26	70	9.80	4,600	2	72	elev.1570 m; andesite, dark grey, fractured, minor epidote along fractures, 2-3% pyrite as disseminations and fracture filling (to 2 mm), 2-3% coarse chalcopyrite as stringers to 4 mm, minor very fine-grained magnetite
WR-27	12	3.30	1,030	3	44	elev.1580 m; andesite, medium grey, massive, 5% pyrite as disseminations and stringers, <1% disseminated chalcopyrite, minor very fine-grained magnetite
WR-28	10	1.12	680	7	165	elev.1695 m; andesite, dark grey, brecciated, very dark grey matrix, 1% coarse disseminated pyrite, 1% coarse disseminated chalcopyrite, trace galena and malachite; all mineralization in matrix; breccia zone ~10 m wide trending E/W dip 70°N
WR-29	8	0.36	28	5	84	elev.1705 m; andesite, pale grey, fractured, 3-5% stringer pyrite in fractures

	<u>Au ppb</u>	<u>Ag ppm</u>	<u>Cu ppm</u>	Pb ppm	Zn ppm	
WR-30	8	0.68	137	2	41	elev.1840 m; andesite, dark grey, massive, minor epidote, 1-2% very fine disseminated and stringer pyrite
WR-31	30	3.40	700	3	56	elev.1840 m; same as WR-30; more epidote and pyrite stringers to 5 mm and more coarsely disseminated
Rainbow 4	<u> </u>					
WR-32	4	0.25	22	22	13	elev.1545 m; float, white, rotten, 1% disseminated pyrite, very narrow quartz stringers
WR-33	4	0.20	78	6	27	elev.1735 m; outcrop in stream bed; narrow quartz stringers and blebs in massive diorite, strike 235°/75°E; coarsely disseminated pyrite (blebs to 4 cm), minor disseminated galena on fracture planes
WR-34	156	66.0	1,810	1,200	165	elev.1755 m; quartz vein, white, ~30 cm wide, exposed for 2 m, 250°/40°SE; 10% coarse-grained pyrite stringers to 1 cm and disseminations to 3 cm; minor (<1%) disseminated galena, <1% disseminated chalcopyrite, trace tetrahedrite(?)
WR-35	12	0.47	15	13	4	regolith, very pale grey to white, rotten; 10-15% disseminated pyrite (3-5 mm)
Rainbow 1	<u>l</u>					
WR-36	26	5.40	2,200	4	102	talus; andesite, dark green-grey, fine-grained; up to 10% disseminated pyrite
WR-37	2	2.00	36	145	12	talus; monzodiorite or quartz-monzodiorite, white to pale grey, rusty; 2% disseminated pyrite (1-3 mm)
WR-38	10	3.90	68	590	57	outcrop; monzodiorite/quartz-monzodiorite adjacent to fractures with very fine-quartz stringers, 3-5% disseminated Py, <1% galena

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	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
WR-39	2	0.31	101	11	21	volcanic, white, fine-grained, with quartz grains to 2 mm, 1% fine disseminated pyrite (~1 mm)
WR-40	8	0.36	28	9	38	talus; diorite, pale grey, medium-grained, cooked; 3% disseminated and stringer pyrite
WR-41	6	0.39	48	4	32	talus; andesite, 7-10% pyrite stringers in fractures
Rainbow 3	3					
WR-42	26	14.70	3,300	340	9,200	quartz-epidote-magnetite vein, ~50 cm thick, exposed for 10 m, trends NW/SE, dips SW, minor pyrite
WR-43	8	3.10	1,680	250	5,200	massive magnetite, Cu staining; stringers to 10 cm in quartz-epidote vein of sample WR-42
WR-44	626	3.40	133	23	103,000	boulder; andesite, medium-green; 5-7% coarsely disseminated magnetite, 1-2% pyrite and minor chalcopyrite in magnetite, blebs of magnetite to 5 cm; several boulders in the area
WR-45	216	31.0	17,700	14	400	andesite; pale grey, with epidote, 1% disseminated pyrite, 2-3% disseminated chalcopyrite, trace bornite
XR-35	238	161.0	48,000	12	250	outcrop; andesite tuff, 1 m wide, sulphide and epidoterich, extensively malachite stained, generally 5-10% pyrite/chalcopyrite, well banded, contains narrow quartzitic beds, contains pockets of massive pyrite (samples ZR-21,22). There are 2 beds exposed, each -1 m wide, which are extensively malachite stained (sample ZR-20 from lower bed); beds are separated by 4 m of unmineralized andesite tuff
XR-36	26	8.50	3,300	35	64	talus boulder; rhyolite, light grey, spotty rusty weathered, aphanitic; containing 3 cm blebs of massive magnetite with trace to minor chalcopyrite and pyrite; rhyolite with 3-5% disseminated pyrite, chalcopyrite; minor malachite staining along fracture planes

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	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
XR-37	8	0.36	420	4	49	outcrop; rhyodacite/andesite, mottled grey-green, rusty weathered; with 5% disseminated pyrrhotite/pyrite, occasional stringers and blebs of pyrite, minor chalcopyrite, sections recrystallized, irregular epidote-rich bands
XR-38,39	0	outcrop;	andesite,	grey, rus veinlets	sty weath	nered, zone ~7 m wide; with 5-7% pyrite, occasional 2 cm
XR-38 XR-39	8 6	4.20 0.76	1,970 770	<1 3	69 63	grab, andesite containing a 1 cm quartz-pyrite veinlet grab, andesite
XR-40,41	t	alus bou ematitic	ılder; and	desite wi allized: 1	th 5 cm 10% pvrit	wide quartz-pyrite veinlet; area surrounding veinlet se as disseminations and 30 cm diameter blebs:
XR-40 XR-41	8 14	1.41	570 2,300	2 2	18 60	quartz veinlet andesite, siliceous, 5-10% pyrite
XR-42,43,4			,			staining a breccia unit ~10 m wide:
XR-42	2	0.76	1,260	2	59	andesite, mottled grey-white, calcareous; 5-10% disseminated pyrite, minor chalcopyrite
XR-43 XR-44	44 18	12.0 4.10	7,700 780	2 7	450 54	andesite, grey, containing quartz-pyrite stringers breccia unit
AN	10	1110	, 55	•	0.	brocord diffe
XR-45	4	0.33	162	4	46	outcrop; andesite, mottled green-grey, quartz-carbonate flooding; pyrite clots, rusty weathered, contains sections with fine disseminated pyrite (similar to sample XR-42) and sections with quartz-pyrite stringers (similar to sample XR-43)
XR-46	2	0.15	10	1	22	quartzite, quartz flooded, beige, garnetiferous, interval at least 1.0 m wide
XR-47	26	0.14	27	1	12	rhyolite, light grey
ZR-20	548	190.0	46,000	10	130	andesite, extensively malachite stained, epidote-rich, siliceous; up to 10% disseminated pyrite, magnetite; 1% chalcopyrite, unit is 60 cm wide, 103°/12°NE

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
ZR-21	560	350.0	106,000	10	194	pod of massive pyrite, minor chalcopyrite, within well banded andesite tuff, malachite stained on fracture planes, epidote alteration
ZR-22	322	186.0	45,000	18	420	(same location as ZR-21) 1.0 m chip; andesite tuff unit 1.0 m wide, epidote-rich, extensively malachite stained; generally with 1-3% disseminated pyrite, chalcopyrite; sections of massive pyrite; minor quartz flooding
ZR-23	8	2.30	500	11	21	andesite tuff, rusty weathered, epidote-rich, containing narrow quartz-pyrite stringers; andesite adjacent to the stringer is recrystallized; <1% disseminated pyrite; rusty zone 10 m wide 174°/11°E
ZR-24	39,600	300.0	3,100	73,000	84,000	quartz-carbonate vein, 4-8 cm wide, 153°/15°E, numerous crystals of galena, pyrite, minor chalcopyrite, total sulphide content 20%
ZR-25	26	4.00	380	260	90	andesite tuff, 4 m wide, 165°/80°E, rusty weathered, epidote-rich, with minor quartz, occasional pockets of massive pyrite
ZR-26	4	0.39	360	17	58	andesite, medium grey, weakly magnetic; 2% very fine disseminated pyrite, occasional pyrite stringers (up to 1 cm wide) with minor quartz
ZR-27	4	0.37	580	7	34	1.0 m chip; andesite, 3 m wide, medium grey, rusty weathered; 1% disseminated pyrite, moderately magnetic, very fine-grained disseminated magnetite, narrow quartz stringers
ZR-28	6	0.22	50	2	10	quartzite, 20-30 cm wide, 105°/70°E, rusty weathered, beige, vuggy; contains a 2 cm wide massive magnetite band, occasional concentrations of pyrite
ZR-29	10	0.17	82	62	17	granodiorite, massive, rusty weathered; 2% disseminated pyrite

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
ZR-30	2	0.58	149	9	35	granodiorite, massive, rusty weathered; 2% disseminated pyrite
ZR-31	4	0.22	97	7	91	andesite tuff, medium grey, rusty weathered; 1% disseminated pyrite, occastional pyrite stringers, epidote stringers (zone 10 m wide)
ZR-32	2	0.30	8	14	68	andesite, epidote-rich, containing up to 30% massive finely disseminated pyrite, sample of the pyritic area (80 cm wide trend)
ZR-33	10	0.40	22	5	169	andesite, recrystallized, rusty weathered, up to 30% pyrite as disseminations and blebs (talus)
ZR-34	76	0.27	25	9	97	andesite, recrystallized, rusty weathered, epidote-rich, with disseminations and blebs of pyrite (30-40 cm wide)
ZR-35	6	0.79	134	38	101	andesite, epidote-rich, pyrite disseminations and blebs
ZR-36	10	0.39	28	13	79	rhyodacite, fractured, containing epidote stringers, 2% disseminations and small crystals of pyrite (talus)
ZR-37	2	0.40	20	23	41	rhyodacite, mottled pink and grey, 3% pyrite as disseminations and crystals, occastional concentrations of 10% (10-130 cm wide)
ZR-38	20	0.75	170	18	105	andesite tuff, rusty weathered, epidote-rich, 1% dissem- inated pyrite
ZR-39	32	0.65	7	8	13	andesite?, recrystallized, rusty weathered, epidote- chlorite rich, finely disseminated magnetite and pyrrhotite up to 5% (talus)
ZR-40	30	1.42	340	24	109	massive magnetite layer, in rusty weathered, pyritic (5-8%) diorite 30 cm wide
ZR-41	8	0.51	53	15	38	2 cm wide quartz veinlet in granodiorite, 2% disseminated Py, rusty weathered

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	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
ZR-42	6	0.21	300	43	28	quartz veinlet, seems narrow 2 cm maximum, rusty stained
ZR-43	4	0.36	270	15	31	quartz veining with 5% disseminated pyrite, minor chalco- pyrite and malachite in quartz-feldspar porphyry
ZR-44	6	0.10	33	7	22	quartz feldspar porphyry, rusty weathered, argillically altered, 5% disseminated pyrite, arsenopyrite?
ZR-45	12	0.95	300	9	26	quartz feldspar porphyry, pale grey, siliceous; 2% disseminated pyrite, occasional vuggy quartz stringers
ZR-46	376	40.0	3,100	<1	450	massive magnetite, in andesite?, 2% disseminated pyrite/chalcopyrite (talus)
ZR-47	20	0.19	79	6	56	andesite, massive; 1% pyrite as disseminations and occasional stringers, minor quartz with disseminated pyrite stringers
ZR-48	18	1.42	430	26	60	soil sample of argillically altered zone
YR-9	38	4.00	2,600	<1	109	large outcrop, basalt-andesite, massive, fine-grained; 2% irregular quartz-epidote veins up to 1 cm wide; pervasive epidote alteration; 1-3% disseminated mediumgrained euhedral to subhedral pyrite, 1% disseminated chalcopyrite; old drill hose in stream
YR-10	60	11.5	5,700	2	123	gossan with andesite associated with coarse-grained very felsic granitoid dyke; dyke is 2 m wide, emplaced along a shear 295°/N; accompanied by rare quartz veins; variable sulphide content, 1-4% pyrite, 1% chalcopyrite, malachite staining

•

Au ppb Ag ppm Cu ppm Pb ppm Zn ppm

YR-11,12,13,1	4: fr	om south	end of ve 0-50 m wide	ery large	gossan	exposed along west side of creek (280 m), true width
YR-11 YR-12	16 12	2.30 1.19	360 1,060	1 <1 <1	65 65	} composite grabs from across 5 m each } gossan host in andesite; fine- to medium-grained anhedral pyrite as disseminations, stringers, and fracture filling; sulphide content varies from massive
YR-13	12	1.30	290	1	40	pods (5x10x10 cm) to 2% as disseminations, average ~5% grab chip across 0.6 m (true width) of shear zone 332°/58°NE, extremely weathered to grey (sandy composition), 40% pyrite
YR-14	10	0.62	480	1	37	andesite gossan; 7% pyrite as disseminations, along shears, and associated with minor quartz vein shears (<0.1 cm) spaced every 0.7 cm; parts of andesite are porphyritic
YR-15	64	11.10	3,200	2	112	(from same gossan as YR-11 to 14, from 240 m further north on the creek where gossan now is exposed on east side of creek): massive andesite with 20% epidote containing 2-3% medium-grained pyrite, 2% magnetite, and 1% chalcopyrite as blebs and disseminations
YR-16	8	0.47	75	4	100	grab sample, intensely gossaned K-feldspar porphyritic granodiorite w/ plag > qtz > Kspar > bio; 4-5% nettextured and disseminated fine- to medium-grained subhedral pyrite; intense gossan is 50 m across within granodiorite at andesite contact
YR-17	12	0.44	20	6	37	contact zone of granodiorite; white weathering, aphanitic, felsic unit (rhyolite dyke); composition/appearance variable from cherty to quartzitic; subcrop in place with a probable true width of 2-3 m, 2% very fine-grained pyrite as disseminations and micro-fracture fillings
YR-18	14	0.68	88	5	70	altered andesite (10 chloritized) from adjacent to grano- diorite contact; 1-2% pyrite as disseminations and fracture fillings up to 0.6 cm wide, trace chalcopyrite; three 1 m wide zones

Au ppb Ag ppm Cu ppm Pb ppm Zn ppm

YR-19,20 YR-19	78	ossan gr 12.7	oup of alto 2,300	ernating p 36	oartial 70	ly silicified (10%) andesites and rhyolites: grab of 2-3 m wide andesites (5 units over 40 cm) 220°/ near vertical; variable pyrite content, average 5% (medium- to coarse-grained subhedral to euhedral) primarily as fracture fillings (parallel to strike) up
YR-20	18	0.52	270	5	70	to 0.6 cm wide with 1% as disseminations composite grab of 3 rhyolite units, 2-3 m wide; 1-2% pyrite as fine-grained disseminations and along shear planes
YR-21	8	0.24	94	3	19	altered granodiorite (sericite-limonite) with rare (<1%) felsic dykes 236°/80°SE; whole outcrop (yellowish) is a massive regolith generally with only trace sulphides
YR-22	6	2.20	10,800	14	35	10 m wide zone of intense epidote/chlorite alteration ~6°/mod.W; irregular shape; gossan host is andesite with poddy mineralization and rare malachite staining; grab of sulphide-rich pod (30x30cm x?); 10-15% fine-grained pyrite, malachite staining; rare irregular feldspar veins to 1 cm
YR-23 ·	8	0.14	24	17	74	two parallel mineralized zones forming one gossan approx. 30 cm wide and traceable for 80 m; contains limonitic zone between irregular gossans; host is weakly silicified (10%) andesites; outcrop well jointed at 24°/36°E, 42°/72°SE, 240°/88°S; grab of sulphide-rich zones containing ~5% silvery pyrite (anhedral to almost botryoidal)
YR-2 4	14	1.44	1,190	38	310	grab of gossan (YR-23) containing 0.6 cm massive sulphide (Py >> Cpy > quartz > bornite) following joint set 1
YR-25	616	13.1	5,700	22	780	andesite float with 2-5% pyrite as fracture fillings (\leq 2 mm) with trace chalcopyrite
YR-26	10	0.75	55	33	24	quartz porphyry dyke (float), 1% coarse-grained, chalky appearance, weathered-out crystalline pyrite

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
YR-27	20	0.49	14	18	98	gossan, exposed 15x70 m; 5-8% very fine-grained pyrite as <1 mm stringers and disseminations, occasionally as blebs composed of very fine-grained accumulations, set in green to maroon andesitic tuff; glass shards to 0.5 cm; one quartz-rich area (10x10cm x?) otherwise no quartz veining; limonite staining with rare goethite
YR-28	8 84 9.		9.70 2,700 6		77	grab from 3 m adit drive in at base of gossan (exposed area 10x20 m); intensely fractured; weakly silicified (5%) andesite to basalt; spotty mineralization; best is 8% medium-grained anhedral pyrite and 1% chalcopyrite and 5% magnetite; 2% irregular anastomosing epidote-quartz veins 1-3 mm wide; chalcopyrite often on these or as fracture fillings
					1990	<u>Samples</u>
BR- 0 1	<	not assay	/ed>			float; granodiorite porphyry, medium-grained, grey; with 1% disseminated pyrite, rusty weathered
BR-02	2	0.36	400	27	49	float; granodiorite, pale grey, rusty weathered, medium-grained; 1-3% disseminated pyrite, minor malachite staining
BR-03	<	not assay	/ed>			float; granodiorite, pale grey, rusty weathered, medium-grained; 1-3% disseminated pyrite
BR-04	<	not assay	ved>			same as BR-03
BR-05	22	8.40	4,700	20	360	float; 3 cm quartz veinlet, minor malachite staining, pyrite clots; in medium grey, medium-grained granodiorite
BR-06	<	not assay	ed>			outcrop; andesite, purple-grey, massive; <1% disseminated pyrite, rusty weathered

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
BR-07	2	0.36	160	19	117	outcrop; andesite, dark grey; a portion of the hand sample siliceous and hematized; 5% disseminated pyrite, propylitic alteration
BR-08	8	3.60	111	11	16	outcrop; andesite, green; quartz-carbonate rich section, 5% disseminated pyrite
BR-09	14	10.00	5,400	13	220	outcrop; dacite, mottled pale to medium grey, extensive malachite staining, propylitic alteration (epidote), weak lineation, minor pyrite (altered silicified tuff)
MR-67	204	107.0	18,300	127	1,190	andesite tuff, green, epidote rich, malachite stained along fractures, disseminated pyrite; 2 m adit blasted into a diorite dyke on side of hill
MR-68	50	40.0	9,200	59	1,610	extensively malachite stained mafic tuff; propylitic alteration, extensive epidote, 5% disseminated pyrite, tetrahedrite
MR-69	96	41.0	8,000	53	590	mafic tuff, extensively malachite stained, siliceous, contains a 20 cm barren white quartz veinlet, massive magnetite band adjacent to the quartz vein, minor chalcopyrite
MR-70	13	27.0	7,900	8	91	mafic volcanic, epidote-rich, quartz flooded, fine-grained, epidote staining along fracture planes
MR-71	10	0.97	62	18	66	intermediate volcanic, medium grey, epidote-rich, minor quartz flooding, 2% disseminated pyrite and pyrite clots
MR-72	56	34.0	15,500	15	155	same as MR-68
MR-200	128	3.60	1,900	330	165	andesite, dark grey, fractured, quartz flooded, quartz with 5-10% disseminated magnetite and pyrite
MR-206	2	0.60	1,330	23	66	outcrop; diorite, light grey, fine-grained, pyrite lining fractures, rusty weathered

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
MR-207	256	0.29	570	16	62	outcrop; andesite, medium grey, aphanitic, strongly mag- netic, disseminated magnetite, pyrite lining fractured planes, rusty weathered
MR-208	6	0.12	12	20	45	rhyolitic dyke, 50 cm, pale grey, aphanitic; cutting massive andesite; pyritic along dyke margins, surrounding andesite recrystallized; contains minor spotty pyritic areas which are rusty weathered; 20 m to the north, an 8 m wide light grey rhyolitic dyke cuts andesite (sample: light to medium grey, siliceous, narrow quartz-rich bands impregnating surrounding country rock; fractured; pyrite lining fracture planes, rusty weathered
MR-209,210	S	urrounde		ssive an	desite;	ndesite/quartzite/rhyolite, section approx.30 m wide, 50 cm wide beige quartzite beds with disseminated ning
MR-209	172	14.5	2,400	11	113	massive magnetite with minor malachite staining, 3% disseminated chalcopyrite, occasional blebs of pyrite, bed ~10 cm wide, minor galena, in a quartzite, garnet lining edge of magnetite band
MR-210	148	21.0	10,200	9	250	quartzite, beige, occasional small garnets; 1-3% spotty disseminated pyrite generally occurring in layers pronouncing foliation; trace malachite, rusty weathered
MR-211-A	2	2.80	2,700	2	145	massive magnetite 10 cm wide, in beige quartzite, minor malachite staining, minor pyrite crystals near the outer margins of the magnetite, 1 cm tremolite crystals at contact with magnetite and quartzite; carbonate
MR-211-B	44	12.30	6,500	8	800	outcrop; quartzite, beige, vuggy, with numerous small garnets
MR-212-A	240	42.0	20,000	112	114	massive magnetite 10 cm wide in beige quartzite, Py stringers and crystalline clots; minor malachite staining, minor quartz associated with pyrite clots

	<u>Au ppb</u>	Ag ppm	<u>Cu ppm</u>	Pb ppm	Zn ppm	
MR-212-B	198	27.0	14,300	20	167	outcrop; dacite?, beige, rusty weathered, quartz/car- bonate fracture filling, containing pyrite stringers and clots, minor malachite staining along fracture planes, massive magnetite lining the surface (up to 1 cm wide) of the hand sample, actual width not determined
MR-213-A	136	12.9	6,300	42	74	1.5 cm magnetite band in beige sucrosic quartzite, pyrite along margins of the magnetite, minor malachite staining
MR-213-B	752	86.0	55,000	138	420	outcrop; massive magnetite, large pyrite crystals in one corner of the sample; trace malachite staining adjacent to the pyrite
JR-204	<	not assa	yed>			argillite, white to pale grey, rusty weathered; Py clots
JR-205	<	not assay	yed>			andesite, dark grey; minor disseminated and stringer Py
JR-206	<	not assay	yed>			andesite, dark grey, massive; minor quartz-carbonate stringers, minor pyrite lining fractures, moderately magnetic (Rainbow 4 post 3S)
JR-207	<	not assay	yed>			tuff, medium beige-grey, porphyrytic (Rainbow 3 post 4E)

ANALYTICAL REPORT

Taiga Consultants Ltd.
Claude Aussant

Date: July 31, 1991

Job No: 91-130

Project: BC-90-4 Rainbow Claims

P.C. No:

47 Rock

22 Silt

Bigned: <u> **y**M</u>9)

Job#: 91-130

Project: BC-90-4 Rainbow Claims

	Sample	ALI	Ag	Cu	Pb	Zn
	and the second s		.77			
Carlo IV	Number	ppb	bbu	ppm	ppm	bbw
Rock						
WR-	32	4	0.25	22	22	13
	33	4	0.20	78	6	27
		156				
	34		65.0	1810	1200	165
	35	12	0.47	15	13	4
	36	26	5.40	2200	4	102
	37	2	2.00	. 36	145	12
	38	10	3.90	68	590	57
	39	2	0.31	101	11	21
	40	日	0.36	28	9	38
	41	6	0.39	48	4	32
	and.	0.0	44.70	man	PERM	0000
	42	. 26	14.70		240	9200
	43	8	3.10		250	5200
	4.4	626	3.40	133	23	103000 <
	43	218	31.0	17700	1.4	400
YE-	16	8			- 4	100
11.65	A 502		G. 47	2.50	-4	100
	17	12	0.44	20	6	37
	is	14		BE	5	70
	1.9	78	12.7		36	70
	20	18	0.52	270	5	70
	21	8	0.24	94	3	- 19
	22	6	2.20	10800	14	35
	22	8	0.14	24	17	74
	24	14	1.44		38	310
	25	615	13.1	5700	22	780
	26	10	0.75	50	33	24
	27	20	0.49	14	18	98
			0.43	14		
	28	84			6	77
Z F3:	29	10	0.17	82	62	17-
	30	2	0.58	149	9	39
	31	4	0.22	97	7	91
	32	2	0.30	8	1.4	68
	33	10	0.40	22	5	169
	34	76	0.27	25	9	97
	35	E	0.79	134	38	101
	36	10	0.39	28	13	79
	37	4	0.40	20	23	41
	30	20	0.75	170	18	105
	39	32	0.65	7	8	13
	40	30	1.42	340	24	109
	€1	E	0.51	53	155	38

Job#: 91-130

Project:	BC-90-4	Rainbow	Claims
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			5			
	Sample	Au	Ag	Cu	PЬ	Zn
	Number	bbp	bbw	ppm	bbw	ppm
ZR-	42	6	0.21	300	43	28
	43	4	0.36	270	15	31
	44	6	0.10	33	. 7	22
	45	12	0.95	300-	9	26
	48	376	40.0	3100	< 1	450
	47	20	0.19	79	6	56
	48	18	1.42	430	26	60
Silt						
W8-	27	8	0.23	145	12	37
	28	8	0.37	168	18	44
	29	12	0.30	179	20	47
	30	6	0.22	145	9	38
	31	2	0.29	157	12	43
	32	4	0.32	175	15	43
	33	4	0.23	151	11	39
Z5-	31	26	0.65	1040	46	330
	32	25	0.64	1110	51	410
	33	26	0.54	800	49	340
	34	6	0.73	460	115	71
	35	18	0.63	700	132	101
	38	5 4		650	24	79
	37	14	1.20	1130	37	102
	38	. 8	4.70	1110	49	. 80
	39	12	14.4	810	46	81
	40	14	10.9	1240	38	82
	41	25	3.00	2400	78	370
	42	30	2:10	1910	67	380
	43	16	3.00	1410	72	250
	44	20		1300	70	260
	45	16	2.30	1100	70	240

ANALYTIDAL REPORT

Taiga Consultants Ltd.

Claude Aussant

Data: July 30, 1991

Job No: 91-127

Project: BC-90-4 Rainbow Claims

P.D. No:

40 Rock

18 5.11

_jmH____

Job#: 91-127 Project: BC-90-4 Rainbow Claims

	Sample		Au	Ag	Cu	Pb	' Zn
	Number		ppb	ppm	· ppm	ppm	PPM
Rock			F-F	la la tri	P.F.	PER III	E E
WR-			14	4.60	2200	28	73
WR-			. 6	2.40	910	4	95
WR-			50	8.60	2500	3	41
WR-			4	0.28	110	4	-56
WE-			70	9.80	4600	2	72
3320			20-35	##F###################################		177.	13407711
WR-	27		12	3,30	1030	3	44
WR-	28		10	1.12	680	フ	165
WR-	29		B	0.36	28	5	84
WR-	31	-	30	3.40	700	3	56
WR-	ුත	3.7	~ 8	0.68	137	2	41
	-		ğ = 1				
XB-	3 (Red)			0.25	30	10	44
XR-	35		238	161.0	48000	12	250
XR-	36		26	8.50	5300	35	64
XR-		-	8	0.36	420	4	49
XE-	38		8	4.20	1970	< 1	69
XR-	22		E	0,76	770	3	63
XR-		54	3	1.41	570	2	18
· XR-			14	3.00	2300	2	60
XR-				0.76	1250	2 2 2	59
XR-			42	12.0	7700	2	450
XR-			18	4.10	780	7	54
XR-			4	0.33	162	- 4	46
XR-			2	0.15	10	1	22
XR-		_	26	0.14	27	1	12
YE-	3		38	4.00	2500	< 1	109
VP-	10		80	11.5	5700	2	123
YE-			15	2.30	360	1	55
YQ-	12		12	1.19	1060	< 1	64
YR-	13		12	1.30	290	1	40
Y 600	14				450	1	37
O.F.				40.00	, mann	- 20	110
<u>∑33</u> +	303				3200 46000	2	
					105000		
ZR-					45000		
ZR-			8				
485-	piner Start		36	4.00	300	11	41
Z.R-			39600	300.0	3100		
Z5:-				4.00	OBE		
ZR-				0.39	360		58
ZR-				0.27		7	34
ZE, -	23		G	0.22	50	(2)	10

Job#: 91-127

Project: BC-90-4

	Sample		Au	Ag	O.	Pb	Zn
	Number		ppb	mojq	ppm	ppm	ppm
Sil			135270300	Addictor	Note and	75,000	#11 #13 (1023)
WS-	25		40	1.63	520	20	510
WS-	26		40	1.45	450	19	520
YS-	18		130	1.20	740	27	500
YS-	19		136	1.62	530	24	440
YS-	20		20	1.33	1000	20	530
YS-	21		74	1,33	8.10	22	480
YS-	22		12	1.41	511	19	470
YS			10	1.59	5375	17	290
ZS-				1.31	10.0	38	430
ZS-	22		14	0.75	780	45	420
ZS-	23		18	0.74	71	43	350
Z5-	24		18	0.55	7.00	41	350
ZS~	25		12	0.35	1900	40	390
ZS-	26		14	0.54	E 10	38	280
ZS-	27		18	0.74	14 0	43	550
ZS-	28	ij.	10	0.48	380	28	370
ZS-	29		10	0.36	55-	21	300
75-	20		20	15 45		56	100

Job#: 90-165

Project: BC-90-4

-	Sample Number	ppm Au	Ag ppm	Sb mqq	ppm Cu	Pb ppm	Zn ppm	Co ppm	
~MR-90-		204	107.0	4	18300	127	1190	13	-
•	68 69	50 96	40.0 41.0	3 1	9200 8000	5 9 5 3	1610 590	2 9 19	
•	70	13	27.0 0.00	3	6900	8	91	9	
	71 72	10 56	0.97 34.0	1 3	62 15500	18 15	66 155	30 18	

Job#: 90-160

Project: BC-90-4

Sample Au Ag Sb Cu Pb Zn Co Number ppb ppm ppm ppm ppm ppm

JS-90-

JS - 30

12 0.52

2 490

31

Job#: 90-165

Project: BC-90-4

Sample Au Ag Sb Cu Pb In Co

As ppm

- MS-90- 64 20

- MS-90- 66 28

- MR-90- 67 42



14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7 (403):276-0000x 250-9460

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.

14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7 (403) 276-566

250-946

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 150 mesh (100 micron particle size).

14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7 (403) **276:9368**: 250-9460

250-9460

ANALYTICAL METHODS FOR BASE METALS

Cd, Cr, Co, Cu, Fe (soluble), Pb, Mn (soluble), Mo, Ni, Ag, Zn

A portion of the prepared sample is digested in hot nitric/perchloric acid mixture, or hot aqua regia (nitric/hydrochloric acids).

Elements are determined by atomic absorption spectrophotometry.

