

FILMED

REVERSE CIRCULATION PERCUSSION DRILLING

ASSESSMENT REPORT

on the

LOG NO:	0320	RD.
ACTION:		
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FILE NO:		

VENT PROPERTY

SUMMERLAND AREA

OSOYOOS MINING DIVISION

, by

Murray Morrison, B.Sc.

U M ZO 0...

Claims:

Vent 1-6 (42 units)

Location:

The Vent property is situated at Riddle Creek, 16 km southwest of Summerland,

B.C.

Lat. 49°33'

Long. 119º53!

N.T.S. 82-E-12W

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U C

(d)

Owner:

Murray Morrison

Operator:

Zygote Resources Ltd.

Date Started:

July 13, 1989

Date Completed:

September 18, 1989



Province of British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
Drilling (Reverse Circulation)	\$ 28,091.00
Murray S. Morrison SIGNATURE(S)	Jamay S. Myrican.
DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED	Nov30/89year of work !89.
PROPERTY NAME(S) Vent Property	
COMMODITIES PRESENT . possible .gold?	
B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN	
MINING DIVISIONOsoyoos	
LATITUDE49°.33! LONGITUDE	11.99.53.
NAMES and NUMBERS of all mineral tenures in good standing (when work was done) (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Leas	that form the property [Examples: TAX 1-4, FIRE 2 e ML 12 (claims involved)]:
Vent 1-6 (42 units)	
·	
· · · · · · · · · · · · · · · · · · ·	
OWNER(S)	
(1) Mr. M. S. Morrison (2)	
,	
MAILING ADDRESS	
.684. Balsam Road,	
Kelowna, B. C. VIW 1B9	
OPERATOR(S) (that is, Company paying for the work)	
(1) Zygote Resources Ltd. (2)	· · · · · · · · · · · · · · · · · · ·
MAILING ADDRESS	
2-2979 Pandosy Street,	
Kelowna, B. C. V1Y 1W1	
	,
SHMMARY GEOLOGY lithology and etructure alteration mineralization size and a	arriguda).

The property covers the Riddle Creek Tertiary basin which is in-filled with andesite, phonolite, and trachyte flows and trachytic pyroclastics of the Eocene Marron Formation. The Tertiary volcanics have been gently folded into asymmetrical anticlines and synclines striking east-southeast. A thick (30 metre) tuffaceous unit lies at shallow depth below the uppermost trachyte flows over a 1 sq. km area on the property. The tuff is highly kaolinite altered and locally silicified, and it is thought that it may host epithermal gold mineralization near hydrothermal vents in a manner similar to that observed on the newly discovered Vault gold property at Okanagan Falls 30 km to the southeast.

TYPE OF WORK IN THIS RESERT		TENT OF WORK METRIC UNITS)			. 0	N WHICH CLAI	MS .		COST
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Radiometric				• • • • • • • •		• • • • • • • • • •	• • • • • • • • • • • • •		
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Rock	• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • •		• • • • • • • • • •			*********
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Metallurgic									
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Photogrammetric (scale, area)	• • • • • • • • •	· · · · · · · · · · · · · · · · · · ·		• • • • • • • •					
Line/grid (kilometres)									
Road, local access (kilometres)									
Trench (metres)									
Underground (metres)									
			Ì	1					\$ 28,091.
·							······································	TOTAL COST	. *
FOR MINISTRY USE ONLY		NAME OF PAC ACCOUN	T	DEBIT	CREDIT	REMARKS:			
Value work done (from report) .									
Value of work approved						}		,	
Value claimed (from statement) .								•	
Value credited to PAC account									
Value debited to PAC account									
Accepted Date	• • • • • • • • • •	Rept. No	• • • •			Information Clas	ss		• • • • • • • • • • • • • • • • • • • •



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SUMMARY

A Reverse Circulation Percussion Drill Prgogam was conducted July 28 - August 10, 1989 on the Vent property located 16 km southwest of Summerland, B.C. The program, financed by Zygote Resources Ltd. of Kelowna, B.C., consisted of 8 drill holes, totalling 492 metres, drilled on the Vent 1&2 mineral claims ½ km south of Riddle Creek. The drill holes ranged from 35.1 metres to 94.5 metres in depth. They were drilled to test clay altered, silicified, and faulted Eocene Marron Formation trachytic flows and tuffs.

The silicified and altered Eocene volcanic rocks on the Vent property were believed to be good targets for precious metal exploration in light of the well-publicized drill results announced from the Vault and Brett gold properties hosting similar Eocene geology elsewhere in the Okanagan region.

Five of the 8 drill holes of the 1989 season intercepted highly faulted, clay altered and silicified Marron Formation trachytic flows and tuffs. Four of these five drill holes also intersected considerable intercepts (33 to 43 metres) of pyrite enriched (5 to 15%) clay alteration zones. All of the drill holes returned negligible precious metal values and only slightly elevated arsenic values.

The drilling did prove the existence of late faults cutting through the Marron Formation volcanics on the property. These faults are thought to be the conduits for the vast volumes of low temperature hydrothermal solutions which have brought about the high degree of clay alteration and silicification of the volcanics on the south side of the property.

The silica replacement of the volcanics is recognized as low temperature silica (chalcedony) in most drill holes and vein quartz was found to be entirely lacking.

Continued . . .

SUMMARY - Continued

The type of silicification indicates that only the uppermost horizons of the strong epithermal systems on the Vent property have been penetrated by the 1989 drilling. Deeper drilling of these late fault structures is, therefore, highly recommended in order to seek out the higher temperature quartz stockworks that may form the "roots" of these large epithermal systems. If precious metal values exist on the property they would be expected to be associated with the quartz stockworks.

Geophysical surveys are recommended prior to drilling. I.P. surveys should be particularly useful in outlining the large pyrite and clay zones accompanying the major fault structures on the property.

INTRODUCTION:

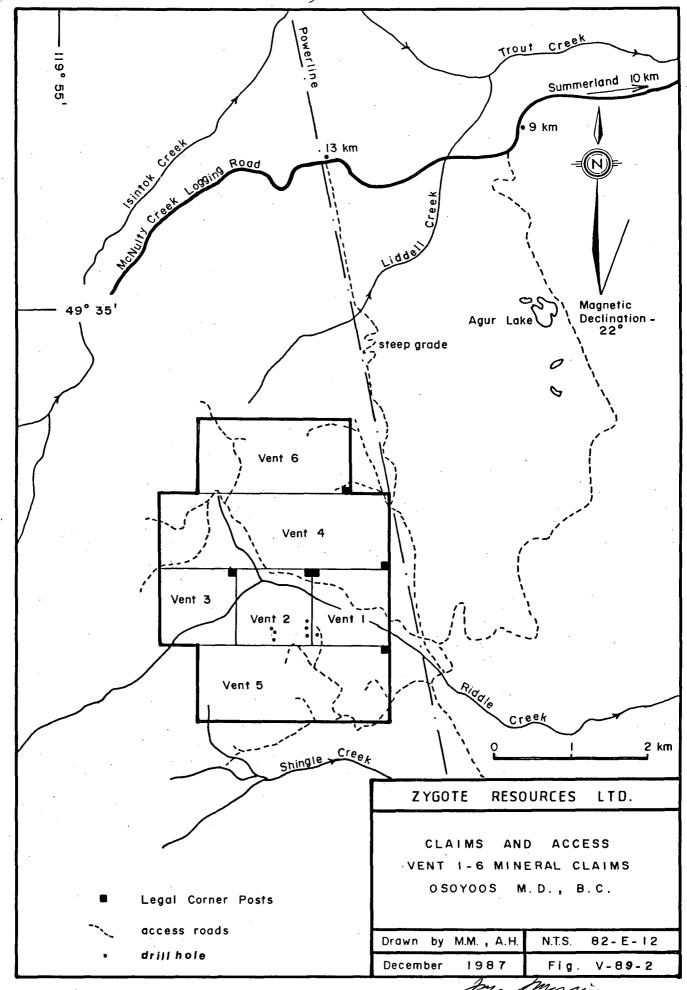
During July and August, 1989, an eight hole Reverse Circulation Percussion Drill program, totalling 492 metres, was conducted on the 42-unit Vent property situated at Riddle Creek, 16 km southwest of Summerland, B.C.

The Vent property covers a small Tertiary basin lying 30 km to the northwest of the well-known Vault and Dusty Mac gold properties of the White Lake Tertiary Basin. The property was staked by the writer in 1986 following the announcement of a significant gold discovery by Inco Gold Corp. on the Vault property.

During the summer of 1987 the Vent property was optioned to Zygote Resources Ltd. of Kelowna, B.C., and preliminary geological and geochemical surveys were conducted over the claim group. This work resulted in the discovery of a large clay alteration zone located near the southern border of the Vent 2 mineral claim. It was further determined that the greatest alteration was confined to a faulted tuff unit interbedded within trachyte flows of the Eocene Marron Formation.

The faulted, altered tuff unit was selected as a target for the 1989 drill program, because of similarities with highly altered tuffs seen elsewhere within the Okanagan Epithermal Gold Belt.

The 1989 drill program tested an area measuring 300 by 600 metres near the southeastern corner of the Vent 2 mineral claim, approximately ½ km south of Riddle Creek. Seven of the eight drill holes were drilled on the Vent 2 mineral claim, while the eighth drill hole was drilled near the southwest corner of the Vent 1 mineral claim. A complete discussion of the results of the drill program follows within this report. Drill logs and certificates of geochemical analysis are also appended to this report.



Mr. Merrian

LOCATION AND ACCESS

The Vent property is situated at Riddle Creek, 16 km southwest of Summerland, or 22 km northwest of Penticton, B.C. (Lat. 49° 31'; Long. 119° 53'; N.T.S. Map 82-E-12W). The property may be reached by logging roads from either community. Access from Penticton is via the Shingle Creek logging road (45 minute drive), while access from Summerland is by way of the McNulty Creek logging road, and hence, via a dirt, all-weather road which leaves the logging road at 9.4 km and passes near Agur Lake enroute to the property as shown on figure V-89-2. A shorter, but steeper, seasonal road follows the 500 kv powerline to the property. The Agur Lake route requires 45 minutes driving from Summerland.

Recently built logging roads give access to most parts of the property as illustrated on figure V-89-2.

PHYSICAL FEATURES AND CLIMATE

The Vent property lies near the southern edge of the Thompson Plateau. The plateau with elevations ranging from 1500 to 1700 metres has been deeply incised towards the Okanagan Valley by drainage flowing into Okanagan Lake (elevation 340 metres). The entire region was glaciated during the Pleistocene resulting in rounded-off ridges and in-filled valleys.

The Vent property, centred over the upper drainage basin of Riddle Creek, 18 km west of Okanagan Lake, covers an area of subdued relief typical of the Thompson Plateau. Elevations on the property range from 1340 to 1680 metres. Rock exposures are restricted to the tops of ridges or steep creek banks. Elsewhere, there is a general cover of glacial till that reaches depths in excess of 30 metres on some portions of the property.

PHYSICAL FEATURES AND CLIMATE - Continued

The dominant forest cover on the property is lodgepole pine which ranges from a jungle of "bean-pole" second-growth in old burn areas near Riddle Creek to mature stands of timber elsewhere on the property. Several stands of the mature timber have been strip-logged in recent years. Douglas fir is the more common forest species found on the upper rocky ridges on the northern half of the property.

Although the Okanagan Valley is semi-arid the Thompson Plateau to the west receives upwards of 50 cm of precipitation annually; half of it in the form of snow. A winter snow pack of 1 to 2 metres begins to accumulate on the Vent property in November, and can be expected to last until mid-May on shaded slopes.

Riddle Creek flows year-round providing water for grazing cattle in the region.

CLAIM STATUS

The Vent property is made up of the Vent 1-6 mineral claims, totalling 42 units. The claims were staked by the writer, M. Morrison, of Kelowna, B.C. during November-December, 1986, and were recorded in the Osoyoos Mining Division.

Continued . . .

CLAIM STATUS - Continued

The mineral claims making up the property are listed below:

CLAIM NAME	UNITS	DATE OF RECORDING	RECORD NO.	MINING <u>DIVISION</u>	EXPIRY DATE*
Vent 1	4	Dec.11/86	2552	Osoyoos	Dec.11/92
Vent 2	4	Dec.11/86	2553	Osoyoos	Dec.11/92
Vent 3	4	Dec.11/86	2554	Osoyoos	Dec.11/92
Vent 4	12	Dec.11/86	2555	Osoyoos	Dec.11/92
Vent 5	10	Dec.11/86	2556	Osoyoos	Dec.11/92
Vent 6	8	Dec.11/86	2557	Osoyoos	Dec.11/92

* The Expiry Date is based on the acceptance of this report for Assessment Work Credits.

The property was optioned to Zygote Resources Ltd. of Kelowna, in August of 1987 and returned to the vendor (M. Morrison) in December, 1989.

HISTORY

The Riddle Creek Tertiary basin was staked by British Newfoundland Exploration Ltd. as an uranium-thorium prospect in 1977. During the 1977 season radiometric and reconnaissance silt and soil geochemical surveys were carried out in conjunction with preliminary geological mapping on the property, comprised of the Agur and Ash mineral claims. In 1978, seven diamond drill holes, totalling approximately 270 metres, were completed. Five of the holes were drilled directly into a syenite intrusive, while two of the holes penetrated ash flows and basal conglomerates up to 30 metres in thickness within the Tertiary basin (Church, 1981). No significant uranium or thorium was discovered and the claims were allowed to lapse.

The Vent property now includes ground formerly covered by the Ash 2 & 3 mineral claims.

HISTORY - Continued

The Vent property was optioned to Zygote Resources Ltd. of Kelowna, B.C. in August, 1987. Zygote Resources provided funds for the preliminary geological and geochemical surveys carried out in 1987 (M. Morrison, 1987), and for the Reverse Circulation Percussion Drill program of 1989. The property was returned to the writer following an appraisal of the geochemical results from the drilling program.

REGIONAL GEOLOGY AND MINERALIZATION

The regional geology of the Southern Okanagan is illustrated on Map 15-1961 entitled "Geology of the Kettle River (West Half)" by H.W. Little of the Geological Survey of Canada. The map outlines several basins or outliers of Eocene rock. The most noteable basins in the immediate area of the Okanagan Valley are the White Lake, Westbank-Rutland, and Summerland Eocene basins. They are infilled with thick accumulations of poorly sorted sediments, pyroclastics and volcanic flows of trachyte, trachyandesite, dacite and rhyodacite composition. There is local evidence of volcanic venting in each basin.

A fourth, smaller, Tertiary basin, lying 13 km west of the Summerland basin, or 10 km northwest of the northernmost portion of the White Lake basin, is centred over Riddle Creek. This basin, referred to as the "Riddle Creek Tertiary Basin" in this report, also features a volcanic centre with a sequence of flow rocks and pyroclastics of suspected local origin. (Although the rocks are believed to be of local origin, they do correlate with the Eocene Marron Formation of the White Lake basin (Church, 1981)).

The Riddle Creek Eocene Volcanic Centre has many characteristics in common with the gold-bearing Eocene volcanic centres recently discovered at Okanagan Falls (Vault property), 30 km to the southeast, and at Whiteman Creek (Gold Star and Brett properties),

REGIONAL GEOLOGY AND MINERALIZATION - Continued

77 km to the northeast. Gold-bearing silica solutions, emanating from late fissures (which cut the volcanic piles at both Okanagan Falls and Whiteman Creek), flood out into thick, porous, sedimentary and tuffaceous horizons that are capped by impermeable flow rocks. The loosely consolidated sediments and tuffs exceed 100 metres in thickness on the Vault property and 30 metres on the Whiteman Creek properties. The best gold values occur near the fissures (shear zones), but significant values also occur within the porous rock units for some distance from the shear zones. Alteration of the porous rock extends hundreds of metres from the hydrothermal conduits.

Over the past three years aggressive exploration programs have been carried out on at least five Tertiary epithermal gold properties in the Okanagan region:

- (1) Inco Gold Co. has recently announced reserves of 150,000 tons of 14g/Tonne gold for the "North Vein" on the Vault property.
- (2) Corona Corp. working on the Whiteman Creek Brett property reported 26g/Tonne gold over 5 metres in 1987 from a mineralized shear zone. This discovery prompted ambitious drill programs for 1988 and 1989 by Corona Corp.
- (3) Brican Resources Ltd. carried on extensive exploration programs on the Gold Star property, adjacent the Brett property at Whiteman Creek in 1987-88. Alteration zones are extensive on the property, but good gold values have, so far, eluded the drill.
- (4) Minnova Incorp. carried out work on the Dusty Mac property at Okanagan Falls, drilling deep holes on the old gold producing property.
- (5) Inco Gold Co. also recently drilled the Venner Meadows Tigris property, 22 km southeast of Okanagan Falls.

The Riddle Creek Tertiary Basin contains a thick (up to 30 m) tuffaceous unit that is intensely hydrothermally altered like the tuffaceous rocks at the Vault and Whiteman Creek properties. This faulted, altered tuffaceous unit was the target for the 1989 drill program on the Vent property.

PROPERTY GEOLOGY

The property geology was mapped by the writer in 1987 (M. Morrison, 1987). A brief summary of the geology is given here based on the 1987 mapping with slight revisions resulting from the 1989 drilling.

Summary

The Tertiary basin at Riddle Creek, like others in the district, is infilled with an assemblage of sediments, and volcanic flows and pyroclastics. A basal conglomerate directly overlies granodiorite of the Nelson Intrusions (Cretaceous?). The conglomerate is in part covered by a series of andesite flows, which are in turn covered by widespread phonolite flows. The phonolite flows are covered by a thick sequence of Eocene Marron Formation trachyte flows, and at least one thick tuff unit lies interbedded within the trachyte flows near the top of the volcanic pile. A syenite plug at the southwestern margin of the Riddle Creek basin is thought to be contemporaneous with the extrusive rocks.

The Tertiary rocks have been folded into asymmetrical folds which are reflected in the present topography of rounded ridges and valleys. The North Fork of Riddle Creek and Riddle Creek proper are subparallel to the axes of Tertiary plunging synclines striking southeast and east-southeast respectively.

Hydrothermal solutions have ascended late fault zones cutting the Marron Formation on the south half of the Vent property resulting in widespread clay alteration and silicification of the tuff unit.

A window in the Upper Trachyte Flow at the crest of a gentle easterly plunging anticline was selected as the target for the 1989 drilling program. The window measures up to 1200 metres long by 600 metres wide and straddles the southern border of the Vent 2 mineral claim. The readily accessible eastern half of

PROPERTY GEOLOGY - Continued

Summary - Continued

the window was tested with the drill program.

The drill program was designed to test both the thickness and the precious metal potential of the altered tuff unit.

DRILLING PROGRAM

The Drill

A tract-mounted Reverse Circulation Percussion Drill was hired from Northspan Exploration Ltd. of Kelowna for the Vent drilling program. The drill, with a capacity to drill a 10.8 cm bore hole to a depth of at least 150 metres, was considered suitable for the job. The self-contained drill, built by Northspan in conjunction with Kelowna Steel Fabricators, features components from several Trade Name companies. It has been given the name "Explorer" by the builders.

The drill is equipped with a dozer blade for site levelling and carries 140 metres of drill road in a side rack. A service pick-up truck and a one-ton water truck with 1300 litre tank accompanies the drill to each site.

The drill was trucked to the property via the Shingle Creek road from Penticton.

Site Preparation

The drill sites, sumps, and temporary drill roads were established with a 450 John Deere dozer with a scoop blade, also

Site Preparation - Continued

trucked to the property from Kelowna via Penticton and the Shingle Creek road.

Reclamation

A 350 John Deere tractor with scoop blade was driven directly to the property from Summerland via the powerline road for clean-up and reclamation following the drilling program.

Mixed grass seed and fertilizer were spread over all disturbed sites.

The Program

The drilling program was conducted during mid-summer (July 28 - August 10, 1989). Drilling was conducted dry where possible, but most drill holes required injection of water before completion. The water was trucked to the drill sites a distance of 8 km from the main road crossing at Riddle Creek.

The sites of the 8 Reverse Circulation Percussion drill holes have been plotted on Map V-89-3 accompanying this report. Seven of the 8 drill holes were drilled near the southeastern corner of the Vent 2 mineral claim, while the eighth drill hole was drilled near the southwestern corner of the Vent 1 mineral claim. The area covered by the drilling program measures 300 by 600 metres. The specifics of the 8 drill holes are listed in the table on the following page:

Continued . . .

The Program - Continued

		Coordi <u>North</u>	nates* <u>West</u>	Azimuth <u>Degrees</u>	Dip <u>Degrees</u>	Length <u>Metres</u>	Mineral <u>Claim</u>
DH 8	39-1	13+18	17+77	270	- 50	76.2	Vent 2
DH 8	39 - 2	14+13	18+16	270	- 50	42.7	Vent 2
DH 8	89 - 3	15+10	18+49	275	- 50	45.1	Vent 2
DH 8	89-4	13+65	. 16+63	290	- 50	45•7	Vent 1
DH {	89 - 5	11+38	21+99	273	- 50	94.5	Vent 2
DH 8	89-6	12+37	22+20	270	- 50	93.0	Vent 2
DH {	89 - 7	12+82	22+51	270	- 50	35.1	Vent 2
DH 8	89 - 8	13+17	17+75	180	- 50	59•4	Vent 2
,		•	•			491.7	

Coordinates in metres
 Grid is 020 degrees and 290 degrees.

Sampling

Approximately 40 kg of rock powder and chips were produced by each 3 metre drill intercept. A 3-way splitter situated under the cyclone yielded a one-eighth split of the large samples for analysis. In many cases the sample was split once again into a manageable $2\frac{1}{2}$ kg size for shipment to the lab. A reject sample was also collected from each 3 metre drill intercept, and a rock chip sample was screened and washed from spare sample material for geological studies.

The high degree of clay alteration of the Marron Formation rocks yielded very sloppy, clayey, and difficult to handle, samples from drill holes 89-1, 6 and 8. Semi-permeable sample bags were required for these samples.

Continued . . .

Sampling - Continued

In all, 129 drill samples were delivered to Acme Laboratories in Vancouver for ICP analysis for 30 elements. The samples represented 3 metre intercepts in drill holes that showed a high degree of clay alteration or silicification. Composite samples representing up to 15 metres were submitted for drill holes that showed little or no alteration (Please see drill logs). Eighty—three of the 129 drill samples were selected for additional gold geochem analysis. The results of the analysis, and the laboratory procedures used, are listed in Appendix D. Six check samples were also analyzed by Eco-Tech Laboratories of Kamloops.

Drill Hole Summaries

All of the drill holes penetrated trachytic tuffs or flows of the Eocene Marron Formation. Precious metal values were uniformly low. (Please see drill logs for details).

DH 89-1

3.0 - 19.8 m Upper trachyte flow.

19.8 - 24.4 m Crystal and lapilli tuff.

24.4 - 73.2 m Lower trachyte flow (faulted and altered).

73.2 - 76.2 m Lower trachyte flow (below the fault zone).

Remarks: Much of the drill hole was drilled within a fault zone. Clay alteration was pervasive, and up to 70% pure clay was washed from the samples. The best silica replacement (chalcedony) occurs within the tuff unit and near the top of the Lower Trachyte Flow. Pyrite (8%) and copper (up to 391 ppm) are associated with the silica.

DH 89-2

3.0 - 42.7 m Lower trachyte flow.

Remarks: The trachyte is generally fresh and unmineralized. A clay (fault?) zone occurs from 21.4 - 27.4 metres.

Drilling Summaries - Continued

DH 89-3

3.4 - 45.1 m Lower trachyte flow - generally fresh and unmineralized.

DH 89-4

3.0 - 36.6 m Lower trachyte flow (faulted).
36.6 - 45.7 m Lower trachyte flow (below fault).

Remarks: Much of the drill hole was drilled within faulted and highly kaolinite altered trachyte. Unlike DH 89-1 the silica and pyrite content was negligible throughout DH 89-4. Copper values exceed 100 ppm in the upper 20 metres of the drill hole.

DH 89-5

3.0 - 79.2 m Crystal and lapilli tuff.

79.2 - 94.4 m Lower trachyte flow? (faulted and altered).

Remarks: The tuff throughout the upper 57.9 metres of
DH 89-5 has been almost entirely replaced by silica and
kaolinite. Pore spaces (after dissolved cystals?) equal
10% of the rock and limonite or hematite staining is
common. The barium content reaches up to 311 ppm.

Silica and kaolinite replacement remains high to 79.2

metres, but barium drops off. Pyrite, absent in the
upper two thirds of the drill hole, equals up to 12% below
57.9 metres. Elevated copper values (up to 214 ppm) are
associated with the higher pyrite values.

Below 79.2 metres clay replacement increases at the expense
of silica. The hole was abandoned due to caving at 94.4

metres.

Continued . . .

Drilling Summaries - Continued

DH 89-6

4.6 - 74.7 m Crystal and lapilli tuff.

74.7 - 86.9 m Lower trachyte flow (faulted and altered).

86.9 - 93.0 m Lower trachyte flow (below the fault).

Remarks: As in DH 89-5 the upper levels of the tuff are almost entirely replaced with silica and kaolinite to 29 metres. Pore spaces (after dissolved crystals?) equal 10%, and again barium levels are elevated (up to 500 ppm). Below 29 metres the faulted volcanic rocks are more clay altered and less silicified and as much as 85% clay was completely washed from the samples. The pyrite content equals 6-8%, and reaches as high as 15%. The best copper values (up to 276 ppm) are restricted to the top 20 metres of the strong clay altered fault zone. Silica replacement falls off sharply below the lower tuff contact.

DH 89-7

4.9 - 35.1 m Lower trachyte flow, generally weakly faulted and clay altered. Pyrite in late fractures equals 2-3%.

DH 89-8

3.0 - 10.7 m Upper Trachyte flow.

10.7 - 22.9 m Crystal tuff and lapilli tuff.

22.9 - 56.4 m Lower trachyte flow (faulted and altered).

56.4 - 59.4 m Lower trachyte flow (below the fault).

Remarks: Kaolinite replacement was strong throughout the drill hole to 56.4 metres, and as much as 80% clay was completely washed from samples. Silica replacement (chalcedony) was most abundant within the tuff unit. Pyrite (up to 15%) and elevated copper values (up to 296 ppm) are associated with the silicification.

Summary of Drill Data

A review of the drill data indicates that:

- 1. DH's 89-1, 4 & 8 were drilled for considerable distances through highly faulted and clay altered trachytic rocks before bottoming in unfaulted trachyte.
- 2. DH's 89-2, 3 & 7 penetrated trachytic flow rocks only. The trachyte of DH 89-3 was fresh, that of DH 89-2 was cut by local faulting and exhibited local clay alteration, and the trachyte of DH 89-7 was well fractured with slight clay alteration over several metres width.
- 3. DH's 89-5 & 6 drilled through tens of metres of highly silica-replaced tuff before penetrating faulted, clay altered, silicified and pyritized zones for several more tens of metres. DH 89-5 was stopped due to drilling problems, while DH 89-6 bottomed-out in fresh trachyte below the fault zone.

A further review of the drill data taking the lithogeochemical data into account reveals that:

- 1. All of the sample intervals of the drilling program returned negligible precious metal values.
- 2. The typical epithermal indicator elements, antimony and arsenic, yielded very low values in all samples. The antimony values were negligible, while the arsenic values were only weakly elevated (20 to 50 ppm within silicified zones).
- 3. The best silicification encountered in the drill program (the upper tuff in DH's 89-5&6) yielded anomalous barium (up to 500 ppm), but nothing else.

Summary of Drill Data - Continued

- 4. The better silicified zones of DH's 89-1&8 were accompanied with pyrite (up to 15%) and copper values (up to 391 ppm).
- 5. The lower clay altered and faulted, tuff in DH's 89-5%6 also showed an association of elevated copper values (up to 214 ppm) with pyrite.
- 6. There is a correlation between <u>late</u> silica, pyrite and elevated copper values in drill samples.
- 7. Moderate pyrite mineralization occurs over wide, faulted, and clay altered intervals in DH's 89-1, 5&6:

DH 89-1 12.2 - 45.7 m = 33.5 m of 5-8% pyrite

DH 89-5 57.9 - 94.5 m = 36.6 m of 5-12% pyrite

DH 89-6 32.0 - 74.7 m = 42.7 m of 5-15% pyrite

DISCUSSION

Due to a heavy drift cover across much of the Drill Area little geological data was available prior to the 1989 drill program. The drilling has at least led to a better understanding of the geology on the Vent 2 mineral claim.

The Upper Trachyte Flow mapped to the south of the Drill Area in 1987 was thought to be equivalent to the trachyte north of the drill area. The drilling now shows that the tuff bed (5b, on Map V-89-3) is interbedded between Upper (5c) and Lower (5a) Trachyte Flows. A displacement of some 60 metres is evident across the V-2 Fault (illustrated on Map V-89-3). North of this fault the Lower Trachyte Flow has been uplifted and the tuff unit has been eroded away. The fault displacement is most noticeable between DH 6&7 (see drill logs).

The Lower Trachyte Flow differs from the Upper Trachyte Flow in that the feldspar phenocrysts are slightly smaller and the groundmass crystals are slightly larger. It takes a practised

DISCUSSION - Continued

eye to determine the difference in field mapping.

DH's 89-1, 4, 6&8 cut through large portions of the V-2 Fault. Cross sections of these drill holes indicate that the fault zone is up to 35 metres wide and that it dips 75 degrees southwest.

An earlier fault, V-1 Fault, is believed to strike north-south through DH's 89-5 & 6 as illustrated on Map V-89-3. This fault appears to be cut off by the later V-2 Fault.

Large volumes of hydrothermal solutions ascending V-1 and V-2 Faults are believed to have been responsible for the widespread clay alteration and silicification of volcanic rocks on the Vent 2 mineral claim. It is thought that low temperature silica solutions ascending V-1 Fault invaded the thick tuff unit encountered in DH's 89-5&6. The replacement of the tuff possibly occurred over a long period of time with the groundmass being silicified first. The low temperature solutions contained anomalous barium, but no base or precious metal values.

V-2 Fault hydrothermal solutions were later and hotter than those of V-1 Fault. They invaded and altered tuff and trachyte in DH's 1, 8&4 uneffected by V-1 Faulting, and also invaded and altered the lower levels of tuff in DH's 89-5&6 below the V-1 silicification.

DH 89-6 lies on both V-1 & V-2 Faults and therefore shows the most intense alteration encountered during the drill program.

Although the hydrothermal solutions ascending V-2 Fault carried elevated base metal values the silica was low temperature (chalcedony) and it is believed that precious metals were left behind in the system.

DISCUSSION - Continued

In spite of the high degree of faulting and the extent of the alteration zones no quartz veining was encountered in the 1989 drill program.

CONCLUSIONS AND RECOMMENDATIONS

The 1989 drilling program demonstrated that large fault systems occur on the Vent property, and that vast volumes of low temperature hydrothermal solutions have passed through these fault systems. The lack of precious metal values in drill intervals is attributed to the fact that only the uppermost, low temperature horizons of the strong epithermal systems were penetrated during the drill program. Exploration efforts should now be directed towards finding the quartz-stockwork "roots" of these large epithermal systems. It is believed that economic precious metal values might be found within these "roots".

A grid should be measured out up to 500 metres north and 900 metres south of the tuff "Window" shown on Map V-89-3. Geophysics including magnetometer, VLF-EM, and I.P. surveys should be conducted over the grid. The I.P. surveys should be useful in defining the clay alteration and pyritic zones associated with the upper levels of the large fault systems.

Using the results of the geophysical surveys as a guide, some of the fault zones should be drilled to depths of 150 to 300 metres to test for precious metal values.

March 1, 1990

Kelowna, B.C.

Murray Morrison, B.Sc.

REFERENCES

Church, B.N.

1982: The Riddle Creek Uranium-Thorium Prospect; in Geological Fieldwork 1981; B.C. Ministry of Energy, Mines and Petroleum Resources, pp 17-22.

Culbert, R.R.

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Little, H.W.

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Morrison, M.S.

1987: Geological and Geochemical Assessment Report, Vent Property, Summerland Area, Osoyoos Mining Division. Filed as an Assessment Report with the B.C. Ministry of Energy, Mines, and Petroleum Resources.

APPENDIX "A"

STATEMENT OF QUALIFICATIONS

- I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:
- 1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
- 2. I have been working in all phases of mining exploration in Canada for the past twenty years.
- 3. During the past twenty years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
- 4. I have examined many mineral properties in Southern British Columbia during the past twenty years.
- 5. I supervised the Percussion Drilling Program outlined in this report.
- 6. I presently own a 100% interest in the Vent 1-6 mineral claims.

March 1, 1990

Kelowna, B.C.

municif Morrison

Murray Morrison - B.Sc.

APPENDIX B

STATEMENT OF EXPENDITURES - ON THE VENT 1-6 MINERAL CLAIMS.

Statement of Expenditures in connection with the Reverse Circulation Percussion Drill Program carried out on the Vent 1-6 mineral claims, located at Riddle Creek, near Summerland, British Columbia (N.T.S. Map 82-E-12W) for the year 1989.

DRILL ROAD AND DRILL SITE PREPARATION AND RECLAMATION.

Drill road and drill site preparation by Ben's Trucking of Kelowna, B.C.	\$ 1,038.
Additional drill site preparation by drilling contractor	300.
Drill road and drill site reclamation by Dave Miller Trucking of Summerland, B.C.	495•
Supervision, M. Morrison, geologist 4 days @ \$225.00/day	900.
Truck 4x4 (incl. gasoline and insurance) 4 days @ \$ 70.00/day	280.
Meals and Lodging - no charge -	0.
Grass seed and fertilizer	43.
sub-total	\$ 3,056.
DRILLING	
Mobilization and demobilization	\$ 750.
Reverse Circulation Percussion Drilling (10.8 cm bore) 492 metres @ \$36.06/metre by Northspan Explorations Ltd. of Kelowna, B.C.	17,743.

Geologist, M. Morrison, 13 days @ \$225.00/day

- no charge -

Truck 4x4 (incl. gasoline and insurance) 13 days @ \$70.00/day

Meals and Lodging

sub-total \$ 22,328.

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APPENDIX B - Page 2

ASSAYING DRILL INTERCEPTS

ICP analysis for 30 elements 129 samples @ \$10.75 each	9	1,38	37.
Gold geochem analysis 83 samples @ \$4.50 each			'3•
6 check assays @ \$17.00 each		10	2.
135 rock sample bags @ \$0.37 each	_		50.
ន	ub-total	1,91	2.
REPORT PREPARATION			
Geologist, M. Morrison 3 days @ \$225.00/per day	\$	6	75•
Drafting		(50.
Typing		(50.
Copying		i	20.
S	ub-total	\$ 79	95•
GRAI	ND TOTAL	\$ 28,0	91 <u>.</u>

I Hereby certify that the preceding statement is a true statement of monies expended in connection with the Reverse Circulation Percussion Drill Program carried out July 13 to September 18, 1989.

March 1, 1990

Murray Morrison - Geologist

APPENDIX "C"

DRILL LOGS

Resources Ltd. Location: 885mS, 40mW of L.C.P. Vent #2 M.C. Zygote Property: Vent Property Grid: 13+18N, 17+77W Azimuth: 270 degrees Hole No. 89-1 page 1 of 2 Length: 76.2m Elevation: 1490m Dip: -500 Mineral Claim: Vent #2 10.8 cm Drill Diameter: Date Started: July 28/89 Date Logged: July 28, 1989 Section: Logged by: M. S. Morrison Dip Tests: Date Completed: July 28/89 Drilling Contractor: Northspan Exploration of Kelowna, B. C. Purpose: to test faulted and altered Marron Fm. volcanic rocks wid'% replacem't % veinlets for precious metal potential. ≥ pyrite% metres rock geochemistry diss vn Au Ag As Pb Cu Fe Vfg % ppb ppm ppmppm ppm % Sample in Metres Description No. from to from Collar. 3.0 10 .2 17 27 30 1.9 1.0 6.1 3.1 70 8551 3.0 60 15 3 .4 24 104 125 2.5 1.0 1.5 Overburden: soil, broken rock. 8552 9.1 9.1 12.2 3.1 60 82 1.4 Broken bedrock. No sample recovered. 10 3 9 19 1.5 3.0 8553 19 162 1.7 Eocene Marron Formation: trachyte flows and 12.2 15.2 3.0 60 10 5 . 4 12 76.2 3.0 8554 15.2 18.3 3.1 40 10 .2 26 32 175 2.0 8 trachyte tuff. 8555 Upper Trachyte Flow: well fractured to faulted, 18.3 21.3 3.0 50 30 5 •4 34 40 245 1.9 3.0 19.8 8556 light grey to chalky white; porphyritic; 15% white 8557 21.3 24.4 3.1 50 35 30 3 5 .3 23 42 182 3.7 4 tr. to pink, chalky, altered anorthoclase phenocrysts, 3-10 mm in a very fine-grained groundmass; 40-70% kaolinite alteration (plus up to 15% pure clay trace washed from samples); 3-8% disseminated pyrite. clay washed out of samples Pyrite increases to 8% at base of flow (15.2 -|= very fine-grained 19.8 m). Tuff and Lapilli Tuff (trachytic composition?): 19.8 24.4 well fractured to faulted, grey to white; very altered (50% kaolinite replacement, plus 30% pure clay washed from samples); and silicified (30-35% chalcedony); 3-5% disseminated very fine-grained pyrite and up to 5% pyrite veinlets, 1-2 mm. (The tuff is believed to be of trachytic composition equivalent to the flow rocks. Some broken feldspar crystals). Continued . . .

Loca	tion:	Zygote		Re	source	ltd		F										<u> </u>	
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Azim	uth:					<u> </u>													
									Hol	e No	•	89−1				pag	e 2	of 2	:
Dip:		Length: Elevation:				ľ													
									Min	eral	Cla	im:	Vent	#2					
Date	Start	ed: Drill Diameter:			Date I	logge	d: J	uly 28	3, 19	89					Secti	on:			
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		phenocrysts, 1-5 mm; 5% biotite microphenocrysts,	8559	27.4	30.5			10				50	1	3	10 .1			08 2.	
*		1-2 mm; 20-80% kaolinite alteration (plus up to 80%	8560	30.5	33.5			30	-	2	\vdash		3	-4 -	3 .6			91 3.	
		total clay wahed from samples); up to 30% silicifi-		33.5	36.6	3.1		15		2		50	1	2	6 .3	10		96 1.	
		cation (chalcedony); 1-5% very fine grained dissem-		36.6	39.6	3.0		10		_	-	60		2	3 .3	25		98 2.	
,		inated pyrite, and up to 5% pyrite veinlets, 1-2	8564	39.6	42.7	3.1 3.0		10				65 60	.2	5	3 .1	13 26		68 3.	
		mm, decreasing at depth (see table at right).	8565	42.7 45.7	45.7 48.8	3.1				-		70	5	-21	3 .3	1 1		97 4. 61 3.	
		24.4 - 42.7 m general 10% silica replacement in-	8566	48.8	51.8						-	10	+ - +		1 .4	20		60 2.	$\overline{}$
		creasing to 30% at 30.5 - 33.5 m.	8567	51.8	54.9			 				1.0	5		1 .4	11		46 2.	
		30.5 - 39.6 m, 42.7 - 48.8 m, 64.0 - 73.2 m strong		54.9	57.9					+-		- -	3		1 .5			47 2.	
		areas of faulting: up to 80% clay washed out	8569	57.9	61.0	3.1				- 		-	3		2 .5	6		46 2.	
		and rounded rock chip samples.	8570	61.0	64.0		_	-		+		50	+		1 .5	7	-	54 1.	
73.2	76.2	Lower Trachyte Flow (below fault zone): porphyritic		64.0	67.1					+		50			1 .4	11		51 2.	
		15% white anorthoclase phenocrysts, 1-5 mm, and 5%	8572	67.1	70.1					_		80	1		1 .4	13		72 3.	
		biotite microphenocrysts, 1-2 mm in lightly hema-	8573	70.1	73.2	3.1		$\neg \neg $		+		60	1		5 .5	_		58 3.	
		tite stained purple fine grained groundmass. (In	8574	73.2	76.2							_	-		1 .6	8		54 2.	
		general, the feldspar phenocrysts are smaller and				-			$\neg \vdash$	1		_							
		the crystals of the groundmass are larger than			clav	w		lav w	a h	1,,+	ر ع	20112					\neg		
		those of the Upper Trachyte Flow).	· · · · · · · · · · · · · · · · · · ·	 	- cray			Taly W	zon eg	- WUL	101	amp1	8.	_					
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		mm; grey, fine crystalline groundmass; 0 to 5%	8581		27.4	3.0	5								0		7		34	40		2.8	
	<u> </u>	kaolinite alteration of the groundmass minerals.	8582			 	1										 	.5	-	41		2.0	
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		70% grey and brown clay completely washed from	8584		33.5	J				-	_					- -	┼	┼	├		-		}—
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3.4		Eocene Marron Formation: trachyte flows.	8588					- -				-	-	-		3	.5		38			
3.4	45.1	Lower Trachyte Flow: generally fresh, grey, por-		18.3				_			_	<u> -</u>	_			2	.5		32		_	
		phyritic; 15-20% chalky white to clear, glassy	8598	33.5	45.1	11.6			_	\perp	_		_	_		1	.5	5	24	47	2.8	
		anorthoclase phenocrysts, 1-10 mm; 5-10% biotite									_		_						\square			
		microphenocrysts, up to 2 mm and 2-5% hornblende						-	- -		_	_ _	-						\sqcup			
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Location	875mS, 80mE of the L.C.P. Vent #1 M.C.	· 		· · · · · · · · · · · · · · · · · · ·		7	· _			 -		<u> </u>		·	······································			·			
	rid: 13+65N, 16+63W	·		source	S, Lto	<u>'-</u>			P	rope	rty	: 1	<i>l</i> ent		-						٠
Azimuth: 2		٠	. • .		1								-								
AZIMUCH: Z	30 degrees								Н	ole	No.	. 8	39 – 4							•	
Dip: -50°	Length: 45.7 Elevation: 1487m						L.														
DID: ->0	Length, 47.7 Blevation, 1407m				+				14.		1	C1 o4		Want	.#1						
Data Stant	ed: July 30, 1989 Drill Diameter: 10.8cm			Date I	!	٠. ٦		. 70			al	ULAI	. 111	Vent	#.	5.	ecti				
Date Start	eu. oury jo, thou brill blameter. totoom						-	-	•	-	•	In	8	m	 نمون		, 0 01	<u> </u>			
Date Comple	eted: July 30, 1989 Dip Tests: -	<u>`</u>		Logge	u by:	Fi .		MO	111	5011			7),	7.4	ne	<u> </u>				-	
Date Compt	eteur, Joy			Drilli		ónt r	120+	02.	N.	orth	lena	n Fi	vnl o	rati	on o	f K	e l On		B. (
Purpose: to	test a zone of faulted and altered Marron Fm. volcan	ic :		DF111	ing C	Onci	act	01.	14	01 01	Бра	11 152	vbio	1 4 01	011 0	1 10	,10"	114,	<u> </u>	'•	
	ck for precious metal potential.		metr	es .	wid'	% re	pla	cem	't (% ve	inl	ets	≱°	pyri	te		rock	<u></u>	geor	chem:	istry
Metres	Description	Sample			in	ay	-	-1	\neg		$\neg \tau$		ay	dis:	vn				Pb	Cu	
from to	Description	No.	from	to	m	김		sil			qtz	cal	[2	1 %	%	ppb	ppm	ppr	mppm	ppm	*
0 1.0	Collar.				, ,		_		\perp						<u> </u>			<u> </u>			
1.0 3.0	Broken rock. No sample recovered.	· .			,		_			_	_	_ _		1	<u> </u>			<u> </u>			_
3.0 45.7	Eocene Marron Formation: trachyte flows.				/				_		_	_ _	_	_	 		 	 	<u> </u>		
3.0 36.6	Lower Trachyte Flow (faulted): light grey to white		3.0	6.1	3.1	70	\perp			_		_ _	_ _	lim	-	2	.4	10	33	39	1.5
	porphyritic; 15-20% glassy or white anorthoclase	8603	6.1	9.1		60	_		$ \bot $		_			tr		1	•4	+		180	
	phenocrysts, 1-5 mm; 5% biotite microphenocrysts,	8604	9.1	12.2	3.1	+		1					8	0 tr	·L	_	•4	19		160	
	1-2 mm; 60 to 80% kaolinite alteration (most of the	8605	12.2	15.2		70								5 tr	<u>. </u>	-	1.1	+		170	
	alteration is confined to the fine crystalline	8606	15.2	18.3		70	_	_			_			tr	•	<u> -</u>	.2	10	28	104	
	groundmass; biotite is generally fresh); trace of	8607		21.3		70				_	\dashv		. 3	0 tr	•	<u> -</u>	•4	19	1 - 1	86	
	very fine grained disseminated pyrite.	8608		24.4		60			_		_			5 tr	•	<u> -</u>	1.1	+	28		
	9.1 -12.2 m strong fault zone, 80% light grey	8609	$\overline{}$	27.4		60	_			_		-	- -	1 tr		-	•4		32	59	
	clay completely washed from samples.	8610		30.5	3.1	_					_		- -		tr.	_	•4		31	65	
	18.3 -24.4, 33.6 - 36.6 m strong fault zones, up	8611		33.5	-	60			_		\dashv	-	+	tr	_	-	.1	12	1 1	72	
	to 30% light grey clay washed from samples;	8612		36.6		60					-	_	3	_		<u> </u>	1.5	+		 	
76.6 1.5.5	rock chips are rounded.	8613	$\overline{}$	39.6		10		-	_		-	-		tr		 -	-4	+			
36.6 45.7	Lower Trachyte Flow (unfaulted): as above, but	8614 8615		42.7		10		-					+	tr	1	 -	1.5		_	+	
	only 10% kaolinite alteration.	0019	42.7	45.7	3.0	10							+	tr	+-	┼∸	 • 	+=	31	20	1.2
	END OF DRILL HOLE at 45.7 metres.	<u> </u>			14 2	-	1				\dashv		- -	-	┤─	╂	\vdash	+	+		-+-
	DID OF DRIED ROLL at 47. (metres.		 	 	lim	=			1	-	\dashv		+	+	-	-	+-	+-	+	 	-
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l		ł		L	·	1	L_I						L_	_1					اـــــــــــــــــــــــــــــــــــــ	لــــــــــــــــــــــــــــــــــــــ	

Location: 910mS, 500mW of L.C.P. Vent #2 M.C. Resources Ltd. Zygote Property: Vent Property Grid: 11+38N, 21+99W Azimuth: 273 degrees Hole No. 89-5 page 1 of 2 Elevation: 1570m Dip: -50° Length: 94.5m Mineral Claim: Vent #2 Date Started: July 31, 1989 Drill Diameter: 10.8cm Date Logged: July 31 - August 4, 1989 Section: Logged by: M. S. Morrison Date Completed: August 4/89 Dip Tests: Drilling Contractor: Northspan Exploration of Kelowna, B. C. Purpose: to test silicified tuff of the Marron Fm. for precious wid'% replacem't % veinlets metres metal potential pyrite rock geochemistry clay diss vn Au Ag As Pb Cu Fe % ppb ppm ppmppm % in Sample Metres Description No. from to to from Collar. 1.0 8616 3.0 10 1.0 Broken bedrock. No sample recovered. 8617 3.0 6.1 9.1 3.0 10 12.2 3.1 10 9.1 80 3.0 94.5 Eocene Harron Formation: trachyte tuffs and flows. 8618 lim 4 13 14 1.4 12.2 15.2 3.0 20 70 3.0 79.2 Crystal and Lapilli Tuff (trachytic composition?) 8619 3 13 2 0.4 3.1 20 15.2 70 blocky to faulted, white (stained with limonite or 18.3 8620 3 | 39 7 0.5 hematite) or grey; almost entirely replaced: 60-80% 8621 18.3 21.3 3.0 20 70 . 2 5 24 6 b.4 silica, 10 to 20% kaolinite and 10% pore spaces 3.1 20 8622 21.3 24.4 4 15 1 b.4 (after dissolved crystals). (It appears that the 27.4 3.0 10 80 24.4 8623 5 0.7 lim .2 10 116 groundmass was silicified and kaolinitized early, 27.4 30.5 3.1 10 80 8624 6 11.1 and that the larger crystals were later dissolved 8625 30.5 33.5 3.0 10 80 5 b.6 5 20 8626 33.5 leaving voids in the rock). 36.6 3.1 10 2 b.9 15 13 39.6 3.0 10 80 8627 36.6 7 1.4 24 20 hem at 57.9 m the white (alternately limonite or hema-8628 39.6 42.7 3.1 20 70 lim 7 2.1 8629 42.7 3.0 10 80 45.7 tite stained) rock changes to a grey rock lim 2 20 2 b.7 8630 45.7 3.1 80 with 5 to 10% disseminated pyrite and 1 mm 48.8 lim 48.8 3.0 10 80 8631 51.8 pyrite veinlets. 22 17 lim .2 3 2.0 8632 51.8 54.9 3.1 80 him 10 17 5 1.0 8633 54.9 57.9 80 3.0 10 76.2 - 79.2 m Fault zone: 50% light grey clay 10 115 19 1.2 8634 57.9 61.0 3.1 10 70 washed from samples. .2 15 16 214 3.6 70 3.0 10 8635 61.0 64.0 8 6 1223.8 8636 64.0 67.1 94.4 Lower Trachyte Flow? (faulted and altered): (dif-3.1 10 60 79.2 94 3.7 9 5 8637 67.1 70.1 3.0 10 80 ficult to determine crystal composition due to 10 2 89 1.2 8638 70.1 Continued . . .

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	910mS, 500mW of L.C.P. Vent #2 M.C. Zygote		Re	source	Ltd				D	k .											
Property	Grid: 11+38N, 21+99W								Prop	erty	': \	/ent								·	╝
Azimuth:	273 degees				}										•						i
					1				Hole	No.		<u> 9-5</u>					pag	ge 2	of	2,	
Dip: -50°	Length: 94.5m Elevation: 1570m		. 1		1											• .					
					<u> </u>						Clair		Vent	#2							
Date Star	ted: July 31/89 Drill Diameter: 10.8cm			Date I	ogge	d: Ju	ly 3	51 -	Augu	st L	, 198	39	<u> </u>		Sec	ctio	n:				_
				Logge	l by:	М.	s.	Morr	ison		for-	<u> </u>	mer	ere	P1						_
Date Comp	eleted: August 4, 1989 Dip Tests:				1															_	
		•	•	Drilli	ng C	ontr	acto	r:	Nort	hspa	an Ex	plor	atio	n o	f Kel	lown	ia, I	в. с	•		
Purpose:	to test silicified tuff of the Marron Fm. for precious	3																			
1	netal potential.		metr	es	wid'	% re	plac	ėm't	% v	einl	ets	≥°	pyri	te	r	ock		geoc	hemi	stry	,
Metres	Description	Sample			in	clay		i i		2	l l	ay	diss	vn	Au A	Ag I	As	Pb	Cu	Fe	\Box
from to	Description	No.	from	to	m	เว		sil.		qtz	cal	급./	8	%	ppb]	ppm	ppm	ppm	ppm	%	
	strong clay alteration); 50% kaolinite replacement	8639	73.2	76.2	3.0	20	16	50			İ		5	5	1.	.2	10	4	81	3.7	
	(plus 50% light grey clay completely washed from	8640	76.2	79.2	′3 . 0	20	7	'o				50	7	5	2	.1	8	6	. 75	3.7	
	samples); 20 - 25% silica replacement; 5% pore	8641	79.2			50		25				50	7	5	1	.1	7	4	79	+•3	
	spaces; 5 - 7% disseminated pyrite and 5% pyrite	8642	82.3	85.3	3.0	50	2	20				60	5	5	3	.1	17	8	77	3.2	
	veinlets, 1 - 2 mm.	8643	85.3	88.4	3.1	50	. 2	20				50	5	5	4	.1	14	16	106	2.6	
		8644	88.4	91.4	3.0	50	Z	20				50	5	5	5	.1	7	9	61 6	2.2	
·	Hole stopped at 94.5 metres due to caving problems	8645	91.4	94.5	3.1	50	Z	20				50	5	5	2	.2	12	7	85	3.5	
	note stopped do jest medies de to taving problems																				\dashv
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Location: 805mS, 485mW of L.C.P. Vent #2 M.C. Resources Ltd. Zygote Property: Vent Property Grid: 12+37N, 22+20W 270 degrees Azimuth: Hole No. 89-6 page 1 of 2 Dip: -50° Length: 93.0m Elevation: 1557m Mineral Claim: Vent #2 Date Started: August 5, 1989 Drill Diameter: 10.8cm Date Logged: August 5-9, 1989 Section: Logged by: M. S. Morrison Date Completed: August 9, 1989Dip Tests: Drilling Contractor: Northspan Exploration of Kelowna, B. C. Purpose: to test silicified tuff of the Marron Fm. for precious wid'% replacem't % veinlets |**≥** pyrite metres metal potential. rock geochemistry diss vn Au Ag As Pb Cu Fe Sample in Metres Description % % ppb ppm ppmppm ppm % from No. from t.o 7.6 3.0 10 Collar. 8646 4.6 lim . 3 1.0 9 | 15 1711.4 Overburden: sand, gravel, boulders. 10.7 | 3.1 | 10 80 8647 7.6 lim 151.7 1.0 3.7 . 1 17 80 13.7 | 3.0 | 10 8648 10.7 lim 3.7 4.6 Broken bedrock. No sample recovered. 11 16.8 3.1 10 70 4.6 93.0 8649 13.7 Eocene Harron Formation: trachyte flows and 19.8 3.0 10 70 5b.3 8650 16.8 2 14 lim trachyte tuff. 4.6 74.7 Crystal and Lapilli Tuff (trachytic composition?): 22.9 | 3.1 | 20 70 8651 19.8 lim 40.3 13 25.9 3.0 20 blocky to faulted, light to dark grey; almost 8652 22.9 60 91.1 14 29.0 3.1 30 60 entirely replaced; 10 to 80% silica and 10 to 60% 8653 25.9 2 26 151.0 29.0 | 32.0 | 3.0 | 40 30 kaolinite replacement (plus up to 85% light grey 8654 40 2 .22 291.5 tr clay completely washed from samples); 10% open 32.0 35.1 3.1 60 20 24 572.8 8655 2 12 8656 35.1 spaces (after dissolved crystals). 38.1 3.0 20 20 18 2762.9 20 (It appears that the groundmass was silicified and 38.1 3.0 50 60 8657 41.1 18 1593.0 44.2 3.1 50 8658 41.1 10 3 2 7 19 1553.2 kaolinitized early, and that the larger crystals 47.2 3.0 50 10 were later dissolved leaving voids in the rock). 8659 44.2 16 1032.7 47.2 50.3 3.1 50 10 4.6 - 29.0 m highly silicified, 60-80% silica; 8660 .2 8 12 2042.8 59.3 | 53.3 | 3.0 | 50 20 60 8661 15 14 2564.1 limonite staining. 8662 53.3 56.4 3.1 30 10 22.9 - 25.9 m slickenside surfaces. 70 3 .3 15 35 874.2 56.4 59.4 3.0 50 10 29.0 - 74.7 m Fault zone: 40 to 85% light grey 8663 17 52 3 754.0 59.4 62.5 3.1 50 10 80 3 .2 clay completely washed from samples; 25-60% 8664 2 20 50 614.3 kaolinite and 10 to 20% silica replacement; 65.5 3.0 25 50 62.5 3 3 17 37 563.2 .2 8665 68.6 3 - 5% disseminated pyrite and 3% pyrite 65.5 3.1 50 29 8666 10 75 1204.6 8667 68.6 71.6 3.0 60 20 10 16 55 123 1.1 veinlets up to 2 mm. 71.6 74.7 3.1 50 8668 Continued_

Loca	tion: g	O5mS, 485mW of I.C.P. Vent #2 M.C. Zygote			source	5 1 1	7	٢		 .		•						·				
Prop	erty G	05mS. 485mW of L.C.P. Vent #2 M.C. Zygote rid: 12+37N, 22+20W	•			1	ات			Pr	oper	ty:	Ve:	nt				•				
		270 degrees				1		r														
n Dim	<u> </u>					1				Но	le N	٥.	89	- 6					pag	e 2	of 2	<u>:</u>
Din	-50 °	Length: 93.0m Elevation: 1557m				j		-							-							
	-						·			Mi	nera	1 C1	aim	. V	ent ;	#2			-			
Date	Starte	ed: August 5, 1989 Drill Diameter: 10.8cm		•	Date 1	OFFE	d:	Aug	ust					-			Se	ctic	n:			
		·			Logge	,							4, 4	S.	m	ns	res.					
Date	Comple	eted: August 9/89 Dip Tests: _				1		 .											,			
					Drill:	ing C	ont	ract	tor:	No	rths	pan	Exp	lor	atio	n o	f Ke	lowr	na,	B. C	•	
Purp	ose: to	test silicified tuff of the Marron Fm. for preciou	s		. 													"				
	me	tal potential.		metr	`es	wid'	% r	epla	acem	't %	vei	nlet	s	j. ¥	yrit	te		ock		geoc	hemi	istry
Met	res	Description	Sample	?		in		(1.	T	1 + 0	3 7		lay	liss	vn	Au	Ag	As	Pb		
from	to		No.	from	to		2		sil	_	_ -	cal				%				ppm r		
·		65.5 - 74.7 m strongest faulting: 85%	0009	74.7			+	_	0			4		80	- 1		3	\rightarrow		35	43	
		clay washed from samples; 50-60%	8670	77.7				ļ	0				ļ	80	3		4	.2		46	55	
		kaolinite replacement in rock	8671	80.8					0			<u> </u>		80	_3	3	2	.2		34	65	
		chips, 10-15% pyrite overall.	8672	83.8		+	+	_	0	-	tr	`-	<u> </u>	80			5		11	37	69	
74.7	86.9	Lower Trachyte Flow (faulted and altered): grey,	8673	86.9		1		<u> </u>	0	-				-	4	1	1		12	26	55	1
		porphyritic; 15-20% anorthoclase phenocrysts 1-3	8674	89.9	93.0	3.1	10	ļ	0	_			<u> </u>	-	4		1	•2	8	23	56	2.6
		mm; 5-10% biotite microphenocrysts up to 2 mm;		<u> </u>	 	 	 	_				-	-	_						$\vdash \vdash$		_
		30-50% kaolinite replacement (plus 80% light grey		 		<u> </u>	 			_			-	<u> </u>			-			 	\dashv	
		clay completely washed from samples); 1-3% pyrite	•	<u> </u>		w.=				ea c	out c	ıı sa	nubr	es			ļ				\dashv	
86.9	93.0	Lower Trachyte Flow (unaltered): dark grey,		 	lim	↓		lion		\rightarrow											\dashv	
		porphyritic; 15-20% anorthoclase phenocrysts, 1-3			tr	=	tr	ace					┼	-			-			\vdash		
		mm; 5-10% biotite microphenocrysts up to 2 mm;				-							-									
		grey, fine crystalline groundmass; 5% pyrite		 		 		-		 -		\dashv	-		-					\vdash	\dashv	
	· ·	disseminated.		- 		· ·	\vdash	-				+	┼				_			 		
]	End of Drill Hole at 93.0 metres.		 	-	1.	+						╁	\vdash						 		
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Reverse Circulation
Percussion Drill Record

Loca	ion: 7	55mS, 500mW of L.C.P. Vent #2 M.C. Zygote		Re	source	Lto	7.]		<u>:</u> .		• • •			•							
		id: 12+82N, 22+51N			·	1		L	. P1	ropert	.y:	Ven	t ———								=
		270 degrees									•		,			٠.		•			.
						1			Н	ole No)•	89-	7								
Dip:	- 50°	Length: 35.1 Elevation: 1548m			<u></u>	}															
						1.			M:	ineral	Cla	aim:	Vent	. #2		•					
Date	Starte	d: August 10, 1989 Drill Diameter: 10.8 cm		· · ·	Date I	ogge	d: A	ugust	10,	1989				,		ctio	on:				_
					Logged	by:	М.	S. Mc	orri	son	p	4 8.	1	Merry.	en.						
Date	Comple	ted:August 10, 1989Dip Tests:		··		<u> </u>				· .											
					Drilli	ng C	ontra	actor	No	orths	oan I	Explo	rati	on o	f Ke	low	na,	B. C	.		
Purp	ose: to	test the Marron Fm. volcanics for precious metals.				-	<u></u>								,						
			,	metr	'es	wid'				% vei	nlet	3 ₹	pyri	te%	1	rock		geoc	hem:	istr	у
Met	res	Description	Sample			(in	lay	sil.		qtz	cal	la la	dis:	vn	Au	Ag	As	Pb	Cu	Fe	1
from	_to_		No.	from	to	: m	딩	S	-	- -	0	- 0	1~	1 ~	ppo	ppm	րքու	p but i	5 Du	-/°	
0	1.0	Collar.	ļ				-		-					-		-		¥		\dashv	\dashv
1.0	3.0	Overburden: sand, boulders, gravel.				<u>!</u>								-				$\dot{\vdash}$			(
3.0	4.9	Bedrock: broken, weathered. No sample collected.	0685	1. 0	7 6		5		\vdash				1/2	1/2	-	.1	0	39	60	2 0	\dashv
4.9	35.1	Eocene Marron Formation: trachyte flows.	8675	4.9		·	 		-			_			 '	•'	9	- ²⁷	09	7	*
4.9	35.1	Lower Trachyte Flow: moderately fractured, grey;	ļ	_	10.7								1/2	<u>1</u> .		·			\longrightarrow		Щ
		porphyritic; 15-20% white and clear glassy anortho-	•		13.7					_		-	1	1						<u></u> {	\dashv
		clase phenocrysts, 1-5 mm; 5-10% biotite micro-	8678		16.8						1-1		0 1	1	5	.1	12	391	104	2.1	*
		phenocrysts; locally 10 to 20% clay alteration;			19.8			_ _					0 2	1				 			\vdash
		general 1-3% pyrite on late fractures or dissemin-			22.9				\sqcup		1		0 1.	2	ļ			[<u> </u>	<u> </u>
	,	ated.	8681		25.9								5 1	2	2	•4	6	· 40	90	2.1	\vdash
		13.7 - 32.0 m weak fault zone with 10 to 20% kao-			29.0		1						0 1	2	 						++
		linite alteration and up to 15% clay washed from			32.0						1		5 1	1	ļ	-		\vdash		 	\bot
		samples.	 	32.0	35.1	3.1	10					_	2 1	tr		 		 		\rightarrow	
		25.9 - 29.0 m strongest segment of fault	ļ	ļ		ļ				_	-		4	-	ļ	ļ		 			
		zone.	 	ļ		-				samp		_		<u> </u>				 			\dashv
			ļ		clay	W.			+	ied ou	t of	sam	ples	—		-	ļ			-	
		END OF DRILL HOLE at 35.1 metres.	 	<u> </u>		tr	= -	trace	1					<u> </u>	ļ	ļ		 			
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Reverse Circulation Percussion Drill Record

Resources Ltd. Location: 885mS, 40mW of the L.C.P. Vent #2 M.C. Zygote Property: Vent Property Grid: 13+17N, 17+75W Azimuth: 180 degrees Hole No. 89-8 page 1 of 2 Length: 59.4m Elevation: 1490m Dip: -50° Mineral Claim: Vent #2 Date Logged: August 10&11, 1989 Date Started: August 10. 1989 Drill Diameter: Section: 10.8cm Logged by: M. S. Morrison Jm. S. Merren Date Completed: August 11/89 Dip Tests: Drilling Contractor: Northspan Exploration of Kelowna, B. C. Purpose: to test faulted and altered Marron Fm. volcanic rock for wid'% replacem't % veinlets precious metal potential. metres > pyrite rock geochemistry diss vn Au Ag As Pb Cu Fe Sample in Metres Description % % ppb ppm ppmppm ppm % from No. to from Collar. 1.0 Overburden: soil, sand, boulders. 1..0 1.8 Broken bedrock. No sample recovered. 1.8 3.0 Eocene Marron Formation: trachyte flows and 3.0 59.4 trachyte tuff. 5 | .2 | 31 | 41 | 31 | 3.2 4.6 1.6 50 10 10 Upper Trachyte Flow: well fractured, light grey 3.0 3.0 10.7 8685 7.6 3.0 60 10 20 .1 53 42 22 3.7 to chalky white; porphyritic; 15% white to pink 8686 4.6 10.7 3.1 70 10 .1 14 24 56 1.5 8687 7.6 anorthoclase phenocrysts, 3-10 mm in a very fine-.1 16 [19 102 2.6 13.7 3.0 80 10 grained groundmass; 60-70% kaolinite alteration; 8688 10.7 25 16.8 3.1 40 3 .2 22 22 172 3.6 10% silica replacement; 1-4% disseminated pyrite. 8689 13.7 10 19.8 3.0 40 20 4 .1 20 21 296 2.5 7.6 - 10.7 m Fault zone: 70% light grey clay 8690 16.8 8691 19.8 22.9 3.1 40 20 1 | .1 | 25 | 40 | 179 | 3.2 3 8 1 washed from sample. Tuff and Lapilli Tuff (trachytic composition?): 22.9 10.7 faulted, grey, kaolinite altered (up to 80%) and silica replaced (up to 25%), up to 15% pyrite disseminated and in veinlets, 1-10 mm (see table at right). 10.7 - 13.7 m Fault zone: 80% light grey washed clay washed but of samples from sample. 13.7 - 16.8 m strong fault zone. 15.5 - 16.8 m 15% pyrite. Continued . . .

Reverse Circulation Percussion Drill Record

Loca	tion:	7	·	Re	sources	Ltd					· · ·	•					•				
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Azim													٠.			,		,			
			-		*					Hole	No.			39-8			page	2 01	: 2		
Dip:		Length: Elevation:				e.							. <u>.</u>								
						1				Mine	ral	Clai	m: V	ent #	2						
Date	Starte	d: Drill Diameter:			Dațe L	ogge	d:	Augu	st 1	0&11	, 19			•		Sect	ion:				
					Logged	by:	М.	s.	Morr	ison	ı <u></u>	pr	<u>, L</u>	m	ni,	er					
Date	Comple	eted: Dip Tests:				i										,	:				
					Drilli	ng C	ontr	acto	r:	Nort	hspa	n Ex	plor	ation	of	Kelo	wna,	В.	<u>. </u>		
Purp	ose:					/ ···	r			1	·	· · ·			r						
	· ·			metr	es	wid'				. % v	ein]	.ets	_ <u>*</u>	oyri t		roc			chemi		У
Met	res	Description	Sample		٠. ا	in	clay		sil.	i ·	qtz	cal	clay	liss %	yn	Au Ag pb pp	; As	Pb			.
from	to	Lower Trachyte Flow, (Faulted): grey; 10-40%	No. 8692	from	to	: m				+-	6	- -							-		
22.9	56.4	kaolinite altered (plus 50 to 70% light grey clay	8693	22.9	25.9 29.0				5		\vdash	_	50 60	3	2 5	3.	1 23 1 13	<u>; 28</u>	91		
		completely washed from samples); slightly silici-	8694		32.0				3	 		- -	60	3	7		1 12				
		fied (up to 5%); trace to 3% disseminated pyrite,	8695	32.0	35.1		-		3				60	1	1		1 13		83		
		trace to 5% pyrite veinlets. (Silicification and	8696	35.1	38.1				_	1			50	2	1		1 10		11	2.3	
**		pyritization drop off with depth. See table at	8697	38.1	41.1	3.0	10		= -	+			50	2	-	- .	1 12	35	53	2.0	$\overline{}$
		right).	8698	41.1	44.2	3.1	10		- -			-	50	1	tr	- .	1 16	28	50	2.2	
		25.9 - 29.0 m 8% pyrite, 5% in 1-2 mm veinlets.	8699	44.2	47.2	3.0	10	$\neg \vdash$	_	1-			50.	1	tr		1 14	32	49	2.1	\neg
56.4	59.4	Lower Trachyte Flow (Unfaulted): grey to brown,	8700	47.2			1	$\neg \vdash$	_				70	tr	tr		1 18		1	1.8	
7007	77.1	porphyritic; 10% clear glassy or chalky white	8701	50.3					_				50	tr	tr		1 15		1	2.1	
		feldspar phenocrysts, 1-5 mm. 5% fresh biotite	8702	53.3	56.4		_		_				50	tr	tr		1 6	29	54	1.7	
		microphenocrysts up to 2 mm; fine grey crystalline	8703	56.4	59.4	3.0	5		-						-		1 5	27	52	1.7	
		groundmass.																			
					clay	w. =	cla	y Va	sled	lout	of	samp	les								
		End of Drill Hole at 59.4 metres.	ļ		tr	=	tr	ice	_				_								
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APPENDIX "D"

GEOCHEMICAL ANALYSIS CERTIFICATES

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR ME FE SR CA P LA CR MG BA TI B W AND LINITED FOR MA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. AUP ANALYSIS BY ACID LEACH/AA FRON 10 GM SAMPLE.

SIGNED BY ... DATE RECEIVED: AUG 21 1989 DATE REPORT MAILED: D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

								ZY	GOTE	E RE	SOU	RCES	LT	ס.	F	ile	# 8	9-3:	117	ì	Page	1				•							
SAMPLE! D. H.	Mo PPM	Cu PPH	Pb PPH	Zn PPN	Ag PPM	Ni PPM	Co PPM	Nn PPN	re t	As PPM	U PPM	Au PPM	Th PPH	ST PPM	Cđ PPN	Sb PPM	Bi PPM	V PPM	Ca }	P	La PPN	Cr PPH	Mg Ł	Ba PPM	Ti	B PPM	.A1	Na Ł		W PPN	. Au*	metres from to	
C 8551 #89-1 C 8552 C 8553 C 8554 C 8555	, 8 13 5 5	30 125 82 162 175	27 104 19 19 32	25 34 31 23 18	.2 .4 .1 .4 .2	3 23 15 27 27	1 10 6 12 11	10 15 14	2.49 1.40	17 24 9 12 26	5 5 5 5	ND DN DN DN DN	13 11 15 13 11	159 85 76 119 185	1 1 1 1	2 2 2 2 2	2 2 2 2 2	8 7 6 7	.04 .02 .01 .03	.023 .015 .015 .017	18 11 15 14 10	5 6 7 5	.02 .02 .03 .03	132 17 30 22 27	.01 .01 .01 .01	2 2 2 2 2	.59 .58 .60 .70	.01 .01 .01 .01	.23 .12 .12 .11 .07	1 2 1 1	3	3.0 - 6.1 6.1 - 9.1 9.1 - 12.2 12.2 - 15.2 15.2 - 18.3	
C 8556 C 8557 C 8558 C 8559 C 8560	43 44 107 6 17	245 182 134 108 391	40 42 47 17 22	26 20 32 24 22	.4 .3 .4 .1	30 34 30 22 29	12 14 13 11	26	3.69 3.38 2.07	34 23 23 9 36	5 5 5 5	ND ND ND	14 12 17 36 14	306 139 62 244 195	1 1 1 1	2 2 2 2 2	2 2 2 2 2	5 7 10 5	.01 .01 .02 .02	.023 .016 .013 .030	15 11 12 26 17	6 5 6 7 5	.01 .01 .03 .03	20 11 12 35 29	.01 .01 .01 .01	2 2 4 2	.59 .58 .54 .61	.01 .01 .01 .02	.01 .04 .08 .06	1 1 1 1	4 3 10	/6.3-21.3 2/.3-24.4 24.4-27.4 27.4-30.5 30.5-33.5	
C 8561 C 8562 C 8563 C 8564 C 8565	4 5 6 11 5	96 98 68 97 61	16 21 30 37 26	26 22 21 29 23	.3 .1 .4 .3	20 24 25 37 27	11 10 13 15 12	21	2.87 3.55 4.87	10 25 13 26 11	5 5 9 5 5	ND ND ND ND	30 43 25 22 36	117 145 187 144 233	1 1 1 1	2 2 2 2 2	5 2 2 2 2	10 8 9 13 11	.01 .01 .01 .02	.015 .016 .019 .020	18 25 18 16 23	7 5 5 10 9	.02 .01 .01 .03	20 16 12 10 16	.01 .01 .01 .01	2 2 5 2	.61 .48 .65 .73	.01 .01 .01 .01	.08 .05 .03 .05	1 1 1 1 1	6 3 3 2 3	33.5-36.6 36.6-39.6 39.6-42.7 42.7-45.7 45.7-48.8	
C 8566 C 8567 C 8568 C 8569 C 8570	5 3 3 2 4	60 46 47 46 54	.21 37 19 66 43	43 26 96 41 36	.4 .4 .5 .5	23 19 23 20 18	12 10 10 11 8	37 2 158 2 91 2 101 2 77 1	2.16 2.40 2.26	20 11 9 6 7	5 5 5 5	HD HD HD HD	79 84 94 99 108	183 471 180 258 330	1 1 1 1	2 2 2 2 2	2 2 2 5 6	15 15 20 25 26	.02 .02 .02 .02 .02	.029 .060 .078 .062 .051	55 92 129 134 142	8 8 10 11	.05 .05 .15 .16	30 41 34 39 57	.01 .02 .05 .06	2 2 2 5 2	.49 .55 .55 .64 .71	.02 .02 .02 .03	.06 .05 .11 .12	1 1 1 1 2	1 1 1 2 1	48.8-5%.8 57.8-54.9 54.9-57.9 57.9-6%.0 6%.0-64.0	
C 8571 C 8572 C 8573 C 8574 C 8575 89-2	3 4 4 3 2	51 72 59 54 42	29 28 64 39 52	53 94 57 94 116	.4 .4 .5 .6	20 20 24 18 20	9 11 12 8 7	158	3.31 3.37 1.97	11 13 11 8 11	5 5 5 5	ND ND ND ND	99 52 85 111 66	411 252 174 248 804	1 1 1 1	2 2 2 2 2	5 2 5 4 2	33 17 21 37 72	.02 .02 .03 .03	.051 .030 .030 .096 .176	104 52 81 175 109	13 7 10 16 21	.22 .05 .08 .29	56 18 14 79 438	.09 .02 .02 .10	2 2 2 2 5	.86 .61 .68 .79	.03 .02 .02 .03	.17 .04 .06 .18	1 1 1 1	1 1 5 1 1	64.0-67.1 67.1-70.1 70.1-73.2 73.2-76.2 3.0-9.1	
C 8577 C 8580 C 8581 C 8582 C 8583	2 10 10 3 5	30 48 36 58 60	30 31 40 41 37	100 68 73 89 65	.4 .5 .5	17 14 16 19 17	6 5 7 6	237 2 334 2	2.92 2.84	11 40 34 14	5 5 5 5	ND ND ND ND ND	67 78 92 80 83	387 261 262 321 236	1 1 1 1	2 2 2 2 2	2 2 2 2 2	71 77 72 64 55	.09	.173 .133 .092 .096	107 118 117 138 137	26 25 27 34 25	.49 .42 .51 .67	413 362 323 476 305	.16 .17 .19 .21	2 10 3	1.55 1.01 1.33 2.22 1.89	.03 .03 .03 .04	.28 .33 .36 .34 .27	1 1 1 1	1 2 1 3 1	9.1-18.3° 18.3-21.3° 21.3-24.4 24.4-27.4 27.4-36.6°	
C 9586 C 8588 89-3 C 8593 C 9598 C 9602 89-4	3 1 1 1 3	85 47 58 47 39	39 38 32 24 33	47 113 116 104 28	.3 .5 .5 .6	18 22 23 26 5	7 7 9 9	125 1 313 3 456 2 382 2 64 1	1.11 2.72	7 8 7 5	5 5 5 5	ИО ИО ИО ИО	104 77 82 80 126	287 296 274 308 222	1 1 1 1	2 2 2 2 2	3 3 3 2 5	42 70 71 70 25	.02 .40 .45 .56	.121 .173 .166 .174 .067	168 118 127 121 148	23 19 17 22 15	.31 .51 .59 .66	163 306 317 306 215	.16 .21 .23 .24 .07	2 7 1 2 15 6	1.78 1.01 .92 .69	.02 .05 .05 .06 .02	.18 .32 .33 .36	1 1 1 1	1 2 1 2	36.6 -42.7 ° 34-18.3 ° 18.3 -33.5 ° 33.5 -45.1 ° 3.0-6.1	
C 8603 STD C/AU-R	3 18	180 63	30 39	35 132	.4 7.2	16 68	7 31	113 1 1021 4		6 42	9 19	ND 7	123 36	156 - 48	1 18	2 15	2 21	20 61		.057	126 38	12 55	.17 .93	89 174	.08	2 36	.68 1.90	.02 .06	.11 .13	1 11	1 470	6.1 - 9.1	

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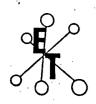
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C 8640 89- C 8641 C 8642 C 8643 C 8644	5 5 5 13 8 5	75 79 77 106 61	6 4 8 16 9	15 35 24 169 23	.1 .1 .1 .1	38 42 35 31 28	14 14 12 17 10	8 21	3.73 4.27 3.23 2.63 2.18	8 7 17 14 7	5 5 5 5	ND ND ND ND	9 7 5 6 8	98 104 124 118 116	1 1 1 2 1	2 2 2 2 2	2 2 2 2 2	4 4 4	.01 .01 .01 .01	.010 .011 .014 .014	6 6 5 7	3 4 6 18 4	.01 .01 .01 .01	29 23 38 39 49	.01 .01 .01 .01	4 4 4 3	.48 .48 .59 .50	.02 .02 .03 .02	.06 .08 .11 .09	1 1 1 1	7 1 3 4 5	76.2-79.2 79.2-82.3 82.3-85.3 85.3-88.4 88.4-91.4
C 8645 C 8645 B 8647 C 8648 C 8649	5 15 8 5 5	85 17 15 9 5	7 15 17 11 16	20 11 7 8 6	.2 .3 .1 .1	36 5 3 6 4	13 1 1 1	22	3.49 1.35 1.70 .58 .34	12 9 7 3 2	5 5 5 5	ND ND ND	13 13 15 13 7	102 149 141 135 120	1 1 1 1	2 2 2 2 2	2 2 2 2 2	4 7 7 6 4	.02 .01 .01	.012 .017 .014 .014	8 15 13 13	4 7 25 9 5	.01 .03 .01 .02	30 358 500 363 360	.01 .01 .01 .01	2 8 5 3 2	.54 .60 .61 .69 .61	.02 .02 .02 .02	.10 .13 .09 .14	1 1 1 1	-	91.4-94.5 4.6-7.6 7.6-10.7 10.7-13.7 13.7-16.8
C 8650 C 8651 C 8652 C 8653 C 8654	5 5 13 8 - 9	5 4 9 15 29	14 13 14 26 22	6 7 5	.1 .1 .1 .1	3 2 4 5 7	1 1 1 1 3	2	.34 .30 1.08 1.01 1.50	2 2 6 2 6	5 5 5 5	ND ND ND ND	12 7 15 8 10	158 126 134 105 104	1 1 1 1	2 2 2 2 2	2 2 2 2 2	4 4 5 3 4	.01 .01 .01	.013 .009 .013 .010	11 9 11 7 7	5 18 3 4 2	.01 .01 .01 .01	265 303 266 182 126	.01 .01 .01 .01	2 2 4 4 3	.63 .63 .37	.02 .03 .02 .02	.16 .16 .15 .10	2 1 2 1 1	1	16.8-19.8 19.8-22.9 22.9-25.9 25.9-29.0 29.0-32.0
C 8655 C 3656 C 8657 C 8658 C 3659	11 9 8 7 7	57 276 159 155 103	12 18 19 19	5 10 - 9 11 23	.1 .1 .1 .1	14 39 31 29 87	6 17 13 13 25	1	2.78 2.91 2.96 3.20 2.73	24 9 6 7 6	5 5 5 5	ND ND ND	7 9 8 9 7	112 111 114 125 128	1 1 1 1	2 2 2 2 2	2 2 2 2 2	5 4 4 4	.01 .01 .01	.012 .010 .011 .013	8 8 8 9 7	12 2 3 4 12	.01 .01 .01 .01	45 37 31 44 54	.01 .01 .01 .01	2 2 12 3 2	.40 .41 .39 .44	.01 .02 .02 .01	.07 .08 .07 .07	1. 1. 1. 1.	2 · 4 · 3 · 2 · 2	32.0 - 35.1 35.1-39.1 38.1-41.1 41.1-44.2 44.2-47.2
C 8660 C 8661 C 8662 C 8663 C 8664	13 10 5 4 2	204 256 87 75 61	12 14 35 52 50	27 76 115 189 159	.2 .1 .3 .1	123 98 44 40 36	41 31 15 14 14	5 50 80	2.79 4.10 4.20 4.04 4.31	15 15 17 20	5 5 5 5 5	ND ND ND ND	6 4 13 18 35	112 76 69 51 238	1 · 1 · 1 · 1 · 1 · 1	2 2 2 2 2	2 2 2 2 2	3 8 10 8	.01 .01 .01	.012 .008 .008 .007	6 5 12 17 38	4 3 4 10 4	.01 .01 .01 .01	63 30 18 19	.01 .01 .01 .01	9 2 3 2 3	.42 .43 .47 .50	.01 .01 .01 .01	.08 .06 .06 .07	2 1 1 1	1 1 1 2	47.2-50.3 50.3-53.3 53.3-56.4 56.4-59.4 59.4-62.5
C 8665 C 9666 C 8667 C 8668 C 8669	11 16 11 5 4	56 120 123 49 43	37 75 55 54 35	36 68 26 34 67	.2 .1 .2 .1	32 37 38 28 26	13 18 16 12 10	32 30	3.16 4.56 4.07 3.08 2.51	17 29 16 9	5 5 5 5	HD HD HD	20 15 19 24 42	222 30 34 103 115	1 1 1 1	2 2 2 2 2	2 2 2 3 2	11 10 8 6	.02 .04 .07	.023 .006 .005 .011	20 6 8 14 42	4 3 5 2 8	.03 .02 .02 .03 .43	25 17 21 29 37	.01 .01 .01 .01	4 2 4 2 2	.17 .62 .70 .78 1.57	.01 .01 .01 .01	.12 .12 .11 .12 .38	1 1 1 1	3 6 4 1 3	62.5-65.5 65.5-68.6 68.6-71.6 71.6-74.7 74.7-77.7
C 8670 C 8671 C 8672 C 8673 C 8674	4 13 11 5 3	55 65 69 55 56	46 34 37 26 23	174 84 63 157 117	.2 .2 .1 .2 .2	27 36 30 25 22	10 11 11 10 9	42 86 156	3.31 4.39 4.00 2.87 2.57	21 20 11 12 8	5 8 5 5	DH DH DH DH DH	37 33 35 76 86	130 250 140 66 59	1 1 1 1	2 2 2 2 2	3 2 2 2 2	14 11 16 28 36	.16 .29 .41	.016 .016 .012 .092 .098	22 16 20 90	7 6 9 12 12	.31 .13 .29 .48 .44	29 19 31 45 117	.01 .01 .02 .10		1.47 1.30 1.55 .94	.02 .01 .02 .04	.34 .16 .31 .30	1 1 1 1	4 2 5 1 1	77.7 - 8 0 . 8 80 . 8 - 83 . 8 83 . 8 - 96 . 9 86 . 9 - 89 . 9 89 . 9 - 93 . 0
C 8675 89- STD C/AU-R	7 3 17	69 58	39 43	79 132	.1 6.8	18 68	8 31	155 1015	2.87 4.29	9 42	5 23	ND 7	93 37	184 48	1 19	2 14	3 20	41 59		. 148 . 093	128 39	18 56	.45 .87	106 175	.15 .07	2 34	.89 1.95	.04 .06	.28 .14	1 11	1 490	4.1-13.7

· denotes composite sample

										ZYG	OTE	RES	OURC	ES 1	LTD.	7	45	# 8	39-3	117												Page 4
SAMPLE #	Mo PPM	Cu PPM:	Pb PPM	Zn PPH	Ag PPH	Ni PPM	Co PPM	Hn PPM	Fe 3	As PPM	U PPM	Au	Th PPK	Sr PPN	Cd PPM	SD PPM	Bi PPM	V PPH	Ca 1		La PPN	Cr PPM	Ng . %	Ba PPK	7i 1	B. PPH	Al \$	Na \$	I t	PPH W	AU* PP8	metres from-to
C 8678 8 9 - 7 C 8681 C 8685 8 9 - 8 C 8686 C 8687	2	104 90 31 22 56	39 40 41 42 24	151 140 10 9 12	.1 .4 .2 .1	24 21 -5 2 13	10 8 2 1 5	11 9 6	2.12 2.09 3.32 3.71 1.52	12 6 31 53 14	5 5 5 5	ND DH DH DH	101 125 12 16 13	61 51 399 423 248	1 1 1 1 1	2 2 2 2 2 2	2 2 2 2 2	22 30 25 34 9	.35 .35 .01 .01	.089 .073 .090	122 135 27 36 20	11 15 8 9 7	.38 .45 .01 .02 .02	53 59 187 138 60	.04 .05 .01 .01 .01	10 17 13 11 3	.81 .72 .36 .48 .58	.02 .02 .01 .01	.11 .14 .10 .11 .08	1 1 1 2	5 2 5 1 1	13.7-22.9° 22.9-35.1° 3.0-7.6 4.6-7.6 7.6-10.7
C 8689 C 8690 C 8691 C 8692	29 15 19	172 296 179 91	22 21 40 28	13 13 25 29	.1 .2 .1 .1	27 29 27 20	10 11 11 3	8 11 15	3.64 2.51 3.18 2.72	22 20 25 23	5 5 8	ND ND ND	12 13 27 63	268 337 135 240	1 1 1	2 2 2 2	2 2 2 2	6 8 6 7	.01 .01 .01	.028 .036 .021	18 22 20 55	6 7 6 6	.02 .02 .03 .05	19 33 22 45	.01 .01 .01	8 7 12 16	.49 .54 .56	.01 .01 .01 .02	.03 .04 .05	1 1 2 2 2	3 4 1 3	13.7-16.8 16.8-19.8 19.8-22.9 22.9-25.9
C 8693 C 8694 C 8695 C 8696 C 8697	9 6 5 3	150 88 83 55 53	23 28 25 24 35	77 235 49 77 101	.1 .1 .1 .1	20 22 18 19 22	11 12 8 8 10	115	2.09 2.41 2.09 2.25 1.97	13 12 13 10 12	8 6 5 5	D D D D D D D D D D D D D D D D D D D	53 62 99 99	188 342 135 89 176	1 1 1 1	2 2 2 2 2	2 2 2 2 2	7 8 17 19 16	.02 .03 .02 .92 .02	.035 .065 .080 .079	44 63 109 111 99	7 7 10 9 9	.05 .06 .19 .24 .18	59 63 58 58 59	.02 .02 .04 .05	2 14 18 18 17	.47 .51 .64 .59	.01 .02 .02 .02	.05 .05 .10 .12	1 1 1 1	3	25.9 - 29.0 29.0 - 32.0 32.0 - 35./ 35./ - 38./ 38./ - 4/./
C 9698 C 8699 C 8700 C 8701 C 8702	5 8 4 2	50 49 52 49 53	28 32 34 29 29	119 38 -57 142 74	.1 .1 .1 .1	24 23 28 27 19	10 9 10 11 7	118 68 209	2.16 2.07 1.84 2.14 1.68	16 14 18 15 6	5 5 5 5	ND ND ND ND	106 96 64 106 104	129 174 876 133 77	1 1 1 1	2 2 2 2 2	2 2 2 2 2	22 21 19 30 42	.04 .07 .16 .27	.089 .079 .121 .118 .145	127 121 98 185 187	10 9 10 13 18	.26 .29 .22 .30	60 65 119 72 103	.05 .05 .03 .07	17 18 2 34 2	.59 .56 .68 .49	.02 .02 .02 .03	.12 .14 .09 .15	1 2 1 1 2	•	41./- 44.2 44.2-47.2 47.2-50.3 50.3-53.3 53.3-56.4
C 8703 STD C/AU-R	1 17	52 62	27 35	97 135	.1 7.8	15 69	6 30		1.70 3.89	5 44	5 16	ND 8	104 36	62 45	1 20	2 15	2 21	47 59		.141 .096		20 53	.39 .92	102 175	.13 .07	31 33	.59 2.01	.03 .06	.16 .14	1 12	- 520	56.4-59.4

· denotes composite sample



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557
SEPTEMBER 11,1989

CERTIFICATE OF ANALYSIS ETK89-698

ICP TO FOLLOW

ZYGOTC RESOURCES LTD. 2 - 2979 PANDOSY STREET KELOWNA, B.C. V1Y 1W1

ATTENTION: MR. K. ALBERTSON

SAMPLE IDENTIFICATION: 6 DRILL SAMPLES RECEIVED SEPT. 6, 1989

		•	AU	Me	tres
ET#	Description	R.C.D.H	(ppb)	from	t o
698 - 1	8561	89-1	5	33.5 -	36.6
698 - 2	8636	89-5	5	64.0 -	67.1
698 - 3	8640	89-5	5	76.2 -	79.2
698 - 4	8666	89-6	5	65.5 -	68.6
698 5	8667	89-6	10	68.6-	71.6
698 - 6	8689	89-8	5	13.7-	16.8

NOTE: < = LESS THAN

CC: M.S. MORRISON
684 BALSAM ROAD
KELOWNA, B.C.
V1W 1B9

ECO-TECH LABORATORIES LTD. DOUG HOWARD B.C. CERTIFIED ASSAYER

SC89/KAM5

ECO-TECH LABORATORIES LTD.

ZYGOTE RESOURCES LTD. - ETK89-698A

10041 EAST TRANS CANADA HWY. KAMLDOPS, B.C. V2C 2J3 PHONE - 604-573-5700 FAX - 604-573-4557 2 - 2979 PANDOSY STREET KELOWNA, B.C. VIY 1W1 ATTN: K. ALBERTSON

SEPTEMBER 20, 1989

VALUES IN PPM UNLESS OTHERWISE REPORTED

6 CORE SAMPLES RECEIVED SEPT.6,1989

	ETK#	DESCRIP	TIONS	- AS A	L(Z)	AS	8	BA _.		CA(Z)	CD	£0	CR .			K(7)		M6(7)	MN .		IA(Z)	NI	Р	PB	SB	SN	SR 1		U	Y	, W	Y	ZN
_ D H 8	 د. وو		8561	.2	.38	5	₹2	25	⟨5	.03	<1	9	10		1.26	.16	10	.01	 79	2	.05	12	90	16	20	⟨20 ⋅		<.01	20	8	₹10	2	10
D # 8	9-5-64.0	-67.1m	8636	.2	.33	10	⟨2	25	⟨5	.01	<1	12	89 -	88	3.19	.08	10	<.01	16	12	.06	27	160	12	35	<20	123	<.01	10	6	₹10	1	23
DH 8	9-5 76.2	-79.2m	8640	<.2	.27	10	⟨2	15	⟨\$	⟨.01	<1	14	50	68	3.46	.09	<10	<.01	20	7	.05	32	110	8	115	<20	67	<.01	<10 ·	7	<10	1	14
				.2	.52	25	⟨2	10	⟨5	.05	₹1	20	29	106	4.54	.13	<10	.04	44	15	.03	33	100	82	5	⟨20	24	<.01	<10	12	<10	1	56
				.2	.67	15	⟨2	15	⟨5	.06	₹1	18	30	111	3.98	.05	<10	.05	- 39	11	.04	32	90	64	30	<20	27	<.01	<10	10	<10 ±.	1	21
				.2	.63	20	⟨2	15	⟨5	.01	₹1	11	31	134	3.52	.05	10	.02	15	29	.04	23	290	22	15	<20	210	.01	<10	9	<10 €	2	10

NOTE: < = LESS THAN

CC: M.S. MORRISON
684 BALSAM ROAD
KELOWNA, B.C. VIW 189

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