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Report on the
Vowell Creek Project

Golden Mining Division
N.T.S. 82K/14, 15 & 82N/3
Latitude 50° 57' N, Longitude 116° 58' 30" W

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for

Jasper Mining Corporation
1020, 833 - 4th Avenue S.W.
Calgary, Alberta
T2P 3T5

Submitted by:

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of

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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

Submitted: December 15, 2002

27,010

SUMMARY

The Vowell Creek Project consists of a diverse group of mineral claims, Crown Grants and Mineral Leases held by Mountain Star Resources Ltd., a wholly owned subsidiary of Jasper Mining Corporation. The claims cover an elongate area of approximately 5,382 ha (13,299 acres) oriented northwest-southeast and approximately 19 km in length, centred on the former Ruth-Vermont mine site. The strata underlying the claims have been correlated to the Late Proterozoic Horsethief Creek Group, deformed into a series of northeast trending folds and faults in the Purcell Anticlinorium in the hanging wall of the Purcell Thrust.

The area has a history of periodic exploration, primarily for gold and silver in quartz veins, with more recent activity directed toward base metals, particularly for sedimentary exhalative (SEDEX)-type mineralization. Results from previous work in the northern portion of the property (in the Bobbie Burns and Malachite Creek drainages) appear to document predominantly gold and/or silver mineralization in quartz veins with subordinate copper. The area of the former Ruth-Vermont mine hosts a number of vein and replacement-type deposits, on which mining activity occurred in the early 1970's. Precious and base metal mineralization has been identified on the southern portion of the claims (VMT and VAD claims).

Exploration and mining activity has documented the mineral potential of replacement-type (manto) and vein-type deposits, however, more recent identification of apparently stratabound base metals in correlatable units of a black shale dominated stratigraphic package has been interpreted as indicative of sedimentary exhalative (SEDEX) potential. In addition, the presence of local Cretaceous intrusives (i.e. the Bugaboo Batholith to the south, Battle Range Batholith to the west and Sugar Plum Stock to the southwest) and the well documented presence of mineralized veins and manto-type (replacement) deposits associated with the Ruth Limestone may indicate potential for intrusion-related (magmatic) deposits.

Since acquiring the property, the Company has completed surface and limited underground diamond drilling in, and around, the former Ruth-Vermont mine, surface drilling to test the LCP Zone, a limited transient electromagnetic and gravity geophysical survey, a partial compilation of underground mine plans and sections and a compilation of surface geochemistry immediately adjacent to the claims.

Previous work on behalf of Jasper Mining Corporation has emphasized the potential for SEDEX type mineralization. While acknowledging the SEDEX potential of the area, the author strongly recommended a program emphasizing work to potentially increase reserves of vein- and replacement-type mineralization remaining at the former Ruth-Vermont mine.

The 2002 field program resulted in recovery of 552 soil, 16 silt and 50 rock samples from the Vermont, Crystal and Crystalline Creek drainages to evaluate the surface extent of mineralization in the immediate vicinity of the former Ruth-Vermont mine and the well-established mineralized trend extending across the valley to the north side of Vermont Creek and southward, over the drainage divide into the Crystal Creek drainage (i.e. LCP Zone) and Crystalline Creek (i.e. VAD Claims). Limited geological mapping was also undertaken, primarily in the area surrounding the former Ruth-Vermont Mine and along both sides of Vermont Creek.

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1.00 INTRODUCTION

The Vowell Creek Project (Fig. 1) consists of a diverse group of mineral claims, Crown Grants and Mineral Leases held by Mountain Star Resources Ltd., a wholly owned subsidiary of Jasper Mining Corporation. The claims cover an elongate area of approximately 5,382 ha (13,299 acres) oriented northwest-southeast and approximately 19 km in length, centred on the former Ruth-Vermont mine site (Fig. 2). The strata underlying the claims have been correlated to the Late Proterozoic Horsethief Creek Group (Fig. 3), deformed into a series of northeast trending folds and faults in the Purcell Anticlinorium in the hanging wall of the Purcell Thrust.

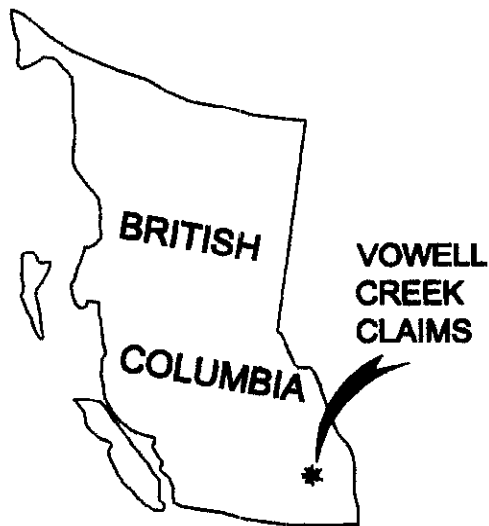
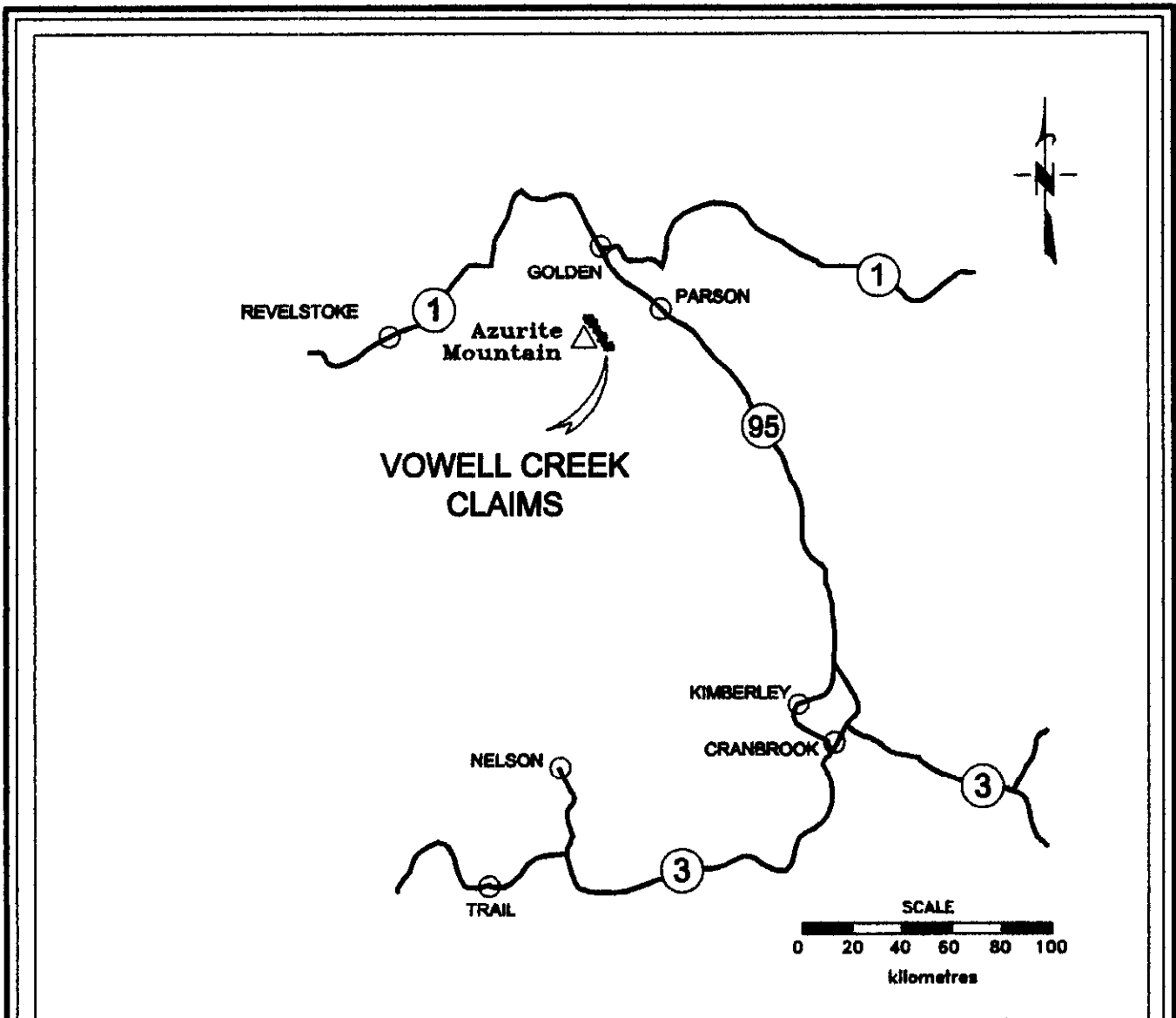
The area has a history of periodic exploration, primarily for gold and silver in quartz veins, with more recent activity directed toward base metals, particularly for sedimentary exhalative (SEDEX)-type mineralization. Results from previous work in the northern portion of the property (in the Bobbie Burns and Malachite Creek drainages) appear to document predominantly gold and/or silver mineralization in quartz veins with subordinate copper. The area of the former Ruth-Vermont mine hosts a number of vein and replacement-type deposits, on which mining activity occurred in the early 1970's. Precious and base metal mineralization has been identified on the southern portion of the claims (VMT and VAD claims - Fig. 4).

Exploration and mining activity has documented the mineral potential of replacement-type (manto) and vein-type deposits, however, more recent identification of apparently stratabound base metals in correlatable units of a black shale dominated stratigraphic package has been interpreted as indicative of sedimentary exhalative (SEDEX) potential. In addition, the presence of local Cretaceous intrusives (i.e. the Bugaboo Batholith to the south, Battle Range Batholith to the west and Sugar Plum Stock to the southwest) and the well documented presence of mineralized veins and manto-type (replacement) deposits associated with the Ruth Limestone may indicate potential for intrusion-related (magmatic) deposits.

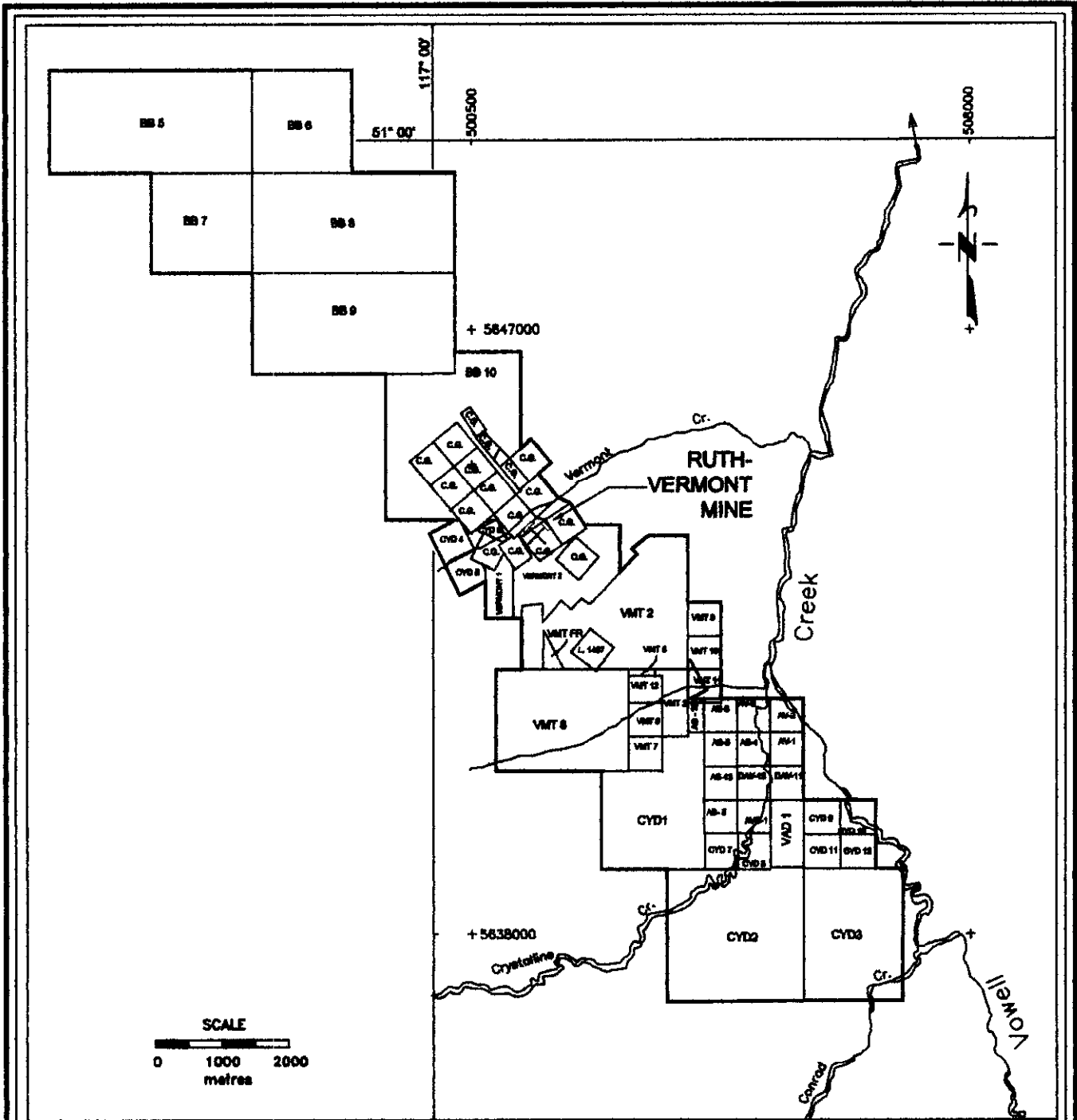
Since acquiring the property, the Company has completed surface and limited underground diamond drilling in the former Ruth-Vermont mine, surface drilling to test the LCP Zone, a limited transient electromagnetic and gravity geophysical survey, a partial compilation of underground mine plans and sections and a compilation of surface geochemistry immediately adjacent to the claims.

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The 2002 field program resulted in recovery of 552 soil, 16 silt and 50 rock samples from the Vermont, Crystal and Crystalline Creek drainages to evaluate the surface extent of mineralization in the immediate vicinity of the former Ruth-Vermont mine and the well-established mineralized trend extending across the valley to the north side of Vermont Creek and southward, over the

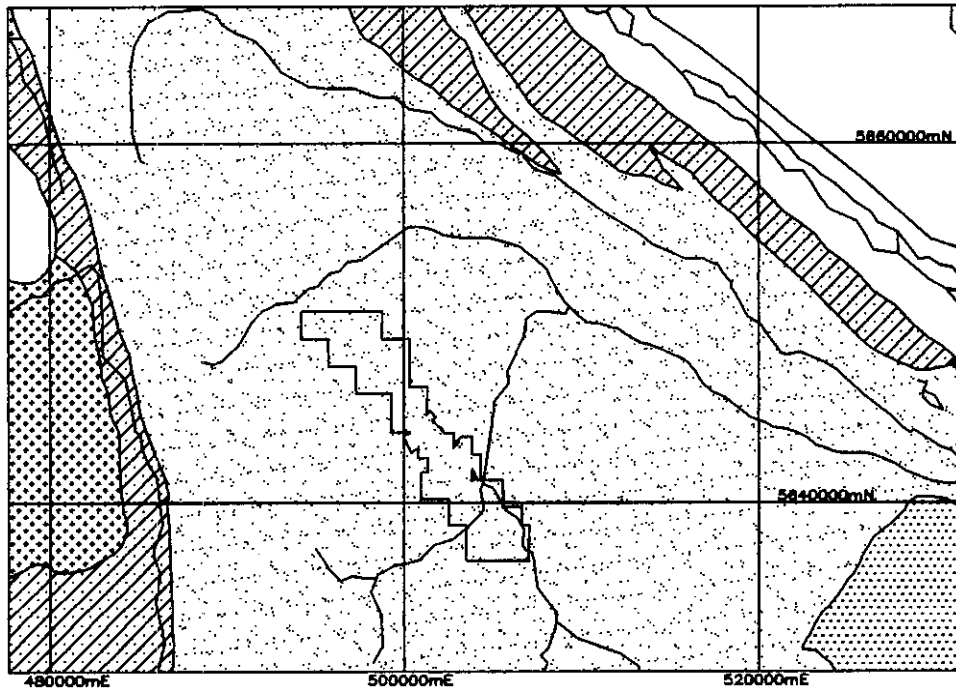


JASPER MINING CORP.	
VOWELL CREEK PROJECT	
LOCATION MAP	
N.T.S. 82 K/15W	Figure 1








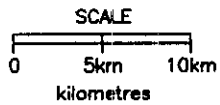
JASPER MINING CORP.	
VOWELL CREEK PROJECT	
CLAIM MAP	
N.T.S. 82 K/15W	Figure 2

Geology from G.S.C. Open File 481;
Original compilation scale 1:1,000,000

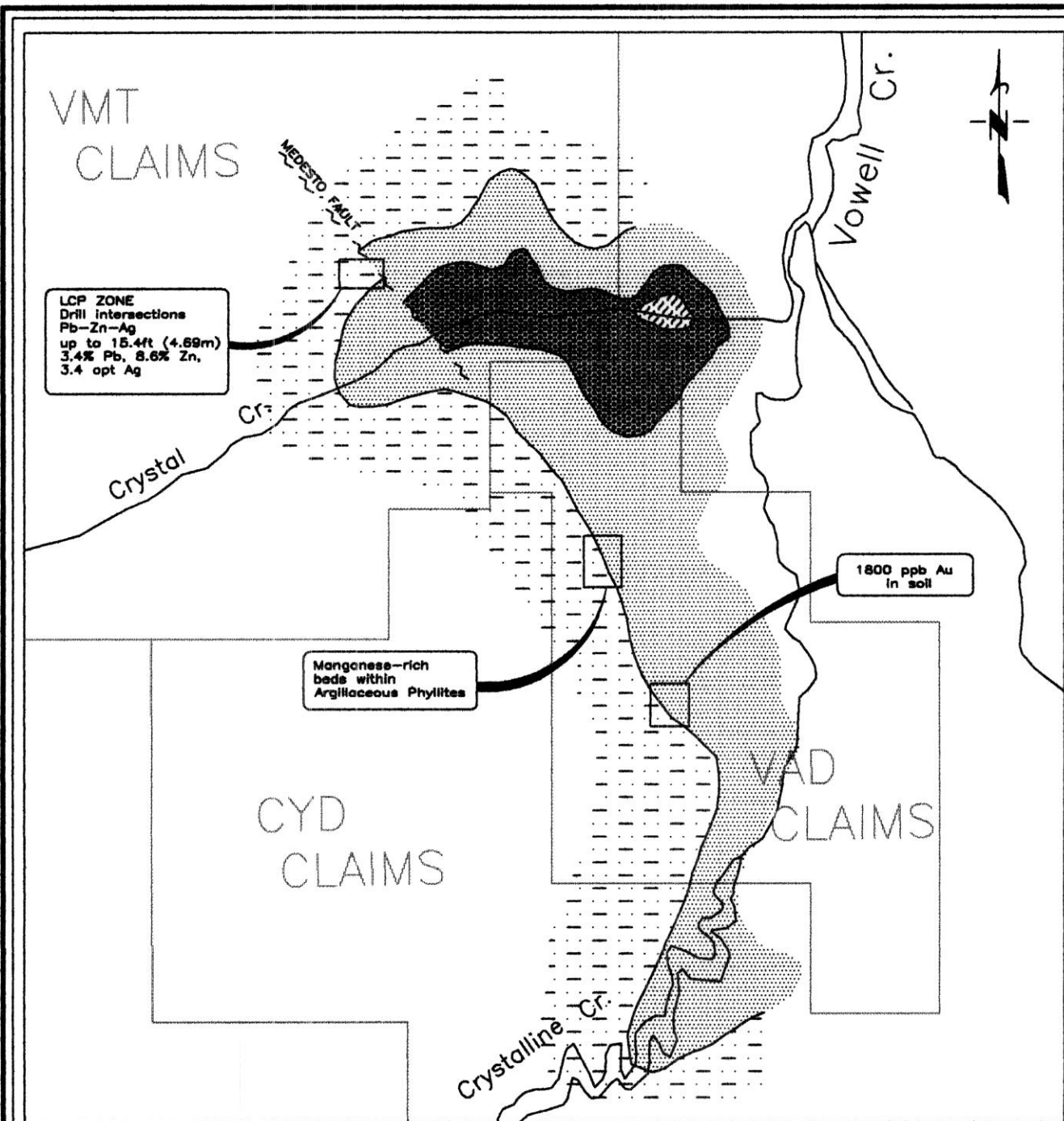


LEGEND

-  Cretaceous intrusives
-  Lower Cambrian
Quartzite, limestone, phyllite, argillite.
-  Proterozoic (Windermere)
Sandstone, conglomerate, limestone, grit, minor volcanic rocks
-  Proterozoic (Belt-Purcell)
Quartzite, argillite, dolomite, limestone, siltstone
-  Vowell Creek
claim boundary



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VOWELL CREEK PROJECT	
REGIONAL GEOLOGY	
N.T.S. 82 K/15W	Figure 3



LEGEND

	Unit M Turbidites
	Unit A Turbidites
	Cedar Grit
	Gneiss
	Claim Boundary
	Geologic Boundary

JASPER MINING CORP.	
VOWELL CREEK PROJECT	
GEOLOGY OF SOUTHERN VMT & VAD CLAIMS	
N.T.S. 82 K/15W	Figure 4

drainage divide into the Crystal Creek drainage (i.e. LCP Zone) and Crystalline Creek (i.e. VAD Claims). Limited geological mapping was also undertaken, primarily in the area surrounding the former Ruth-Vermont Mine and along both sides of Vermont Creek.

All samples were sent to Acme Analytical Laboratories Ltd. in Vancouver, BC for 35 element ICP-MS (Group 1DA) Analysis. Samples returning high, to potentially ore, grade results were re-analyzed, using fire assay for gold and silver (Group 6) and ICP (Group 7AR) for other metals (As, Cu, Pb, Sb and Zn).

2.0 LOCATION AND PHYSIOGRAPHY

2.1 Location and Access

The property extends from the headwaters of Bobbie Burns, Malachite, Vermont and Crystal creeks, through Crystalline Creek to the confluence of Conrad and Vowell creeks in the northern Purcell Mountains (Figure 2). The centre of the claims is located approximately 30 km southwest of Golden, B.C. (Figure 1) and 27 km west-southwest of the town of Parson, British Columbia (Figure 1) at approximately latitude 50° 57' N, longitude 116° 58' 30" W (UTM coordinates 501500 E, 5644000 N, Zone 11). The property lies on NTS mapsheets 82N/2, 3 and 82K/14, 15. Alternatively, with reference to the BC Geographic Survey 1:20,000 Terrain and Resource Information Management (TRIM) maps, the property lies on mapsheets 082K 085, 086, 095, 096, 082N 005 and 006.

The central portion of the property (the focus of this report), comprising the Ruth-Vermont and VMT Claim Groups, can be accessed by 2-wheel drive using a network of well maintained logging roads west of Vowell Creek, originating from Highway #95 at Parson. Old logging and mining roads along Vowell, Vermont and Crystal Creeks can be utilized for 4-wheel drive, All Terrain Vehicle and/or foot access to the main areas of interest on the VMT and Ruth-Vermont claim blocks.

Tembec Industries Inc. has recently rehabilitated the old mining road from the Vowell Creek Mainline into the Vermont Creek drainage in order to access timber along the lower portion of the creek. Therefore, an access road compliant with haul road standards under BC's Forest Practices Code exists and can be utilized in the near future, however, the road does not extend to the former Ruth-Vermont mine site.

The northern two thirds of the property is not currently accessible by vehicle. An unused logging road branching north off the main road system at the 40 km post, was negotiable in 1997 by standard

vehicle for a distance of 8.2 km up Bobbie Burns Creek (Gidluck 1997). The boundary of the northern BB claims, however, is another 14 km upstream from this point. An old mining road, constructed in 1966 along Bobbie Burns Creek, is grown over in many places and eroded beyond use for 4 wheel drive vehicles. An ATV trail utilizing the old road bed appears to be partially maintained by hunters to a point about 1 km east of the property boundary.

Currently, the best access to the northern portion and high elevation areas of the property is by helicopter based out of the town of Golden. Accommodation and helicopter charter may also be available on a seasonal basis, from the Bobbie Burns Lodge, located on the Vowell Creek logging road at the 57 km post, adjacent to the VMT claims.

2.2 Physiography And Climate

Elevations on the property vary from approximately 1400 m (4600 ft) at the southern edge of the property adjacent to Vowell Creek to 2870 m (9400 ft) on Vermont Mountain. Much of the property, however, is situated above tree line at about 2285 m (7500 ft) in this region. Snow generally remains on a large portion of the claims, particularly north facing slopes and valleys, until mid-July and permanent snow and ice is present as ice fields on the BB-1, BB-10 and VMT-2 claims.

Vegetation in the area consists primarily of coniferous trees with undergrowth comprised largely of slide alder.

The claims are located west of the Rocky Mountain Trench and east of Rogers Pass in the Northern Purcell Mountains. As such, they are subject to heavier precipitation than areas to the south and east. Therefore, the property is available for geological exploration from May (at the lowest elevations and on south facing slopes) to late October. However, the possibility of early, heavy snowfall and freezing (at higher elevations) as early as mid-September, can be expected to result in delays during some aspects of an exploration program.

2.3 Property Ownership

The initial property was comprised of mineral claims and mining leases staked in 1989 and 1990 by MineQuest Exploration Associates Ltd. on behalf of the Spillamacheen Joint Venture. In 1995, the VMT claims were acquired by Mountain Star Resources Ltd., which had previously acquired the former Ruth-Vermont mine, with additional subsequent claims subsequently acquired by staking. The property owned by Mountain Star Resources Ltd in 1997 was "... comprised of 34 minerals dispositions made up of 218 whole or partial (fractions) claim units covering a total of approximately 3474 hectares. The land package is made up of three major claim group, the VMT

group in the south, the Ruth-Vermont group in the middle and the BB group which occupies the northern two-thirds of the property" (Gidluck 1997).

On November 28, 1997, Bright Star Ventures Corporation, incorporated on November 28, 1994 acquired the all of the issued and outstanding shares of Mountain Star Resources Ltd. as its "major transaction" to fulfil Junior Capital Pool requirements under Alberta Stock Exchange regulations, subsequently changing its name to Bright Star Metals Inc. on August 11, 1998. In the interim, several of the BB claims were allowed to lapse.

On May 31, 1999, Bright Star Metals Inc. entered into an option agreement with Mellenco Investments Ltd. to acquire 13 Crown granted claims immediately adjacent to the former Ruth-Vermont mine. In 2000, following a diamond drill program along the Vermont Creek valley and LCP Zone, the CYD claim group was staked by the company to cover the interpreted sub-surface projection of a favourable horizon.

On February 8, 2001, the company changed its name to Jasper Mining Corporation and now holds a contiguous block of mineral claims, Crown Grants and Reverted Crown Grants extending approximately 19 km on a northwest-southeast direction and centred approximately on the former Ruth-Vermont mine.

2.5 Claim Status

The Vowell Creek Property consists of 36, 2-post and 15, 4-post mineral claims (Fig. 5) staked in accordance with existing government claim location regulations. The mineral claims, leases and Reverted Crown Grants are held, or have been optioned by, Mountain Star Resources Ltd, a wholly owned subsidiary of Jasper Mining Corporation.

The BB Claim Group comprises the northern portion, the Ruth-Vermont and VMT Claim Groups comprise the central portion and the CYD Claim Group comprises the southern portion of the property. The property includes 13 whole or partial Reverted Crown Grants, contained in two Mineral Leases (Mineral Leases 95 and 97), and 16 Crown Grants. The property comprises a total area in excess of approximately 5,382 ha (13,299 acres).

Significant claim data are summarized on the following pages:

Registered to Mountain Star Resources Ltd.

<u>Claim</u>	<u>Units</u>	<u>Tenure Number</u>	<u>Type</u>	<u>Due Date*</u>	<u>Area (ha)</u>
BB Claim Group					
BB-5	18	340409	Claim	Sept. 24, 2004	450
BB-6	9	340410	Claim	Sept. 24, 2004	225
BB-7	9	340411	Claim	Sept. 24, 2004	225
BB-8	18	340412	Claim	Sept. 24, 2004	450
BB-9	18	340413	Claim	Sept. 24, 2004	450
BB-10	20	340414	Claim	Sept. 24, 2004	500
Ruth Vermont Claim Group					
Vermont 1	3	213300	Claim	Apr. 3, 2005	75
Vermont 2	12	213301	Claim	Apr. 3, 2005	300
Cleopatra	1	213875 ¹	L. 8122	Aug. 21, 2002	} 119.69
Vermont	1	213875 ¹	L. 8123	Aug. 21, 2002	
Sheba	1	213875 ¹	L. 8124	Aug. 21, 2002	
Ruth Fr.	Fract.	213875 ¹	L. 8125	Aug. 21, 2002	
Ruth	1	213875 ¹	L. 418	Aug. 21, 2002	
Minnie	1	213875 ¹	L. 419	Aug. 21, 2002	
Charlotte	1	213875 ¹	L. 405	Aug. 21, 2002	
?????	1		L. 15310		
C.M.R.M.C.	<u>Fract.</u>		L. 10476		
Total	21				
1. Mineral Lease 97					
VMT Claim Group					
VMT #2	20	213576	Claim	Sept. 15, 2005	500
VMT #3	2	213577	Claim	Sept. 15, 2005	50
VMT 5	1	213770	Claim	Sept. 12, 2005	25
VMT 6	1	213769	Claim	Sept. 15, 2004	25
VMT 7	1	213768	Claim	Sept. 15, 2004	25
VMT 8	12	213766	Claim	Sept. 15, 2004	25
VMT 9	1	213771	Claim	Sept. 14, 2004	25
VMT 10	1	213772	Claim	Sept. 14, 2004	25
VMT 11	1	213773	Claim	Sept. 14, 2004	25
VMT 12	1	213767	Claim	Sept. 15, 2004	25
VMT Fr.	Fract	213774	Claim	Sept. 15, 2004	~12
Excelsior	<u>1</u>	213268	Rev.	April 26, 2004	Campeau Estate
Total	42				

CYD Claim Group

CYD 1	12	381156	Claim	Sept. 29, 2004	300
CYD 2	16	381157	Claim	Sept. 30, 2004	400
CYD 3	16	381158	Claim	Oct. 1, 2004	400
CYD 4	1	381165	Claim	Oct. 2, 2004	25
CYD 5	1	381166	Claim	Oct. 2, 2004	25
CYD 6	1	381164	Claim	Oct. 2, 2005	25
CYD 7	1	381159	Claim	Sept. 30, 2004	25
CYD 8	1	380910	Claim	Sept. 29, 2004	25
CYD 9	1	381160	Claim	Sept. 28, 2004	25
CYD 10	1	381161	Claim	Sept. 28, 2005	25
CYD 11	1	381162	Claim	Sept. 28, 2005	25
CYD 12	1	381163	Claim	Sept. 28, 2005	25

Registered to Gordon Dixon

<u>Claim</u>	<u>Units</u>	<u>Number</u>	<u>Type</u>	<u>Due Date*</u>	<u>Area (ha)</u>
Bryan	1	213877 ²	L. 3951	Apr. 17, 2003	16.94
Lincoln	1	213877 ²	L. 3952	Apr. 17, 2003	18.13
Lucky Jack	1	213877 ²	L. 3953	Apr. 17, 2003	15.30
Total	95				

² Mineral Lease 95

Crown Grants

<u>Crown Grants</u>	<u>Name</u>	<u>Folio Number</u>	
L. 672	Syenite Bluff	008850	} Approximately 100 ha
L. 763	Black Horse	008850	
L. 764	Agnes	008850	
L. 6662	Eureka	010634	
L. 6663	Wild Horse	010634	
L. 6664	White Horse	010634	
L. 15307	Golden Bluff	019950	
L. 15317	Agnes Fraction	019950	
L. 15318	Charlotte Fraction	019950	
L. 15445	Ruth No. 2	019950	
L. 15446	Lion	019950	
L. 15447	Unicorn	019950	
L. 15448	Mazeppa	010634	

Claims registered to Sodi Berar

<u>Claim</u>	<u>Units</u>	<u>Tenure Number</u>	<u>Type</u>	<u>Due Date*</u>	<u>Area (ha)</u>
AB-4	1	365241	Claim	Aug. 2, 2002	25
AB-5	1	365242	Claim	Aug. 2, 2002	25
AB-6	1	365243	Claim	Aug. 2, 2002	25

Registered to Jim Adamson

<u>Claim</u>	<u>Units</u>	<u>Tenure Number</u>	<u>Type</u>	<u>Due Date*</u>	<u>Area (ha)</u>
AB-10	1	213748	Claim	Aug. 23, 2002	25
AB-13	1	213751	Claim	Aug. 28, 2002	25
AB-15	1	213754	Claim	Aug. 29, 2002	25
AVD-1	1	213570	Claim	Sept. 16, 2002	25
VAD-1	2	213436	Claim	July 6, 2002	50
DAV-11	1	213726	Claim	July 18, 2002	25
DAV-12	1	213727	Claim	July 18, 2002	25
AV-1	1	380835	Claim	Sept. 23, 2002	25
AV-2	1	380836	Claim	Sept. 23, 2002	25
AV-3	1	380837	Claim	Sept. 23, 2002	25

- Upon acceptance of 2002 Assessment Work credits.

3.0 HISTORY

Regionally, the area has a history of episodic exploration, primarily for gold and silver in quartz veins, with more recent activity directed toward identification of base metal, particularly sedimentary exhalative (SEDEX)-type, mineralization. Results from previous work in the northern portion of the property (in the Bobbie Burns and Malachite Creek drainages) appear to document predominantly gold and/or silver mineralization in quartz veins with subordinate copper. The area of the former Ruth-Vermont mine hosts a number of vein-type (and associated replacement-type) deposits, on which mining activity occurred in the early 1970's. Precious and base metal mineralization has been identified on the southern portion of the claims and adjacent areas (i.e. VMT and VAD claims).

Exploration and mining activity has documented the mineral potential of replacement-type (manto) and vein-type deposits, however, more recent identification of apparently stratabound base metals in correlatable units of a black shale dominated stratigraphic package has been interpreted as indicative of SEDEX potential (Brophy and Slater 1981). In addition, the presence of local Cretaceous intrusives (i.e. the Bugaboo Batholith to the south, Battle Range Batholith to the west and Sugar Plum Stock to the southwest) and the well documented presence of mineralized veins and

manto-type (replacement) deposits may indicate potential for carbonate replacement-type and/or intrusion-related gold deposits (Logan 2002a).

The following historical summary has been taken from Gidluck (1997) for the VMT and Ruth-Vermont Claim Groups:

“The Spillimacheen District

Many of the mineral occurrences and existing mining leases (original Crown Grants) on and adjacent to the present BB and Ruth-Vermont claim groups were first worked during the later years of the nineteenth century. A second phase of activity took place between 1920 and 1940. Most of this work was directed towards small scale mining and prospecting for gold and silver in quartz veins, however, lead and zinc was mentioned in many of these occurrences and occasionally copper as well.

A further attempt at mining lead-zinc-silver veins took place at the old Ruth-Vermont mine between 1965 and 1973. Then from the mid 1960's to the early 1980's, a variety of more extensive modern exploration surveys looking for stratiform lead-zinc-silver were conducted over different claim groupings within the boundaries of the present property package. Government mapping in this district is quite limited and regional in nature. The few maps that exist over this area, at best, only show rocks of the Horsethief Group occurring on the property. None of these maps show any detail of the divisions within this group (Reesor 1973, Wheeler 1962, Okulitch and Woodsworth 1977, Price and Mountjoy 1979).

VMT Claim Group

The first evidence of exploration in this area is from incomplete records which indicate that between 1965 and 1973 Mr. R. Renn, from Calgary, did a limited amount of geological mapping, biogeochemistry and trenching, and drilled at least 7 or 8 diamond drill holes on the property. Apparently core recovery was poor and no cores, core descriptions or hole locations are available (BCDM - AR # 6257 and #6744).

In 1974 to 1977 Medesto Exploration Ltd. conducted geochemical soil sampling, geological mapping, trenching and drilled three diamond drill holes in 1975 and two in 1977 to test the geochemical anomalies. The best intersection obtained in 1975 was in DDH 75-1 where 8 ft. of lead-zinc-silver mineralization was encountered. The best in 1977 was in DDH 77-3 where a similar zone 14.5 ft wide was intersected. Trenching 80 ft south of DDH 77-3 sampled a zone 24 ft. wide indicating possible thickening to the south (BCDM - AR #6744).

In 1979 Norcen Energy Resources conducted a widespread exploration program over a strike length of about 25 km from Vermont Creek in the north to Warren Creek (off the VMT claims) in the south. Part of their program included soil geochemistry, geological mapping, trenching and diamond drilling on the VMT claim group (BCDM - AR # 8140 and #8154). Most of this work was done on the north and east slopes of Crystal Creek in the south eastern corner of the property where they drilled 12 holes in 1979 and another 7 holes in 1980. The best intersection was located on the same zone as encountered by DDH 77-3, the Medesto trenches and coincident soil anomalies, however, they concluded the drilling did not obtain any zones of "significance" (Smith et al - 1980).

Bluesky Oil & Gas Ltd. obtained the property in 1981. They conducted more geological mapping, soil geochemistry and drilled another 4 holes in areas of known mineralization and previous drilling at the southeastern end of the VMT group. They encountered significant massive and disseminated mineralization and their best intersection was, again, in the Medesto-Norcen zone (LCP Zone). They recommended further work in 1982 to include; more standard surveys as well as drilling and an exploration adit to test the mineralized zone above (Nolin 1981).

After the claims expired in 1989 and 1990, the VMT claims were staked over this ground by MineQuest Exploration Associates Ltd of Vancouver, B.C. Between 1990 and 1994 they conducted geological mapping, minor soil sampling and compiled all the previous exploration data (Longe 1993).

The claims were optioned to Mountain Star Resources Ltd. in August of 1996 who then conducted a one line test survey of transient EM and gravity at the north end of the claim group.

Ruth - Vermont Claim Group

Lead-zinc-silver mineralization was discovered on the property in 1893 and a 150 tons of hand sorted ore was shipped from the Ruth Mine in 1896. The Galena Syndicate from London, England, held the property until the early 1960's and completed several hundred feet of underground development prior to 1930. Rio Canadian studied the property in 1956 and 1957 (Manning 1972)".

Fyles (1966) reports "The property is an old one, originally consisting of 11 Crown-granted claims, on which more than a dozen short adits were driven before 1930. In 1956 and 1957 Rio Canadian Exploration Ltd. made an extensive survey of the property and did a small amount of drilling and soil-sampling. In 1964 the old Crown grants

which had reverted were taken up by Mel Pardek, of Vancouver, as a mineral lease and about 40 claims surrounding the lease were located. The present company (Columbia River Mines Ltd.) acquired the property in 1965 and began underground work in an old adit called the Old Timers level and subsequently referred to as the 6000 level.

The main activities in 1966 were directed to the development of the 6000 level. The level was driven from the footwall to the hangingwall of a mineralized zone containing appreciable values of lead, zinc, and silver, and was extended along the hangingwall for 1,200 feet. Contact was maintained with the zone by frequent drilling, which amounted to 132 holes totalling 20,000 feet by the year-end. A new level was opened at the 5,750-foot elevation and was extended 650 feet. It is expected that the 5750 will eventually become the main haulage level. Surface activities included the construction of an 88-by 20-foot power-house and machine-shop near the portal of the lower level. A new 4½-mile access road replacing the old road was built, partly on the south side of the valley of Vermont Creek to avoid snowslides as much as possible and to improve snow removal”.

Gidluck (1997) continues “The property was optioned to Columbia River Mines in 1965 who conducted 2,300 feet of underground development on the 5750 and 6000 Levels, drilled approximately 40,000 feet of diamond drill core and shipped a load of high grade ore to the smelter at Trail.

In 1969 the property was optioned to Copperline Mines Ltd. who brought the Ruth-Vermont mine into full production and from 1970 to 1971 they milled 94,469 tons of ore. The mine was then shut down from 1971 to 1973 due to low metal prices.

During this period L.J. Manning and Associates Ltd from Vancouver B.C. conducted a feasibility study on the mining leases (Manning - 1972). The study concluded that there was 291,384 tons of mineable ore reserves remaining in the mine. They stated the opportunity was good for increasing ore reserves and recommended that a more favourable smelter contract be obtained before starting up the operation again. An independent geological report, included with the study, indicates an excellent potential for finding more replacement ore in the immediate area (Tough 1972).

Consolidated Columbia Mines Ltd. took over the operation in 1973 and shipped 26,975 tons of concentrate to the Cominco smelter in Trail, B.C. In 1974 the mine facilities suffered extensive damage from snowslides. There was a short lived attempt to bring the mine back into production in 1981.

The Manning Feasibility Study was updated in 1982 (Foreman 1982) and concluded the economics of the Ruth-Vermont Mine was dependant upon the price of silver. The

mine lay derelict until 1994 when all the buildings and machinery were removed from the property, the surface sites reclaimed and underground openings sealed (Morrow 1995).

In 1996 data from the archived mine records was compiled and the stratigraphy correlated by MineQuest Exploration Associates Ltd. A three hole underground diamond drill program was conducted to test for a Sedex lead-zinc deposit below the workings and to verify a high gold assay reported in mine archives. No evidence for Sedex mineralization was found in the one hole that penetrated the "Target Shale", however, another hole did intersect 5.6 ft of gold mineralization. MineQuest concluded further underground drilling and sampling of the mine tailings was required to evaluate the gold potential. The workings were once again sealed and the access road reclaimed after this program was completed (Cukor 1996).

In addition, Frontier Geosciences Ltd was contracted by MineQuest, on behalf of Mountain Star Resources Ltd, to undertake "A brief program of transient electromagnetometer and gravity surveying ... on the VMT property. Although lacking the context that more extensive coverage would allow, a broad low amplitude gravity high was observed ... The TEM survey detected distinct geoelectric units and provided an estimate of the resistivities of these units in limited coverage. The resistivity values observed are in the range of background rock resistivities expected at this site" (Liu and Candy 1996).

In 1997, M. Gidluck was contracted by Mountain Star Resources Ltd. to undertake a geological evaluation of the property, based "... on a review of all the various reports and documents available in the company's offices in Calgary, reports and maps available at MineQuest Exploration Associates Ltd offices in Vancouver, selected published references and selected assessment reports ... A property examination ... was conducted on the eastern portion of the VMT claim block ... and a small portion of the northern BB claims ..." (Gidluck 1997).

In late 1999 – early 2000, the author copied all available Assessment Reports and completed a partial compilation of geochemical data available in the Assessment Reports under contract to Bright Star Metals Inc. A total of 4,796 soil, 1,905 rock and 1,299 silt (lake or stream) samples were compiled and plotted "... in an attempt to identify geochemically anomalous areas on the property as well as possible gaps in geochemical coverage. An initial compilation of available geological mapping data has also been undertaken in an effort to synthesize data arising from a number of local and regional exploration programs within or immediately adjacent to the property" (Walker 2000). The mandate for the compilation was to include data lying immediately outside the claim boundaries, as work pertaining to the claims had apparently been completed by MineQuest Exploration Associates Ltd.

In 2000, Bright Star Metals Inc. contracted Minequest Exploration Associates Ltd. to complete a 1,050 metre diamond drill program. A total of five NQ diamond drill holes were completed, two on the north side of Vermont Creek across from the former Ruth-Vermont mine (totaling 641 metres) and three in the LCP Zone (totaling 399 metres). A total of 83 core samples were taken and submitted to Bondar-Clegg for geochemical analysis. A downhole geophysical survey was undertaken on the VC-02 and VC-05 holes (LCP Zone) by Frontier Geosciences Inc. of North Vancouver.

The following discussion of the drill results has been taken from Longe et al. (2001):

“In several of the mineralized intervals, gold exceeds 1 g/t, usually in association with elevated arsenic. The significance of these elevated values is not known but they need to be considered in context with two other places where gold is significant: the Ruth Vermont mine where an underground hole (DDH 96-3) intersected 1.7 metres of 71 g/t Au in an argillaceous limestone, and a gossanous soil topographically beneath the manganese occurrence on the VAD claims. ...

There appear to be two mineralized beds. Lead-zinc mineralization in the upper bed is weaker than in the lower. Continuity from the Norcen intersections to all three Bright Star holes is reasonably well established. The same mineralized bed appears to extend to drill hole 79-10, although ... that section of core was not assayed.

The lower mineralized bed has produced promising grades, the best of which was 4.8 metres of 3.4% Pb, 8.6% Zn, 117 g/t Ag in drill hole 77-3. The same bed appears to have been intersected in VC-03 but is not obvious in the other recent holes. One of us (RW) identified a 10 cm section of the core in VC-04 as possibly more significant than any other. The piece contains a 1 x 4 cm band of massive sphalerite cut by a fault. Its perceived significance lay in the lack of quartz or calcite adjacent to it and, because of that, its possible status as slice from a massive sulphide. This piece plots exactly where the lower bed should be were it not for the fault, now called the Norcen fault, adjacent to it.

Unlike the upper mineralized bed, the lower is not seen in drill hole VC-05, but, given the number of faults identified in all these holes, another fault is a reasonable explanation. Hole 79-10 was probably not deep enough to intersect the lower mineralized bed”.

The following historical production data was taken from the British Columbia Ministry of Energy and Mines provincial Minfile database, and was compiled from Ministry of Mines Annual Reports and other records filed with the Ministry.

Production Year	Tonnes Mined	Tonnes Milled	Recovery					
			Silver (g)	Gold (g)	Cadmium (kg)	Copper (kg)	Lead (kg)	Zinc (kg)
1981	12,839	12,839	1,720,000	1	1,359	6,521	297,874	203,214
1979	62	62	20,964	26			3,981	5,459
1978	36	36	75,083		166	384	13,600	21,901
1976	60,725	60,725	5,025,312	2,830	9,003	14,435	949,099	1,276,240
1975	10,258	10,258	1,110,066	453	1,385	3,414	210,279	217,213
1973	24,455	24,455	2,989,154	1,524	3,655	9,911	653,591	551,584
1971	32,177	34,792	2,208,282	2,861		21,028	294,986	2,591,396
1970	35,652	32,864	3,885,231	1,524	7,569		797,782	1,073,782
1965	15	15	32,845	31			4,688	2,914
1951	1	1	778				179	44
1930	32	32	107,088	124			14,986	3,428
1927	5	5	8,647	31			1,617	247
1892	19		64,539					11,294

Summary Totals

Tonnes Mined	Tonnes Milled	Recovery					
		Silver (g)	Gold (g)	Cadmium (kg)	Copper (kg)	Lead (kg)	Zinc (kg)
176,276	176,084	17,247,989	9,405	23,137	55,693	3,253,956	5,947,422

The following is taken from Gidluck (1997):

Recent Exploration on the BB Claim Group

In 1980 First Nuclear Corporation conducted reconnaissance geological mapping, prospecting and geochemical surveys over the entire BB claim group and the surrounding area. This program indicated the western highland portion of the property to be the most prospective for lead-zinc-silver. In 1981 mapping, prospecting and rock geochem concentrated on these highland areas and stratabound lead and zinc mineralization was found associated with carbonate horizons on four areas within the property (Brophy and Slater 1981).

In 1982 Samim Canada Ltd. optioned the property and engaged MineQuest to follow up in these areas of interest and conduct further mapping, prospecting and sampling. This work reported 6 showings of conformable lead-zinc mineralization on the present property, all occurring at one of three stratigraphic levels near a shale - limestone contact. They concluded the Ruth-Vermont deposit to the south may also occur at one of these levels thus adding potential to this horizon on the BB claims. They recommended more mapping, prospecting, IP - EM surveys and drilling on the Malachite showings (Dickie and Longe 1982). ...

Samim concluded that various features of these lead-zinc showings are indicative of possible nearby bedded Sedex mineralization. They recommended more mapping, geochem and IP surveying as well as diamond drilling. They concluded the property remains one of considerable merit but recognized that a long term program of further work is required if a deposit is to be found (Bottrill et al 1983)".

4.0 GEOLOGICAL SETTING

4.1 Regional Geology

The following has been taken from Gidluck (1997):

Stratigraphy

“The Vermont Property is underlain by a thick sequence of Hadrynian marine sedimentary rocks (Figure 3) exposed in the core of the northwest trending Purcell Anticlinorium, on the west side of the Rocky Mountain Trench. The anticline is deformed by subsequent thrust faulting and folding parallel to the structural axis (Okulitch and Woodsworth 1977, Kubli and Simony 1994).

The majority of lithologies exposed on the property belong to the Horsethief Creek Group, a subdivision of the Windermere Supergroup of Hadrynian age. The Horsethief Creek Group is composed of four general divisions which are not easily separable; a lower Grit Division of turbidite sandstones and shales, a deep water Slate Division, a shallow water Carbonate Division and an Upper Clastic Division of shales, sandstone and carbonate deposited during a marine transgression (Evans 1933, Young et al 1973).

Conformably underlying the Horsethief Creek are diamictic conglomerates of the Toby Formation derived from subaqueous slides and debris flows. These rocks have been mapped in the Bugaboo Creek valley 20 km to the southeast of the property (Reesor 1973).

Overlying the Horsethief Creek Group in the Purcell Mountains is the Lower Cambrian Hamill Group which occurs to the northeast of the property. This Group is largely comprised of quartzites, slates, phyllites and schists and is probably in sharp, unconformable contact with the Horsethief Creek Group (Reesor 1973)”.

Several Cretaceous intrusions have been identified in the general area of the Vowell Creek Property, intruding the Windermere Supergroup and cross-cutting Mesozoic age deformation fabrics, and include the Battle Range Batholith (87 - 100 M.a.), Bugaboo Batholith (94 -107 M.a.), Horsethief Creek Batholith (93 - 109 M.a.) and the undated Sugar Plum Stock. These intrusions belong to the Bayonne Magmatic Suite and are associated with an unusual metallogenic suite, including Ag, Au, Mo, Pb, Sn, W, and Zn, as well as uranium and rare earth elements (Logan 2002b).

4.2 Detail Geology

4.2.1 VMT Claim Group

The following has been taken from Fyles (1966):

“The (Atlas) claims are west of Vowell Creek between Vermont and Crystalline Creeks. The main work has been on showings at an elevation of 5,800 feet on the slope north of Crystal Creek, a small tributary of Crystalline Creek from the west. The workings are reached by a steep “Cat” road from a trailer camp at Mile 33 on the Vermont Creek logging-road. They are bulldozer strippings on a steep jack pine slope covering an area about 400 feet square which exposes showings of galena discovered by Renn in 1965. Two short diamond-drill holes were put down in the upper northwest corner of the stripped area in July, 1966.

The rocks exposed at the showings are dark-grey slates and grey to light brownish-grey micaceous quartzites. The slates are pyritic, and the quartzites contain rusty iron carbonates.

The showings consist of half a dozen scattered occurrences of gossan or galena, sphalerite, and pyrite in both the slates and the quartzites. The zones of gossan are mainly in slates, ranging from 2 to 4 feet wide, and are parallel to the cleavage. ... The sulphides are mainly in the quartzites. One showing consists of massive galena, minor pyrite, and sphalerite along a series of fractures in the quartzite that strike 120 to 125 degrees and dip steeply. They form a lens of sulphides 1 to 2 feet thick and several feet long more or less parallel to a bed of quartzite on the northeast limb of a small syncline. ... Another showing 300 feet to the southwest contains galena and minor sphalerite and pyrite disseminated in quartzite. The sulphide zone is irregular and poorly defined and is well mineralized over widths up to 5 feet. ...

The mineralized quartzites lie above the slates containing the gossans, and the rocks have the form of a shallow open syncline with an essentially horizontal axis and vertical axial plane trending 135 to 140 degrees. The folds are asymmetric and lie on the northeastern limb of an anticline. The exposures provide very slight evidence on the control of mineralization, but the mineralization appears to be associated with fractures principally in the quartzitic beds. Locally the quartzites near the fractures are replaced by the sulphides”.

The following has been taken from Gidluck (1997):

Reconnaissance style geological mapping was conducted over large land holdings in this area by Norcen and Bluesky Oil & Gas between 1979 and 1982. It was not until 1992 and 1993, however, that mapping by MineQuest established the first detailed stratigraphic sequence of lithologies (below) on the VMT claims. All these units are believed to be within the Grit Division (Table 2) of the lower Horsethief Creek Group.

Stratigraphic Sequence - in descending order (Longe 1994)

Unit W	Whitebark Grit - white quartz grit with micaceous cleavage
Unit M	Schists - brown weathering ankeritic and tuffaceous appearing micaceous schists interbedded with grey argillite. - base of unit is host to sulphide occurrences.
Unit A	Argillite - grey or buff weathering argillite composed of thin turbidite beds with abundant disseminated pyrite.
Unit C	Cedar Grit - white quartz grit with micaceous cleavage and occasional beds of quartz pebble conglomerate

The stratigraphic thickness of the shale units, A and M, in this area appear to be approximately 300 m thick (Longe 1993).

Structure

These pelitic units occur on a shallow dipping, north plunging anticlinorium which is deformed locally by tight isoclinal folds and faults where bedding is near vertical. Typically there is a well developed axial plane cleavage striking 140° and dipping from 70° to 90° at these localities. A major northwest striking, northeasterly dipping fault zone, the Medesto Fault, appears to separate the LCP Zone from the other mineralized zones on the VMT claims. MineQuest has interpreted this to be a northeasterly dipping, reverse fault which may have caused considerable displacement to a single mineralized horizon (Unit M) on this part of the property.

...

4.2.2 Ruth Vermont Claim Group

The most informative description of the geology is from the former Ruth-Vermont mine itself. The following has been taken from Fyles (1966):

“Rocks in the Vermont Creek area are grey slates; light-grey quartzites, grits, and pebble conglomerates; and minor limestones belonging to the Horsethief Creek Group of Late Precambrian age. The slates commonly carry disseminated pyrite, the quartzitic rocks contain white quartz veins and rusty iron carbonates, and the limestones are dark grey, fine-grained, and more or less micaceous and cleaved. The slates and limestones are thin bedded, and beds crossed by cleavage are apparent in almost every exposure. Minor folds are fairly common, and from a distance major folds can be seen in cliffs.

In the mine area a bed of limestone 30 to 50 feet thick, here referred to as the Ruth Limestone, lies between two thick slate formations. The lower slate, which is several hundred feet thick, is underlain by a greyish-brown quartzite that forms prominent cliffs on the Charlotte claim east of the mine and on the north side of Vermont Creek. It is buff-weathering to light-grey somewhat micaceous quartzite with rounded bluish-white quartz grains up to one-eighth inch in diameter. The quartzite has an irregular fracture cleavage, and contains local stockworks of barren white quartz veins.

A major asymmetric anticline trending northwest crosses Vermont Creek near the Ruth property. Reconnaissance suggests that it continues southeast and northwest of the mine for many miles and that most of the known showings of the region are near the hinge zone. On Vermont Creek the anticline plunges gently to the southeast and the axial plane dips steeply to the northeast parallel to the cleavage in the slates.

... (Two) large anticlines (are evident), the Charlotte on the northeast, the Sheba on the southwest, and between them the Ruth syncline. They are named from the old Crown-granted claims on which they are well exposed. All three folds are in the hinge zone of the major anticline just referred to and are local structures which change in form up or down the axial plane and along the axis of the anticline.

The Ruth syncline as outlined by the Ruth limestone is exposed near the portals of the 6000 level and is encountered underground on the level. The synclinal axis plunges at 5 degrees toward an azimuth of 135 degrees, and the axial plane dips 75 degrees to the northeast. In the inner part of the working the axis appears to swing to the west and steepen somewhat in plunge. The limestone on the southwest limb has a fairly uniform attitude with an average strike of 140 degrees and a dip of 30

degrees to the northeast. This southwest limb of the Ruth syncline contains the sulphide mineralization currently being developed.

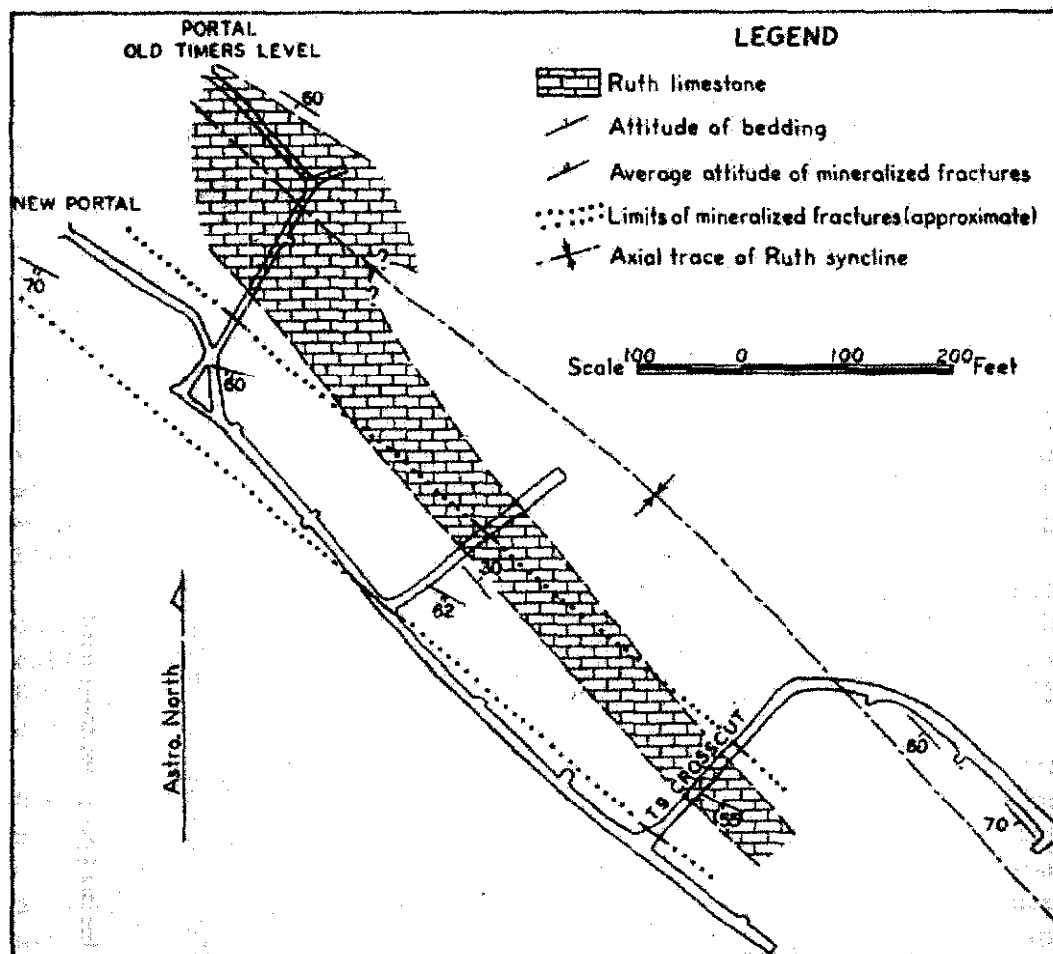


Figure 30. Columbia River Mines Ltd. Geological sketch-map of part of the 6000 level of the Ruth Vermont mine.

The following has been taken from Manning (1972):

“Polymict quartz pebble conglomerates grade locally to grit and impure quartzite which in turn grade into slate or argillite and argillaceous limestone.

The conglomerates contain blue and white quartz pebbles, are sericitic, chloritic and contain scattered pyrite. Locally they are limey. Deformation of the beds has produced an elongation of the pebbles. The finer grained character of the grit and quartzite is the only discernible difference between them and the conglomerate.

Argillite beds are locally slaty, phylitic and limey and vary from 1/8 inch to several feet in thickness and are black, green and grey. Porphyroblasts of ankerite are present within all the argillite members. Syngenetic pyrite, as euhedral and elongated cubes and pyritohedrons, occurs parallel to the bedding. Minor drag folding is common.

The argillaceous limestone units are conformable to overlying and underlying slaty argillite members. They are bluish grey, aphanitic, exhibit minor drag folding, and are the most significant host rocks in the area. The main unit is 20 to 50 feet thick with individual beds varying from a fraction of an inch to several feet in thickness.

All members of the series are intercolated with readily discernible facies changes both along the strike and dip.

Structurally, the units have been folded to an anticline approximately 600 feet from crest to trough. The fold plunges gently to the southeast. To the east of this, the Ruth Anticline, lies a series of synclines and anticlines of varying amplitudes which culminate near the eastern extremity of the Charlotte crown grant, into the Charlotte Anticline which is overturned to the west. The main workings are along the limbs of a southeast plunging syncline, immediately east of the Ruth Anticline.

Three sets of quartz-calcite fissure veins occur obliquely, transversely and parallel to bedding relative to the fold structures. The oblique veins strike southeast and have an average dip of 65° to the southwest. They are well mineralized and cut at an angle of 15° to the strike of the beds. The transverse veins are poorly mineralized and are representative of fissure fillings along a series of near vertical and parallel shears. Tension gashes are generally related to such veins. The veins parallel to the bedding normally mark concordant contacts between the argillite and argillaceous limestone. Sulphide content in the veins is low. Scheelite occurs in varying amounts in the three sets of veins" (sic.).

4.2.3 Mineralization

Disclaimer: The following reserve estimate by Manning in 1979 cannot currently be considered an Ore Reserve unless an updated feasibility study demonstrates economic viability. Until that is done, it is appropriate to designate the material as an indicated mineral resource, according to the CIM Standards adopted in National instrument 43-101.

Several generations of Reserve Estimates are available pertaining to the former Ruth-Vermont mine, from as early as 1972 to the last available tabulation in 1982. The estimates appear to conform to

the categories in sections 1.3 and 1.4 of the National Instrument and were apparently based upon underground drill holes and subsequent mine sections and plans developed from drill hole data and underground workings. These data were developed for planning purposes of an operating mine and are therefore **assumed** to utilize a recognized and widely accepted (at the time) methodology.

“The following report is an update of the writer’s report of April 18, 1979. ...Vein ore deposits have been increased since the 1981 operation indicated their (sic.) increased potential as an ore source.

Ore Reserves

Replacement Ore		<u>Ag.</u>	<u>Pb.</u>	<u>Zn.</u>
Tons Diamond Drill Indicated	101,000	5.0	3.6	4.9
Probable Ore	<u>57,000</u>	<u>4.9</u>	<u>3.5</u>	<u>4.9</u>
Sub-total	158,000	4.9	3.5	4.9

Vein Deposits

Tons Diamond Drill Indicated	44,000	9.0	6.3	6.1
Probable Ore	<u>100,000</u>	<u>9.0</u>	<u>6.3</u>	<u>6.1</u>
Sub-total	144,000	4.9	3.5	4.9
Total	302,000	6.8	4.8	5.4

... Exploration of the vein deposits on the 5750 level have added one new vein system to the ore potential and other parallel vein structures are indicated to the East.

Notes on Tonnage

Twenty-six thousand tons of replacement ore left in the backs and floors of the present stopes is still recoverable. The stope survey completed by Mr. J. Start on March 22nd, 1977 shows this on the diamond drill sections. This survey indicates that some 58,000 tons of ore should remain in the stoped area. A large part of this tonnage was left in the roof and floor of the old stopes and can be mined at today’s metal prices.

Replacement ore between sections 1650 and 1975 is estimated at 99,672 tons based on diamond drill sections after an allowance of 10% for dilution. Diamond drilling in the 1975 section is not sufficient to allow accurate ore calculations and this tonnage has been reduced to 75,000 tons until further development has been done.

Exploration of the vein deposits is limited to a few hundred feet of drifting and a series of diamond drill holes put in from the 6,000 foot level. Since the drill holes were largely oriented to prove up the replacement ore tonnage, only a few holes shed light on continuity of the vein deposit.

Four vein systems have been found in the exploration to date, namely the Blacksmith, Pinetree, North vein and South vein. They have a combined strike length of 2700 feet and two have a vertical range of from 200 feet to 500 feet within the confines of the present workings. Taken over an average five foot mining width and a specific gravity of eleven cubic feet to the ton, they have an ore potential of 429,545 tons. Since exploration to date is too limited to estimate the distribution of ore shoots within the vein a conservative estimate of one ton of ore in each three tons of ore potential has been used. Possible ore is therefore 142,512 tons, of which 44,000 tons within the Pinetree vein are diamond drill indicated, leaving possible ore as 98,512 tons. The figure of 100,000 tons has been used in calculating ore reserves.

“Production to the end of November has used up approximately 17,000 tons of reserves but development on the 5750 has indicated an additional 15,000 tons of vein ore ...” (Forman 1981a).

This last statement is considered highly significant, originating in a report written near the end of underground mining operations at the former Ruth-Vermont Mine. The mine was shut down due to financial difficulties due, in part, to damage incurred to the mine infrastructure from an avalanche. At the time underground mining operations were abruptly halted, there were almost 300,000 tonnes of reserves remaining in the mine, comprised of both vein- and replacement-type mineralization. It is highly significant with regard to the mandate of this exploration program to attempt to increase reserves at the former Ruth-Vermont mine that exploration conducted concurrently with mining in 1981 evidently delineated additional potential ore reserves at almost the same rate they were being mined.

7.0 2002 EXPLORATION PROGRAM

The 2002 field program emphasized recovery of samples (rock, soil and silt) from the area extending from Vermont Creek to Crystalline Creek (Fig. 5) so as to evaluate the surface extent of mineralization in the immediate vicinity of the former Ruth-Vermont mine and the well-established mineralized trend extending across the valley to the north side of Vermont Creek and southward, over the drainage divide into the Crystal Creek drainage (i.e. LCP Zone) and Crystalline Creek (i.e. VAD Claims). A total of 552 soil, 16 silt and 50 rock samples were recovered from the Vermont (Fig. 6), Crystal and Crystalline Creek drainages (Fig. 7). “B” Horizon soil samples were taken at 20 metre intervals along selected contours oriented at a high angle to the regional structures hosting the vein system. Silt samples were taken from watercourses encountered during soil sampling.

All samples were sent to Acme Analytical Laboratories Ltd. in Vancouver, BC for 35 element ICP-MS (Group 1DA) Analysis. Samples returning high, to potentially ore grade, results were re-analyzed, using fire assay for gold and silver (Group 6) and ICP (Group 7AR) for other metals (As, Cu, Pb, Sb and Zn).

Workings previously known to the author were limited to the 6000 portal (back-filled after the 1996 underground program), the Nelson and 5750 portals (intentionally caved subsequent to the end of mining operations) and three adits in the vicinity of the Nelson and 6000 portals. Additional workings, comprised of adits, drill collars and trenches, and mineralized occurrences have been reported in the extensive literature associated with the area now covered by the Vowel Creek property but, to the authors knowledge, their locations have not subsequently been confirmed by the Company. Therefore, specific emphasis was placed on locating and exploring these workings, where practical. As a result, an additional 10 adits were located on either side of Vermont Creek (three north and seven on the south side), as well as the Sulphide Pit (a short trench in high grade arsenopyrite-rich sulphide mineralization). In addition, an adit above the caved Nelson Workings was utilized to access the uppermost underground workings of the Ruth-Vermont Mine. Of the thirteen adits now known in the Vermont Creek drainage, five are very short (≤ 5 m in length), four are completely or partially caved at the entrance and unsafe for exploration, while the remaining four extend underground for in excess of 10 m and are safe for examination.

In the Crystal Creek drainage, previous workings, comprised of trenches and drill holes, have been reported but no effort documented to confirm locations (with the exception of previous drill collars in the immediate vicinity of the 2000 drill holes completed by the Company). An unsuccessful attempt was made to find evidence of the former Norcen grid so as to tie in previous soil samples, trenches, roads and drill holes to the 1:20,000 TRIM map utilized as the base map for this program. Most of the former roads are still evident, as are many of the trenches and drill pads. Therefore, these features can be utilized to register maps from previous programs with an acceptable level of uncertainty.

Rocks samples were taken from most of the previous workings identified and located. High to ore grade mineralization has been previously well documented, particularly from the former mine. Therefore, the majority of the rock samples were carefully selected high grade samples, taken to evaluate relationships between major (i.e. Ag, As, Au, Cu, Pb, Zn) and trace elements (i.e. Cd, Ga, Sb, Sn, W). High grade mineralized samples were recovered from both the north and south sides of Vermont Creek, most often associated with quartz \pm carbonate veins. Large grab samples were taken from most sample sites, with one third sent for analysis, one third retained by the author and the remaining third available to the Company for reference.

In addition to sampling, a preliminary program of geological mapping was also undertaken, primarily in the area surrounding the former Ruth-Vermont Mine and along both sides of Vermont

Creek. Structural data were collected, comprised primarily of bedding, foliation and bedding / foliation intersections to evaluate the hypothesis that the vein system previously exploited in the Ruth-Vermont mine extends north across Vermont Creek, and possibly farther north and south.

8.0 DISCUSSION OF RESULTS

Analytical results from soil, silt and rock samples recovered during the 2002 field program are appended in Appendix C. The soil data were sub-divided into two sub-sets, one for Vermont Creek and a second for Crystal Creek (see Figures 6 and 7). Pearson correlation matrices were calculated for each sub-set (see Tables 1 and 2) to facilitate identification of relationships between elements and to allow comparison between the two known mineralized areas evaluated during the 2002 field season.

At the outset, it must be noted that the matrices (and relationships) discussed are based on soil data, derived from "B Horizon" soil samples and are, therefore, representative of a chemically and mechanically weathered regime and may not accurately represent mineralogical associations and/or relationships in outcrop. Obviously, however, in order for an element to be present (and detected) in soils, it must be present in the primary environment. Therefore, the correlation matrices, and subsequent interpretations regarding primary mineralogy, are speculative and may be inaccurate, but the elements documented by analysis are present in the secondary (soil), weathered environment derived from outcrop.

With reference to the correlation matrices, the following statements can be made.

Crystal Creek

There is high correlation between Ag, Pb and Zn, consistent with high grade galena- and sphalerite-rich mineralization previously identified in the LCP Zone (Longe et al. 2001), the Adamson claims and on the southeast side of Crystalline Creek (Adamson, pers. comm., 2002). The correlation between Ag and Pb is particularly noteworthy, having a value of 0.941, indicating that Ag and Pb occur together, interpreted as strongly indicative of galena as the primary, or sole, host of silver. Sphalerite and galena are also highly correlated, interpreted as indicating that base metal mineralization consists predominantly of sphalerite and galena. Somewhat surprising, however, is the strong correlation between Sb and Ag, suggesting the presence of a previously unrecognized sulphide (i.e. stibnite) and/or Ag-bearing sulphosalt in close association with galena. Not surprisingly, cadmium is strongly correlated with Zn, however, it is not certain if this is a valid field relationship or an artifact of ICP analysis.

Of particular interest with regard to the possibility of intrusion related mineral potential (i.e. intrusion-related gold and/or carbonate replacement style mineralization) is the high correlation of Ag with Sb and W, as well as Bi with Cu and Fe. Intrusion-related gold is commonly associated

with As, Bi, Sb, Sn, W and base metals within, proximal to, the host intrusions, with decreasing Bi, Sb, Sn and W content away from the host intrusion (Logan 2002a). Given the proximity of a number of exposed Cretaceous age intrusions, including the Bugaboo and Battle Range Batholiths and the Sugar Plum Stock, the possibility of one or more blind intrusions at depth underlying the claims should be considered (although it must be noted that the regional magnetic data does not document a magnetic anomaly in the immediate vicinity of the property). Alternatively, fluids sourced from one or more of these Cretaceous intrusions may have pervaded, and preferentially mineralized, strata of the Horsethief Creek Group on the east side of the Bayonne Magmatic Suite and the Lardeau Group on the west (i.e. the Trout Lake area and the Ferguson Camp).

However, invoking one or more of these exposed intrusions as a source of mineralized fluids requires upwards of 12 km of fluid movement (with associated cooling) in order to provide the mineralization documented between the LCP Zone and Vermont Creek. Therefore, if the mineralization on the property is related to magmatic fluids, it would be one of the more distal examples known or be related to a virtually non-magnetic, blind intrusion (which would be highly anomalous for the Cretaceous Bayonne Suite of intrusions).

Gold appears to have no significant correlation with any other of the elements considered, indicating that there would appear to be no "pathfinder" element available. The strongest correlations are with antimony (at 0.285) and copper (0.278), which are very poor correlations. One possibility is that gold occurs independently of Ag and base metals, representing a position more distal from the epithermal source (Panteleyev 1988). However, copper generally occurs at higher temperatures than lead and sphalerite and so may be weakly supportive of a location closer to the source of hydrothermal (or magmatic) fluids. Another possibility is that gold might be associated with chalcopyrite in sphalerite (as "chalcopyrite disease"). In either of these scenarios, however, gold is not expected to represent a major commodity as part of an exploration program.

Vermont Creek

The correlation matrix for Vermont Creek is markedly different from that of Crystal Creek, possibly due to a different position relative to the source of mineralized fluids, a different geochemical environment of precipitation and/or different weathering characteristics. There is currently insufficient geological information with which to evaluate an explanation for these differences, so they will simply be noted at this time.

Silver is, again, strongly associated with lead (as galena) and zinc (as sphalerite), but not to the same extent, interpreted as indicative of a more diverse mineral suite. Cadmium is strongly correlated with Zn, which could be mineralogical or analytical in origin. However, arsenic is strongly correlated with antimony, and moderately correlated to copper, iron, lead and zinc, while gold is moderately correlated to antimony, arsenic, silver and lead. These relationships are consistent with the relative abundance of arsenopyrite mineralization and scorodite staining noted this year, as well

as the presence of primary (i.e. chalcopyrite) and secondary (i.e. malachite and azurite) copper mineralization, commonly associated with galena-rich mineralization. However, once again, no primary antimony-bearing mineral phase have been identified.

Another difference between Crystal Creek and Vermont Creek is the markedly diminished correlation between Bi and Cu, Fe, Pb, Sb, W, and Zn evident in Vermont Creek. This may indicate that bismuth-bearing mineralization in Crystal Creek is more proximal (and Vermont Creek more distal) to intrusion related magmatic fluids, possibly associated with intrusion-related gold or carbonate replacement type mineralization .

Structural Data

Structural data collected from the property is summarized Table 3. Figures 9 to 20 are a series of stereonet plots (both β and contoured plots) of sub-sets of the data from Vermont Creek (north and south sides) and Crystal Creek (predominantly from the LCP Zone). Data is plotted for bedding, foliations, bedding / foliation intersections (which should parallel fold axes) and fold axis measurements. Datasets for which sufficient measurements were collected have been contoured and statistical means determined for comparative purposes.

From the Summary Table (Table 3), it is apparent that there is little meaningful difference between the three sub-sets, interpreted as evidence against the presence of any high angle faults separating the three areas in which measurements were taken. For clarification, this does not preclude the presence of low angle (i.e. thrust faults) or axial planar faults (i.e. sub-parallel to the foliation). Furthermore, it does not preclude development of high angle faults separating these areas prior to development of folding (as documented by the structural measurements taken). This latter possibility is unlikely, however, as faulting would be expected to follow folding or, more precisely, faulting is expected when folding progresses to structural failure of folded units.

In summary, structural data, as summarized in Table 3 and as represented in Figures 9 to 20, is interpreted to support the conclusion that there are no significant faults oriented at a high angle to the trend of the regional anticlinorium. This interpretation is highly significant with regard to the potential to increase reserves at the former Ruth-Vermont mine as it appears to preclude the presence of a fault oriented along Vermont Creek which might have significantly offset the mineralized structure and stratigraphy documented in the mine relative to the relatively under explored equivalents on the north side of the creek. Therefore, the structural data can be utilized to project the Nelson Workings and underground development of the Ruth-Vermont mine (resulting from the intersection of the mineralized vein system with the host Ruth Limestone within the Ruth Syncline) along strike to the north (across Vermont Creek) and to the south (to the LCP Zone).

Table 1 - PEARSON CORRELATION MATRIX FOR VERMONT CREEK SOIL SAMPLES¹

	Ag	As	Au	Bi	Cd	Cu	Fe	Mn	Pb	Sb	W	Zn
Ag	1											
As	0.661	1										
Au	0.469	0.42	1									
Bi	0.088	0.153	0.257	1								
Cd	0.654	0.471	0.298	0.077	1							
Cu	0.388	0.512	0.299	0.26	0.466	1						
Fe	0.278	0.427	0.203	0.25	0.367	0.8	1					
Mn	0.294	0.27	0.14	0.052	0.507	0.565	0.558	1				
Pb	0.751	0.474	0.433	0.132	0.618	0.33	0.32	0.287	1			
Sb	0.729	0.694	0.454	0.176	0.463	0.347	0.27	0.321	0.627	1		
W	0.41	0.252	0.199	0.234	0.376	0.481	0.428	0.275	0.552	0.402	1	
Zn	0.64	0.499	0.297	0.139	0.911	0.497	0.459	0.439	0.715	0.504	0.539	1

* Correlation matrix calculated using SPSS

¹ - Number of samples = 186

Table 2 - PEARSON CORRELATION MATRIX FOR CRYSTAL CREEK SOIL SAMPLES²

	Ag	As	Au	Bi	Cd	Cu	Fe	Mn	Pb	Sb	W	Zn
Ag	1											
As	0.307	1										
Au	0.259	0.399	1									
Bi	0.173	0.56	0.159	1								
Cd	0.844	0.214	0.248	0.084	1							
Cu	0.365	0.453	0.278	0.58	0.366	1						
Fe	0.185	0.485	0.224	0.609	0.231	0.68	1					
Mn	0.354	0.158	0.127	0.145	0.397	0.398	0.232	1				
Pb	0.941	0.266	0.248	0.18	0.887	0.402	0.258	0.389	1			
Sb	0.784	0.36	0.285	0.241	0.843	0.47	0.31	0.284	0.832	1		
W	0.624	0.135	0.104	0.1	0.389	0.228	0.157	0.341	0.693	0.334	1	
Zn	0.846	0.248	0.267	0.113	0.986	0.392	0.285	0.369	0.893	0.863	0.385	1

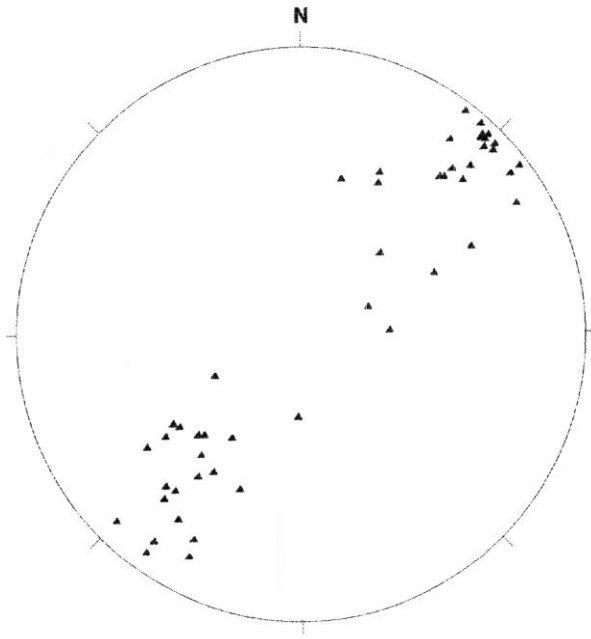
* Correlation matrix calculated using SPSS

2 - Number of Samples = 360

Table 3 - Summary Table - 2002 Structural Data

Data Location	Data Type	Data Points	β -Pole	# Contours	# Points in Maximum	Percent of Data in Maximum
Vermont Ck - South side	Bedding	81	308 / 30	10		
Vermont Ck - North side	Bedding	48	334 / 15	10	7	14.89 %
Crystal Creek - LCP Zone	Bedding	29	321 / 73	10	5	17.86 %
Vermont / Crystal Creeks	Bedding	158	314 / 27	10	10	6.37 %
Vermont Ck - South side	Foliation	57	136 / 82	10	6	10.71 %
Vermont Ck - North side	Foliation	47	131 / 75	10	6	13.04 %
Crystal Creek - LCP Zone	Foliation	25	139 / 83	10	3	12.50 %
Vermont / Crystal Creeks	Foliation	128	135 / 80	10	12	9.38 %
Vermont Ck - South side	Bedding / Foliation Intersections	34	07 / 135			
Vermont Ck - North side	Bedding / Foliation Intersections	18	03 / 129			
Crystal Creek - LCP Zone	Bedding / Foliation Intersections	11	04 / 133			
Vermont / Crystal Creeks	Bedding / Foliation Intersections	64	05 / 133	10	9	14.29 %
Vermont Creek	Fold Axes	6	06 / 150			
Vermont / Crystal Creeks	Veins	9				

Active dataset: s0vermtn.dat (not modified)



Active dataset: s0vermtn.dat (not modified)

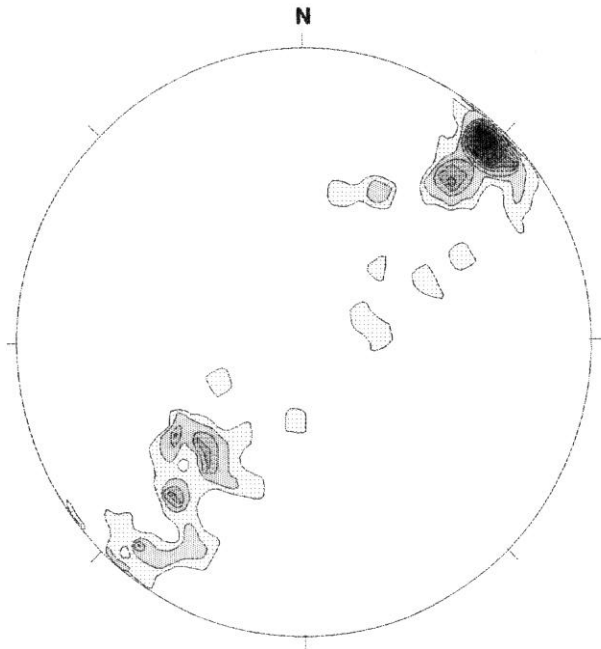
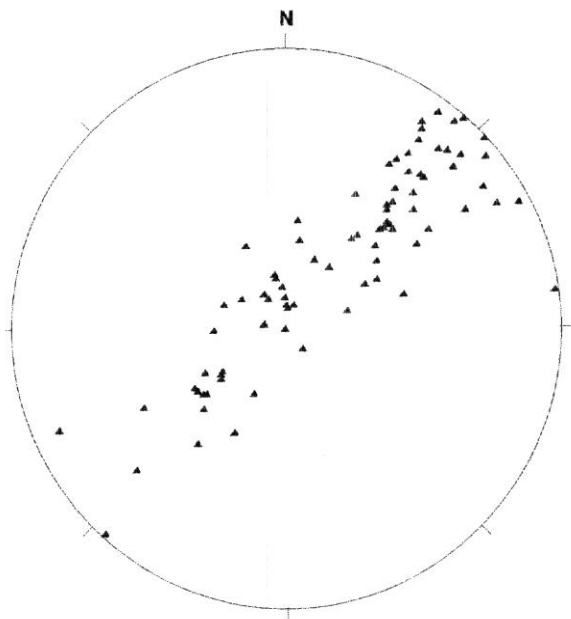


Figure 9: Stereoplot of a) poles and b) contoured poles to bedding data north of Vermont Creek.

Active dataset: s0vermts.dat (not modified)



Active dataset: s0vermts.dat (not modified)

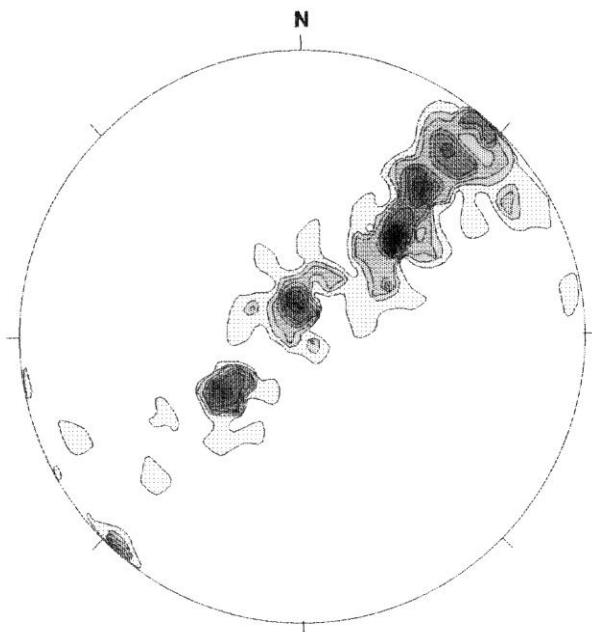
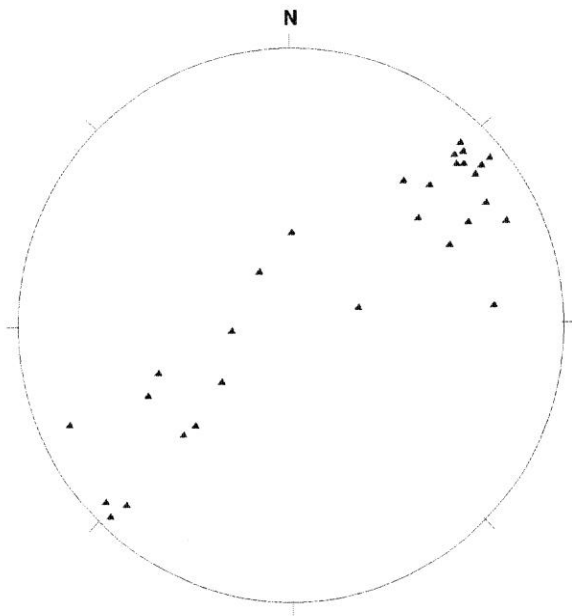


Figure 10: Stereoplot of a) poles and b) contoured poles to bedding data south of Vermont Creek.

Active dataset: s0lcp.dat (not modified)



Active dataset: s0lcp.dat (not modified)

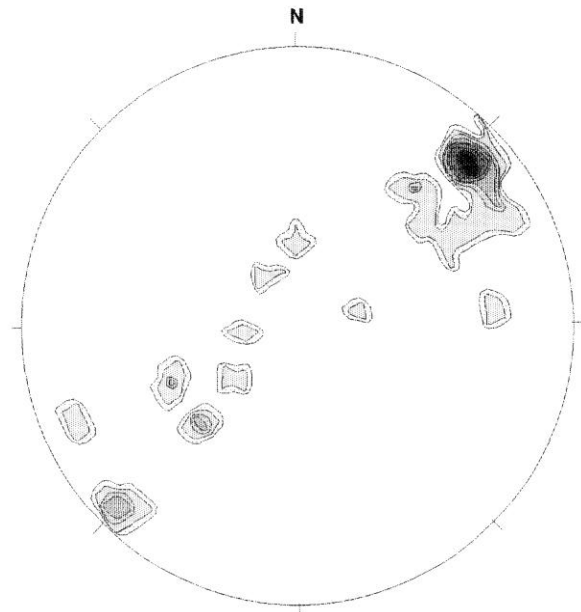


Figure 11: Stereoplot of a) poles and b) contoured poles to bedding for the Crystal Creek area, primarily the LCP Zone.

Active dataset: s0whole.dat (not modified)

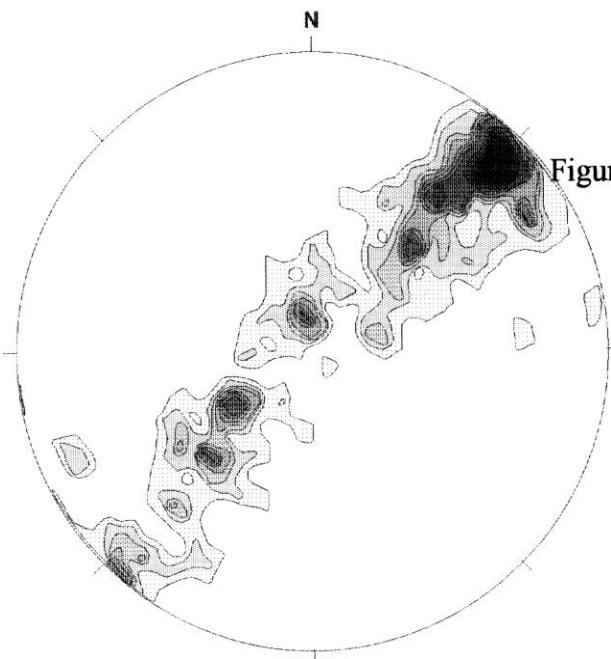
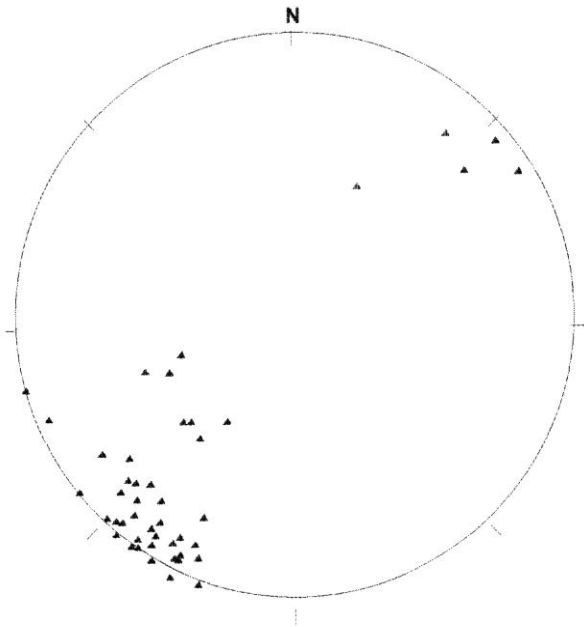


Figure 12: Contoured poles stereoplot for all bedding data taken during the 2002 field program for the Vermont Creek and Crystal Creek drainages.

Active dataset: s1vermnt.dat (not modified)



Active dataset: s1vermnt.dat (not modified)

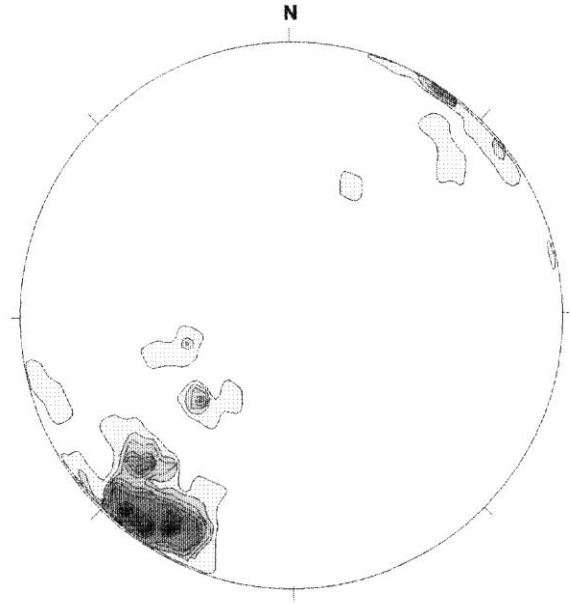
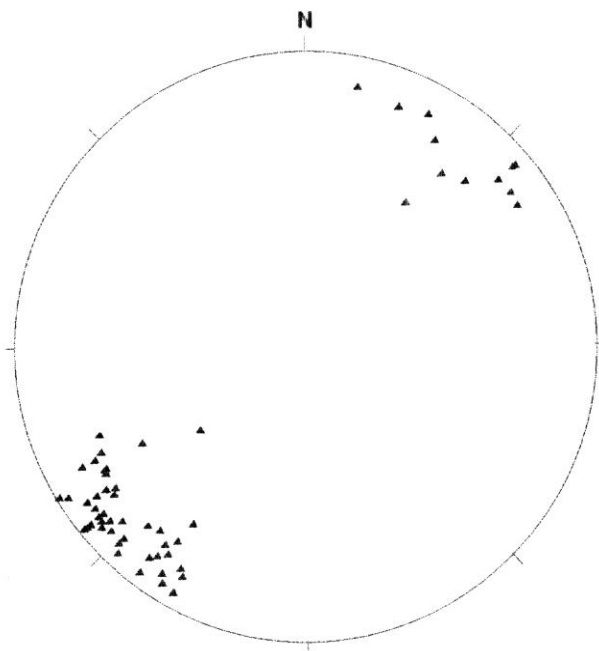


Figure 13: Stereoplot of a) poles and b) contoured poles to foliation for the north side of Vermont Creek.

Active dataset: s1vermnts.dat (not modified)



Active dataset: s1vermnts.dat (not modified)

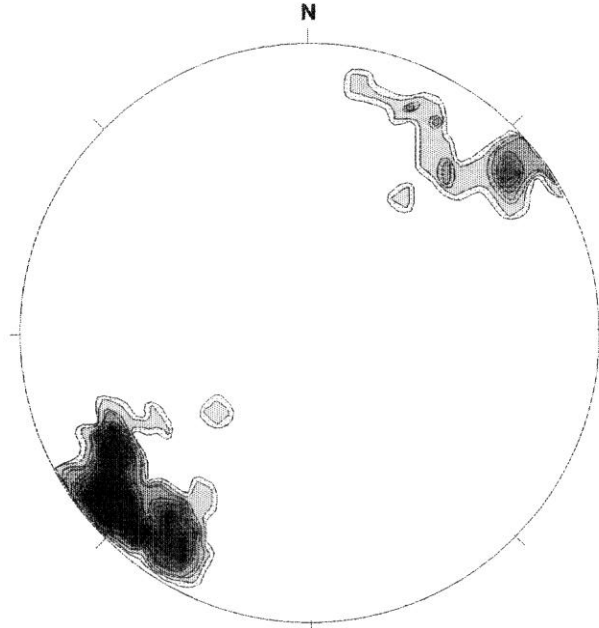
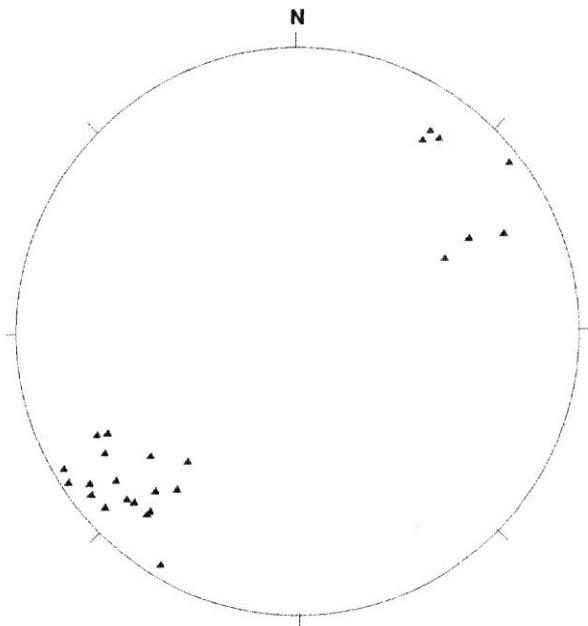


Figure 14: Stereoplot of a) poles and b) contoured poles to foliation for the south side of Vermont Creek.

Active dataset: s1lcpzon.dat (not modified)



Active dataset: s1lcpzon.dat (not modified)

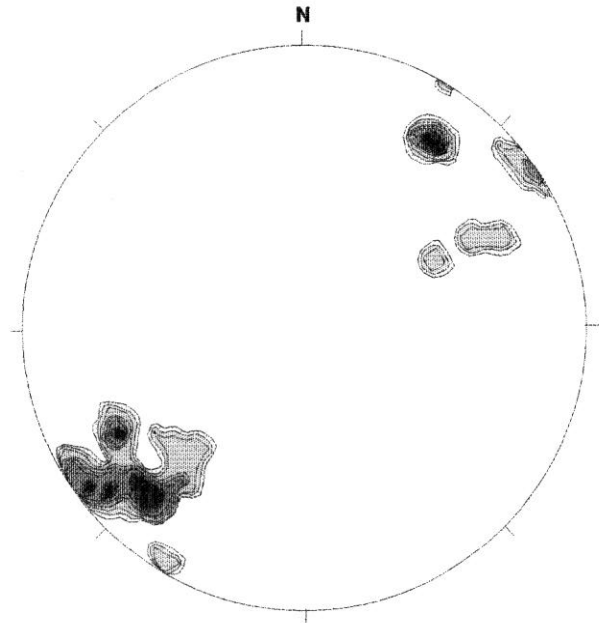
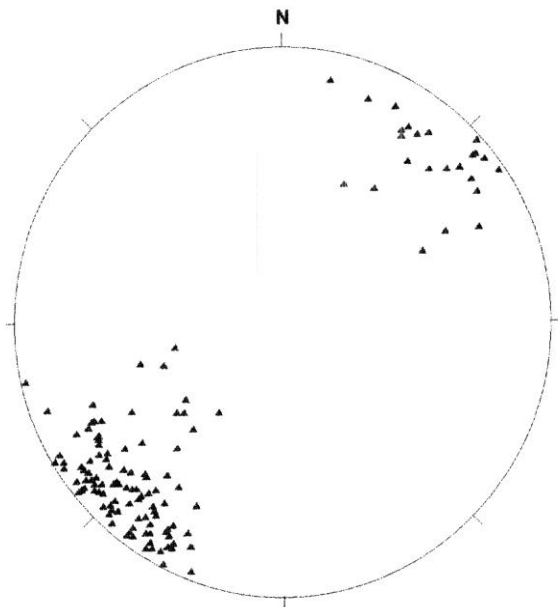


Figure 15: Stereoplot of a) poles and b) contoured poles to foliation for the Crystal Creek area, primarily the LCP Zone.

Active dataset: s1whole.dat (not modified)



Active dataset: s0s1vrts.dat (not modified)

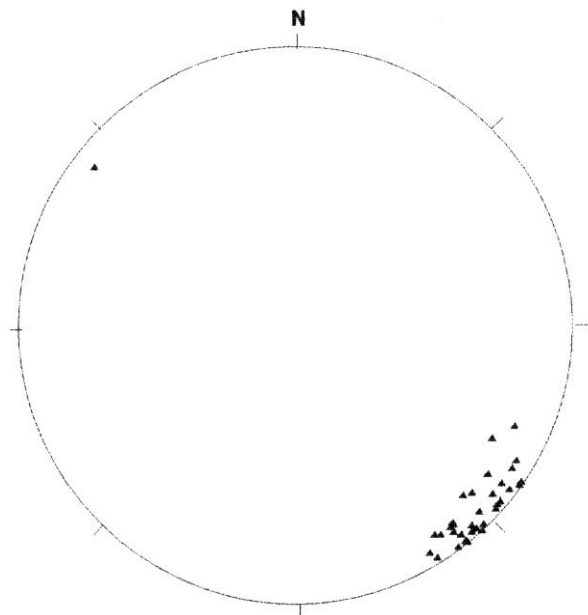
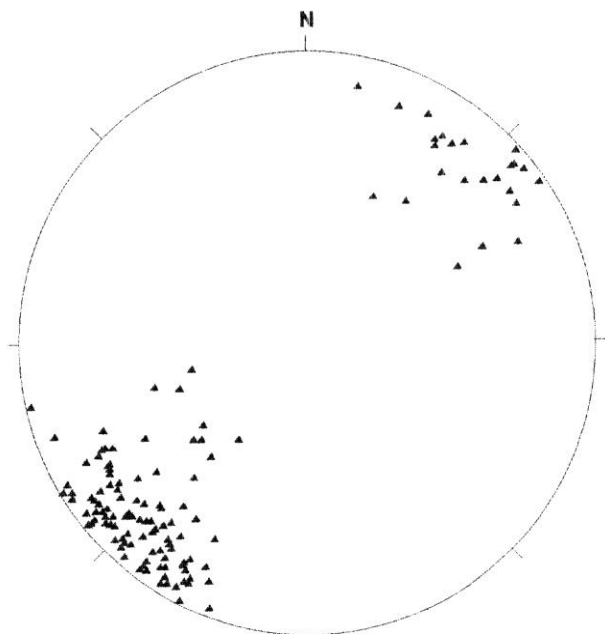


Figure 16: Stereoplot of a) poles and b) contoured poles for all foliation data taken during the 2002 field program for the Vermont Creek and Crystal Creek drainages.

Active dataset: s1whole.dat (not modified)



Active dataset: s1whole.dat (not modified)

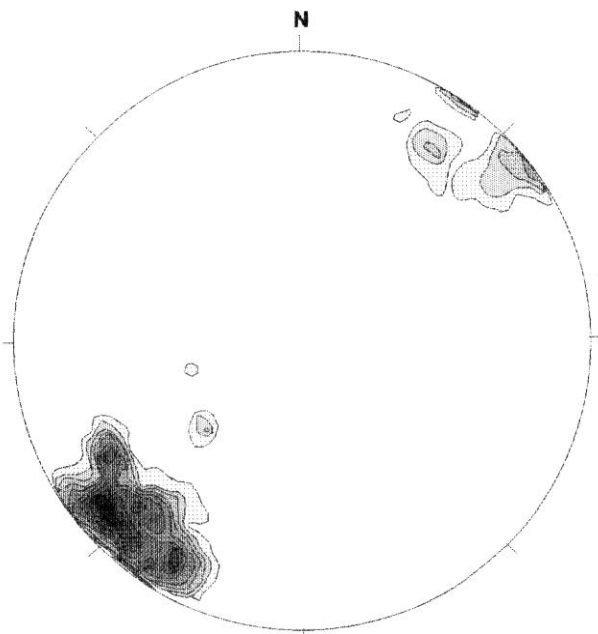
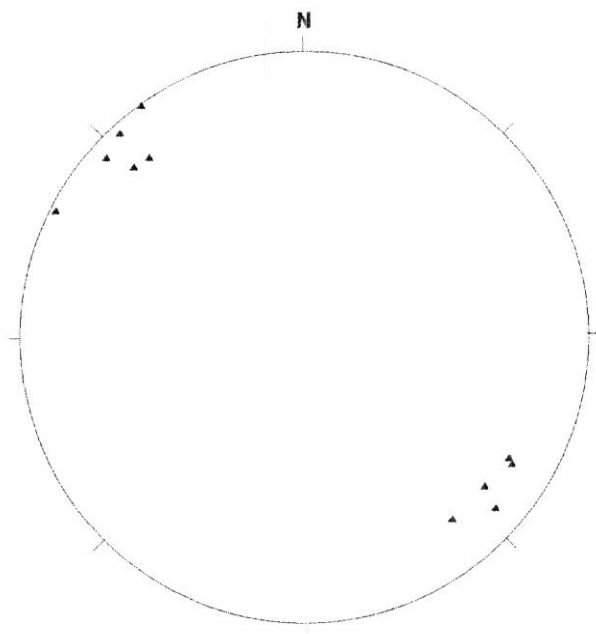


Figure 17: Stereoplot of poles to bedding / foliation intersection data for the a) north side and b) south side of Vermont Creek.

Active dataset: s0s1lcpz.dat (not modified)



Active dataset: f1vermts.dat (not modified)

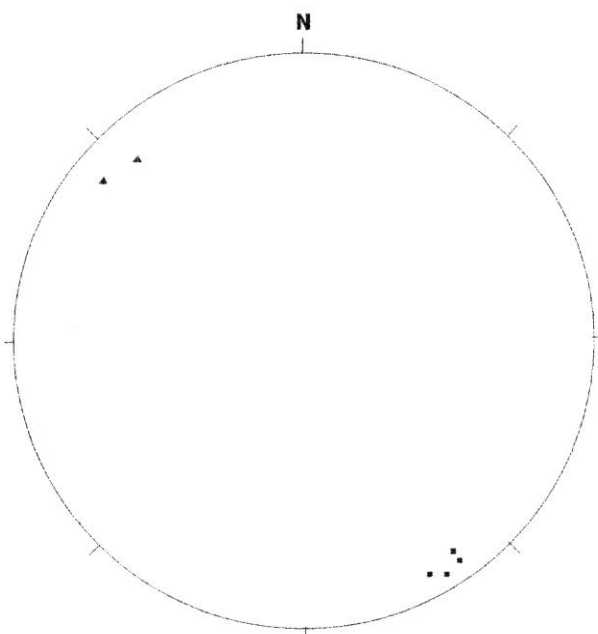


Figure 18: Stereoplot of a) poles to bedding / foliation intersection data for the LCP Zone of Crystal Creek and b) Fold axis measurements from Vermont Creek.

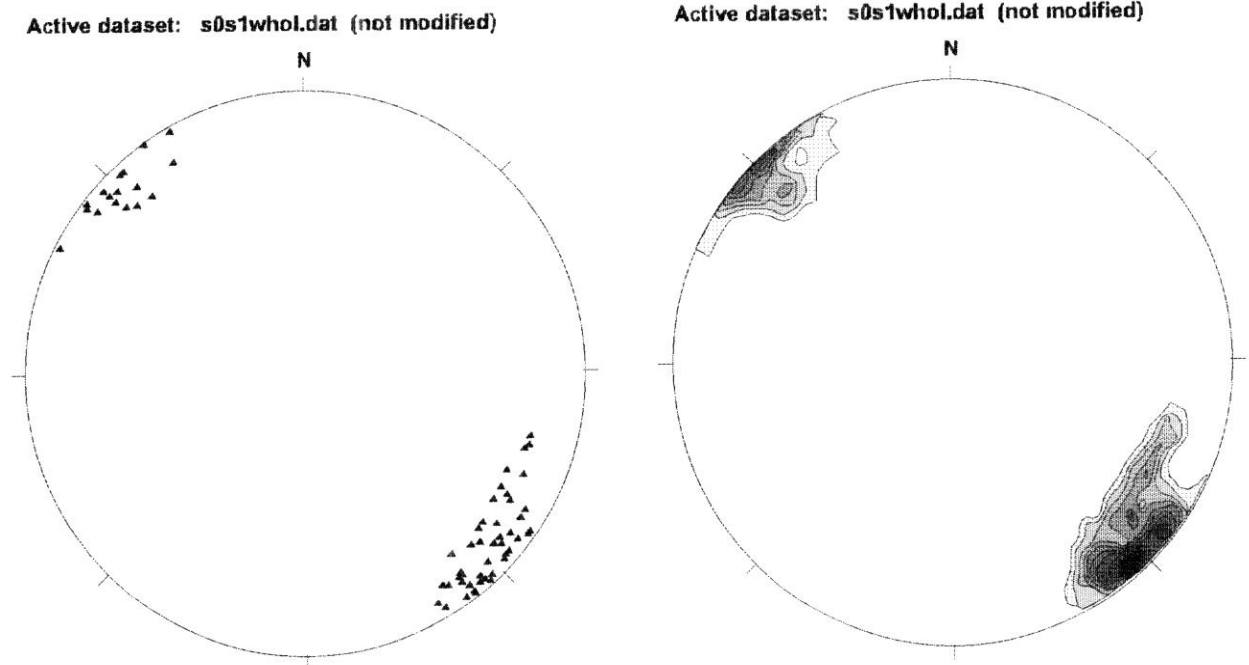


Figure 19: Stereoplot of a) poles and b) contoured poles to bedding / foliation intersection data for all measurements taken during the 2002 field program for the Vermont Creek and Crystal Creek drainages.

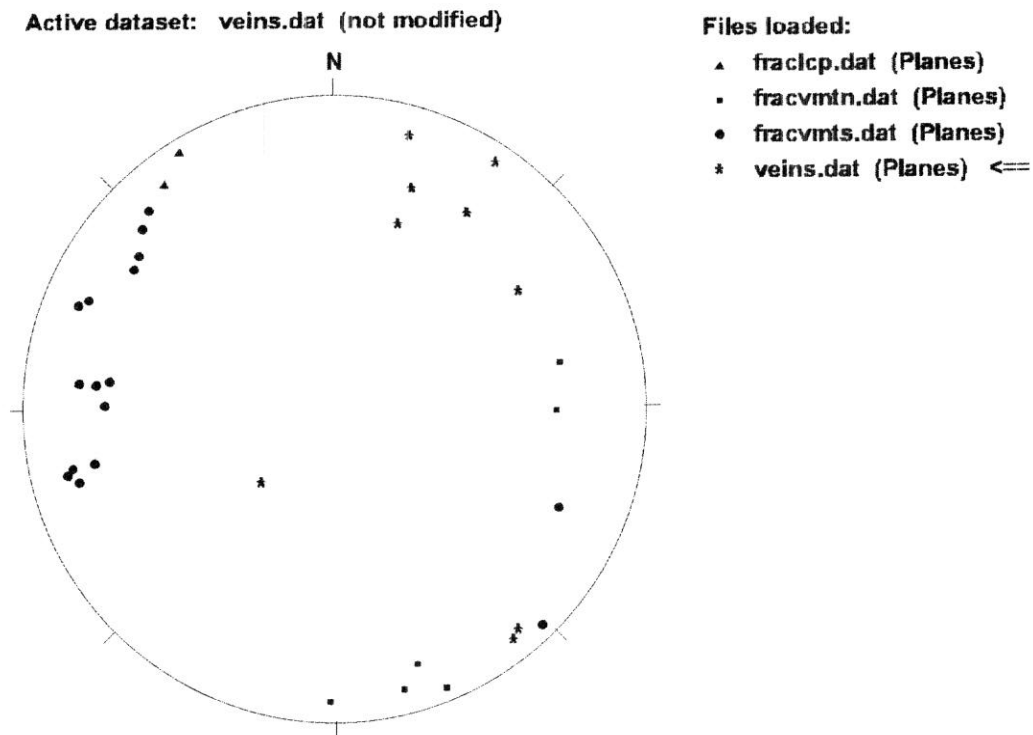


Figure 20: Pole to fracture and vein measurements taken from the property.

9.0 CONCLUSIONS

The conclusion resulting from the 1983 Samim Canada program was "... that various features of these lead-zinc showings, especially in the Malachite Detail area, are indicative of possible nearby bedded mineralization of the Sedex type" (Bottrill et al 1983). They recommended considerably more mapping, geochem and IP surveying as well as diamond drilling including possible pattern drilling over favourable stratigraphy and alteration sequences. Their final conclusion was that the property remains one of considerable merit but recognized that a long term program of further work is required if a deposit is to be found.

Twenty years later, the author believes this conclusion is still correct, that the property does have considerable merit, particularly with respect to documented vein-type and replacement-type mineralization in contrast to largely postulated sedex potential.

However, the author differs in opinion from previous recent authors in recommending emphasis on exploration for vein-type and/or replacement-type mineralization in the immediate vicinity of the former Ruth-Vermont mine, extending north into Malachite Creek and south into Crystal Creek and the LCP Zone. The emphasis on exploration focused on the potential to increase reserves at the former Ruth-Vermont mine (reportedly comprised of approximately 300,000 tonnes grading 6.8 g/t Ag, 4.8% Pb and 5.4% Zn) is particularly valid given the recent acquisition of the relatively unexplored Mallenco claims by the Company and preliminary structural evidence interpreted to indicate continuity of the mineralized vein system and host stratigraphy north of Vermont Creek.

Future field work can be utilized to build a stratigraphic and structural database for the property. Subsequent evaluation of mineralized occurrences with respect to stratigraphy and structure should assist in clarifying the probable origin of the mineralization and, as a result, evaluation of vein, replacement and/or SEDEX potential. Diamond drill holes to test vein- and/or replacement-type mineralization can be extended, if warranted, to test SEDEX potential postulated on the basis of projections constrained by surface data.

Finally, reports describing mineralization at the former Ruth-Vermont refer to the documented silver-lead-zinc vein and replacement ore specifically with respect to the price of silver (as the principal commodity of economic interest). "The Ruth Vermont Mine is largely dependent upon its Silver values for an economical operation. When silver prices drop below \$8.00 U.S. per ounce the mine's ore grade quickly becomes marginal. When the Silver price exceeds \$8.00 U.S. per ounce the property has excellent potential to become a profitable long-term producer" (Forman 1982). However, historically, there has been a total of 55,693 kg of copper and 23,137 kg of cadmium recovered from the mine. This represents average grades of 0.13% cadmium and 0.32% copper, with 18.47% lead and 33.78% zinc in concentrate, despite poor grade control (Forman 1982). In addition, there was sufficient tungsten for Forman (1982) to propose a separate circuit to recover tungsten (as

scheelite), having grades as high as 18% WO_3 . Finally, there is also the possibility of gallium associated with the silver-lead-zinc ore which might add value to the remaining ore reserves. In the future, these additional co-products need to be considered when considering the potential economics of vein- and replacement-type mineralization.

10.0 RECOMMENDATIONS

A two phase program is proposed in which Phase I consists of compilation of all available data followed by geological fieldwork to assess the database and ground-proof interpretations. Phase II consists of diamond drilling, both underground and surface. The author strongly recommends all aspects of the Phase I program proceed to completion in order to provide a complete database for subsequent field work and drilling.

Phase I

Pre-Field

- 10.1** The author strongly recommends that compilation of all available data for the property continue to completion. A partial geochemical compilation and a preliminary compilation of geological information was initiated in 2000. All remaining data pertaining to the property, comprised of regional and detailed geological data, geochemical analyses (rock, silt, stream and/or drill core) and drill hole and trench locations, should be compiled, evaluated and interpreted. An internally consistent compilation of regional data (geological and geochemical) would allow subsequent exploration to utilize and evaluate interpretations from previous geological mapping and allow mineralized horizons and/or structures to be identified and projected.
- 10.2** The most important data with which to evaluate potential ore-grade (vein- and replacement-type) mineralization and potential reserves is available as archival mine data, principally in the form of plans and cross sections for the former Ruth-Vermont mine, recently acquired by the Company.

The author strongly recommends these records be digitized in their entirety, together with data from the 1996 and 2000 drill programs, and a database built from which new plans and sections can be plotted. Examination of the resulting digitized mine data, as plans and sections, with respect to surface geology and geochemistry is likely sufficient to propose a logical drill program. In support of this interpretation, the author notes that Forman (1982) recommended a drill program, as follows: "The present mine program should be continued until such time as exploration and development programs have a better knowledge of the ore shoots. The immediate need underground is an 1000 foot (Author's Note: 305 m) diamond drill program to definitely establish the location of the Pinetree vein on the 5750 foot level.

It would also provide information on the exact location of the major fault at the 2000 section" (Forman 1982).

- 10.3** The 1:10,000 aerial photographs from the 2000 exploration program should be utilized to create an orthophoto. The author believes that an orthophoto would greatly assist in interpreting and understanding stratigraphic and structural relationships on the property.
- 10.4** The database, comprised of drill holes and mineralized intercepts, arising from work in 2000-2001 by Minequest Exploration Associates Ltd. for the LCP Zone should be critically evaluated with respect to sub-surface stratigraphic and structural correlations plotted on the 1:20,000 TRIM base and/or an orthophoto. Sub-surface data should be evaluated with respect to surface geological and geochemical data, plotted with respect to topography and projections of underground (Recommendation 13.2) and surface data from the area of the Ruth-Vermont mine.

Field

- 10.5** The current database for the property, subsequent to compilation, needs to be "ground proofed" by geological mapping and sampling, initially for the region extending from the LCP Zone north-northwest to Malachite Creek.

Stratigraphic correlations proposed from the LCP area northward to Malachite Creek should be confirmed and plotted on digital 1:20,000 TRIM topographic maps and/or an orthophoto, with reference to underground data from the former Ruth-Vermont mine. The reported stratabound lead \pm zinc should be plotted and subsequently followed up in the field with stratigraphic and/or structural mapping in an attempt to identify and map possible marker horizons and extend correlations. These stratabound horizons obviously represent the best opportunity in the immediate future to evaluate the SEDEX potential of the area.

This work is expected to result in an understanding of the stratigraphic and structural relationships in the area centred around the former Ruth-Vermont mine site and allow interpretation of the relationship between stratigraphy, structure and documented mineralization to determine:

1. If mineralization is predominantly stratabound or vein-type, primary or replacement,
2. The extent to which gold + arsenic (\pm cadmium \pm copper \pm gallium \pm tungsten) is associated with documented silver + lead + zinc,
3. If the relatively consistent stratigraphy from Vermont Creek can be correlated north to Malachite Creek where apparently stratabound lead - zinc mineralization was previously reported, and
4. If there are preferred mineralized horizons and, if so, whether they can be mapped and projected.

- 10.6** Geological mapping of the steep ground immediately south of the former Ruth-Vermont mine is considered very important. The Ruth Limestone is clearly critical to replacement-type mineralization in the former Ruth-Vermont mine, both as a stratigraphic and/or structural control in localizing mineralization along the base and within the limestone itself. Mapping the Ruth limestone should allow more confident projection into the sub-surface and to project the mutual intersection of the limestone and the cross-cutting vein system as a potential vein- and replacement-type deposit. Field work to further map the Ruth Limestone may allow identification of axial planar faults and determination of offset, both critical to the economic potential of the property.

Furthermore, "A relatively unexplored replacement zone further up-dip from the Nelson Orebody may provide potential ore. To the southwest, and at much higher elevation from the Nelson Orebody, another limestone unit is known to exist. Veining has also been noted in this area.

A replacement zone of unknown dimension has been examined by the writer on the Syenite Bluff crown grant immediately north of the Ruth-Vermont property on the north side of Vermont Creek" (Forman 1982).

Future exploration to expand reserves documented at the former Ruth-Vermont mine should include testing the proposed extension of the vein system along strike, both north and south of Vermont Creek. It is interesting to note that the Pinetree and Blacksmith vein system (repeatedly described as having a 2600 foot surface trace) was projected south from the former Ruth-Vermont mine into the northern portion of the Crystal Creek drainage, which has been the locus of several phases of exploration to determine the source of a number of high grade mineralized intercepts recovered in previous drill programs on the LCP Zone.

- 10.7** The tentatively identified "major fault" that obliquely cuts the ore zone beyond section 2000 (Forman 1982) needs to be critically evaluated with respect to its potential effect on the ore zone (i.e. does it duplicate, and therefore thicken the ore zone, or potentially eliminate it). The other limestone unit to the southwest and at higher elevation, associated with veining, and "a replacement zone of unknown dimensions" on the Syenite Bluff crown grant (Forman 1982) may represent fault duplicates, additional veins cross-cutting the Ruth (or another) limestone or other stratigraphically and/or structurally controlled mineralization in the local anticlinorium. Furthermore, geological mapping of the Medesto and Cochrane faults in the LCP Zone should be undertaken to evaluate the possibility these faults project into Vermont Creek.
- 10.8** Re-evaluation of previously described mineralized occurrences is strongly recommended. These occurrences should be geologically mapped and re-sampling. Precise location of these occurrences on topographic maps and, if possible, with respect to their stratigraphic and/or

structural position is key to evaluating their origin, whether primary (SEDEX) or secondary (vein- or replacement-type).

- 10.9** An airborne transient electromagnetic (TEM) geophysical survey should be undertaken extending from the LCP Zone northward to the height of land separating Malachite Creek from Vermont Creek. The survey should be sufficiently wide to detect the presence of a SEDEX massive sulphide body and, if present, determine its margins. In addition, the survey should respond to sufficiently large, potentially economic vein- and/or replacement-type mineralization. Interpretation of the data resulting from the proposed survey would benefit greatly from compilation of the Ruth-Vermont underground mine data (Recommendation 13.2) in determining the probable strike extensions of the Pine Tree, Blacksmith, North and/or South vein from the Ruth-Vermont southwest into the Crystal Creek drainage.
- 10.10** Structural data is required as a fundamental and integral part of all future exploration programs, including, but not limited to, bedding, foliation, fault and/or fractures measurements from outcrop, underground workings and/or diamond drill holes. The author considers the consistent lack of these data to represent a significant weakness in the documentation accompanying all previous reports. Without structural data, no meaningful projections and/or correlations can be attempted and no significant cross sections can be developed to integrate surface and underground data (whether from diamond drill holes or from underground workings). Finally, with the possible exception of deep penetrating geophysics, no meaningful sub-surface drill targets can be developed or proposed. Collection of structural data should continue as an integral component of all future programs.
- 10.11** All future soil, rock and drill core analyses should utilize multi-element ICP analysis with assays on high (potentially ore) grade results to facilitate identification of base and/or precious metal potential and/or pathfinder elements, together with the effects of possible alteration. In addition, the presence of possible co-products, such as cadmium, copper, gallium, gold and/or tungsten can be evaluated. Where direct base and/or precious metal results are disappointingly low, pathfinder elements (i.e. Cd for Zn) may indicate proximity to higher grade results and/or the possibility of interference or masking by other elements.

Phase II

Phase II consists of a drill program to follow-up on the Phase I program. Both underground and surface drilling is recommended for the Vowell Creek Property, with the highest priority being drilling in the Vermont Creek drainage.

10.12 In one of the last reports available from the underground mining operation, Forman (1982) stated that the "... immediate need underground is an 1000 foot (Author's Note: 305 m) diamond drill program to definitely establish the location of the Pinetree vein on the 5750 foot level. It would also provide information on the exact location of the major fault at the 2000 section". Underground access was available for the 1996 MineQuest program and appears to remain available subject to re-opening the 6000 portal (the Nelson and 5750 having been intentionally caved). Water may need to be pumped out in some areas to facilitate access and ventilation will probably be required.

The proposed underground program should attempt to further develop the identified vein system, comprised of the Pinetree, Blacksmith, North and South veins, and attempt to correlate them with mineralization identified at surface and in adits driven above the former mine workings.

10.13 Surface drilling is recommended to attempt to:

- a. determine the extent and grade of mineralization lying between the former underground mine workings and the surface,
- b. determine the extent and nature of the mineralization (vein- and/or replacement-type) along the trend of the vein system to the south,
- c. test interpreted projections of the mineralized Nelson workings and the Ruth Limestone on the north side of Vermont Creek, and
- d. evaluate surface scorodite staining associated with anomalous levels of arsenic and the relationship with elevated to highly anomalous gold values.

11.0 PROPOSED BUDGET

The following tentative budget is proposed, however, the actual rates have not been determined at the time of writing and will have to be confirmed by the geologist supervising the project.

Phase I

Description of Work	Estimated Cost
Pre-Field	
Compile Available data and append to existing database	\$ 5,000
Digitize / Scan Ruth-Vermont underground plans and sections	\$ 15,000
LCP Zone sub-surface data analysis	\$ 3,000
Orthophoto (McElhenney estimate)	<u>\$ 11,000</u>
Sub-Total	\$ 34,000
Field	
Mob / De-mob	\$ 2,000
Geological Mapping - 20 days	
Geologist - 20 days at \$500 / day	\$ 10,000
Assistant - 20 days at \$250 / day	\$ 5,000
4WD Truck - 20 days @ \$75 / day	\$ 2,200
Food / Accommodation - 40 man-days @ \$100 / day	\$ 4,000
2 ATV's - 40 man-days @ \$75 / day	\$ 3,000
Hand-held radios - 10 days x 2 @ \$15 / day	\$ 150
100 rock samples @ \$25 / sample	\$ 2,500
Helicopter (Jet Ranger) - 6 hours @ \$1,000 / hr	<u>\$ 6,000</u>
Sub-Total	\$ 34,850
Airborne Geophysical Survey - Transient Electromagnetic	\$ 80,000

Phase II

Underground Drilling at Ruth Vermont	
Mob / Demob drill and drillers	\$ 4,000
Site Preparation	\$ 20,000
Underground Supervisor - 15 days at \$700 / day	\$ 10,500
Geologist - 15 days at \$500 / day	\$ 7,500
Assistant - 15 days at \$250 / day	\$ 3,750
4WD Truck - 15 days at \$75 / day	\$ 1,125
Food / Accommodation - 30 man-days at \$ 100 / day	\$ 3,000
Drilling - 1000 m @ \$120 / metre (underground)	\$ 120,000
Supplies / Consumables - 15 days at \$150 / day	\$ 2,250
Rock Saw - 15 days at \$30 / day	\$ 450
Assays / Geochemistry - 500 samples at \$25 / sample	\$ 12,500
Reclamation / Reseal Portal	\$ <u>15,000</u>
Sub-Total	\$ 200,075

Surface drilling - Ruth Vermont area	
Site Preparation, bulldozer and manual - \$2000 / site x 8 sites	\$ 16,000
Supervision - Geologist / Assistant - 40 days	\$ 30,000
4WD Truck - 40 days at \$75 / day	\$ 3,000
Food / Accommodation - 80 man-days at \$100 / day	\$ 8,000
Drilling - 2,400 m @ \$70 / metre	\$ 168,000
Supplies / Consumables - 40 days at \$150 / day	\$ 4,500
Helicopter - 212 to sling drill equipment - 30 hrs @ \$1,500 / hr	\$ 45,000
Rock Saw - 40 days at \$30 / day	\$ 1,200
Assays / Geochemistry - 600 samples @ \$25 / sample	\$ 15,000
Reclamation	\$ <u>12,000</u>
Sub-Total	\$ 305,700

Post-Field

Report	\$ 15,000
Drafting	\$ <u>10,000</u>
Sub-Total	\$ 25,000

Summary**Phase I**Pre-Field
Field\$ 34,000
\$ 114,850**Phase II**Underground Drilling - 1000 metres
Surface Drilling - 2400 metres\$ 200,075
\$ 305,700

Post-Field

\$ 25,000

Sub-Total \$ 654,625
\$ 65,500
\$ 628,592

Contingency (10%)

Total **\$ 720,125**

12.0 REFERENCES

- Bottril, T.J., Robinson, S.D. and McCance, J.A. 1983. Spillamacheen Project, Geology, Geophysics and Diamond Drilling on the DEB Claims, Golden Mining Division, Assessment Report 11,806, filed Nov., 1983.
- Brophy, J.A. and Slater, J. 1981. Report on Regional and Detailed Geological Sampling Surveys conducted on Group 1, Group 2, Group 3 and Group 4 of the DEB Claims, Assessment Report #10,061
- Cukor, D. 1996. Ruth-Vermont Property, Reclamation following the 1996 Drill Program, report prepared for the inspector of mines
- Dickie, G.J. and Longe, R. V. 1982. DEB Project, Geology and Geochemistry of the DEB Claims, MineQuest Exploration Associates Ltd., Assessment Report #10,823, dated October, 1982
- Evans, C.S. 1933. Brisco-Dogtooth Map Area, B.C., Geological Survey of Canada Summary Report 1932.
- Forman, H.D. Feasibility Report of Ruth Vermont Mine Ltd. (N.P.L.), dated March 15, 1982
- , 1981. Internal report for Ruth Vermont Mine Ltd, 1981, 7 pg.
- Fyles, J.T. 1966. Ruth Vermont Mine, Golden Mining Division, British Columbia Minister of Mines Report, 1966, pp. 230-235.
- Gidluck, M.J. 1997. Geological Evaluation and Exploration Potential of the Vermont Project Mineral Claims, Internal report for Mountain Star Resources Ltd., filed September 9, 1997, 29 p.
- Kubli, T.E. and Simony, P.S. 1994. The Dogtooth Complex, a model for the structural development of the northern Purcell Mountains, Canadian Journal of Earth Sciences, Vol. 31
- Logan, J.M. 2002a. Intrusion-Related Gold Mineral Occurrences of the Bayonne Magmatic Belt, British Columbia Ministry of Energy and Mines Geological Fieldwork 2001, Paper 2002-1, pp. 237-246.

- Logan, J.M. 2002b. Intrusion-Related Mineral Occurrences of the Cretaceous Bayonne Magmatic Belt, Southeast British Columbia, British Columbia Ministry of Energy and Mines Geological Map 2002-1, 1:500,000 Scale.
- Longe, R.V., Richards, J.B. and Walker, R.T. 2001. Potential of Vowell Creek Claims for Sedimentary Exhalative Lead-Zinc Deposits, MineQuest Report # 304, dated July, 2001.
- and Walker, R.T. 2000. Vowell Creek Claims - Drilling 2000, MineQuest Report # 303, dated December, 2000.
- , 1993a. The case for Exploration of the VMT and Neighbouring Claims, A Summary Report, Spillamacheen Joint Venture, MineQuest Exploration Associates Ltd. Report # 263, dated May, 1993
- , 1993b. VMT and Neighbouring Claims, Geological Mapping, Minequest Exploration Associates Ltd. Report # 269, September 1993 - Assessment Report #23,439
- Manning, L.J. 1972. Feasibility Report, Ruth - Vermont Mine, for Columbia River Mines Ltd. (N.P.L.), April 1972.
- Nolin, G. 1981. Crystal Creek Prospect, B.C., 1981 exploration program, internal report for Bluesky dated October, 1981
- Okulitch, A.V. and Woodsworth, G.J. 1977. Kootenay River Map Area, Geological Survey of Canada Open File 481
- Panteleyev, A. 1988. A Canadian Cordilleran Model for Epithermal Gold-silver Deposits, in Ore Deposit Models, Roberts, R.G. and Sheehan, P.A., editors, Geoscience Canada, Vol. 11, pp. 323-326.
- Price, R.A. and Mountjoy, E.W. 1979. McMurdo Map Sheet - West, Geological Survey of Canada Map 1502A
- Reesor, J.E. 1973. Geology of the Lardeau Map Area, East Half, BC, Geological Survey of Canada Memoir 369
- Smith, L.J., Slingsby, A., and Laird, R. 1980. Crystal Creek Project, B.C., 1980. Exploration Program, internal report for Norcen dated December 1980

- Tough, T.R. 1972. Geological Report Relating to the Ore Reserve Potential of the Ruth-Vermont Mine for the Columbia River Mines Ltd. (NPL), March 1972, by T.R. Tough, P.Eng., Consulting Geologist, report included with Manning Feasibility Study
- Walker, R.T. 2000. Assessment report for the Ruth-Vermont, BB and VMT Claim Groups, internal report for Bright Star Metals Inc., dated May 16, 2000
- Wheeler, J.O. 1963. Rodgers Pass Map Area, Geological Survey of Canada Paper 62-32
- Young, F.G., Campbell, R.B. and Poulton, T.P. 1973. The Windermere Supergroup of the Southeastern Canadian Cordilera, Belt Symposium 1973, Volume 1, September 1973, Moscow, Idaho.

Appendix A
Statement of Qualifications

Richard T. Walker, M.Sc., P.Geol.
656 Brookview Crescent
Cranbrook, B.C.
V1C 4R5

I, Richard T. Walker, hereby certify that:

1. I am a graduate of the University of Calgary with a Bachelor of Science in Geology in 1986 and subsequently obtained a Masters of Science in structural geology from the University of Calgary in 1989,
2. I am a Professional Geologist (P.Geol.) registered with the Association of Professional Geologists and Geoscientists of British Columbia,
3. I am the principal of Dynamic Exploration Ltd., 656 Brookview Crescent, Cranbrook, B.C. and work as a Consulting Geologist,
4. I have worked as a geologist and a consulting geologist from 1986 to the present in the provinces of British Columbia, Alberta and New Brunswick, the Northwest Territories, the state of Montana and Brazil and have been employed by the Geological Survey of Canada, the government of the Northwest Territories, and junior to senior resource companies as both a contract employee and as a consultant,
6. I am the author of this report which is based upon work completed on the property under my direct supervision between August 12 and October 4, 2002.

Dated in Cranbrook, British Columbia this 17th day of December, 2002.



Richard (Rick) T. Walker, P. Geol.

Appendix B
Sample Descriptions

- RW-02-01 Taken at 1843 m, 5 m below short adit in Pinetree Chute. Semi-massive galena in quartz vein. Galena comprises approximately 70% of vein (and sample). Remaining 30% comprised of pyrite (fine-grained), limonite (weathered pyrite) and quartz.
- RW-02-02 Same location and vein as RW-02-01. Approximately 30 cm along vein from 01. Sample consists of 40% quartz, 40% pyrite and 20% galena. Note: pyrite is probably marcasite.
- RW-02-03 High grade float from chute below short adit in Pinetree Chute. Probable vein (up to 3 cm thick) with semi-massive galena (70%), arsenopyrite (20%) and quartz (10%). Arsenopyrite present as fine-grained layers as well as subordinate needles. Note in addendum: Sample probably derived from adit at top of Pinetree Chute rather than short adit in Pinetree Chute.
- RW-02-04 High grade composite sample of galena mineralization from chute below adit in Pinetree Chute (see Addendum above).
- RW-02-05 Probable vein material found in float in Pinetree Chute below short adit. Medium- to coarse-grained semi-massive galena on margins with bands or layers of fine-grained pyrite + galena ± arsenopyrite in core. Galena comprises up to 70% and pyrite up to 20% of the mineralization. Quartz makes up the remaining 10% of the sample. Note: presence of weathered vugs and extensive yellow-green colouration interpreted to be secondary scorodite after arsenopyrite.
- RW-02-06 Intimately mixed galena, pyrite and quartz in high grade sample found in float in Pinetree Chute below short adit. Semi-massive sulphides (70% galena, 20 pyrite) as mineralized network in quartz. Pyrite may have precipitated first, relative to galena, as it appears to be commonly contained in the core of galena masses.
- RW-02-07 Sample of yellow stained quartz vein immediately west of Pinetree Chute. Abundant disseminated, coarse-grained galena + sphalerite + pyrite (+ marcasite) verging toward semi-massive network mineralization. Abundant pyrite (to 40%) as abundant fine- to medium-grained disseminated crystals (≈ 1 mm diameter) in host rock inclusions or screens in quartz vein.
- RW-02-08 Taken from roof of adit accessing Nelson Workings in approximately 8 cm thick quartz vein. Entire sample taken from ≤ 20 cm² area in sphalerite-rich lens. Mineralization highly variable between and within veins. Approximately 40% sulphides, predominantly sphalerite. Approximately 35% sphalerite, 5% galena + pyrite.
- RW-02-09 High grade sphalerite sample from floor of adit below RW-02-08.
- Note: Samples 08 and 08 taken to evaluate Cd and Ga associated with sphalerite-rich mineralization.
- RW-02-10 Quartz-calcite vein from east side of chamber near adit (accessing Nelson Workings) entrance. Possible scheelite noted? Taken from analysis.
- RW-02-11 Sample of gossan on east side of Sheba Anticline, immediately west of western gully.

Heavily iron stained black limestone. No visible mineralization evident.

- RW-02-12 Sample from galena vein sub-parallel to bedding, offset by steeply dipping limb 0.75 m west. Sample taken outside Sheba adit on west side of Sheba Anticline.
- RW-02-13 Mineralized quartz vein continues approximately 15 m+ northwest into cliff, averaging 8 cm thick. Discontinuous chip sample along 8 m of galena vein.
- RW-02-14 Composite high grade galena from talus below chute immediately west of Charlotte Anticline. Intimately intermixed semi-massive galena (60%), pyrite (10%) in quartz vein (25%). 5% vug space filled with limonite (2%) and dark pistachio green mineral (3%). Thin band, 3-5 mm thick of massive arsenopyrite along one margin.
- RW-02-14A contains poddy galena lenses and minor disseminated galena. Two arsenopyrite bands with pyrite along one margin. 4 cm thick.
- RW-02-15 Same location as 14. Heavily iron-stained, limonitic sample with semi-massive to massive, fine-grained sulphides. Yellow-green staining is pervasive, believed to be scorodite (after arsenopyrite). Mineralization hosted by limey argillite (brown weathering). Minor pyrite noted (most probably altered to limonite / Fe staining), fine-grained arsenopyrite (predominant?) And galena (possible). Approximately 4 cm thick.
- RW-02-16 Same location as 14. 7 cm thick vein with 40% disseminated to semi-massive galena + pyrite (intermixed) and pods (up to 3 cm in long dimension) of sphalerite. Quartz makes up the remaining 50%. Minor, local yellow (to green) staining - scorodite? Subordinate arsenopyrite occurs together with galena and pyrite. Pyrite appears to core galena stringers. One margin of semi-massive vein comprised of 1.5 cm of arsenopyrite (90%), galena (5%), pyrite + chalcopyrite (2%) and quartz (3%). Quartz forms core of band, followed by galena + pyrite + chalcopyrite on one side. Remainder is arsenopyrite.
- RW-02-17 Abundant fine-grained galena with highly subordinate pyrite, approximately 8% disseminated galena, 2 % pyrite in limestone. Float sample in Escalator Creek, tributary on north side of Vermont Creek.
- RW-02-18 Quartz + limonite vein approximately 15 cm thick (measured perpendicular to quartz - limonite - galena banding). Vein comprised of quartz (60%), limonite (30-35%), minor carbonate (0-5%) and galena (approximately 1%). Galena localized along two bands in which it forms aggregate masses up to 3 cm in long dimension. Sample taken of galena-rich material ==> high grade.
- RW-02-19 Very friable sample of fine-grained galena (?) mineralization taken from footwall of quartz-carbonate vein where it is folded through limestone. Thin quartz veins (2) are also present, localized replacement off host limestone in hinge area between gently east dipping limb and steeply west dipping limb of parasitic anticline. Sample site on west side of Escalator Creek, tributary on north side of Vermont Creek.

- RW-02-20 Quartz vein approximately 2.5 - 3.0 cm thick with sub-equal proportion of iron-stained carbonate (siderite - dolomite?). Contains up to 10% galena locally, but content is erratic (0 - 10%). Vein cross-cuts bedding. Limestone has large pyrite porphyroblasts up to 1 cm in long dimension (average 0.5 cm) which are present in pits in the limestone (acid from weathered pyrite reacting with host limestone ==> self-neutralizing consumption of pyrite and limestone). Pyrite content and size varies between individual limestone beds.
- RW-02-21 500910 E, 5644344 N, 1843 ± 26 m. Approximate location in bush. Float sample of yellow-green stained vuggy quartz with galena layer. Sample approximately 30 cm x 20 cm x 8 cm. Two large vuggy spaces with relict silica moulds of cubic mineral (probably pyrite). Overall, galena comprises approximately 3% of sample, localized as discontinuous masses along one side of sample. Broke sample up and took galena-bearing material ==> high grade
- RW-02-22 Rusty weathering boulder of massive pyrite approximately 10 cm x 6 cm x 4 cm as float in creek (nearby GPS station at 500879 E, 5644296 N, 1831 m). Massive pyrite (possible pyrrhotite suspected but no magnetic response evident).
- RW-02-23 Sample of large quartz vein (30 cm thick), exposed in high gradient creek on north side of Vermont Creek. Numerous smaller quartz veins also exposed in Fe-spotted, medium green-grey siltstone with well developed foliation.
- RW-02-24 Approximate GPS coordinates 501402 E, 5644731 N, 1782 m, in next creek east of Escalator Creek, north side of Vermont Creek. Very unusual rock, comprised of large glassy quartz grains up to 1 cm diameter in a medium to dark grey schistose (chloritic) matrix. Quartz grains rounded to sub-angular and slightly flattened into the plane of foliation. Pyrite ($\leq 1\%$) present as cubes up to 4 mm diameter. Found as float in creek.
- RW-02-25 Representative high grade sample of galena-bearing quartz vein from dump outside Blacksmith workings. Fine- to (predominantly) coarse-grained mineralization consisting of $\leq 40\%$ galena (locally) + $\leq 15\%$ pyrite in iron stained quartz vein.
- RW-02-26 From quartz vein approximately 6-7 cm thick with intimately intermixed galena, arsenopyrite + pyrite. Semi-massive sulphides comprise 80% of sample. Probably originated from small secondary chute trending SE, at oblique angle to cute hosting main vein system. Several yellow-green gossanous patches (secondary scorodite (?)) evident higher up in chute. Numerous boulders present in talus below chute, variable amounts of galena ± arsenopyrite ± pyrite in quartz vein material. Approximate GPS location 501716 E, 5643881 N.
- RW-02-27 High garde galena sample in quartz vein below same chute. Large sample approximately 40 cm x 25 cm x 15 cm, comprised of massive galena along one margin, up to 6 cm thick with subordinate arsenopyrite + pyrite.
Entire sample: 20-25% galena, 5% arsenopyrite, 3% pyrite.

High grade sample for analysis: 60-70% galena, 5-7% arsenopyrite, 10% pyrite

- RW-02-28 Sample of quartz vein from adit 111 (upper caved adit, immediately east of Pinetree Chute above former Ruth-Vermont mine). 4.5 cm margin comprised of 40% galena, 30% arsenopyrite and 30% yellow-green stained, heavily weathered, vuggy quartz. Remaining 3-4 cm comprised of quartz core and 0.5 cm of opposite margin.
- RW-02-30 10 cm thick zone of banded mineralization at base of fine-grained pebble conglomerate and top of brown sandstone. Yellow-green stained, grey weathering bands of pyrite ± arsenopyrite with quartz. Bands range between 0.3 and 1.0 cm, with sulphides comprising up to 30%. Shirt adit in hinge zone of Charlotte Anticline.
- RW-02-31 Float sample from chute below Charlotte Anticline. Composite sample of minor mineralized float in talus.
- RW-02-32 Mineralized quartz vein material from stockpile outside entrance to partially caved adit at top of Pinetree Chute.
- RW-02-33 Upper adit on east side of Escalator Creek, north of Vermont Creek. Galena in black limestone from 1 m inside adit entrance.
- RW-02-34 Lowermost adit at base of grit band, below adit above. Iron stained grit on west side of adit entrance. Approximately 6% galena disseminated through quartz-rich host. Looks to be quartz sweat as matrix to granule conglomerate. Galena-bearing horizon approximately 3 cm thick. Sub-equal proportion of fine-grained pyrite, associated with galena.
- RW-02-35 Uppermost adit at base of grit band, below adit at sample site 33 (above). Quartz vein material from east side of adit wall. Rotten due to high iron content, present now as limonite (after pyrite?). Quartz vein approximately 8 cm thick, with 10% galena (locally), pods of sphalerite (4%) and pyrite (40%). Arsenopyrite locally present.
- RW-02-36 High grade sample from east wall of pillar inside Nelson Workings. Very coarse needles of arsenopyrite (0.5 cm long). 1 cm thick galena + pyrite + quartz vein on one side with adjacent pyritization.
- RW-02-37 Sample of highly weathered limestone 1.75 m structurally and stratigraphically above adit entrance (uppermost adit on east side of Escalator Creek in black limestone). Chip sample over 25 cm.
- RW-02-38 Sample of pyritic limestone, for determination of gold. Composite sample taken from float outside adit entrance (see above).
- RW-02-39 Galena-bearing quartz vein material from 5 m south of adit (see sample 33 and 37).

Sulphide Pit 501230 E, 5644750 N, 1908 m. Samples RW-02-40 and 41

- RW-02-40 Moderately heavily scorodite (?) stained quartz vein material. Yellow-green (scorodite) to

brown (Fe) stained vein at least 4 cm thick with 20% arsenopyrite, 2% galena, 10% pyrite and 70 % quartz with a trace of sphalerite.

- RW-02-41 Heavy iron and scorodite staining on weathered surface. Fresh surface has approximately 50% massive arsenopyrite in two bands, \leq 5% galena and 2% pyrite. Arsenopyrite very coarse-grained.
- RW-02-42 Approximate GPS location 501117 E, 5644631 N. Quartz vein float with banded mineralization. Yellow-green and rusty staining on weathered surface. Fresh surface shows thin bands up to 2 cm thick of fine-grained arsenopyrite (\approx 10-15%), galena (2%) and possibly tetrahedrite. Galena band discontinuous and fine-grained, up to 0.4 cm thick, and thins to 0.5 cm over 10 cm, contains minor galena (0.5%) and tetrahedrite. Quartz vein at least 4 cm thick.
- RW-02-43 Heavy to completely weathered limey, fine-grained grit. On fresh surface, comprised of colour banding from 1 cm to 3 cm thick, probably based on iron content in bedding. Small parasitic, open fold. Cross-cut by thin quartz + limonite veinlets (\leq 3 mm thick).
- RW-02-44 Taken 2 m north of soil sample 199. Very dark material in quartz vein approximately 10 cm thick. Dirty black amorphous material (manganese?) associated with vuggy quartz.
- RW-02-45 Heavily iron-stained siltstone with up to 15% cubic pyrite to 0.4 cm. Taken for gold analysis.
- RW-02-46 Iron-stained breccia (proximal float). Fragments (with high limonite content) up to 5 cm in long dimension and as small as 0.5 cm or less.
- RW-02-47 Large quartz + limonite vein (approximately 2.2 m thick) on east side of creek, cross-cuts the grit package.
- RW-02-48 Quartz vein with lenses of galena (4%) in float on road (re-contoured) below soil station RV-02-D-468 (5 m west).
- RW-02-49 Representative sample of Pisolitic Limestone, described by previous operators.
- RW-02-50 Argillaceous limestone to limey argillite with fine-grained mineralization (silvery white).

Appendix C
Sample Results



GEOCHEMICAL ANALYSIS CERTIFICATE



Jasper Mining Corporation PROJECT Ruth-Vermont File # A203495

Page 1

835 - 101 Ave T.W., Calgary AB T2P 3T5 Submitted by: Nick Walker

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
RV-02-D-01	.6	43.8	66.7	109	.2	40.5	16.0	601	5.05	289.6	1.2	39.3	2.5	3	.1	4.3	.8	14	.05	.172	6	20.8	.14	12	.003	3	.41	.006	.03	4.3	.02	1.9	<.1	<.05	3
RV-02-D-02	.5	34.4	57.5	67	.2	29.7	8.3	206	4.77	315.9	1.0	22.6	.8	3	.1	4.0	.9	14	.03	.312	8	13.8	.09	14	.004	1	.30	.005	.04	1.5	.03	.8	<.1	<.05	3
RV-02-D-03	.6	32.1	39.1	51	.6	26.8	7.6	164	3.68	265.3	1.0	104.7	.7	3	.1	3.1	.8	12	.01	.182	7	11.2	.08	15	.004	3	.29	.004	.03	1.8	.04	.9	<.1	<.05	2
RV-02-D-04	.6	36.5	39.7	60	1.1	33.7	8.9	138	4.27	271.8	1.0	13.7	.4	3	.1	4.4	.8	14	.02	.153	6	11.4	.05	11	.004	1	.27	.005	.03	1.4	.03	.9	<.1	<.05	2
RV-02-D-05	.5	25.5	34.3	56	1.7	27.7	9.8	472	2.47	204.3	.6	11.9	.8	4	.2	3.3	.5	10	.02	.100	9	6.6	.05	16	.003	1	.16	.004	.03	.8	.05	1.0	<.1	<.05	2
RV-02-D-06	.5	26.6	89.1	54	1.0	21.1	5.4	254	3.78	381.7	1.0	11.8	1.0	6	.3	3.4	1.0	11	.06	.168	7	11.2	.07	21	.003	2	.32	.004	.03	2.0	.06	1.0	<.1	<.05	2
RV-02-D-07	.6	45.6	82.3	136	.2	54.0	21.6	1455	5.97	576.1	1.2	13.1	4.3	4	.3	5.5	1.1	10	.01	.088	10	13.6	.11	40	.003	3	.42	.005	.03	1.7	.03	2.3	<.1	<.05	2
RV-02-D-08	.5	38.3	208.3	70	2.3	18.2	6.1	247	2.53	180.8	.6	4.9	2.3	3	.4	6.7	.4	19	.01	.049	14	9.8	.07	22	.013	<1	.33	.004	.03	1.9	.06	1.1	<.1	<.05	5
RV-02-D-09	.4	52.2	1185.6	225	2.9	20.6	9.9	1661	3.19	603.1	.7	59.5	.9	6	.9	37.6	.5	13	.11	.091	13	10.0	.11	41	.006	2	.30	.004	.03	5.4	.06	1.0	<.1	<.05	3
RV-02-D-10	.4	51.4	276.9	171	.9	43.2	16.0	948	4.64	495.8	1.6	14.3	3.9	4	.6	10.0	.6	13	.04	.116	17	18.2	.26	26	.005	<1	.66	.004	.03	1.6	.02	2.1	<.1	<.05	3
RV-02-D-11	.6	82.2	251.2	285	1.1	85.2	49.7	2546	7.49	875.0	3.0	33.6	8.1	7	1.1	17.6	1.0	11	.04	.084	12	13.9	.14	26	.003	1	.50	.005	.04	1.8	.03	5.5	<.1	<.05	2
RV-02-D-12	.6	73.8	202.7	240	1.3	76.4	43.3	2608	7.28	813.3	2.9	24.8	7.1	7	1.1	18.5	1.0	11	.04	.079	11	13.4	.13	27	.002	<1	.46	.004	.03	1.6	.03	5.0	<.1	<.05	2
RV-02-D-13	.6	83.2	594.4	382	1.7	73.7	40.3	1973	8.10	995.7	2.0	17.0	5.3	4	.8	37.3	1.2	10	.05	.089	7	11.4	.09	18	.002	3	.31	.004	.04	2.2	.06	3.0	<.1	<.05	2
RV-02-D-14	.6	56.2	76.3	187	.5	57.1	17.0	274	4.96	409.9	.8	11.3	3.3	3	.2	27.7	.6	8	.02	.108	7	7.4	.04	6	.002	1	.09	.003	.02	5.6	.01	2.2	<.1	<.05	1
RE RV-02-D-28	1.1	39.1	63.5	93	1.7	30.4	10.6	315	6.24	145.7	1.0	15.0	10.1	4	.2	3.3	.7	27	.05	.042	9	20.9	.13	24	.071	1	1.63	.007	.04	1.6	.11	2.4	<.1	<.05	12
RV-02-D-15	.5	63.5	380.9	289	.9	63.2	23.2	757	6.28	642.4	1.7	31.6	5.5	5	.4	36.3	.9	6	.06	.086	5	11.4	.14	10	.001	1	.30	.004	.02	7.8	.02	3.0	<.1	<.05	1
RV-02-D-16	.3	61.5	241.6	336	1.3	72.5	28.3	982	5.62	453.0	1.5	33.6	7.0	9	1.7	20.5	.7	6	.16	.056	7	11.1	.17	13	<.001	1	.24	.004	.03	4.5	.01	4.2	<.1	<.05	1
RV-02-D-17	.6	67.7	567.7	425	3.0	66.0	35.1	1302	6.53	825.8	2.2	32.2	6.3	7	1.4	50.3	1.1	9	.13	.091	7	11.9	.18	15	.001	1	.38	.004	.03	6.1	.03	3.8	<.1	<.05	1
RV-02-D-18	.7	84.1	374.3	361	3.3	79.7	58.2	3923	8.68	537.2	2.5	29.2	3.6	24	2.1	31.8	1.6	7	.80	.220	8	8.1	.09	25	.003	3	.29	.004	.03	4.9	.05	5.3	<.1	.12	1
RV-02-D-19	1.0	104.4	887.0	564	3.6	81.6	87.4	6376	9.95	724.5	2.8	31.7	4.1	12	4.1	44.0	2.1	9	.39	.181	6	9.3	.12	21	.003	2	.31	.004	.03	8.1	.06	4.8	<.1	.21	1
RV-02-D-20	1.0	91.0	442.4	359	2.3	84.3	56.9	2503	7.96	678.3	2.5	26.6	3.0	9	1.2	48.3	1.7	9	.25	.168	6	9.2	.10	15	.002	4	.24	.004	.04	6.0	.05	3.4	<.1	.17	1
RV-02-D-21	.8	75.7	383.8	295	1.9	65.4	42.0	2378	6.48	587.1	2.1	19.3	2.8	7	.9	37.2	1.4	7	.19	.120	5	8.6	.08	14	.002	2	.23	.004	.03	5.8	.04	2.8	<.1	.14	1
RV-02-D-22	.9	105.9	715.2	485	3.5	96.5	79.8	4562	9.66	723.0	2.2	29.2	3.5	13	2.7	49.4	2.0	8	.34	.207	5	8.9	.12	24	.003	3	.28	.004	.04	4.2	.04	4.1	<.1	.26	1
RV-02-D-23	.8	99.3	681.5	458	2.2	91.0	78.9	5451	8.42	713.6	1.9	41.7	3.4	11	2.5	47.7	1.7	9	.29	.214	5	8.8	.11	22	.002	2	.23	.003	.03	4.6	.05	3.4	<.1	.19	1
RV-02-D-24	.8	129.3	816.5	1148	8.6	120.7	66.0	2919	8.72	895.6	2.7	72.1	5.8	29	9.3	66.1	1.7	7	.72	.098	7	10.3	.16	23	.001	3	.35	.004	.03	8.4	.07	5.7	<.1	.14	1
RV-02-D-25	.9	140.3	988.8	698	1.8	117.7	74.2	2464	10.53	722.5	2.6	52.2	7.0	4	1.1	66.7	2.7	9	.06	.085	7	12.0	.09	18	.001	3	.41	.003	.03	35.1	.04	3.7	<.1	.11	2
RV-02-D-26	1.0	109.5	57.7	226	.5	95.0	41.5	864	8.60	331.2	1.6	6.5	8.1	3	.3	7.0	2.5	15	.02	.042	10	12.3	.13	25	.002	1	.53	.003	.02	1.9	.03	3.2	<.1	<.05	2
RV-02-D-27	.8	35.8	102.8	109	1.8	33.8	11.1	281	5.46	147.5	.8	10.1	7.4	4	.4	3.6	.6	22	.03	.041	12	27.7	.32	53	.023	2	1.60	.004	.04	2.5	.14	1.8	<.1	<.05	8
RV-02-D-28	1.1	36.8	60.0	83	1.7	30.3	11.5	344	6.29	141.1	.9	19.3	8.9	4	.1	3.4	.6	27	.05	.038	9	22.0	.12	25	.066	2	1.57	.007	.04	1.4	.10	2.3	<.1	<.05	11
RV-02-D-29	.7	58.4	40.9	126	.1	56.0	22.4	494	5.97	302.8	.9	4.4	5.6	2	.1	6.0	.9	14	<.01	.037	11	13.5	.09	16	.006	2	.45	.003	.02	9.2	.02	2.7	<.1	<.05	3
RV-02-D-30	.5	37.0	44.7	99	1.0	44.8	13.5	397	4.71	150.7	.6	5.9	6.7	3	.1	4.0	.4	15	.04	.028	15	22.7	.39	22	.003	1	.90	.002	.03	4.2	.03	2.0	<.1	<.05	4
RV-02-D-31	1.1	61.5	112.8	177	1.5	57.1	24.5	665	5.68	287.2	1.1	2.9	4.9	2	.3	10.4	1.0	20	.02	.034	11	13.1	.07	18	.015	1	.52	.004	.02	13.8	.02	2.7	<.1	<.05	4
RV-02-D-32	1.0	119.3	146.2	233	.7	86.7	44.1	1428	7.52	552.6	2.2	20.4	6.8	3	.5	18.9	1.4	9	.02	.046	8	11.3	.07	22	.001	2	.31	.003	.03	1.2	.03	3.3	<.1	<.05	1
RV-02-D-33	1.3	105.8	110.1	200	.3	85.4	70.7	904	12.49	893.7	2.8	7.2	9.3	4	.5	18.0	2.8	11	.06	.057	6	12.1	.08	12	.002	1	.38	.003	.02	.8	.04	2.9	<.1	<.05	2
STANDARD DSA	6.7	121.1	33.0	147	.3	34.4	11.8	752	2.99	23.2	6.1	27.9	3.8	27	5.2	5.0	5.1	73	.50	.091	16	165.9	.59	141	.084	3	1.67	.029	.16	4.0	.28	3.7	1.0	<.05	6

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL S880 60C Samples beginning 'RE' are Reruns and 'RR' are Reject Reruns.

DATE RECEIVED: SEP 3 2002 DATE REPORT MAILED: *Sept 17/02* SIGNED BY: *[Signature]* .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm
RV-02-D-34	1.0	55.8	26.2	158	.2	55.2	16.8	281	5.33	464.3	.9	3.5	2.9	2	.2	11.4	.6	16	.01	.063	12	8.3	.04	10	.002	4	.13	.003	.02	8.2	.01	1.9	<.1	<.05	1
RV-02-D-35	.6	30.9	23.4	77	.3	29.2	9.9	393	3.87	195.6	.5	5.7	6.1	4	.1	3.2	.3	18	.09	.028	20	15.0	.26	20	.007	3	.70	.002	.02	1.4	.03	1.6	<.1	<.05	5
RV-02-D-36	.4	57.8	144.5	211	2.3	49.8	17.8	513	5.72	205.9	1.0	8.4	8.0	4	.6	13.8	.7	16	.08	.046	16	20.6	.33	41	.002	2	1.11	.003	.03	8.8	.07	2.6	<.1	<.05	3
RV-02-D-37	.9	31.1	77.8	98	1.3	26.5	8.6	550	5.72	158.5	.7	3.2	7.6	3	.3	2.7	.5	29	.01	.035	13	20.7	.14	70	.046	1	1.66	.006	.03	1.8	.12	1.8	<.1	<.05	10
RV-02-D-38	.7	25.6	59.5	81	.7	26.5	7.1	151	3.72	208.1	.4	3.4	6.4	2	.1	4.1	.4	20	<.01	.023	19	10.0	.10	16	.006	2	.52	.002	.02	3.6	.02	1.5	<.1	<.05	4
RV-02-D-39	.8	36.5	73.4	123	1.0	28.6	9.2	252	5.42	251.3	.7	7.0	6.2	2	.2	4.4	1.0	20	.01	.039	16	13.6	.11	11	.014	2	.55	.003	.02	7.3	.06	1.5	<.1	<.05	6
RV-02-D-40	.9	38.9	27.0	74	.5	35.6	12.8	795	6.03	350.2	.7	5.0	3.5	5	.1	5.0	.8	29	.03	.049	12	8.7	.05	37	.036	3	.34	.004	.02	1.3	.04	1.7	.1	<.05	6
RV-02-D-41	.9	43.2	17.2	65	.3	37.8	10.9	559	4.25	300.8	.6	4.8	3.9	3	.2	3.7	.6	23	.01	.034	19	7.0	.04	23	.012	3	.25	.004	.02	1.9	.02	1.7	.1	<.05	4
RV-02-D-42	.8	23.0	31.4	67	.3	21.5	7.2	271	3.83	114.7	.4	1.4	5.0	4	.2	1.6	.5	24	.02	.027	13	10.7	.13	33	.043	<1	.59	.006	.02	1.6	.01	1.6	<.1	<.05	9
RV-02-D-43	.6	33.9	58.2	89	.4	46.4	18.2	438	4.99	197.9	1.7	21.6	7.1	12	.1	2.4	.7	18	.18	.031	15	14.3	.21	40	.011	2	1.08	.005	.04	1.7	.05	2.4	.1	<.05	5
RV-02-D-44	.5	33.5	16.2	64	.1	29.3	8.9	200	3.88	183.4	.6	45.7	6.0	3	<.1	2.3	.7	18	.01	.021	18	9.1	.07	13	.017	2	.31	.003	.02	2.3	.01	1.4	<.1	<.05	5
RE RV-02-D-44	.5	34.3	17.4	63	.1	32.1	9.6	208	4.20	181.7	.6	80.4	6.0	3	.1	2.2	.7	18	.01	.022	20	8.9	.07	14	.017	3	.34	.004	.02	2.3	.01	1.3	<.1	<.05	5
RV-02-D-45	.6	37.9	48.5	76	1.3	42.2	22.2	828	6.08	211.8	8.5	18.0	3.2	14	.8	2.9	1.4	17	.30	.078	15	12.6	.14	22	.031	2	1.52	.005	.03	1.0	.09	2.7	<.1	.10	5
RV-02-D-46	.4	43.3	81.3	104	.8	41.5	12.2	718	5.27	226.9	1.1	11.6	4.6	3	.2	5.7	.5	13	.02	.064	9	14.6	.13	20	.001	1	.48	.005	.03	5.3	.04	2.4	<.1	<.05	3
RV-02-D-47	.4	32.2	40.9	76	1.1	31.1	9.2	271	4.62	193.4	.6	9.3	6.1	3	.1	3.8	.4	14	.01	.043	16	12.9	.15	13	.002	<1	.47	.004	.03	5.1	.04	1.8	<.1	<.05	4
RV-02-D-48	.4	43.6	98.3	102	.5	43.5	11.9	514	6.12	259.9	.8	12.9	6.2	3	.1	3.4	.6	13	.05	.073	12	21.8	.28	22	.003	<1	.78	.004	.03	4.2	.07	2.0	<.1	<.05	4
RV-02-D-49	.3	43.6	119.9	90	.3	47.9	13.0	518	4.97	190.7	1.0	41.5	8.5	2	.2	1.6	.5	10	.01	.050	11	20.6	.32	14	<.001	1	.81	.003	.03	4.5	.03	2.3	<.1	.06	3
RV-02-D-50	.3	51.7	44.8	81	.3	39.9	10.3	336	5.60	213.9	.9	10.9	7.9	2	.1	2.5	.6	10	<.01	.037	14	15.7	.16	14	.001	<1	.61	.004	.03	.9	.02	2.3	<.1	<.05	3
RV-02-D-51	.3	35.4	62.0	53	.8	42.2	15.3	737	4.41	196.6	13.2	25.2	4.3	33	.2	1.3	.4	8	.93	.085	6	15.9	.50	17	.002	2	.75	.006	.03	2.3	.03	2.0	<.1	.13	2
RV-02-D-52	.4	48.0	67.7	84	.4	51.4	12.0	400	6.41	241.5	1.1	10.6	5.7	3	.4	2.3	.7	12	.04	.079	12	25.6	.33	25	.003	<1	.93	.004	.04	.7	.05	1.7	<.1	.08	4
RV-02-D-53	.3	37.1	55.2	79	.1	45.0	12.9	460	4.20	91.5	.7	5.3	9.9	4	.3	1.0	.4	16	.04	.041	21	28.6	.62	33	.002	1	1.34	.004	.04	.4	.02	2.2	<.1	.07	4
RV-02-D-54	.6	29.0	45.9	47	.2	21.1	6.3	245	4.75	62.3	.6	4.6	9.2	2	.1	.9	.4	22	.01	.043	27	25.2	.28	21	.017	1	1.22	.003	.03	.2	.03	1.4	<.1	.06	8
RV-02-D-55	.5	27.3	34.8	61	.2	28.0	7.7	218	3.53	65.4	.4	2.0	7.6	2	.1	.9	.3	17	.01	.027	28	17.5	.37	14	.006	1	.97	.002	.02	.2	.01	1.4	.1	<.05	6
RV-02-D-56	.4	21.4	11.4	42	.1	18.1	5.5	137	2.90	66.9	.4	3.9	7.7	2	<.1	.8	.3	15	<.01	.024	32	14.6	.26	12	.005	1	.73	.002	.02	.3	.01	1.3	<.1	<.05	6
RV-02-D-57	.4	28.8	29.7	73	.4	32.3	8.6	246	4.47	78.7	.6	2.0	10.0	2	.1	1.0	.3	15	.01	.035	31	24.4	.47	20	.005	1	1.26	.002	.02	.2	.03	1.6	<.1	<.05	5
RV-02-D-58	.4	25.1	19.4	55	.2	26.9	6.7	191	3.32	66.7	.5	1.8	9.2	2	.1	1.0	.3	18	.01	.037	34	18.0	.34	13	.006	1	.83	.002	.02	.2	.02	1.4	<.1	<.05	5
RV-02-D-59	.5	24.9	38.3	48	1	25.6	7.8	246	2.91	89.4	.7	1.9	6.9	3	<.1	1.2	.3	14	.01	.038	28	17.4	.34	26	.009	1	.99	.003	.03	.5	.01	1.4	<.1	<.05	5
RV-02-D-60	.6	14.2	19.8	34	.2	13.9	4.5	129	1.95	69.0	.4	96.1	5.4	3	<.1	1.0	.2	20	.01	.028	29	9.3	.14	17	.013	<1	.58	.004	.02	.6	.03	1.0	<.1	<.05	5
RV-02-D-61	.5	30.1	17.7	58	.2	23.4	7.5	168	3.32	105.4	.5	70.1	7.8	2	.1	1.2	.3	18	.01	.034	25	14.5	.22	17	.003	<1	.62	.002	.02	.3	.02	1.4	<.1	<.05	5
RV-02-D-62	.4	9.8	18.6	31	.2	15.2	5.4	216	1.88	51.3	.4	6.7	5.9	4	<.1	.5	.3	15	.03	.016	24	11.6	.23	29	.005	<1	.80	.003	.02	.3	.01	1.0	<.1	<.05	5
RV-02-D-63	.7	22.2	14.5	42	.2	18.9	5.9	157	3.23	99.5	.4	10.4	6.6	2	.1	1.3	.3	20	.01	.039	26	13.1	.20	12	.009	2	.66	.002	.02	.4	.01	1.2	<.1	<.05	7
RV-02-D-64	.7	36.7	105.1	84	.2	43.3	21.5	2535	4.37	289.8	1.0	3.2	5.4	12	.2	1.8	.7	18	.21	.052	17	18.0	.40	57	.013	<1	1.02	.004	.04	.5	.03	1.9	<.1	.07	5
RV-02-D-65	.8	33.8	21.6	61	.1	35.3	10.7	281	4.66	116.7	.7	3.2	6.1	2	.1	1.3	.6	17	.01	.056	11	9.2	.07	11	.024	<1	.40	.004	.02	.6	.01	1.7	<.1	<.05	5
RV-02-D-66	.6	39.8	61.7	79	.1	39.3	11.1	317	4.80	122.3	1.0	3.8	8.4	3	.1	1.7	.5	14	.02	.046	17	18.5	.26	21	.011	<1	.92	.003	.02	1.0	.03	2.2	<.1	<.05	4
STANDARD DS4	6.3	129.3	32.9	146	.3	36.4	11.3	780	3.00	23.1	5.4	26.4	4.0	27	5.1	5.0	4.9	74	.50	.085	17	162.0	.56	136	.088	3	1.74	.027	.16	3.8	.27	4.0	.9	.07	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



Jasper Mining Corporation PROJECT Ruth-Vermont FILE # A203495



Table with columns: SAMPLE#, Ho ppm, Cu ppm, Pb ppm, Zn ppm, Ag ppm, Ni ppm, Co ppm, Mn ppm, Fe %, As ppm, U ppm, Au ppb, Th ppm, Sr ppm, Cd ppm, Sb ppm, Bi ppm, V ppm, Ca %, P %, La ppm, Cr ppm, Mg %, Ba ppm, Tl %, B ppm, Al %, Na %, K %, W ppm, Hg ppm, Sc ppm, Ti ppm, S %, Ge ppm. Rows include sample IDs like RV-02-D-67 to STANDARD DS4 with corresponding elemental values.

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



Jasper Mining Corporation PROJECT Ruth-Vermont FILE # A203495



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	
RV-02-D-100	.5	19.3	25.4	26	.2	13.0	4.4	105	1.86	90.3	.7	1.9	.3	2	<.1	.7	.6	19	.02	.055	10	10.1	.06	10	.009	<.1	.28	.003	.02	.2	.03	.4	<.1	.06	5
RV-02-D-101	.9	32.3	33.3	36	.1	22.4	5.9	229	3.49	77.4	.8	.7	3.5	3	.1	.7	.9	23	.02	.052	11	11.9	.10	18	.054	1	.46	.005	.02	.5	.03	1.0	<.1	<.05	8
RV-02-D-102	.5	36.6	49.7	85	.3	40.2	11.8	330	4.80	136.7	.7	6.2	6.3	2	.2	1.3	.4	14	.02	.051	12	28.5	.44	20	.010	2	1.18	.002	.02	.7	.03	1.7	<.1	<.05	6
RV-02-D-103	.8	25.6	52.1	55	.1	22.0	7.8	265	5.18	73.4	.8	2.5	3.5	4	.2	1.2	.5	17	.03	.052	13	21.9	.22	19	.027	2	.81	.003	.02	.5	.04	1.2	<.1	<.05	6
RV-02-D-104	1.2	27.6	38.3	92	.2	30.9	10.9	406	5.30	81.8	.9	1.1	7.1	4	.1	1.1	.5	23	.02	.053	16	24.2	.36	25	.043	2	1.22	.003	.02	.4	.04	1.4	<.1	<.05	11
RV-02-D-105	.8	30.0	43.1	101	.3	26.0	11.3	455	3.46	103.6	.6	5.3	5.3	4	.3	1.3	.5	22	.02	.040	15	14.5	.14	29	.014	<.1	.70	.003	.04	.5	.02	1.5	<.1	<.05	7
RV-02-D-106	.4	57.5	179.7	276	.9	73.0	28.4	1055	5.48	378.6	1.4	57.6	7.0	9	1.5	17.9	.7	6	.15	.056	7	10.7	.11	14	.001	1	.19	.004	.02	3.2	.01	3.7	<.1	.08	<.1
RV-02-D-107	.7	81.1	356.9	338	3.0	69.4	45.2	2192	7.53	676.5	2.2	34.5	2.8	9	1.3	49.3	1.5	6	.22	.149	5	8.3	.11	14	.002	2	.27	.003	.03	7.6	.06	3.2	<.1	.20	1
RV-02-D-108	.8	85.5	549.5	400	2.9	76.4	67.5	3976	7.55	727.5	2.4	26.6	3.4	7	2.0	47.9	1.8	8	.16	.144	5	6.0	.10	17	.002	2	.31	.004	.03	9.0	.03	3.3	.1	.15	1
RV-02-D-109	.6	73.2	422.1	363	2.3	68.8	58.1	3435	7.22	450.7	2.0	24.1	2.9	15	3.0	29.6	1.6	5	.43	.146	4	7.2	.11	18	.002	2	.21	.003	.03	2.7	.06	3.4	<.1	.36	1
RV-02-D-110	.6	95.7	561.7	525	3.6	90.7	64.1	3525	7.36	568.6	2.4	43.5	3.7	27	4.6	41.7	1.6	4	.91	.133	6	7.1	.11	25	.002	2	.22	.003	.02	3.5	.06	4.4	<.1	.29	1
RV-02-D-111	.7	48.2	300.6	214	1.9	48.0	16.8	520	4.80	604.6	.8	13.9	2.5	4	.5	35.2	.8	12	.08	.071	5	9.8	.05	11	.003	1	.22	.003	.02	2.7	.03	1.7	<.1	.06	2
RV-02-D-112	.7	54.8	797.3	368	3.0	39.1	17.0	1587	5.24	1201.8	.9	37.1	6.2	5	1.8	48.6	.8	17	.08	.090	5	19.4	.18	30	.005	1	.70	.003	.03	6.6	.06	2.1	<.1	<.05	5
RE RV-02-D-112	.7	48.1	750.9	361	3.2	37.6	15.8	1776	5.43	1120.2	.9	33.3	5.6	6	1.6	51.1	.8	17	.08	.086	5	20.4	.16	31	.005	2	.65	.003	.03	5.05	.05	2.1	<.1	<.05	5
RV-02-D-113	.5	25.3	241.6	271	.4	22.5	7.1	440	2.43	690.8	.4	87.6	2.5	4	.8	123.6	.7	15	.05	.052	8	6.1	.05	21	.008	4	.27	.004	.03	.3	.02	1.1	.1	<.05	5
RV-02-D-114	.2	11.6	160.4	47	.9	5.0	1.6	91	.67	145.5	.3	121.0	.1	3	.4	75.3	.3	6	.03	.031	6	3.7	.02	13	.006	<.1	.17	.006	.02	.1	.02	.3	<.1	<.05	2
RV-02-D-115	.7	56.2	286.6	331	2.5	64.2	39.4	1670	6.34	883.4	1.5	37.0	8.6	7	1.5	42.3	1.0	8	.10	.081	5	9.9	.18	22	.001	<.1	.31	.003	.02	7.4	.01	3.6	.1	.06	1
RV-02-D-116	.6	34.1	120.4	176	.9	43.1	13.3	203	3.79	445.5	.6	13.2	2.8	2	.2	31.4	1.0	10	.01	.101	6	6.1	.03	6	.002	<.1	.13	.003	.02	4.2	.02	1.2	<.1	<.05	1
RV-02-D-117	.5	47.0	193.8	192	2.8	49.5	45.2	3728	5.72	354.8	1.5	20.5	2.7	5	.7	16.7	.8	10	.12	.229	4	12.4	.11	16	.002	1	.33	.003	.03	.8	.05	2.3	<.1	.14	2
RV-02-D-118	.7	62.5	161.7	139	.8	65.0	66.9	3042	7.17	382.0	1.9	54.3	7.8	5	.5	12.3	1.2	11	.10	.111	4	22.9	.34	25	.001	<.1	.76	.003	.02	.7	.03	3.2	<.1	.08	3
RV-02-D-119	.5	58.2	194.7	184	.6	74.7	47.2	1745	6.65	622.5	1.6	335.4	8.7	6	.9	15.2	1.1	9	.14	.078	5	19.5	.37	20	.001	1	.70	.003	.02	.4	.02	3.8	<.1	.08	2
RV-02-D-120	.4	56.9	148.5	162	.6	67.2	29.4	1051	5.34	318.3	1.5	43.0	9.3	6	.7	14.2	.7	8	.09	.059	7	20.6	.40	14	.001	1	.74	.003	.02	.4	.01	4.0	<.1	<.05	2
RV-02-D-121	.5	56.3	155.3	129	.5	64.3	47.8	2855	5.16	275.9	1.8	21.1	8.1	7	.7	10.8	1.0	8	.14	.094	6	22.0	.37	25	.001	1	.77	.003	.02	.7	.03	3.3	<.1	<.05	2
RV-02-D-122	.4	48.6	92.9	107	1.1	43.5	13.6	370	3.96	223.1	1.3	30.6	3.3	4	.3	13.7	.6	10	.05	.117	4	20.8	.19	14	.002	<.1	.44	.003	.02	.8	.04	1.9	<.1	.07	2
RV-02-D-123	.4	32.3	20.5	32	.3	20.7	4.3	62	1.10	33.5	.3	46.1	.9	8	.2	1.6	.3	8	.12	.045	6	5.4	.03	20	.003	2	.12	.003	.02	.2	.01	.4	<.1	<.05	1
RV-02-D-124	1.1	47.3	42.2	60	.2	25.5	7.2	122	2.22	126.0	1.4	31.4	.6	5	.3	3.4	.3	15	.07	.051	8	8.2	.03	13	.010	5	.19	.004	.02	.4	.02	.8	<.1	<.05	2
RV-02-D-125	.7	49.9	44.4	78	.4	46.7	20.0	836	4.81	89.7	1.7	5.9	5.2	3	.1	2.3	.7	15	.02	.104	4	30.2	.40	22	.003	<.1	.98	.003	.02	2.2	.03	2.3	<.1	<.05	5
RV-02-D-126	.6	31.6	42.4	84	.2	36.0	12.1	379	3.84	109.7	.9	11.6	2.9	3	.1	5.0	.5	16	.03	.085	7	20.8	.30	23	.006	<.1	.80	.002	.02	.5	.02	1.3	<.1	<.05	5
RV-02-D-127	.1	1.9	6.3	6	.1	1.2	.2	12	.06	2.4	.1	1.2	1.3	6	.1	.2	.1	2	.13	.011	7	1.5	.02	19	.004	<.1	.21	.007	.01	<.1	.01	.1	<.1	<.05	2
RV-02-D-128	.5	33.3	55.0	95	.2	53.0	18.6	714	4.19	80.7	2.6	7.5	8.6	6	.1	1.9	.4	11	.10	.071	9	26.0	.45	30	.003	1	1.18	.002	.02	.5	.02	2.3	<.1	<.05	4
RV-02-D-130	.6	34.2	32.5	81	.2	41.9	12.8	348	4.72	66.4	1.0	3.0	8.9	4	.1	2.1	.7	18	.06	.049	7	29.6	.67	24	.006	<.1	1.29	.002	.02	.2	.02	2.0	<.1	<.05	6
RV-02-D-131	.4	14.5	21.8	64	.3	25.2	8.2	1214	3.12	45.5	.4	1.4	5.0	5	.1	1.3	.4	17	.08	.044	9	24.0	.57	83	.005	<.1	1.46	.002	.03	.4	.02	1.0	<.1	<.05	6
RV-02-D-132	.5	26.8	21.4	87	.1	46.0	12.1	487	4.66	64.4	.6	<.5	9.5	4	<.1	1.3	.5	18	.06	.085	11	39.8	.95	41	.003	<.1	1.84	.002	.02	.1	.01	1.8	<.1	<.05	7
RV-02-D-133	.6	33.5	43.4	85	.4	28.1	14.3	2860	3.60	69.7	.8	3.0	6.3	14	.2	1.7	.5	20	.25	.071	8	26.9	.47	81	.004	1	1.19	.003	.04	.1	.04	1.6	.1	<.05	6
STANDARD DS4	6.4	134.3	31.0	153	.3	36.0	12.6	793	3.07	21.6	5.4	27.0	3.6	26	5.0	4.8	5.0	78	.49	.092	16	162.1	.54	135	.084	2	1.70	.026	.15	4.0	.26	3.9	1.0	<.05	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	No ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
RV-02-D-134	.6	35.4	158.2	193	.6	43.0	12.8	847	4.10	114.8	3.1	13.0	5.0	10	.6	4.8	.5	25	.14	.087	10	20.6	.31	94	.033	1	2.21	.013	.07	.4	.04	2.5	.1	<.05	8
RV-02-D-135	.6	20.2	45.2	60	.1	20.1	11.5	1883	2.13	40.1	.6	<.5	2.0	17	.4	2.0	.3	20	.42	.046	9	11.6	.15	94	.005	1	.65	.004	.03	.4	.03	1.2	<.1	<.05	4
RV-02-D-136	.9	36.1	54.6	90	.2	54.3	21.8	489	4.87	67.7	2.4	5.3	8.2	6	.2	2.5	.4	16	.09	.057	12	30.1	.53	49	.007	2	1.56	.004	.04	.4	.03	2.3	<.1	<.05	5
RV-02-D-137	.3	67.3	170.5	186	1.3	77.9	30.2	1078	5.39	816.7	1.4	57.5	11.4	17	1.1	15.2	.6	10	.19	.068	13	24.5	.61	16	.001	<1	.86	.004	.03	.7	<.01	3.3	<.1	<.05	2
RV-02-D-138	.6	62.0	234.6	182	1.3	70.1	29.6	1191	5.74	720.1	1.4	56.5	9.7	18	1.2	14.0	.7	14	.18	.056	14	25.5	.67	21	.002	1	1.07	.004	.04	.6	.01	3.5	<.1	<.05	3
RV-02-D-139	.7	49.5	214.5	180	1.3	54.2	27.0	1100	5.02	620.1	1.4	45.6	8.7	11	1.3	15.1	.6	12	.18	.068	9	24.7	.53	17	.001	<1	.84	.004	.03	1.3	.02	3.0	<.1	<.05	3
RV-02-D-140	.4	55.8	225.4	209	1.0	62.1	36.4	1827	5.12	861.8	1.5	36.4	6.2	28	1.7	20.7	.7	8	.60	.112	6	17.2	.43	16	.001	2	.68	.005	.03	.7	1.12	3.0	<.1	.10	2
RV-02-D-141	.6	75.1	291.7	263	1.7	79.6	31.7	1201	6.06	1058.3	1.7	120.7	11.2	16	1.5	18.9	.6	11	.15	.063	11	23.6	.67	19	.001	<1	.91	.004	.03	.8	.01	4.0	<.1	<.05	3
RE RV-02-D-141	.6	76.2	308.3	273	1.8	81.3	32.7	1129	5.90	1037.5	1.6	87.9	11.2	16	1.6	18.8	.6	12	.19	.062	11	24.8	.66	19	.001	1	.90	.005	.04	.7	.01	3.8	<.1	<.05	3
RV-02-D-142	.5	56.8	243.2	206	1.2	68.1	36.6	1428	5.42	802.9	2.1	49.5	8.4	26	1.4	18.8	.7	10	.36	.086	8	20.3	.54	17	.001	2	.74	.005	.03	1.1	.02	3.3	<.1	.08	2
RV-02-D-143	.4	54.2	196.7	197	.8	62.2	36.2	1885	5.38	618.5	1.4	47.0	6.0	15	1.1	20.2	.7	9	.30	.098	5	13.5	.26	20	.001	1	.46	.004	.03	1.2	.03	3.4	<.1	.11	1
RV-02-D-144	.6	46.7	144.7	130	.9	43.9	20.7	906	4.31	539.7	1.4	23.3	1.8	8	.5	13.2	.7	12	.17	.139	4	14.5	.16	13	.003	2	.32	.004	.04	.9	.04	1.5	<.1	.14	2
RV-02-D-145	.7	48.5	145.9	191	.3	50.7	29.6	1524	8.09	764.7	1.5	11.0	5.5	12	.3	17.4	1.0	10	.29	.105	5	17.1	.13	14	.001	2	.35	.004	.02	1.0	.02	3.2	<.1	<.05	1
RV-02-D-146	.5	47.5	214.8	182	.8	56.9	31.1	1609	6.34	565.9	1.7	25.7	8.1	6	.8	33.2	.7	9	.08	.083	7	17.7	.21	17	.001	<1	.51	.004	.02	.7	.01	4.3	<.1	<.05	2
RV-02-D-147	.4	66.1	217.5	243	1.1	79.5	41.0	1133	6.74	729.8	2.0	48.5	12.2	10	1.5	15.9	1.0	10	.11	.048	10	20.8	.42	17	.001	1	.84	.003	.02	.7	.01	4.6	<.1	<.05	2
RV-02-D-148	.5	51.9	236.2	156	.5	53.6	21.8	554	6.34	1205.1	1.4	34.0	3.0	4	.3	30.1	.8	10	.05	.128	5	17.6	.12	11	.003	1	.33	.004	.03	1.1	.04	2.1	<.1	.07	2
RV-02-D-149	.5	49.6	199.2	167	.6	52.2	29.1	999	6.59	675.0	1.2	31.5	5.4	5	.2	20.9	.9	9	.08	.110	4	15.7	.13	12	.001	<1	.33	.003	.02	3.9	.03	2.2	<.1	.08	2
RV-02-D-150	.5	43.7	187.6	188	1.0	45.5	36.7	1204	6.51	894.4	1.1	21.4	4.8	5	.5	22.2	.9	11	.06	.088	5	13.9	.12	14	.002	1	.29	.004	.03	1.5	.02	2.0	<.1	.07	2
RV-02-D-151	.5	55.4	382.0	310	1.0	59.7	28.2	1171	5.84	964.8	1.5	51.2	7.7	15	2.4	30.4	.7	7	.18	.055	7	12.3	.25	18	.001	2	.41	.003	.02	.9	.02	3.3	<.1	<.05	2
RV-02-D-152	.8	17.6	48.1	48	.4	13.8	5.9	79	1.69	220.9	1.5	30.8	.2	4	.1	8.0	.3	13	.03	.065	11	7.3	.04	10	.004	1	.18	.006	.03	.8	.02	.3	<.1	<.05	2
RV-02-D-153	.5	42.8	127.0	118	.5	48.5	26.8	1012	6.12	444.7	2.3	17.8	4.2	5	.2	8.4	.9	14	.09	.127	7	26.5	.34	17	.004	1	.74	.004	.03	.5	.03	2.3	<.1	.06	4
RV-02-D-154	1.0	44.6	50.4	85	.3	47.6	28.0	987	7.88	175.4	1.2	26.1	7.2	3	.2	4.8	.7	12	.05	.095	7	20.3	.22	8	.002	<1	.48	.003	.01	.3	.02	2.5	<.1	<.05	2
RV-02-D-155	1.0	26.9	55.2	49	.4	20.5	7.7	312	5.22	101.5	1.5	20.5	7.6	8	.5	2.5	.8	23	.10	.053	6	18.9	.12	24	.093	1	1.00	.008	.02	.5	.05	2.0	<.1	<.05	9
RV-02-D-156	1.0	54.3	60.7	92	.3	50.9	28.8	1224	7.15	263.0	1.9	112.0	3.3	4	.1	10.8	.8	11	.04	.111	11	10.7	.08	11	.002	1	.19	.003	.02	.7	.02	3.1	<.1	<.05	1
RV-02-D-157	.7	84.2	78.0	89	2.0	52.9	72.9	2560	5.65	136.4	6.1	104.9	13.4	5	.2	4.4	.5	14	.09	.102	13	15.2	.08	28	.061	2	3.12	.088	.02	.4	.12	8.4	<.1	<.05	6
RV-02-D-158	.5	57.8	190.4	198	1.2	68.0	35.4	1526	6.43	478.1	2.9	102.1	5.5	8	.8	14.2	.6	10	.12	.102	10	13.4	.16	29	.007	1	.75	.005	.03	1.5	.04	3.3	<.1	<.05	2
RV-02-D-159	.5	86.7	414.1	317	2.2	79.4	43.6	1490	8.91	941.9	2.5	91.8	11.3	6	1.4	11.2	1.1	9	.09	.050	8	17.2	.34	19	.001	1	.69	.004	.04	6.9	.01	4.6	<.1	.11	2
RV-02-D-160	.6	73.2	299.5	176	1.4	78.0	47.6	2146	7.36	684.7	7.1	42.4	13.1	7	.7	9.3	.9	13	.10	.077	10	27.7	.51	31	.002	1	1.13	.004	.03	1.1	.03	4.4	<.1	<.05	3
RV-02-D-161	.4	74.8	161.4	164	1.5	62.9	27.9	935	6.30	654.2	5.6	48.5	13.4	3	.4	9.1	.8	13	.02	.094	8	24.9	.44	19	.001	<1	1.06	.003	.03	1.1	.04	4.0	<.1	<.05	3
RV-02-D-162	.4	59.2	174.6	205	.6	74.1	30.5	986	5.42	235.8	1.2	17.3	12.6	3	.8	3.4	.4	13	.01	.022	15	28.4	.66	37	.001	<1	1.21	.003	.05	2.7	<.01	3.2	<.1	<.05	4
RV-02-D-163	.6	64.2	146.7	110	.9	55.9	21.7	448	7.15	285.5	3.7	43.9	12.4	4	.2	12.7	.8	13	.04	.093	7	31.5	.44	13	.002	2	1.08	.003	.02	.5	.04	2.4	<.1	<.05	3
RV-02-D-164	.4	103.8	324.8	251	.9	88.0	40.0	1064	7.63	584.3	5.9	79.4	14.1	8	.6	14.5	1.0	12	.06	.072	13	29.9	.54	34	.001	1	1.25	.005	.05	1.8	.04	4.5	<.1	<.05	3
STANDARD DS4	6.2	123.9	33.0	143	.3	35.6	12.3	820	2.95	23.3	5.6	27.0	3.9	29	5.1	5.0	5.1	77	.52	.088	17	164.2	.59	143	.086	3	1.74	.026	.16	4.2	.27	3.8	1.1	.07	5

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE



Jasper Mining Corporation PROJECT Ruth-Vermont File # A203610

633 - 4th Ave S.W., Calgary AB T2P 3T5 Submitted by: Rick Walker

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
G-1	1.1	1.9	1.8	36	<1	3.8	3.9	519	1.68	.9	2.7	<.5	4.8	68	<.1	<.1	.2	35	.49	.084	9	11.6	.49	196	.122	4	.79	.061	.43	2.0	.01	2.2	.3	<.05	5
RV-02-D-165	.7	64.1	746.2	233	2.2	55.4	22.9	1213	5.32	1390.8	1.5	128.2	5.4	5	2.0	47.0	1.1	13	.03	.070	14	20.9	.46	21	.003	1	.95	.004	.03	1.6	.14	1.9	<.1	<.05	3
RV-02-D-166	.8	29.9	433.0	88	4.2	16.6	5.7	307	2.59	917.6	.6	60.0	1.3	5	.8	37.2	.7	13	.04	.050	14	7.8	.09	13	.009	1	.40	.006	.03	1.9	.18	.8	<.1	<.05	4
RV-02-D-167	.9	44.9	336.4	68	4.9	16.7	7.7	255	3.77	886.9	1.2	97.4	5.3	3	.3	22.1	.7	16	.01	.038	12	11.7	.10	12	.045	1	1.50	.009	.02	1.6	.08	1.7	<.1	<.05	7
RV-02-D-168	.9	50.6	541.2	170	3.3	32.3	12.3	854	4.53	1690.9	.9	73.7	3.8	5	.7	54.9	1.0	17	.01	.040	14	12.4	.18	23	.016	1	.59	.005	.03	2.3	.09	1.4	<.1	<.05	5
RV-02-D-169	.9	64.5	384.9	143	1.2	44.1	12.1	346	5.82	877.9	1.0	53.6	7.6	5	.7	27.7	.8	14	.03	.035	14	24.7	.36	18	.005	1	1.15	.003	.02	1.7	.05	1.4	<.1	<.05	5
RV-02-D-170	.8	36.6	282.1	88	2.6	20.8	5.8	168	4.41	2029.2	.5	63.2	5.7	4	.5	51.3	.9	18	.01	.022	18	17.0	.25	8	.009	1	.69	.003	.02	2.5	.07	.8	<.1	<.05	6
RV-02-D-171	1.0	60.7	677.1	185	7.8	32.2	9.9	274	5.45	2271.4	.9	110.2	7.4	4	.8	66.4	1.0	16	.02	.030	15	17.8	.32	14	.015	1	.90	.004	.02	2.5	.09	1.1	<.1	<.05	5
RV-02-D-172	1.0	79.4	883.4	238	13.1	30.2	11.9	379	5.32	2370.9	1.8	178.0	8.9	4	1.0	125.0	1.1	18	.01	.029	12	17.4	.24	18	.023	<.1	1.50	.006	.02	1.8	.08	2.0	<.1	<.05	6
RV-02-D-173	1.0	25.8	136.5	53	1.1	20.3	6.6	261	3.58	545.0	.6	24.0	4.2	3	.4	14.7	.6	19	.01	.025	23	14.8	.24	13	.013	<.1	.79	.004	.02	1.2	.04	.8	<.1	<.05	6
RE RV-02-D-173	1.0	27.3	131.9	53	1.0	21.4	6.8	253	3.61	544.0	.6	31.6	4.3	3	.4	14.8	.7	19	.01	.025	24	14.8	.24	14	.014	<.1	.79	.004	.02	1.4	.03	.8	<.1	<.05	6
RV-02-D-174	1.1	48.0	91.2	86	1.0	38.8	12.2	397	5.42	525.5	.9	30.5	7.3	3	.3	14.3	.7	19	<.01	.035	20	23.2	.35	15	.004	<.1	1.05	.003	.02	1.8	.03	1.4	<.1	<.05	5
RV-02-D-175	.8	37.4	123.1	64	1.2	26.7	7.3	184	3.90	710.0	.6	23.7	6.6	4	.3	18.9	.7	17	.02	.028	20	21.0	.35	14	.009	<.1	.85	.003	.02	1.5	.03	1.0	<.1	<.05	6
RV-02-D-176	.8	52.6	100.8	81	.9	40.5	11.1	292	5.72	465.7	1.0	23.2	9.4	3	.3	11.7	.7	16	.01	.038	21	33.7	.59	10	.011	<.1	1.38	.002	.02	1.4	.04	1.6	<.1	<.05	7
RV-02-D-177	1.1	41.7	82.4	67	1.7	33.8	9.2	275	4.86	842.8	1.1	17.3	5.0	4	.2	16.4	1.0	24	.01	.040	20	17.8	.27	18	.018	<.1	.75	.004	.02	3.3	.03	1.4	<.1	<.05	7
STANDARD D54	6.6	123.1	29.0	147	.3	35.2	11.5	797	3.13	27.0	6.6	23.3	4.1	29	5.4	5.3	5.3	75	.55	.092	18	169.1	.59	136	.103	3	1.79	.032	.17	4.0	.27	4.0	1.1	.06	6

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-N2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL SS80 60C Samples beginning 'RE' are Retuns and 'RRE' are Reject Retuns.

DATE RECEIVED: SEP 6 2002 DATE REPORT MAILED: *Sept 20/02* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Zambor Mining Corporation File # A000051 Page 1
7025 Canadian Centre Way, Calgary AB T2C 3J5 Analyzed by: RICH MCKEE

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	%	ppm
G-1	1.2	2.1	2.3	41	<.1	5.0	3.8	562	1.56	2.9	2.9	1.1	5.0	66	<.1	<.1	.1	52	.57	.107	8	13.3	.53	201	.118	3	.81	.066	.45	1.9	.01	2.6	.3	.10	4
RV-02-D-178	.7	17.0	36.2	75	.6	19.1	6.6	337	4.22	35.6	.6	4.2	3.9	3	.4	.6	.3	33	.03	.113	15	24.8	.32	59	.012	2	2.08	.005	.04	.7	.11	1.6	.1	.09	8
RV-02-D-179	.5	21.9	42.0	72	.3	31.1	10.0	243	3.72	58.8	.7	10.2	7.9	3	.2	.8	.2	19	.03	.082	17	27.9	.43	46	.003	2	1.90	.006	.04	.8	.05	1.6	.1	<.05	5
RV-02-D-180	.6	18.9	32.9	69	.7	21.7	8.2	234	3.36	85.6	.5	4.8	4.6	4	.5	1.5	.3	17	.05	.074	19	18.0	.26	35	.005	<1	1.07	.004	.03	1.8	.08	1.1	<.1	<.05	4
RV-02-D-181	.5	23.8	29.4	54	.2	19.9	7.3	212	2.87	70.5	.5	5.6	4.9	3	.2	1.3	.3	19	.02	.043	21	13.1	.20	38	.005	<1	.72	.005	.04	.8	.03	1.5	<.1	<.05	4
RV-02-D-182	.5	38.4	47.0	120	.6	56.5	14.3	443	4.22	91.1	.9	4.1	8.5	4	.3	5.4	.4	17	.02	.041	24	32.4	.65	72	.007	2	2.12	.005	.07	1.2	.03	2.5	<.1	<.05	5
RV-02-D-183	.5	21.0	47.1	95	2.1	27.6	10.4	436	3.39	90.7	.5	13.3	5.6	4	.1	1.9	.3	18	.04	.048	19	19.0	.30	51	.008	3	1.14	.006	.05	1.5	.07	1.2	.1	<.05	6
RV-02-D-184	.6	53.4	460.1	154	1.7	32.0	15.1	412	3.89	418.2	.9	34.1	6.8	3	.7	99.6	.7	14	.01	.057	16	11.1	.12	28	.006	1	.83	.006	.03	.8	.01	1.9	.1	<.05	4
RV-02-D-185	.8	22.6	31.3	40	2.5	15.3	11.0	333	2.58	132.7	1.2	6.5	6.5	5	.3	1.5	.3	21	.04	.141	9	8.8	.07	36	.062	2	3.31	.013	.03	.6	.06	2.7	.1	<.05	8
RV-02-D-186	.7	24.3	35.5	160	.4	29.9	10.5	241	3.31	239.7	.6	3.3	6.7	4	.3	15.1	.4	14	.02	.051	21	13.5	.23	23	.007	1	.86	.004	.03	.5	.03	1.5	<.1	<.05	4
RV-02-D-187	1.0	14.9	22.7	55	.6	15.2	14.7	705	2.71	29.5	.7	1.8	5.5	3	.2	.4	.3	24	.02	.133	6	14.3	.13	42	.088	1	3.60	.013	.02	.7	.08	1.4	<.1	<.05	10
RV-02-D-188	.6	32.1	40.3	118	.6	35.2	13.5	304	3.47	133.9	.8	6.8	7.3	3	.2	1.1	.3	17	.01	.054	17	17.3	.22	58	.021	<1	1.74	.008	.04	.7	.04	2.0	.1	<.05	6
RV-02-D-189	.6	52.9	26.9	85	2.3	47.5	16.8	1306	3.02	249.1	1.2	10.4	6.9	5	.1	6.7	.5	17	.04	.090	17	9.8	.11	63	.041	1	1.69	.010	.03	.2	.10	3.0	.1	<.05	5
RV-02-D-190	.7	37.8	24.2	64	1.3	32.8	16.5	314	3.66	257.5	1.3	21.8	8.5	3	.2	1.6	.4	15	.02	.110	14	11.8	.11	52	.033	1	1.84	.008	.03	.5	.06	3.1	.1	<.05	5
RE RV-02-D-190	.7	38.3	23.1	68	1.3	32.1	16.1	317	3.72	265.4	1.3	11.8	8.3	3	.2	1.7	.5	14	.02	.112	13	10.9	.11	49	.033	<1	1.89	.008	.03	.6	.07	3.0	.1	<.05	6
RV-02-D-191	.7	27.6	50.1	83	.8	30.0	13.2	383	3.83	133.8	.6	4.5	6.6	2	.2	1.3	.4	11	.01	.066	19	15.1	.18	37	.007	<1	1.08	.005	.04	1.0	.03	1.6	.1	<.05	4
RV-02-D-192	.9	30.2	38.7	96	.7	29.5	12.8	314	4.10	122.0	.8	1.2	7.4	3	.4	1.1	.5	19	.01	.095	14	16.5	.15	46	.023	<1	1.97	.010	.05	.5	.05	2.2	.1	<.05	8
RV-02-D-193	.6	22.8	104.8	213	1.6	37.6	13.3	1006	3.20	107.4	.7	2.1	5.1	4	.8	1.0	.5	17	.03	.056	16	10.4	.11	53	.030	<1	1.36	.011	.03	.7	.05	1.8	.1	<.05	6
RV-02-D-194	.7	15.7	52.1	186	1.0	26.7	12.9	327	3.32	81.1	.5	2.3	5.8	5	.5	.7	.4	24	.06	.068	14	9.8	.13	53	.044	<1	1.53	.010	.03	1.4	.05	1.6	.1	<.05	8
RV-02-D-195	.7	29.0	229.8	127	2.1	36.4	20.6	430	3.87	110.9	1.0	4.2	8.1	5	.2	2.5	.7	19	.08	.137	10	15.0	.17	36	.046	1	1.85	.009	.04	.3	.07	1.9	<.1	<.05	8
RV-02-D-196	.6	32.5	38.6	83	.7	49.7	19.9	1315	3.75	95.2	1.0	39.3	8.9	4	.1	.7	.3	16	.04	.154	10	18.5	.27	57	.050	1	3.11	.009	.03	.3	.07	1.8	<.1	<.05	7
RV-02-D-197	.4	18.3	22.6	55	.4	29.2	9.5	256	3.63	80.1	.6	.9	5.7	3	.1	.7	.3	18	.02	.049	19	16.9	.27	41	.019	1	1.14	.008	.04	.8	.02	1.4	<.1	<.05	7
RV-02-D-198	.6	32.2	15.7	49	.2	36.1	10.3	279	4.06	106.1	.7	2.2	7.5	3	<1	.7	.4	18	.01	.040	19	19.8	.33	35	.010	<1	1.33	.006	.03	.3	.03	1.4	<.1	<.05	6
RV-02-D-199	.4	18.3	20.0	51	.3	32.1	15.8	382	3.42	56.3	.6	3.2	4.9	10	<1	.4	.4	22	.14	.035	18	21.7	.47	51	.019	<1	1.52	.009	.04	.2	.01	1.5	<.1	<.05	8
RV-02-D-200	.7	42.8	20.1	71	.5	53.4	23.6	747	4.50	155.4	1.3	1.1	6.5	3	.1	.7	.4	12	.01	.087	21	20.9	.43	33	.008	<1	1.26	.006	.05	.2	.04	1.4	<.1	<.05	5
RV-02-D-201	.6	20.5	20.0	53	.2	29.5	10.2	859	3.18	45.3	.5	2.1	5.2	2	.1	.5	.3	18	.01	.048	18	21.7	.35	38	.007	<1	1.15	.009	.03	.3	.04	1.2	.1	<.05	7
RV-02-D-202	.6	17.7	23.3	56	.3	29.5	9.7	695	3.41	76.0	.5	<.5	5.7	3	.1	.8	.4	20	.02	.059	20	21.1	.36	45	.013	<1	1.13	.005	.04	.1	.03	1.2	<.1	<.05	7
RV-02-D-203	.6	45.5	80.8	73	.1	48.1	15.3	361	3.91	83.2	1.1	<.5	8.5	4	.1	.5	.3	8	.03	.039	23	24.0	.57	46	.002	<1	1.37	.004	.03	2.3	.01	1.8	<.1	<.05	3
RV-02-D-204	.5	30.7	28.5	68	.3	38.9	11.7	286	4.40	42.1	.6	<.5	6.1	4	.1	.5	.3	14	.04	.040	18	28.6	.56	46	.009	<1	1.95	.005	.04	.2	.03	1.4	<.1	<.05	6
RV-02-D-205	.4	24.1	21.1	69	.1	38.1	15.2	668	3.30	35.4	.6	1.9	7.8	3	.1	.3	.2	18	.02	.030	18	29.4	.61	55	.005	1	1.40	.004	.03	.1	.02	1.2	<.1	<.05	5
RV-02-D-206	.5	16.6	26.6	102	.4	22.7	10.6	2475	2.96	50.9	.5	2.4	2.9	8	.4	.4	.3	25	.13	.041	16	17.2	.28	151	.025	<1	1.03	.007	.05	.2	.05	1.1	.1	<.05	7
RV-02-D-207	.4	33.6	43.1	74	.3	34.9	14.3	812	3.54	85.0	1.1	4.1	4.6	7	.1	.5	.4	16	.11	.051	15	20.1	.40	67	.013	1	1.22	.004	.03	.2	.07	1.4	<.1	<.05	5
RV-02-D-208	.3	37.5	31.8	62	.2	26.0	7.7	287	2.94	46.7	.9	3.1	1.0	20	.3	.5	.4	15	.44	.123	9	17.6	.43	31	.006	2	.82	.005	.03	.2	.04	.6	<.1	.12	4
RV-02-D-209	.5	25.4	53.5	72	.2	27.0	12.0	1168	2.65	43.7	1.4	1.5	1.9	16	.2	.5	.3	13	.29	.073	9	19.9	.31	32	.006	3	.85	.004	.03	.3	.04	.9	<.1	.08	4
RV-02-D-210	.5	30.2	37.2	35	.3	21.3	8.3	277	3.48	57.2	2.6	4.7	2.0	5	.5	.2	.3	20	.06	.048	12	19.4	.19	37	.041	1	2.39	.008	.02	.1	.05	1.6	<.1	<.05	9
STANDARD D54	7.0	123.9	31.6	146	.2	34.8	11.7	793	3.16	23.5	5.8	26.2	3.7	25	4.8	5.0	4.6	72	.53	.090	16	165.4	.57	145	.088	<1	1.63	.035	.15	3.9	.28	3.7	1.0	<.05	6

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; NO, CO, CD, SB, BI, TH, U & S = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL S580 60C Samples beginning 'RE' are Returns and 'RE' are Reject Results.

DATE RECEIVED: SEP 19 2002 DATE REPORT MAILED: Sept 20/02 SIGNED BY: C. LEONG, J. WANG; CERTIFIED S.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only. Data LPA



ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
G-1	1.3	1.9	2.4	35	<.1	4.2	4.0	488	1.74	2.9	2.9	.5	4.7	67	<.1	<.1	.1	42	.53	.091	8	11.8	.53	208	.121	<1	.84	.061	.48	2.6	.02	2.1	.3	.06	4
RV-02-D-211	.7	12.6	16.5	42	.3	15.2	7.9	501	3.15	33.0	.4	<.5	3.5	2	.1	.3	.3	23	.02	.041	17	20.0	.37	35	.022	<1	1.05	.008	.03	.2	.04	.7	<.1	<.05	8
RV-02-D-212	.9	9.6	34.1	29	.3	11.8	5.7	520	4.48	106.2	.4	6.4	3.3	4	.1	.4	.6	33	.03	.113	13	14.1	.14	35	.082	1	1.14	.012	.02	.4	.05	.7	<.1	<.05	15
RV-02-D-213	.5	19.1	15.5	64	.3	28.9	11.1	173	3.97	36.6	.4	3.4	4.6	4	.2	.3	.3	24	.03	.065	23	23.8	.50	43	.021	1	1.48	.004	.03	.3	.03	.9	<.1	<.05	10
RV-02-D-214	.7	18.0	17.4	52	.7	25.1	10.4	298	3.68	52.7	.8	2.6	5.6	3	.2	.3	.2	21	.02	.038	14	22.5	.28	53	.032	<1	2.48	.006	.02	.3	.09	1.5	<.1	<.05	7
RV-02-D-215	.4	35.5	27.5	66	.7	58.1	16.3	290	4.50	177.5	.8	6.1	10.9	2	.1	.8	.5	12	.01	.035	27	25.8	.65	50	.003	1	1.58	.002	.03	.5	.04	1.5	<.1	<.05	4
RV-02-D-216	.7	11.9	15.7	43	.3	17.6	6.4	179	4.62	75.6	.5	3.4	5.2	3	.1	.4	.3	27	.02	.046	20	21.1	.29	44	.020	<1	1.85	.005	.03	.2	.06	1.1	.1	<.05	8
RV-02-D-217	.6	10.2	21.2	47	.6	15.9	6.5	396	3.33	88.8	.5	6.8	4.1	3	.1	.6	1.3	23	.02	.092	16	11.9	.16	38	.024	<1	.97	.007	.03	1.0	.05	.7	<.1	<.05	7
RV-02-D-218	.3	5.9	11.3	21	.9	8.1	3.2	193	1.28	21.0	.3	.5	3.0	3	.1	.2	.3	19	.02	.034	16	6.3	.13	19	.018	<1	.56	.009	.02	.2	.01	.6	.1	<.05	6
RV-02-D-220	.7	21.6	33.0	82	.2	25.9	11.5	422	4.19	32.8	1.0	2.0	3.3	8	.3	.3	.3	19	.10	.046	17	27.2	.37	45	.039	1	2.42	.006	.05	.2	.08	1.4	<.1	<.05	8
RV-02-D-221	.3	36.2	41.0	78	.6	40.4	25.1	1378	4.45	74.1	2.5	5.0	2.8	34	.5	.6	.5	14	.86	.148	12	25.5	.62	56	.029	4	3.07	.007	.04	.8	.12	1.9	.1	<.05	6
RV-02-D-222	.2	26.5	29.7	63	.4	43.5	15.7	536	4.05	101.7	2.3	3.0	2.5	20	.6	.5	.5	15	.35	.065	15	24.6	.51	43	.017	<1	2.00	.006	.04	.3	.08	1.7	<.1	<.05	6
RV-02-D-223	.6	16.6	19.5	69	1.2	26.4	15.4	633	3.88	121.4	.9	<.5	4.1	8	.2	.7	.5	22	.88	.101	13	14.9	.19	71	.056	1	2.47	.011	.04	.3	.10	1.5	.1	<.05	9
RV-02-D-224	.5	32.4	16.5	61	.6	36.4	12.5	449	4.76	218.0	.6	2.9	2.4	6	.2	1.1	.7	14	.09	.071	18	19.7	.36	37	.015	1	1.02	.004	.06	.5	.04	.9	<.1	<.05	5
RV-02-D-225	.5	26.6	22.8	62	.5	32.7	14.2	1522	3.59	76.3	.9	2.2	2.7	13	.3	.5	.4	15	.26	.064	15	22.6	.43	59	.014	1	1.56	.005	.04	.6	.06	1.2	<.1	<.05	4
RV-02-D-226	.5	20.7	32.3	86	.4	38.2	18.0	3056	4.46	133.6	1.3	6.7	2.8	9	.2	.6	.3	16	.15	.054	16	24.7	.54	87	.012	<1	1.36	.005	.06	1.0	.07	1.0	.1	<.05	5
RV-02-D-227	.5	45.5	41.3	87	.6	40.6	14.6	1123	3.70	71.8	3.7	3.4	2.2	18	.6	.4	.4	16	.56	.073	16	19.3	.38	41	.039	<1	2.45	.009	.04	.5	.13	1.6	<.1	<.05	6
RV-02-D-228	.4	27.8	35.7	95	.7	41.9	15.1	2877	3.31	74.5	1.2	1.1	2.8	18	.3	.8	.4	14	.48	.084	13	20.0	.46	89	.014	1	1.72	.007	.05	.8	.06	1.3	.1	<.05	5
RV-02-D-229	.4	16.7	19.0	72	.3	27.8	9.4	1070	3.19	54.4	.6	2.2	3.3	5	.2	.6	.3	15	.04	.073	20	21.9	.36	72	.010	1	1.24	.005	.09	.6	.03	1.2	<.1	<.05	5
RV-02-D-230	.6	32.4	41.8	96	.3	44.7	16.7	795	5.46	147.0	.9	1.6	3.0	6	.1	1.2	.6	15	.03	.092	19	22.2	.37	69	.012	<1	1.13	.005	.05	2.5	.04	.9	.1	<.05	6
RE RV-02-D-230	.6	32.8	42.2	88	.3	44.8	15.8	824	5.20	135.8	1.0	2.3	3.1	6	.2	1.0	.6	14	.02	.088	17	20.6	.35	69	.011	1	1.02	.004	.05	2.4	.04	1.1	<.1	<.05	5
RV-02-D-231	.8	45.1	51.2	107	.9	48.9	20.9	805	4.51	153.0	4.3	5.7	7.9	19	.6	1.2	.5	16	.41	.046	18	17.3	.23	42	.046	<1	1.69	.009	.03	7.2	.08	3.4	<.1	<.05	5
RV-02-D-232	.8	16.0	31.1	77	.5	24.1	20.4	642	4.00	82.5	.8	<.5	5.5	4	.2	.8	.5	22	.03	.050	16	17.6	.23	80	.026	2	1.71	.007	.04	.8	.07	1.3	.1	<.05	8
RV-02-D-233	.4	13.9	62.9	65	.4	20.1	13.5	1592	4.09	88.7	.5	9.9	2.6	5	.2	1.6	.6	21	.02	.145	16	18.8	.22	98	.021	<1	.92	.007	.07	.5	.03	1.0	.1	.07	6
RV-02-D-234	.8	14.7	28.1	82	.3	18.9	10.7	898	3.79	72.9	.6	<.5	3.0	5	.4	.8	.6	21	.05	.066	16	14.2	.19	63	.032	<1	1.21	.007	.04	1.1	.05	1.0	.1	<.05	7
RV-02-D-235	.6	13.4	37.3	56	.6	18.8	8.3	495	3.46	97.8	.9	11.4	5.9	9	.4	1.0	.5	18	.13	.036	13	15.4	.18	46	.043	1	2.01	.008	.03	.7	.12	1.1	.1	<.05	8
RV-02-D-236	.4	34.8	29.8	112	.9	33.0	15.8	3708	3.00	150.4	18.3	<.5	1.1	89	1.0	1.9	.4	12	1.38	.154	11	14.8	.49	104	.032	6	2.68	.015	.03	1.6	.11	1.3	.1	.10	6
RV-02-D-238	.5	8.6	48.2	67	.5	12.3	5.9	113	3.13	56.4	1.0	2.7	4.4	13	.3	1.6	.3	20	.23	.034	6	12.3	.18	49	.076	<1	3.20	.012	.02	.5	.09	1.1	<.1	<.05	10
RV-02-D-239	.4	32.0	27.8	52	1.8	23.4	4.9	300	1.76	103.2	7.2	4.0	2.4	38	.3	.9	.2	18	.65	.066	13	11.2	.23	48	.099	2	3.88	.029	.02	.1	.10	2.4	.1	<.05	9
RV-02-D-240	.4	15.2	47.6	75	1.8	27.2	8.0	408	2.74	189.8	4.7	2.7	4.9	43	.4	4.4	.4	15	.66	.038	7	13.0	.35	56	.153	2	4.09	.021	.03	.3	.10	2.1	.1	<.05	7
RV-02-D-241	.3	16.6	97.5	103	.9	43.5	13.9	204	3.69	62.9	.9	2.9	7.3	10	.2	2.6	.3	16	.11	.036	9	23.4	.37	90	.048	1	3.63	.010	.05	.3	.06	2.0	.1	<.05	7
RV-02-D-242	.3	20.6	64.2	122	.6	37.2	15.1	306	4.40	87.9	.9	1.6	7.4	6	.2	2.8	.4	17	.07	.034	10	18.2	.35	76	.049	<1	2.41	.008	.04	.4	.06	1.8	.1	<.05	7
RV-02-D-243	.6	17.8	21.5	46	.3	24.6	8.8	208	2.87	65.8	.8	1.6	5.1	3	.1	1.8	.2	17	.02	.046	13	16.8	.31	70	.037	<1	2.32	.008	.03	.3	.05	1.8	<.1	<.05	6
RV-02-D-244	.2	19.4	44.3	69	1.2	39.7	12.2	385	3.88	96.6	4.7	4.4	7.5	18	.3	2.1	.3	16	.26	.037	13	19.7	.41	70	.061	1	2.45	.012	.06	.2	.05	2.5	.1	<.05	6
RV-02-D-245	.4	18.2	39.5	66	.3	29.4	8.5	314	3.54	110.5	.6	1.1	5.9	14	.1	2.3	.4	14	.22	.063	15	19.4	.42	71	.006	1	1.09	.005	.07	.4	.02	1.3	<.1	<.05	4
STANDARD D54	6.6	125.4	31.5	146	.3	36.8	11.1	788	3.18	24.0	6.5	26.2	4.0	29	5.4	5.2	4.6	72	.55	.090	17	170.2	.61	144	.096	1	1.75	.034	.17	3.7	.26	3.8	1.1	<.05	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Retuns and 'RRE' are Reject Retuns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ge
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm
G-1	2.0	2.0	2.6	39	<.1	4.1	3.6	484	1.62	2.7	2.7	.7	4.8	71	<.1	<.1	.1	42	.52	.098	9	12.7	.49	198	.120	1	.79	.062	.42	2.1	<.01	2.1	.3	.11	5
RV-02-D-246	.8	34.9	35.9	59	1.4	25.6	9.0	323	3.19	53.5	1.6	7.9	8.4	7	.1	1.7	.3	24	.06	.115	7	23.1	.22	57	.053	1	3.42	.012	.05	.5	.12	2.7	.1	<.05	7
RV-02-D-247	.3	23.1	42.6	79	.4	35.1	15.6	412	3.84	73.6	.7	2.5	9.3	5	<.1	1.7	.2	12	.04	.040	21	26.4	.57	56	.001	<1	1.40	.003	.07	.3	.02	1.6	<.1	<.05	4
RV-02-D-248	.6	21.8	34.4	60	.3	29.8	7.9	247	3.60	66.7	.7	<.5	4.3	15	.2	1.6	.3	13	.14	.052	16	21.4	.40	64	.015	1	1.25	.006	.06	.6	.04	1.2	<.1	<.05	6
RV-02-D-249	.6	38.7	28.4	49	.8	35.7	11.9	281	5.04	489.5	.7	6.6	8.2	4	.1	1.7	.8	12	.05	.079	24	18.3	.32	29	.005	<1	.89	.002	.03	.7	.04	1.2	<.1	<.05	4
RV-02-D-250	.8	41.7	39.4	52	1.1	23.9	24.5	1803	4.72	824.0	1.0	47.3	7.4	6	.2	5.3	.9	18	.06	.096	9	15.8	.18	58	.054	<1	2.14	.011	.02	.5	.09	1.4	<.1	<.05	6
RV-02-D-251	.6	20.5	17.7	54	1.0	25.8	12.6	611	3.32	82.7	.6	2.5	5.5	3	.1	.6	.6	18	.02	.095	19	19.3	.34	46	.023	<1	1.53	.006	.02	3.8	.05	1.3	.1	<.05	7
RV-02-D-252	.5	17.5	9.0	18	.2	13.1	5.4	102	2.38	164.8	.4	8.9	4.4	2	.1	1.1	.5	17	.01	.045	25	9.3	.11	20	.017	<1	.50	.006	.02	.2	<.01	.6	<.1	<.05	6
RV-02-D-253	1.0	10.5	19.7	36	.8	13.4	7.4	171	3.18	66.0	.6	24.6	5.3	3	.1	.4	.4	28	.02	.189	10	18.2	.26	27	.070	1	2.74	.008	.02	.9	.12	.9	<.1	<.05	11
RV-02-D-254	.9	32.2	41.1	44	.5	22.1	10.2	247	3.97	228.2	.6	4.2	4.2	3	.1	7.9	1.0	14	.02	.074	15	16.4	.26	35	.012	<1	1.10	.004	.03	1.8	.03	.8	<.1	<.05	6
RV-02-D-255	.6	10.9	13.9	31	1.7	9.3	4.0	139	2.97	61.7	.3	1.7	4.1	3	.1	.6	.4	25	.02	.069	14	13.4	.15	25	.038	1	.67	.009	.02	.3	.03	.6	<.1	<.05	9
RV-02-D-256	.5	14.9	50.8	290	.7	23.1	25.3	899	3.61	171.0	.8	5.8	5.7	4	.8	4.8	.5	18	.04	.071	9	17.4	.21	42	.053	1	2.18	.012	.02	.4	.09	1.2	<.1	<.05	8
RE RV-02-D-256	.6	14.1	49.7	287	.7	22.3	24.2	839	3.54	170.2	.9	1.8	5.8	4	.6	4.9	.5	17	.04	.074	11	17.4	.21	42	.054	1	2.15	.012	.02	.4	.08	1.1	.1	<.05	8
RV-02-D-257	.4	30.8	409.4	471	2.5	38.9	18.4	1566	3.40	149.8	1.6	9.8	5.0	12	2.5	3.6	.5	20	.15	.056	10	11.3	.14	52	.110	<1	2.34	.014	.02	8.3	.11	1.8	<.1	<.05	10
RV-02-D-258	.5	13.8	26.1	58	.3	10.9	5.6	117	2.35	151.8	.3	8.8	3.6	3	.1	5.0	.5	17	.03	.045	16	8.9	.15	18	.023	<1	.56	.008	.02	.2	.02	.5	<.1	<.05	7
RV-02-D-259	.9	56.6	19.5	55	.4	31.2	15.5	285	4.22	193.6	.7	15.0	4.4	4	.2	2.0	1.1	21	.04	.085	13	13.2	.22	22	.029	1	.68	.007	.02	.2	.02	1.0	.1	<.05	7
RV-02-D-261	.7	11.4	21.1	29	.9	9.7	4.2	78	2.30	37.7	.4	<.5	4.6	2	.1	.6	.3	30	.01	.030	19	11.4	.16	23	.032	3	1.08	.008	.02	.3	.09	1.2	<.1	<.05	10
RV-02-D-262	.6	20.9	25.9	66	.2	40.4	15.9	408	3.51	14.5	1.7	3.2	10.0	45	.1	.3	.2	17	.44	.035	17	34.3	.96	54	.003	1	1.77	.004	.05	.1	.03	1.5	<.1	<.05	6
STANDARD DS4	6.9	121.5	32.3	152	.3	34.4	11.5	762	3.01	24.0	6.1	25.2	4.0	30	5.2	5.5	5.0	73	.60	.088	16	171.5	.55	145	.099	2	1.64	.033	.17	3.8	.26	4.0	1.1	.08	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Returns and 'RRE' are Reject Returns.



Jasper Mining Corporation PROJECT Ruth-Vermont FILE # A204177



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Hg ppm	Se ppm	Tl ppm	S ppm	Ga ppm	
G-1	1.3	2.2	2.1	41	<.1	3.4	4.0	511	1.63	1.7	2.8	<.5	5.1	63	<.1	<.1	.2	36	.51	.097	7	11.5	.53	211	.110	1	.83	.057	.44	2.2	<.01	2.0	.3	<.05	4	
RV-02-D-296	.9	8.7	44.6	38	1.0	7.5	5.8	276	3.23	26.9	.5	2.3	4.9	2	.2	.5	.4	23	.01	.073	7	12.0	.11	30	.049	1	1.58	.009	.04	.4	.05	.9	.1	<.05	11	
RV-02-D-297	.4	8.7	27.2	60	.8	14.8	5.9	173	2.31	23.4	.4	4.6	4.4	2	.1	.4	.3	17	.02	.035	10	16.2	.25	43	.015	1	1.56	.006	.03	.5	.06	1.0	<.1	<.05	7	
RV-02-D-298	.4	16.1	26.3	86	.2	31.4	8.3	251	3.29	45.7	.4	<.5	6.4	3	.1	1.4	.3	18	.02	.027	14	25.5	.51	51	.005	<.1	1.37	.003	.04	1.0	.03	1.3	<.1	<.05	5	
RV-02-D-299	.5	21.0	30.2	90	.3	29.6	9.7	468	3.67	49.4	.4	<.5	2.9	10	.3	.9	.3	24	.14	.061	15	23.6	.38	93	.010	1	1.43	.006	.07	.6	.03	1.2	.1	<.05	9	
RV-02-D-300	.5	15.6	44.4	70	.3	20.2	7.3	243	3.25	82.0	.4	.5	3.9	3	.2	1.7	.4	17	.02	.054	14	16.3	.24	35	.015	<.1	.97	.006	.03	.8	.03	.8	<.1	.06	7	
RV-02-D-301 empty bag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RV-02-D-302	.3	32.7	38.2	89	.3	42.0	14.1	345	3.52	87.5	.9	8.3	8.6	4	.2	1.3	.3	11	.02	.035	16	22.3	.46	65	.002	<.1	1.39	.004	.05	.8	.03	1.8	<.1	<.05	3	
RV-02-D-303	.5	22.9	40.3	94	.6	31.0	9.5	248	4.22	102.3	.6	3.6	6.2	4	.2	1.6	.4	20	.03	.053	15	20.4	.30	58	.018	1	1.46	.005	.05	.7	.03	1.4	<.1	<.05	8	
RV-02-D-304	.2	6.1	25.0	30	.5	7.0	2.2	115	1.09	23.9	.2	5.1	1.8	6	.3	.7	.2	11	.08	.018	12	4.4	.02	30	.007	2	.37	.008	.02	.2	.03	.5	<.1	<.05	4	
RV-02-D-305	.6	11.7	77.5	56	2.0	11.3	5.2	315	2.93	140.7	.5	2.3	3.0	3	.3	3.1	.3	20	.03	.152	6	11.7	.11	31	.063	1	2.16	.012	.02	.5	.07	1.3	<.1	<.05	9	
RV-02-D-306	.3	34.3	66.4	111	.4	29.0	9.1	238	3.21	361.6	.6	1.5	6.9	4	.2	8.3	.3	11	.06	.032	13	12.2	.17	27	.003	<.1	.55	.003	.03	.7	.02	1.5	<.1	<.05	3	
RV-02-D-307	.3	8.6	52.2	44	.8	9.6	3.8	524	1.72	63.3	.3	2.9	1.7	4	.2	1.4	.3	18	.05	.036	14	9.1	.10	42	.018	<.1	.71	.007	.04	.3	.03	.6	<.1	<.05	6	
RV-02-D-308	.4	19.7	120.8	89	1.0	24.2	7.4	239	3.00	161.1	.5	.5	5.3	3	.1	9.9	.3	15	.02	.041	12	14.5	.22	35	.010	<.1	.83	.005	.03	.5	.04	1.1	<.1	<.05	5	
RV-02-D-309	.3	16.2	52.7	55	.5	15.4	6.4	348	2.25	56.7	.5	<.5	2.3	5	.2	2.0	.3	19	.04	.043	12	10.4	.11	50	.011	<.1	.87	.006	.03	.2	.03	.8	<.1	<.05	6	
RV-02-D-310	.5	28.8	37.7	78	.6	33.8	13.2	534	3.93	85.9	.7	7.8	7.4	3	.2	1.8	.4	15	.02	.061	15	22.2	.42	39	.006	<.1	1.15	.003	.03	.4	.03	1.5	<.1	<.05	5	
RV-02-D-311	.4	37.7	63.5	78	.6	38.1	12.2	452	4.01	111.0	.9	1.6	7.1	5	.1	3.2	.4	13	.03	.046	15	19.1	.35	64	.003	<.1	1.10	.005	.05	.6	.03	1.9	<.1	<.05	4	
RV-02-D-312	.4	27.2	23.9	54	.3	24.2	7.8	207	2.89	81.0	.5	.9	6.4	3	.1	2.6	.3	11	.01	.030	14	14.5	.24	22	.003	1	.67	.003	.03	.5	.01	1.2	<.1	<.05	4	
RV-02-D-313	.4	25.3	57.4	65	.5	30.5	12.0	488	3.60	99.8	.6	.7	6.3	4	.1	3.7	.3	12	.03	.073	13	20.5	.35	62	.006	<.1	1.22	.004	.03	.4	.04	1.3	<.1	<.05	5	
RV-02-D-314	.4	33.1	58.1	74	.4	39.1	11.4	309	3.50	113.2	.9	14.2	8.4	5	.2	3.2	.3	10	.04	.042	13	22.6	.43	62	.004	<.1	1.48	.004	.04	.5	.03	1.7	<.1	<.05	4	
RV-02-D-315	.4	37.2	39.8	70	.5	45.0	13.1	402	3.82	89.4	.9	27.6	7.9	5	.1	1.9	.4	15	.04	.050	15	25.7	.48	66	.010	1	1.85	.005	.05	.5	.04	2.1	<.1	<.05	6	
RV-02-D-316	.4	30.4	32.9	64	.4	34.0	9.0	254	4.08	98.9	.6	<.5	6.3	7	.1	2.5	.4	10	.06	.048	9	22.1	.42	39	.002	1	1.01	.003	.04	.6	.05	1.4	<.1	<.05	4	
RV-02-D-317	.4	39.7	54.0	82	.3	43.8	12.1	246	4.47	103.1	.7	1.2	7.5	2	.2	3.8	.5	11	.01	.043	12	24.4	.50	46	.003	<.1	1.28	.003	.03	.6	.02	1.8	<.1	<.05	4	
RV-02-D-318	.3	37.8	36.1	76	.2	48.5	15.6	407	4.09	77.6	.8	7.3	8.8	3	.3	2.5	.5	10	.02	.024	10	28.0	.66	29	.001	<.1	1.55	.003	.02	.2	.03	2.3	<.1	<.05	4	
RV-02-D-319	.3	41.9	64.7	93	.4	45.8	15.8	484	4.18	114.3	.9	7.3	9.3	4	.2	2.3	.4	10	.03	.036	13	23.3	.47	40	.001	1	1.13	.004	.06	.4	.03	2.0	<.1	<.05	4	
RE RV-02-D-319	.3	42.1	64.1	86	.4	45.3	15.0	483	4.12	110.3	.9	6.2	9.3	4	.2	2.3	.4	10	.03	.035	13	23.9	.48	42	.001	1	1.15	.004	.06	.4	.02	2.1	<.1	<.05	3	
RV-02-D-320	.5	17.4	18.4	58	.4	16.1	7.6	1275	2.80	44.0	.4	<.5	2.2	8	.3	.9	.4	16	.10	.054	11	14.0	.20	66	.020	1	.81	.006	.03	.4	.05	.8	<.1	<.05	7	
RV-02-D-321	.6	25.5	21.3	54	.3	21.0	8.3	2284	2.91	71.2	.6	31.0	2.0	6	.2	1.6	.4	16	.06	.054	13	12.7	.19	88	.013	1	.61	.004	.02	.6	.03	.9	<.1	<.05	6	
RV-02-D-322	.6	15.2	24.3	71	.7	15.4	9.1	1166	2.64	47.3	.6	1.4	1.6	22	.2	.6	.3	17	.29	.277	7	13.7	.17	74	.039	1	2.08	.008	.03	.4	.09	1.4	<.1	<.05	8	
RV-02-D-323	.3	29.4	29.4	67	.3	27.9	9.7	520	2.93	92.4	.6	1.0	6.5	5	.1	2.6	.3	9	.07	.062	10	15.4	.28	28	.002	1	.59	.003	.04	.6	.04	1.3	<.1	<.05	3	
RV-02-D-324	.5	40.6	60.4	92	.7	41.2	13.6	560	4.39	114.1	1.0	307.7	5.9	4	.2	2.8	.4	13	.04	.076	12	26.7	.43	68	.005	<.1	1.43	.005	.07	.6	.05	1.6	<.1	<.05	5	
RV-02-D-325	.5	37.6	43.7	78	.7	38.5	13.1	617	3.90	98.3	.8	3.3	4.8	13	.2	2.5	.4	13	.13	.065	12	22.9	.41	59	.004	1	1.15	.005	.06	.5	.03	1.7	<.1	<.05	4	
RV-02-D-326	.3	23.5	28.5	58	.2	28.5	8.5	254	3.18	74.1	.5	3.1	5.6	4	.1	1.7	.3	12	.03	.041	13	20.0	.38	43	.003	1	1.02	.003	.04	.5	.04	1.3	<.1	<.05	4	
RV-02-D-327	.6	37.2	55.7	84	1.0	39.6	14.3	718	4.09	98.0	1.0	4.9	4.2	7	.2	2.3	.4	14	.07	.056	12	23.2	.38	59	.011	1	1.60	.005	.05	.5	.06	1.9	<.1	<.05	5	
RV-02-D-328	.5	23.6	14.5	52	.1	23.5	8.3	202	3.01	87.6	.4	.9	6.4	3	.1	1.4	.4	15	.01	.051	15	15.1	.26	28	.006	2	.74	.003	.03	.7	.02	1.1	<.1	<.05	5	
STANDARD DS4	6.5	124.6	31.7	153	.3	32.9	11.9	790	2.94	23.9	6.2	24.5	3.5	28	5.0	4.7	5.1	73	.51	.081	15	156.5	.54	144	.080	1	1.67	.028	.14	3.9	.28	3.4	1.1	.06	6	

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm
G-1	1.4	2.3	2.1	43	<.1	3.5	4.0	552	1.82	1.8	3.0	<.5	5.3	68	<.1	<.1	.2	40	.51	.113	7	12.1	.56	227	.117	1	.89	.069	.54	2.1	<.01	1.9	.3	<.05	5
RV-02-D-329	.3	26.4	22.6	62	.3	25.4	8.2	454	2.79	81.2	.6	2.9	6.2	10	.1	1.7	.3	9	.11	.066	12	14.2	.30	42	.003	<.1	.65	.002	.05	.4	.02	1.2	<.1	<.05	2
RV-02-D-330	.3	18.5	24.9	54	.1	22.6	7.5	257	3.56	91.1	.5	.9	6.8	3	.1	2.1	.4	11	.02	.067	17	17.9	.35	29	.003	<.1	.83	.003	.04	.4	.02	1.1	<.1	<.05	3
RV-02-D-331	.4	35.1	91.5	157	.6	45.0	22.4	1530	4.85	196.1	3.1	9.5	4.7	19	.5	5.0	.5	10	.28	.113	7	21.9	.37	55	.003	2	.99	.006	.05	.4	.06	2.4	<.1	<.05	3
RV-02-D-332	.6	63.8	94.4	165	.3	56.3	23.3	2674	4.69	211.6	19.5	4.8	5.5	26	1.3	4.0	.5	11	.54	.083	7	22.2	.38	58	.004	1	1.12	.006	.03	.2	.05	3.0	<.1	<.05	3
RV-02-D-333	.4	35.8	83.7	188	.5	48.6	20.2	1526	5.16	166.0	7.5	4.4	6.8	13	.6	4.0	.5	13	.15	.067	11	23.1	.37	58	.003	1	1.38	.007	.04	.3	.03	2.8	<.1	<.05	4
RV-02-D-334	.3	34.1	28.6	115	.6	41.6	12.1	975	3.67	93.2	.9	247.3	6.6	14	.2	2.6	.4	15	.20	.051	7	29.4	.55	37	.002	1	1.36	.006	.03	.1	.02	2.1	<.1	<.05	5
RV-02-D-335	.4	27.3	70.2	157	.9	43.5	20.9	967	4.37	183.9	3.4	9.3	7.8	15	.3	4.4	.4	13	.26	.049	8	20.5	.31	73	.006	1	1.71	.009	.05	.3	.06	2.3	.1	<.05	5
RV-02-D-336	.4	33.1	50.7	83	1.2	32.9	14.1	339	3.56	99.5	6.4	5.6	2.3	34	.3	3.0	.4	13	.81	.059	7	16.1	.36	40	.010	1	1.34	.009	.03	.2	.05	1.9	.1	<.05	4
RV-02-D-337	.4	34.4	60.2	131	1.5	52.7	17.4	402	4.37	184.1	4.0	10.7	7.1	13	.4	4.5	.4	14	.11	.054	10	20.8	.34	49	.017	<.1	1.91	.008	.04	.4	.04	2.6	<.1	<.05	5
RV-02-D-338	.5	15.4	33.3	96	1.0	25.1	18.9	609	2.24	63.4	1.4	3.5	6.5	9	.2	1.9	.3	14	.12	.184	5	12.3	.12	54	.071	1	3.62	.014	.03	.2	.08	2.1	<.1	<.05	8
RV-02-D-339	.4	31.7	29.6	114	.4	52.2	17.3	447	4.39	144.5	1.0	15.9	6.6	7	.1	4.8	.4	12	.08	.047	6	15.4	.21	60	.005	<.1	1.27	.006	.04	.2	.02	2.4	<.1	<.05	4
RV-02-D-340	.4	18.4	35.6	100	.7	41.1	14.5	199	3.06	97.5	1.0	5.3	6.2	8	.2	2.6	.3	16	.10	.079	6	16.5	.25	65	.036	1	2.66	.012	.03	.3	.04	2.1	<.1	<.05	6
RV-02-D-341	.3	23.7	23.6	111	.4	40.4	14.2	469	3.79	95.0	.5	18.5	4.8	6	.1	2.7	.4	12	.04	.049	7	18.0	.28	60	.004	<.1	1.08	.005	.03	.1	.01	1.5	<.1	<.05	4
RV-02-D-342	.4	48.3	56.3	127	.4	62.7	24.7	1233	4.65	114.2	1.7	6.0	8.9	13	.2	6.3	.6	11	.26	.050	6	26.7	.60	25	.002	1	1.26	.005	.04	.1	.04	3.4	<.1	<.05	4
RV-02-D-343	.4	24.4	27.7	60	.3	29.0	8.9	317	4.14	51.4	.9	.7	5.8	6	.1	1.0	.5	15	.08	.125	12	24.3	.48	38	.009	<.1	1.36	.003	.04	.3	.04	1.0	<.1	<.05	5
RV-02-D-344	.6	24.0	28.9	82	.1	36.4	14.9	439	3.89	22.0	2.6	2.1	10.6	13	.1	.3	.3	14	.12	.058	14	37.1	.99	37	.002	1	1.84	.002	.02	<.1	.02	1.5	<.1	<.05	5
RV-02-D-345	.3	38.4	26.9	60	.2	51.8	14.7	620	3.61	57.9	1.9	3.9	8.9	10	.3	.8	.3	16	.07	.041	21	28.5	.54	90	.011	1	2.00	.006	.09	.5	.03	2.6	<.1	<.05	6
RE RV-02-D-345	.4	37.8	26.7	60	.2	48.9	14.1	615	3.64	56.6	2.0	4.5	8.9	10	.2	.8	.3	15	.07	.039	20	28.2	.53	91	.011	1	2.02	.005	.09	.4	.04	2.6	<.1	<.05	5
RV-02-D-346	.5	33.6	33.7	80	.1	46.0	17.7	599	3.73	27.4	2.4	2.0	10.4	24	.2	.6	.3	13	.27	.067	9	33.9	.93	28	.002	1	1.67	.005	.03	.1	.02	1.9	<.1	.10	5
RV-02-D-347	.7	17.3	17.8	53	.2	18.3	6.4	238	2.71	45.2	.6	3.0	2.5	6	.1	.5	.3	17	.04	.067	11	16.3	.28	39	.029	1	1.26	.006	.03	.3	.06	.8	<.1	<.05	6
RV-02-D-348	.7	27.8	28.5	64	.2	33.5	16.0	561	3.71	20.9	1.0	2.5	7.5	5	.1	.4	.3	20	.03	.178	11	30.1	.50	63	.021	<.1	2.58	.010	.04	.1	.05	2.0	<.1	<.05	8
RV-02-D-349	.7	29.7	22.0	73	.1	41.7	10.8	317	4.18	30.1	.9	1.0	8.0	2	<.1	1.0	.4	17	.02	.086	14	33.1	.70	19	.003	1	1.61	.004	.03	<.1	.01	1.9	<.1	<.05	6
RV-02-D-350	.5	19.4	46.2	115	.3	38.0	13.9	1063	3.65	55.1	.8	48.6	6.4	6	.2	1.3	.4	17	.05	.152	15	20.2	.38	85	.017	<.1	1.24	.005	.05	.3	.03	1.6	.1	<.05	5
RV-02-D-351	.3	22.7	18.9	21	.3	15.5	12.3	159	1.45	15.0	1.8	5.0	6.8	8	.1	.6	.2	16	.06	.064	3	8.9	.12	19	.102	1	3.50	.023	.02	.2	.07	2.8	<.1	<.05	7
RV-02-D-352	.5	32.5	32.8	86	.1	39.0	10.8	287	4.21	108.1	1.1	1.9	8.3	4	.1	3.8	.3	13	.05	.063	14	23.6	.43	19	.001	1	1.04	.003	.02	.2	.01	2.2	<.1	<.05	4
RV-02-D-353	.5	58.3	28.9	106	.1	63.2	29.9	606	4.16	37.5	.7	1.3	12.1	3	<.1	3.8	.8	12	.04	.028	16	31.5	.78	18	<.001	1	1.52	.005	.03	<.1	.01	2.3	<.1	<.05	5
RV-02-D-354	.6	16.2	17.7	53	.4	26.4	8.8	241	3.07	49.2	.9	2.0	9.8	8	.1	1.1	.2	21	.12	.272	5	19.1	.22	38	.077	1	3.60	.019	.04	.2	.05	1.9	<.1	<.05	10
RV-02-D-355	.3	19.4	22.3	39	.1	22.9	7.5	169	2.61	39.2	.4	1.5	4.7	8	.1	5.9	.3	11	.04	.037	11	8.8	.09	44	.001	1	.59	.006	.02	.1	<.01	1.3	<.1	<.05	3
RV-02-D-356	.3	50.0	26.4	102	.2	52.9	12.7	409	4.68	30.2	.4	<.5	8.8	3	.1	1.2	.5	16	.02	.064	8	37.4	.77	33	.001	<.1	1.74	.004	.03	<.1	.01	2.3	<.1	<.05	6
RV-02-D-357	.4	41.3	27.2	78	.2	39.4	11.6	287	4.16	51.7	.6	.7	6.9	5	.2	1.2	.4	14	.06	.061	11	26.5	.47	22	.002	1	1.23	.005	.04	.2	.02	2.0	<.1	<.05	5
RV-02-D-358	.3	26.1	32.5	79	.1	43.6	20.2	796	4.02	49.5	1.9	3.5	9.7	12	.2	2.3	.3	10	.20	.049	8	24.2	.48	25	.001	<.1	1.11	.007	.03	.1	.02	2.4	<.1	<.05	3
RV-02-D-359	.4	27.9	32.8	83	.1	41.6	13.3	446	3.91	81.0	1.0	1.6	8.0	3	.1	2.6	.3	11	.03	.040	11	22.3	.40	24	.002	<.1	1.01	.004	.03	.2	.02	1.9	<.1	<.05	4
RV-02-D-360	.4	43.1	38.0	75	.3	34.5	11.3	420	3.61	96.3	1.0	19.0	5.2	4	.2	2.7	.4	13	.04	.051	13	21.4	.32	31	.004	1	.88	.005	.04	.4	.02	1.7	<.1	<.05	4
RV-02-D-361	.3	47.1	59.3	119	.2	61.4	22.3	848	4.53	161.6	1.1	9.9	10.1	5	.3	4.4	.4	11	.05	.038	13	27.2	.57	23	.001	1	1.06	.005	.03	.3	.01	3.1	<.1	<.05	4
STANDARD DS4	6.5	121.5	32.1	156	.3	32.8	11.7	799	3.11	23.3	6.4	24.1	3.7	29	5.0	4.9	5.2	75	.51	.091	16	156.8	.57	145	.084	2	1.72	.032	.16	3.9	.28	3.4	1.1	<.05	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Retruns and 'RRE' are Reject Retruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	
G-1	1.5	2.3	1.9	40	<1	4.0	3.9	517	1.65	.8	2.7	<.5	4.9	60	<.1	<.1	.2	34	.49	.103	6	12.1	.55	211	.105	1	.83	.056	.46	2.3	<.01	1.6	.3	<.05	4	
RV-02-D-362	.3	31.1	28.8	89	.4	42.8	11.8	346	4.04	84.0	.8	3.6	7.5	3	.1	2.2	.3	11	.02	.046	12	26.2	.60	28	.001	<.1	1.32	.004	.03	.4	.02	2.0	<.1	<.05	3	
RV-02-D-363	.4	16.3	38.2	96	1.0	27.3	13.7	612	3.31	96.8	.6	3.2	4.8	7	.3	2.6	.3	13	.06	.165	8	17.4	.29	47	.008	<.1	1.35	.006	.04	.3	.05	1.5	<.1	<.05	5	
RV-02-D-364	.3	27.8	33.4	94	.6	35.5	10.9	405	3.76	111.5	.7	4.5	6.0	2	.1	3.6	.3	11	.01	.053	11	18.7	.38	18	.001	<.1	.91	.003	.02	.6	.01	1.8	<.1	<.05	3	
RV-02-D-365	.3	40.1	34.4	103	.4	46.6	13.4	401	4.27	118.6	.9	4.3	7.5	3	.1	3.5	.3	10	.01	.041	12	26.1	.57	21	.001	<.1	1.21	.005	.03	.3	<.01	2.4	<.1	<.05	3	
RV-02-D-366	.2	27.8	24.3	92	.4	42.2	12.8	656	4.05	65.2	.7	1.3	7.3	2	.2	1.1	.3	12	.01	.048	14	27.7	.62	36	.001	<.1	1.30	.004	.03	.3	.01	2.1	<.1	<.05	4	
RV-02-D-367	.5	21.4	44.5	81	.9	28.3	10.3	781	3.30	103.4	.6	1.3	4.6	5	.3	4.9	.3	12	.07	.059	9	16.8	.31	29	.002	<.1	.84	.004	.04	.4	.02	1.4	<.1	<.05	4	
RV-02-D-368	.4	47.4	30.8	99	.4	53.7	17.1	1087	4.38	71.1	.7	2.2	5.3	3	.1	3.4	.6	11	.02	.043	4	22.5	.36	14	<.001	<.1	.94	.004	.02	.1	.02	2.3	<.1	<.05	3	
RV-02-D-369	.4	43.6	70.6	145	.2	52.2	16.9	573	5.78	141.2	1.0	7.9	7.3	3	.2	6.4	.5	9	.04	.056	6	18.6	.19	22	.001	<.1	.85	.006	.03	.2	.02	2.7	<.1	<.05	3	
RV-02-D-370	.3	35.0	83.0	124	1.4	52.1	17.1	405	4.19	147.8	2.1	10.2	5.9	21	.5	5.1	.4	12	.46	.046	8	25.9	.43	45	.002	1	1.44	.006	.04	.5	.04	2.4	<.1	<.05	4	
RV-02-D-371	.4	33.7	77.4	121	.7	43.7	16.8	789	3.97	153.6	1.8	9.8	4.5	22	.3	6.1	.4	10	.57	.048	7	18.4	.41	22	.002	<.1	.95	.005	.03	.5	.01	2.2	<.1	<.05	3	
RV-02-D-372	.4	31.2	43.7	99	.4	39.3	13.6	468	4.47	125.1	1.4	5.0	6.8	7	.2	2.9	.3	12	.09	.040	8	21.0	.35	20	.001	<.1	.97	.005	.03	.3	.02	2.3	<.1	<.05	4	
RV-02-D-373	.5	34.0	78.3	114	.7	38.0	12.6	327	4.63	195.6	1.2	1.9	4.5	6	.5	6.3	.4	12	.05	.048	9	19.9	.26	21	.004	<.1	.85	.005	.03	.4	.03	1.9	<.1	<.05	4	
RV-02-D-374	.5	30.7	69.1	91	1.7	30.2	10.7	585	3.47	146.4	4.3	3.9	2.1	20	.2	5.2	.4	10	.45	.090	5	17.0	.17	26	.002	1	.59	.007	.03	.4	.06	1.2	<.1	.07	3	
RV-02-D-375	.4	41.9	33.6	91	.2	43.5	18.7	625	5.16	109.1	1.0	<.5	8.1	3	.1	1.6	.8	16	.03	.062	7	31.6	.57	17	.001	<.1	1.33	.006	.03	.1	.01	2.5	<.1	<.05	5	
RV-02-D-376	.3	32.9	16.0	90	.2	46.6	17.5	939	4.20	49.9	.7	<.5	7.6	5	.1	.6	.4	14	.07	.056	8	34.2	.76	25	.001	<.1	1.56	.003	.04	.1	.01	2.3	<.1	<.05	6	
RV-02-D-377	.3	29.0	19.6	81	.3	43.2	19.0	671	4.25	58.8	.7	<.5	8.1	7	.1	.5	.4	16	.05	.064	10	34.0	.52	64	<.001	<.1	1.75	.009	.05	.1	.03	1.9	<.1	<.05	6	
RE RV-02-D-377	.4	28.3	19.4	83	.3	44.3	18.3	679	4.20	59.4	.6	<.5	7.9	7	.1	.5	.4	15	.05	.065	10	33.9	.52	62	<.001	<.1	1.68	.010	.05	.1	.02	1.9	<.1	<.05	6	
RV-02-D-378	.3	20.0	19.0	73	.1	30.6	9.7	244	3.51	90.1	.4	1.4	5.5	3	.1	2.1	.3	11	.01	.077	9	17.4	.28	20	.001	1	.77	.004	.03	.2	<.01	1.7	<.1	<.05	3	
RV-02-D-379	.2	25.6	20.3	66	.1	40.0	11.5	446	3.58	37.9	.5	<.5	7.2	4	<.1	.6	.2	14	.02	.031	15	29.9	.67	67	.002	<.1	1.58	.003	.05	.2	.01	1.6	<.1	<.05	5	
RV-02-D-380	.6	16.5	24.5	35	1.6	16.0	7.7	211	2.62	26.2	1.1	1.8	4.8	3	.1	.4	.2	21	.02	.196	6	15.4	.16	57	.056	<.1	3.97	.009	.03	.3	.12	2.3	<.1	<.05	8	
RV-02-D-381	.4	17.8	24.3	65	.3	26.9	8.3	198	3.12	40.6	.6	6.4	6.3	2	.1	.4	.2	15	.01	.077	13	25.0	.48	39	.006	<.1	1.68	.003	.03	.2	.04	1.4	<.1	<.05	5	
RV-02-D-382	.6	11.9	24.6	130	.7	18.3	7.5	125	2.52	19.5	.7	1.3	5.1	5	.4	.3	.2	22	.04	.150	7	17.4	.25	51	.044	<.1	2.85	.009	.04	.2	.06	1.5	<.1	<.05	8	
RV-02-D-383	.4	22.7	14.3	84	.3	35.9	12.5	358	3.24	16.4	.9	.9	6.3	4	<.1	.3	.2	19	.03	.089	13	29.5	.65	70	.024	<.1	2.31	.005	.04	.1	.03	2.2	<.1	<.05	7	
RV-02-D-384	.7	24.1	26.2	81	.4	27.0	11.7	649	3.30	19.3	1.1	1.4	6.5	4	.1	.5	.4	22	.03	.129	9	24.6	.43	72	.031	1	2.19	.008	.05	.2	.04	2.0	<.1	<.05	8	
RV-02-D-385	.6	46.9	29.2	106	.1	43.7	17.8	647	4.50	45.5	1.5	1.5	9.1	3	.1	1.3	.5	18	.02	.057	14	31.9	.71	42	.004	<.1	1.65	.004	.04	.6	.01	2.3	<.1	<.05	6	
RV-02-D-386	.6	31.7	13.6	142	.3	38.3	14.0	428	4.18	221.5	1.2	3.4	6.8	4	.2	2.1	.6	16	.01	.070	14	21.3	.43	48	.012	1	1.22	.005	.04	.2	.02	1.6	<.1	<.05	5	
RV-02-D-387	.8	27.2	19.0	275	.2	43.6	16.2	496	4.61	67.7	1.2	2.8	7.2	3	.3	3.0	.5	17	.01	.048	15	28.5	.66	52	.008	1	1.63	.003	.03	.4	.01	1.7	<.1	<.05	6	
RV-02-D-388	.9	38.2	28.1	266	.3	38.1	22.0	882	4.86	84.6	1.4	4.0	6.8	5	.4	3.3	.6	18	.03	.057	13	22.0	.38	43	.007	1	1.11	.006	.05	1.3	.03	1.7	<.1	<.05	5	
RV-02-D-389	.6	17.7	52.1	134	.6	24.2	8.3	213	3.95	127.6	.5	<.5	6.5	4	.2	1.7	.4	17	.04	.108	15	24.2	.43	33	.005	1	1.12	.003	.03	.3	.02	1.0	<.1	<.05	6	
RV-02-D-390	.8	30.7	41.7	319	2.9	23.2	8.8	276	4.14	1450.4	2.2	80.4	11.2	4	.6	2.6	.3	23	.03	.084	7	18.7	.18	49	.084	1	3.88	.009	.03	.4	.10	2.1	<.1	<.05	10	
RV-02-D-391	.7	14.3	332.7	144	3.7	10.6	12.0	1040	4.38	1428.5	.7	40.2	6.4	7	.8	9.2	.4	22	.03	.176	5	11.7	.08	62	.064	<.1	2.63	.009	.02	.4	.11	1.2	<.1	<.05	10	
RV-02-D-392	1.5	31.0	20.0	91	.2	32.1	10.7	311	4.70	245.3	.8	4.3	5.6	3	.1	4.6	.3	14	.01	.074	13	15.6	.27	17	.006	1	.82	.003	.02	.8	<.01	1.6	<.1	<.05	4	
RV-02-D-393 empty bag	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RV-02-D-394	.4	6.3	13.2	41	.1	10.4	4.6	331	1.82	57.1	.2	1.6	2.9	3	.1	.6	.2	16	.02	.030	15	8.6	.12	43	.006	1	.68	.004	.03	.6	<.01	.7	<.1	<.05	5	
STANDARD D54	6.5	119.2	32.8	155	.3	34.9	11.7	775	3.06	23.5	6.1	29.0	3.8	28	5.4	4.7	5.1	75	.52	.090	16	155.5	.59	145	.083	1	1.71	.031	.15	3.6	.27	3.5	1.1	.08	6	

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
G-1	1.2	2.7	2.1	45	<.1	4.1	3.9	497	1.75	1.5	2.7	.5	4.8	72	<.1	<.1	.2	40	.52	.090	7	11.9	.58	227	.121	1	.87	.088	.54	2.3	<.01	3.3	.3	<.05	5
RV-02-D-395	.6	13.1	40.8	46	1.2	16.9	7.8	285	3.10	512.7	1.3	6.1	3.6	6	.1	4.1	.5	17	.07	.061	9	7.0	.08	38	.027	1	1.12	.009	.03	.2	.06	1.6	.1	<.05	9
RV-02-D-396	.7	15.6	16.6	79	1.5	18.3	8.8	779	2.90	60.4	.6	1.7	3.9	4	.1	1.3	.3	18	.04	.103	8	13.2	.20	57	.041	2	1.81	.010	.03	.3	.07	1.6	.1	<.05	8
RV-02-D-397	.5	33.7	76.3	471	.8	38.8	17.0	3939	2.75	244.4	6.9	17.8	1.1	83	5.2	9.4	.3	8	2.31	.146	5	15.5	.67	94	.009	6	1.06	.010	.04	.4	.10	1.4	.1	.15	3
RV-02-D-398	.5	109.6	4060.6	5688	21.0	65.2	30.6	3331	6.67	521.4	1.5	135.0	5.1	34	34.9	181.1	.6	9	.88	.074	6	15.1	.43	21	.003	2	.71	.006	.04	6.7	.13	4.1	<.1	.12	2
RV-02-D-399	.4	51.2	446.7	1230	2.1	51.5	31.2	1250	5.32	452.9	4.0	54.6	3.3	30	9.7	21.5	.4	11	.62	.066	6	15.2	.32	32	.005	2	.94	.005	.04	1.4	.08	3.4	<.1	.07	2
RV-02-D-400	.5	43.4	625.0	463	3.0	33.2	14.8	762	5.52	331.0	3.9	50.8	5.6	5	1.0	22.4	.5	12	.07	.060	9	18.1	.25	26	.009	<1	1.19	.003	.04	7.0	.11	2.6	<.1	<.05	4
RV-02-D-401	.6	22.7	107.5	302	.6	23.7	10.0	500	4.52	690.0	.7	24.3	2.7	4	.5	12.1	.7	16	.08	.057	8	15.1	.13	25	.006	2	.58	.004	.04	1.8	.05	1.2	<.1	<.05	4
RV-02-D-402	.3	56.7	585.0	940	.9	60.9	25.7	2252	5.84	743.7	2.5	21.1	5.1	14	5.5	30.8	.6	9	.31	.056	5	15.0	.24	24	.002	1	.51	.005	.03	.9	.03	3.7	<.1	<.05	2
RV-02-D-403	.5	35.0	63.4	128	.5	42.5	17.4	986	4.43	333.7	1.4	17.3	3.7	9	.4	8.2	.6	11	.12	.044	9	15.4	.24	44	.007	1	.93	.004	.05	1.0	.02	2.1	.1	<.05	4
RV-02-D-404	.4	32.2	22.4	154	1.2	35.4	16.2	827	3.76	99.4	2.7	67.1	4.9	7	.5	2.0	.3	18	.11	.078	14	23.4	.42	38	.020	1	2.89	.005	.04	.7	.09	3.0	<.1	<.05	6
RV-02-D-405	.5	29.2	34.2	82	.4	29.3	10.9	295	4.05	109.3	1.2	22.6	4.2	5	.1	2.6	.4	14	.06	.037	12	19.2	.33	27	.008	1	1.21	.004	.04	.7	.01	1.9	<.1	<.05	5
RV-02-D-406	.4	18.3	19.2	64	.4	21.5	8.1	513	3.07	77.7	.5	2.1	3.3	3	.1	2.1	.4	17	.02	.063	12	15.6	.27	28	.010	<1	.69	.004	.03	.3	.03	1.1	<.1	<.05	6
RV-02-D-407	.4	20.0	35.6	71	.2	30.3	10.9	218	4.19	187.3	3.8	1.7	8.6	4	.3	2.0	.3	13	.04	.039	11	27.2	.43	37	.013	<1	2.60	.005	.04	.2	.06	2.2	<.1	<.05	5
RV-02-D-408	.1	6.6	7.5	22	.2	4.3	1.9	48	.75	39.3	.3	.5	3.6	10	.1	.4	.1	6	.23	.064	13	5.8	.20	14	.003	1	.56	.008	.03	.1	<.01	.7	.1	<.05	4
RV-02-D-409	.4	21.3	30.9	144	.4	27.2	17.7	1481	4.34	330.8	2.9	26.0	2.2	20	.5	1.9	.4	10	.55	.070	9	17.1	.48	31	.015	1	1.27	.006	.03	.2	.05	1.6	<.1	<.05	4
RV-02-D-410	.3	39.7	28.7	80	.3	57.4	19.6	1074	4.27	124.5	3.2	10.8	6.8	9	.3	2.0	.4	11	.07	.059	11	21.2	.41	28	.005	<1	1.19	.005	.04	.2	.01	2.9	<.1	<.05	4
RE RV-02-D-410	.3	41.6	28.9	83	.3	57.9	20.7	1146	4.58	131.1	3.1	5.2	7.2	9	.2	2.1	.4	12	.08	.070	11	22.7	.43	29	.004	<1	1.26	.005	.04	.2	.02	3.2	<.1	<.05	4
RV-02-D-411	.4	30.1	24.6	81	.2	38.1	19.4	1143	4.04	111.7	3.2	6.3	5.8	6	.2	2.1	.4	10	.07	.069	9	19.7	.41	23	.004	1	1.01	.005	.04	.2	.02	2.1	<.1	<.05	3
RV-02-D-412	.5	38.8	106.6	121	.7	27.9	18.7	304	4.96	205.4	1.2	4.7	1.7	10	.3	8.9	.9	12	.23	.057	10	14.9	.35	31	.010	1	.81	.005	.03	.4	.04	1.1	<.1	<.05	5
RV-02-D-413	.4	49.0	93.8	127	1.5	39.0	16.0	1302	4.28	225.5	7.7	6.4	3.0	18	.5	7.9	.8	11	.51	.100	8	16.4	.59	30	.007	2	.89	.006	.05	.4	.06	1.8	<.1	.18	4
RV-02-D-414	.4	27.6	24.2	67	.4	35.8	15.6	467	3.57	38.3	1.0	1.5	7.7	7	.1	.6	.3	22	.06	.052	16	27.5	.42	80	.020	1	2.61	.010	.08	.3	.05	2.5	<.1	<.05	9
RV-02-D-415	.4	11.7	22.1	47	.2	18.6	7.0	175	3.38	43.9	1.4	<.5	2.4	23	.2	.4	.3	22	.64	.034	11	18.0	.33	28	.027	1	1.27	.006	.05	.3	.03	1.1	<.1	.06	6
RV-02-D-416	.5	54.5	32.0	54	1.1	37.7	12.0	3285	2.59	27.0	7.9	4.1	2.2	48	1.1	.3	.3	16	1.31	.057	15	16.5	.32	79	.056	2	3.08	.013	.04	.1	.08	2.5	.1	.09	8
RV-02-D-417	.5	11.8	20.9	65	.7	15.2	7.1	268	2.38	23.1	3.9	1.4	2.1	42	.3	.3	.3	17	1.40	.045	8	14.2	.27	44	.059	1	3.11	.015	.04	.2	.07	1.7	<.1	.06	7
RV-02-D-418	.4	34.9	25.2	52	.7	30.5	11.0	1411	2.68	32.8	6.9	2.0	1.3	54	.8	.4	.3	15	1.72	.091	12	18.0	.41	60	.043	2	2.90	.015	.05	.1	.08	2.2	.1	.09	6
RV-02-D-419	.3	20.7	34.9	89	.2	45.4	16.1	445	4.16	52.1	1.7	2.8	8.1	9	.2	.7	.3	17	.14	.025	17	29.3	.60	122	.014	1	2.11	.006	.08	.2	.03	2.0	<.1	<.05	6
RV-02-D-420	.4	16.5	33.0	75	.4	27.4	11.1	278	3.42	44.4	.7	2.3	5.6	5	.2	.6	.3	22	.07	.034	18	22.4	.28	73	.008	<1	1.37	.006	.07	.3	.03	1.7	.1	<.05	7
RV-02-D-421	.5	30.7	37.0	95	.5	44.0	14.4	651	3.58	46.9	1.0	3.1	6.3	6	.2	.8	.3	17	.06	.071	14	27.2	.44	116	.018	<1	2.38	.008	.11	.3	.05	2.2	.1	<.05	7
RV-02-D-422	.3	15.3	19.8	61	.2	26.2	7.8	173	3.59	47.7	.5	1.5	6.8	2	<.1	.7	.2	17	.01	.036	18	27.9	.43	44	.006	<1	1.55	.004	.05	.3	.04	1.5	<.1	<.05	5
RV-02-D-423	.5	16.7	29.5	67	.6	25.5	9.8	346	3.33	38.2	.8	12.7	6.6	4	.1	.5	.3	20	.03	.091	8	21.8	.23	63	.044	<1	3.52	.009	.04	.3	.07	1.7	<.1	<.05	9
RV-02-D-424	.6	23.2	30.6	66	.8	23.8	11.1	236	2.76	45.6	1.1	3.0	7.4	3	.1	.4	.2	14	.03	.077	8	24.2	.22	52	.043	1	3.68	.011	.04	.3	.10	2.1	<.1	<.05	7
RV-02-D-425	.5	17.9	26.0	61	.5	29.4	8.0	192	4.26	60.7	.5	6.1	5.9	4	.1	.8	.3	17	.02	.051	15	25.3	.35	48	.009	1	1.52	.005	.05	.3	.03	1.4	<.1	<.05	6
RV-02-D-426	.5	26.8	34.5	66	.7	35.1	12.2	215	3.12	51.9	1.1	1.9	7.2	3	.1	.7	.2	14	.02	.055	12	24.1	.37	59	.021	<1	2.67	.007	.05	.4	.07	2.3	<.1	<.05	6
RV-02-D-427	.4	15.1	21.5	50	.6	22.1	6.3	220	2.78	36.8	.5	1.7	4.4	4	<.1	.6	.2	16	.04	.045	14	18.7	.30	49	.009	<1	1.22	.005	.05	.3	.05	1.0	.1	<.05	5
STANDARD DS4	6.9	125.2	28.3	163	.3	33.3	11.7	765	3.25	24.7	6.3	30.0	4.0	29	5.4	5.1	5.2	75	.54	.083	17	155.3	.61	142	.084	3	1.71	.031	.17	3.8	.28	3.7	1.1	<.05	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Retruns and 'RRE' are Reject Retruns.



Jasper Mining Corporation PROJECT Ruth-Vermont FILE # A204177



SAMPLE#	No ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
G-1	1.3	2.3	1.9	41	<.1	3.5	3.8	502	1.60	.7	2.7	<.5	5.3	59	<.1	<.1	.2	36	.49	.094	7	11.5	.52	195	.110	1	.79	.059	.42	2.3	<.01	1.6	.3	<.05	4
RV-02-D-428	.4	21.6	19.4	72	.1	31.0	10.4	256	3.24	47.0	.5	2.5	6.0	2	.1	1.2	.3	12	.01	.053	16	22.0	.47	26	.003	<1	1.18	.003	.02	.2	.01	1.3	<.1	<.05	4
RV-02-D-429	.5	15.2	27.4	76	.4	40.1	13.5	467	2.73	50.0	.8	1.2	6.6	5	.1	1.0	.2	18	.05	.117	8	18.6	.23	69	.041	<1	2.92	.009	.03	.3	.05	1.8	<.1	<.05	7
RV-02-D-430	.5	14.6	20.5	85	.3	30.6	10.3	227	3.46	113.8	.6	2.2	6.1	4	.1	2.4	.3	15	.05	.065	10	16.0	.23	36	.006	<1	1.09	.006	.03	.2	.03	1.4	<.1	<.05	5
RV-02-D-431	.4	9.8	25.0	44	.5	18.4	8.1	201	2.40	31.3	.6	1.4	5.1	4	.2	.8	.2	18	.05	.078	6	10.0	.06	52	.029	<1	2.29	.011	.02	.2	.06	1.5	<.1	<.05	8
RV-02-D-432	.6	17.2	20.0	75	.1	28.8	11.1	415	3.75	54.7	.5	4.1	4.2	3	.1	1.5	.4	16	.02	.074	8	15.5	.20	42	.012	<1	1.25	.008	.03	.2	.03	1.3	<.1	<.05	6
RV-02-D-433	.5	33.0	66.8	146	.6	44.4	14.2	776	4.31	194.0	.9	4.7	4.9	5	.3	6.1	.4	14	.06	.084	9	16.1	.22	59	.006	1	1.25	.006	.03	.8	.03	1.9	<.1	<.05	5
RV-02-D-434	.7	37.3	77.2	112	.4	39.3	12.4	296	4.83	214.8	.8	3.4	5.7	3	.2	7.4	.5	12	.01	.050	8	13.2	.14	29	.009	<1	.66	.005	.02	.7	.03	1.8	<.1	<.05	4
RV-02-D-435	.3	22.2	50.1	93	.2	37.0	11.6	246	4.06	105.9	.6	2.8	7.3	3	.2	3.6	.3	12	.02	.033	14	25.0	.46	46	.001	<1	1.60	.004	.03	.9	.03	1.5	<.1	<.05	4
RE RV-02-D-435	.4	22.6	52.5	100	.2	38.7	12.1	257	4.23	109.2	.6	3.8	7.4	3	.2	3.5	.3	14	.02	.035	14	25.9	.46	46	.002	<1	1.61	.004	.03	1.0	.03	1.5	<.1	<.05	4
RV-02-D-436	.7	28.2	21.7	64	.2	30.0	9.3	357	3.89	134.8	.6	1.1	5.8	3	.1	3.9	.5	19	.05	.037	9	9.9	.07	17	.006	<1	.53	.005	.02	.3	.02	1.7	<.1	<.05	5
RV-02-D-437	.6	45.1	66.5	99	1.4	42.7	12.1	320	5.05	223.3	.9	5.0	5.7	3	.1	8.8	.5	13	.03	.040	8	18.7	.19	13	.002	1	.66	.004	.02	.3	.04	1.9	<.1	<.05	4
RV-02-D-438	.5	43.4	65.7	115	.6	39.4	12.4	335	5.44	234.3	.9	7.5	6.0	2	.2	8.8	.5	13	.01	.065	8	20.3	.22	8	.002	1	.78	.004	.02	.3	.02	2.1	<.1	<.05	4
RV-02-D-439	.4	50.7	82.9	120	1.0	54.1	24.4	1027	4.92	238.5	1.5	21.3	7.0	5	.6	7.8	.6	11	.06	.052	9	19.7	.37	19	.002	1	.91	.004	.02	.3	.02	2.8	<.1	<.05	3
RV-02-D-440	.4	50.1	64.5	131	.4	47.9	15.2	344	4.80	222.2	1.1	18.9	5.9	3	.2	9.5	.5	9	.04	.064	7	15.5	.21	13	.001	<1	.55	.003	.02	.4	.02	2.5	<.1	<.05	2
RV-02-D-441	.3	58.9	76.9	162	.6	77.3	37.7	873	6.17	195.9	1.2	18.6	8.7	5	.2	10.3	.5	7	.16	.055	3	9.9	.07	16	<.001	<1	.24	.004	.02	4.9	.01	4.0	<.1	.07	1
RV-02-D-442	.3	46.7	16.6	102	.1	40.8	13.6	202	4.10	146.6	.4	3.1	3.4	2	.1	5.3	.4	9	.01	.095	7	6.1	.03	4	.001	2	.09	.004	.02	.3	.01	1.5	<.1	<.05	1
RV-02-D-443	.5	33.5	52.9	101	.1	31.1	10.5	275	3.92	227.4	1.8	15.3	2.2	4	.2	6.3	.4	12	.06	.089	6	13.3	.07	10	.002	2	.27	.005	.03	.4	.04	1.1	<.1	.07	2
RV-02-D-444	.3	40.7	56.1	161	.7	41.9	12.8	343	3.89	340.9	1.1	15.4	3.8	6	.2	8.3	.4	8	.11	.101	7	11.9	.10	8	.001	2	.28	.004	.03	.5	.03	1.9	<.1	.08	2
RV-02-D-445	.4	57.8	119.1	145	1.1	45.5	13.9	326	5.06	353.2	2.9	31.7	4.2	3	.3	9.5	.7	9	.01	.088	6	14.9	.13	8	.001	1	.38	.003	.02	.5	.02	2.0	<.1	.06	2
RV-02-D-446	.5	94.3	78.0	69	.9	25.8	7.7	183	3.70	154.2	1.2	4.0	.8	5	.1	5.3	.6	13	.07	.179	5	20.1	.09	9	.002	1	.47	.004	.03	.3	.04	.7	<.1	.08	3
RV-02-D-447	.4	47.5	118.5	197	1.5	59.4	22.0	1361	4.68	413.4	3.5	31.1	4.4	22	.7	10.4	.5	8	.42	.065	8	14.2	.33	23	.002	1	.65	.005	.03	.5	.02	2.3	<.1	<.05	2
RV-02-D-448	.5	39.9	113.8	140	2.0	33.9	9.9	317	4.22	350.3	.8	27.4	.8	5	.2	12.4	.5	11	.08	.119	8	9.2	.08	13	.004	1	.21	.005	.03	.6	.04	.9	<.1	<.05	3
RV-02-D-449	.5	29.6	55.2	100	.7	24.2	7.1	161	3.00	296.0	.6	7.3	1.5	3	.2	12.6	.4	12	.03	.047	9	6.5	.04	12	.003	1	.23	.003	.02	.5	.01	1.1	<.1	<.05	3
RV-02-D-450	.4	42.8	69.3	150	1.0	43.5	12.4	422	5.40	369.3	.8	4.6	6.6	2	.1	11.2	.5	10	.01	.073	9	14.6	.13	10	.001	1	.42	.003	.02	.5	.02	2.3	<.1	<.05	3
RV-02-D-451	.4	23.6	33.8	77	.5	21.0	6.7	168	2.52	215.3	.5	5.4	4.4	2	.2	8.1	.4	10	.01	.045	13	7.0	.06	12	.001	1	.24	.003	.02	.4	.01	1.2	<.1	<.05	3
RV-02-D-452	.4	59.8	159.9	246	1.1	65.6	23.7	968	5.62	444.5	3.1	27.0	7.6	10	.9	14.6	.5	8	.23	.072	9	15.0	.28	16	.001	1	.52	.004	.02	.5	.01	3.5	<.1	<.05	2
RV-02-D-453	.5	30.4	22.1	80	.3	28.5	12.1	608	4.02	55.5	.5	3.0	2.5	4	.2	2.2	.6	15	.02	.103	7	15.9	.17	29	.011	1	.91	.007	.02	.1	.02	1.4	<.1	<.05	5
RV-02-D-454	.5	35.6	22.2	62	1.9	25.3	11.3	561	3.62	80.6	.4	.8	5.0	3	<.1	2.5	.5	14	.01	.052	8	11.3	.12	18	.005	1	.55	.005	.03	.1	.02	1.7	<.1	<.05	4
RV-02-D-455	.4	8.0	16.4	31	.2	10.9	3.9	160	2.06	204.5	.2	1.3	3.2	2	.1	2.0	.3	13	.01	.032	8	5.0	.04	10	.015	<1	.37	.005	.01	.2	.01	.9	<.1	<.05	4
RV-02-D-456	.3	35.5	21.8	73	.2	27.9	12.0	1010	3.45	98.9	.3	1.2	3.4	3	.1	6.4	.4	10	.01	.057	7	10.5	.12	32	.003	<1	.52	.005	.02	.1	.01	1.5	<.1	<.05	3
RV-02-D-457	.6	29.0	22.1	62	.2	28.9	9.8	290	3.59	75.4	.4	7.3	6.2	3	<.1	3.2	.5	17	.01	.032	11	17.6	.23	23	.005	<1	.90	.005	.02	.1	.01	1.6	<.1	<.05	6
RV-02-D-458	.4	22.0	17.9	53	.3	23.3	8.5	500	2.49	52.9	.4	1.7	4.6	4	.1	2.1	.4	11	.02	.054	11	12.9	.20	31	.004	<1	.75	.007	.03	.1	.01	1.3	<.1	<.05	4
RV-02-D-459	.4	40.3	38.1	140	.3	35.1	20.5	2043	3.95	52.8	1.0	.5	9.3	9	.2	1.5	.4	18	.02	.108	24	23.2	.20	166	.003	1	1.42	.024	.11	.1	.02	2.7	<.1	<.05	5
RV-02-D-460	.5	13.0	20.3	50	.2	16.6	6.6	321	3.02	36.5	.3	<.5	3.4	4	.1	1.2	.3	18	.02	.069	13	17.1	.18	37	.004	1	1.05	.006	.03	.2	<.01	1.2	<.1	<.05	6
STANDARD DS6	6.6	121.3	30.8	160	.3	34.4	11.5	790	3.12	23.6	6.1	30.0	3.8	29	5.3	4.8	5.1	74	.52	.089	17	157.3	.56	140	.082	2	1.64	.030	.16	3.7	.27	3.4	1.1	.06	6

Sample type: SOIL S580 60C. Samples beginning 'RE' are Retruns and 'RRE' are Reject Retruns.

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date FA



Jasper Mining Corporation PROJECT Ruth-Vermont FILE # A204177



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
G-1	1.1	2.6	3.4	37	<.1	3.8	3.6	485	1.69	1.8	2.3	<.5	4.6	78	<.1	<.1	.2	36	.56	.090	9	11.4	.47	185	.109	1	.86	.084	.43	2.8	<.01	2.1	.3	<.05	4
RV-02-D-461	.5	27.4	20.3	68	.1	31.3	10.8	724	3.96	43.0	.5	<.5	4.4	4	<.1	1.4	.4	18	.03	.096	14	25.1	.46	23	.005	<.1	1.23	.005	.02	.1	.02	1.5	<.1	<.05	6
RV-02-D-462	.4	21.1	11.4	53	.1	23.2	7.0	180	2.81	22.9	.4	5.6	4.9	4	.1	1.4	.3	19	.06	.040	17	19.5	.40	13	.004	<.1	1.03	.004	.03	.1	.01	1.1	<.1	<.05	6
RV-02-D-463	.6	59.6	103.1	126	.5	51.6	14.5	408	5.44	545.0	1.3	16.7	9.2	4	.3	6.9	.9	10	.04	.068	16	20.0	.31	49	.003	<.1	1.05	.004	.04	.3	.04	1.9	<.1	<.05	3
RV-02-D-464	.7	28.7	46.3	96	.8	29.8	10.3	483	4.23	253.2	1.1	7.5	6.8	5	.3	2.7	.5	21	.04	.069	21	22.5	.39	58	.029	1	1.80	.008	.05	.3	.07	1.5	<.1	<.05	8
RV-02-D-465	.5	91.8	288.1	267	2.2	62.3	27.1	1310	5.21	818.6	4.6	39.3	9.1	7	1.8	18.3	1.7	7	.08	.057	23	13.6	.25	22	.003	1	.69	.004	.04	.7	.04	2.7	<.1	<.05	2
RV-02-D-466	.4	30.3	42.5	68	.8	33.7	9.6	317	3.48	83.6	.7	5.1	8.4	3	.1	2.3	.4	14	.02	.035	26	25.2	.62	20	.002	<.1	1.25	.003	.04	.2	.02	1.4	<.1	<.05	5
RV-02-D-467	.6	27.5	154.0	105	.8	25.6	7.4	191	3.51	200.7	.7	4.9	7.9	3	.2	11.6	.7	14	.02	.033	29	17.1	.29	24	.007	1	.92	.004	.04	.7	.03	1.3	<.1	<.05	5
RV-02-D-468	.6	77.8	242.2	199	1.5	49.7	13.3	355	5.53	414.6	1.5	7.6	10.6	5	.5	12.1	1.6	10	.03	.048	28	15.1	.25	23	.008	<.1	.99	.004	.04	.6	.05	2.1	<.1	<.05	4
RV-02-D-469	.8	46.0	155.9	120	3.0	32.1	11.4	325	4.21	266.4	1.4	12.0	8.6	4	.2	9.0	1.5	15	.02	.057	18	13.0	.14	41	.011	1	1.32	.006	.04	.5	.10	1.6	.1	<.05	5
RV-02-D-470	.8	72.3	533.9	169	4.4	46.0	21.8	322	5.50	364.4	1.8	13.5	11.3	7	.4	20.1	1.7	15	.04	.062	13	12.2	.10	34	.045	<.1	1.76	.009	.05	1.1	.05	2.6	.1	<.05	6
RE RV-02-D-470	.7	71.2	529.9	167	4.4	47.5	22.2	323	5.52	359.3	1.7	8.2	11.0	6	.5	19.9	1.7	14	.04	.062	13	11.7	.10	34	.046	<.1	1.76	.009	.05	1.1	.04	2.5	.1	<.05	6
RV-02-D-471	.6	68.5	228.6	116	.7	36.6	13.0	398	7.65	377.3	1.4	9.2	9.6	4	.3	13.5	1.8	14	.03	.036	23	24.1	.33	19	.005	1	1.16	.004	.05	.7	.04	1.7	<.1	<.05	4
RV-02-D-472	.5	87.8	160.4	199	1.9	93.7	37.0	2320	6.17	420.7	4.4	35.7	8.5	11	.9	12.6	1.4	8	.16	.055	18	13.7	.32	34	.003	1	.68	.004	.05	.7	.02	3.1	<.1	<.05	2
RV-02-D-473	.5	18.8	72.9	79	.3	28.7	17.6	306	4.87	132.9	2.0	2.2	5.4	8	.4	2.8	.7	16	.09	.042	14	21.9	.19	38	.020	<.1	2.28	.009	.04	.3	.06	1.7	<.1	<.05	6
RV-02-D-474	.5	27.7	39.5	63	.4	34.2	18.8	762	3.77	96.2	3.8	3.0	6.6	8	.4	1.6	.4	14	.08	.051	20	21.2	.39	41	.006	<.1	1.37	.006	.06	.3	.07	1.9	.1	<.05	4
RV-02-D-475	.4	28.4	20.7	66	.1	35.7	11.8	228	3.78	86.3	.7	2.1	6.8	3	.1	1.4	.4	16	.03	.030	21	21.7	.43	16	.003	<.1	1.13	.004	.04	.2	.02	1.7	<.1	<.05	5
RV-02-D-476	.5	28.8	36.1	74	.9	52.8	18.4	242	4.02	58.1	.8	14.2	9.3	4	.3	1.0	.4	20	.03	.035	20	31.4	.58	90	.006	<.1	2.76	.007	.07	.2	.08	1.8	.1	<.05	6
RV-02-D-477	.5	16.3	13.6	48	.2	20.6	7.1	203	3.66	83.2	.5	2.4	5.9	4	<.1	2.0	.4	25	.02	.034	25	16.6	.25	31	.013	<.1	.97	.004	.04	.3	.01	1.2	<.1	<.05	8
RV-02-D-478	.5	20.3	22.6	76	1.7	22.6	14.2	685	2.69	56.4	1.0	.9	6.7	4	.1	1.3	.3	19	.03	.079	15	17.8	.27	56	.019	<.1	2.17	.008	.04	.3	.06	2.0	.1	<.05	7
RV-02-D-479	.7	26.0	27.1	74	.4	32.9	17.1	629	3.56	82.1	.9	4.6	7.7	5	.1	1.6	.4	19	.03	.054	18	21.7	.40	58	.015	<.1	1.71	.007	.06	.3	.05	1.8	.1	<.05	6
RV-02-D-480	.7	29.6	25.4	84	.9	39.3	16.9	297	3.76	95.1	1.0	3.0	7.9	4	.1	2.0	.4	17	.03	.065	15	14.7	.21	60	.024	<.1	1.83	.008	.04	1.7	.05	2.4	.1	<.05	6
RV-02-D-481	.7	14.5	28.8	75	.4	23.2	12.0	414	3.54	45.5	.6	3.0	5.7	4	.1	1.1	.3	24	.03	.046	17	19.5	.28	52	.024	1	1.72	.009	.04	.5	.03	1.4	.1	<.05	8
RV-02-D-482	.6	13.5	18.6	75	.3	23.4	8.9	263	3.07	23.3	.5	13.2	6.0	4	.1	.5	.3	24	.03	.059	19	21.5	.41	52	.026	<.1	1.82	.008	.04	.2	.03	1.5	<.1	<.05	9
RV-02-D-483	.7	18.8	28.4	180	.3	36.9	20.2	286	3.84	62.7	1.5	1.0	10.1	6	.4	1.3	.4	21	.05	.021	20	24.0	.46	59	.015	1	2.48	.006	.03	1.5	.04	2.9	<.1	<.05	6
RV-02-D-484	.6	49.4	52.4	142	.8	80.7	48.8	814	6.23	536.1	5.1	14.2	5.7	13	.3	11.2	.9	14	.25	.045	12	14.3	.23	34	.003	1	.99	.006	.05	1.6	.06	2.9	.1	<.05	3
RV-02-D-486	.7	52.2	123.5	276	1.2	64.0	28.1	719	6.96	937.4	1.8	22.3	7.3	7	.7	23.2	1.2	16	.06	.023	12	17.9	.23	25	.008	1	1.02	.004	.04	.7	.02	3.2	.1	<.05	4
RV-02-D-486	.6	28.8	35.5	284	.4	37.1	14.3	322	4.75	153.6	.6	2.8	6.5	4	.3	3.5	.5	18	.04	.049	21	24.5	.43	34	.005	<.1	1.41	.006	.04	.3	.03	1.9	.1	<.05	6
RV-02-D-487	.6	24.6	135.4	334	1.5	34.9	14.3	403	3.29	104.6	2.0	21.4	7.1	6	.5	9.6	.4	20	.04	.042	14	15.1	.22	87	.036	<.1	2.01	.012	.05	.3	.06	3.4	.1	<.05	7
RV-02-D-488	.7	26.5	222.6	816	1.0	55.2	42.5	345	6.75	147.2	3.0	4.9	11.7	26	5.4	17.0	.6	16	.33	.029	13	16.6	.19	45	.005	1	1.87	.006	.05	.3	.10	3.4	.1	<.05	5
RV-02-D-489	.3	16.2	48.8	311	.1	43.6	17.9	341	4.06	63.4	1.5	6.0	9.7	17	.5	2.3	.3	16	.20	.024	26	23.3	.49	40	.007	2	1.62	.007	.06	.2	.03	2.2	<.1	<.05	4
RV-02-D-490	.9	36.9	30.6	219	.3	50.3	19.3	308	4.78	93.6	1.1	6.1	10.9	6	.4	3.0	.5	24	.04	.057	22	29.5	.52	56	.033	1	2.05	.006	.05	.2	.04	2.2	.1	<.05	8
RV-02-D-491	.8	28.4	41.1	107	.3	40.1	17.5	582	4.29	62.5	1.1	1.7	8.7	5	.2	1.2	.5	27	.03	.048	22	29.4	.61	60	.032	<.1	2.01	.007	.07	.2	.04	1.8	.1	<.05	8
RV-02-D-492	.9	44.9	24.0	81	.6	36.4	17.3	1052	3.04	54.0	1.9	7.6	8.6	4	.1	1.0	.4	22	.03	.095	7	15.5	.25	49	.069	<.1	3.93	.013	.04	.3	.05	3.6	.1	<.05	9
RV-02-D-493	.8	32.0	18.7	86	.6	31.8	14.3	376	3.55	96.3	1.1	14.5	7.8	4	.1	1.4	.4	19	.02	.073	18	20.1	.36	52	.028	1	2.00	.008	.05	.2	.05	1.9	.1	<.05	6
STANDARD DS4	6.4	120.5	31.7	154	.3	34.8	11.8	786	3.14	23.2	6.1	29.9	3.8	30	5.4	4.9	5.1	75	.53	.091	17	156.0	.57	138	.086	2	1.77	.033	.17	3.8	.28	3.7	1.1	.06	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	
G-1	1.2	2.5	2.0	37	<1	3.6	3.6	473	1.59	1.1	2.3	<5	4.9	73	<1	<1	.1	35	.52	.098	7	11.6	.49	190	.111	<1	.83	.070	.41	2.5	<.01	1.6	.3	<.05	4
RV-02-D-494	1.0	40.5	50.0	212	1.0	51.8	16.9	462	3.75	499.1	1.7	9.0	9.8	5	.6	5.5	.5	18	.03	.085	7	15.9	.24	45	.068	1	2.76	.008	.03	.4	.08	3.0	.1	<.05	7
RV-02-D-495	.9	35.7	114.3	292	1.0	49.0	12.8	300	3.30	277.8	1.4	116.2	8.5	5	.6	9.6	.5	17	.03	.069	6	13.3	.16	62	.062	1	2.18	.009	.03	.8	.08	2.8	.1	<.05	6
RV-02-D-496	1.0	65.7	3063.2	1423	14.2	20.8	14.9	3827	5.01	415.7	1.1	37.6	6.0	6	9.4	43.6	.7	21	.05	.132	5	9.9	.11	42	.068	1	1.91	.008	.03	33.7	.08	2.6	.1	<.05	8
RV-02-D-497	.4	20.5	26.9	157	.1	27.7	18.1	561	3.06	48.2	.5	<5	8.9	3	.5	1.2	.2	11	.02	.026	13	9.1	.11	51	.008	<1	.69	.006	.02	.2	.02	1.6	<.1	<.05	3
RV-02-D-498	.8	31.8	78.1	266	.3	52.5	18.9	1647	4.85	100.9	1.1	3.4	8.9	7	.7	3.9	.5	11	.16	.085	10	12.3	.19	56	.012	<1	1.17	.007	.02	.4	.04	4.4	<.1	<.05	3
RV-02-D-499	.8	40.8	117.5	337	.5	62.5	22.6	2442	5.48	117.9	1.5	6.4	9.6	13	1.4	5.2	.5	9	.40	.110	11	12.3	.20	52	.008	1	.94	.006	.03	1.1	.04	4.8	<.1	<.05	3
RV-02-D-500	1.0	28.7	80.0	70	.8	22.7	13.1	706	3.59	49.5	.9	<5	5.2	5	.2	2.1	.5	24	.03	.077	10	22.5	.37	43	.027	1	1.36	.006	.04	.7	.05	1.4	.1	<.05	7
RV-02-D-501	1.0	25.9	92.6	130	.7	29.9	15.6	1037	3.66	112.5	.9	2.5	7.0	4	.3	3.6	.5	22	.02	.102	8	21.2	.32	62	.056	1	2.19	.009	.03	1.0	.07	1.9	.1	<.05	10
RV-02-D-502	.9	21.9	52.8	85	.6	16.7	15.3	1805	2.60	28.4	1.2	2.0	5.8	4	.2	.9	.4	23	.02	.132	4	14.8	.20	50	.101	<1	3.33	.010	.03	.6	.07	2.2	.1	<.05	10
RV-02-D-503	1.1	32.6	51.4	78	.3	30.9	20.7	2665	4.30	36.6	1.0	10.7	6.6	4	.3	1.0	.7	26	.02	.080	8	29.5	.47	47	.035	<1	1.88	.006	.04	.6	.06	1.7	.1	<.05	8
RV-02-D-504	.8	28.4	30.3	70	.4	32.2	10.4	452	4.34	38.1	1.0	2.3	6.9	3	.1	1.0	.5	24	.01	.133	9	27.6	.48	27	.027	<1	1.43	.005	.03	.9	.02	1.7	<.1	<.05	8
RV-02-D-505	.7	32.6	19.7	83	.2	38.3	10.5	271	3.98	44.1	.8	1.5	6.7	2	.1	1.3	.4	16	.01	.054	10	24.9	.49	19	.006	<1	1.09	.004	.02	.7	.01	1.9	<.1	<.05	5
RV-02-D-506	.6	29.7	21.1	87	.1	34.6	10.6	255	4.39	73.8	.7	1.7	6.2	2	.1	1.8	.5	21	.01	.059	9	25.2	.48	20	.017	1	1.16	.004	.02	.4	<.01	1.7	<.1	<.05	7
RV-02-D-507	.9	19.1	23.6	52	.4	18.2	10.5	582	3.63	33.6	.8	3.1	5.5	3	.1	.7	.6	26	.02	.121	7	18.8	.23	46	.037	<1	1.93	.006	.03	.4	.07	1.6	.1	<.05	10
RV-02-D-508	1.0	46.7	32.7	75	.5	38.5	16.6	397	4.81	51.1	1.7	5.2	8.7	3	<.1	1.3	.7	19	.01	.147	6	27.2	.49	29	.024	<1	2.09	.005	.03	.4	.03	2.6	<.1	<.05	7
RV-02-D-509	.8	24.0	22.5	55	.4	24.3	12.3	316	3.80	38.7	.9	1.9	5.2	3	.1	1.0	.5	19	.02	.138	7	21.4	.26	41	.027	<1	1.79	.007	.03	.3	.05	1.6	.1	<.05	8
RV-02-D-510	.7	13.3	36.3	55	.2	20.0	9.2	183	4.01	79.2	.5	26.6	5.9	2	.1	2.4	.4	17	.01	.023	6	13.0	.11	26	.014	<1	1.11	.006	.02	.6	.02	1.6	<.1	<.05	6
RV-02-D-511	.6	10.4	21.1	38	.4	16.8	5.4	91	4.80	152.5	.9	6.2	5.7	4	.1	.7	.3	26	.03	.037	7	22.1	.22	50	.044	1	3.56	.007	.02	.3	.07	2.1	<.1	<.05	10
RE RV-02-D-511	.6	9.7	21.1	39	.4	17.1	5.6	94	3.97	152.0	.9	20.7	5.6	4	.2	.7	.3	25	.03	.037	7	22.3	.22	50	.041	1	3.62	.007	.02	.3	.09	2.0	<.1	<.05	9
RV-02-D-512	.7	10.3	28.2	39	.4	12.6	4.3	76	3.56	99.9	.4	3.2	4.4	3	.1	.9	.4	21	.05	.051	6	18.4	.18	30	.030	<1	1.26	.007	.02	.5	.02	1.2	<.1	<.05	9
RV-02-D-513	.8	11.7	38.7	65	.6	16.7	5.8	114	4.00	101.9	.5	2.3	5.0	3	.2	1.4	.4	23	.02	.062	6	17.6	.15	40	.028	<1	1.93	.006	.03	.5	.05	1.5	<.1	<.05	9
RV-02-D-514	.7	15.5	48.5	58	2.1	16.2	6.1	223	3.94	138.8	1.0	5.7	6.8	2	.3	2.2	.3	20	.02	.137	4	19.5	.13	42	.050	1	4.02	.007	.02	.4	.11	2.1	<.1	<.05	8
RV-02-D-515	.7	16.3	41.8	63	.9	20.7	6.8	137	3.11	77.7	.7	4.4	4.9	2	.1	1.9	.3	17	.01	.077	6	14.6	.18	35	.018	1	1.99	.006	.03	.2	.06	1.5	.1	<.05	7
RV-02-D-516	.5	20.6	58.7	115	.3	32.5	11.4	274	4.10	128.0	.6	4.1	7.7	2	.2	3.9	.3	13	.01	.038	10	24.1	.34	45	.002	<1	1.49	.003	.03	.3	.03	1.4	<.1	<.05	4
RV-02-D-517	.4	54.9	166.2	198	1.5	51.1	16.2	394	5.06	1013.5	1.4	353.0	6.9	5	.9	14.7	.5	7	.02	.046	7	12.4	.16	30	.001	<1	.69	.003	.02	1.0	.03	2.7	<.1	<.05	2
RV-02-D-518	.6	73.1	29.6	101	.3	62.9	31.1	2042	5.71	80.2	.6	4.8	9.3	3	.1	2.1	.6	18	.02	.063	5	44.3	.87	25	.001	<1	1.92	.003	.02	<.1	.02	3.0	<.1	<.05	7
RV-02-D-519	.4	15.3	18.2	66	.4	21.7	7.7	929	2.84	42.8	.4	1.2	4.2	3	.1	.8	.3	14	.02	.068	13	19.4	.28	45	.004	<1	1.01	.004	.04	.4	.02	1.1	<.1	<.05	5
RV-02-D-520	.3	36.5	23.0	75	.1	47.1	13.8	395	3.81	76.8	.9	5.2	9.2	3	.2	.8	.3	11	.02	.036	17	26.4	.57	34	.002	1	1.27	.003	.05	.4	.01	2.0	<.1	<.05	4
RV-02-D-521	.2	39.2	33.8	99	.1	46.5	13.0	441	3.92	122.2	1.0	8.8	8.6	3	.2	1.7	.4	10	.01	.028	16	21.3	.43	26	.001	<1	.98	.003	.05	.5	<.01	2.4	<.1	<.05	3
RV-02-D-522	.5	27.3	40.9	134	.6	35.4	15.9	428	3.36	112.5	.9	6.6	5.9	5	.5	1.5	.3	16	.04	.101	11	16.1	.19	65	.013	<1	1.81	.006	.05	.7	.04	2.1	.1	<.05	5
RV-02-D-523	.4	38.2	74.7	116	.2	49.3	14.5	425	4.20	135.1	.8	7.2	8.4	4	.2	1.9	.4	10	.03	.042	14	20.7	.33	32	.003	<1	1.04	.003	.04	.7	.01	2.4	<.1	<.05	3
RV-02-D-524	.4	32.5	49.1	115	.3	42.3	12.1	325	4.12	144.1	.7	3.8	7.0	6	.3	2.3	.4	10	.07	.041	13	18.3	.28	35	.004	<1	.94	.004	.04	.7	.02	1.7	<.1	<.05	3
RV-02-D-525	.6	14.3	21.9	49	.3	22.4	8.1	188	3.69	57.5	.4	1.8	5.2	3	.1	.9	.4	21	.02	.042	15	20.1	.25	33	.009	<1	1.20	.005	.04	.4	.01	1.2	<.1	<.05	7
RV-02-D-526	.4	24.1	24.9	83	.3	37.0	11.3	446	4.26	88.8	.5	1.0	6.2	4	.1	1.1	.4	15	.04	.069	13	25.9	.43	43	.004	1	1.22	.004	.05	.5	.02	1.6	<.1	<.05	5
STANDARD DS4	6.5	123.2	32.7	157	.3	35.1	12.0	795	3.16	24.2	6.5	25.3	3.8	29	5.3	5.0	5.3	74	.53	.094	16	158.8	.57	138	.082	1	1.68	.030	.15	4.2	.29	3.5	1.1	.08	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



Jasper Mining Corporation PROJECT Ruth-Vermont FILE # A204177

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Tl %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
G-1	1.2	2.3	2.5	43	<.1	3.8	3.8	517	1.72	1.4	2.6	<.5	5.1	75	<.1	<.1	.1	38	.55	.091	7	13.4	.53	191	.115	<.1	.86	.078	.45	2.6	<.01	2.1	.3	<.05	4
RV-02-D-527	.4	23.4	56.3	82	.5	36.9	10.1	237	3.81	93.0	.7	2.8	6.8	5	.2	1.9	.3	17	.04	.053	13	22.3	.31	59	.016	<.1	1.72	.004	.05	.6	.05	1.6	<.1	<.05	6
RV-02-D-528	.3	22.7	42.3	75	.4	34.1	10.7	247	3.50	72.0	.6	1.4	6.4	3	.2	1.6	.4	15	.03	.037	13	18.8	.28	35	.010	<.1	1.08	.004	.04	.5	.02	1.4	<.1	<.05	4
RV-02-D-529	.3	23.2	20.9	75	.2	34.4	9.5	222	3.80	59.2	.5	5.9	6.9	2	.1	1.5	.3	14	.02	.044	15	27.1	.58	19	.002	<.1	1.27	.003	.04	.3	.01	1.5	<.1	<.05	5
RV-02-D-530	.4	23.8	32.3	92	.3	36.7	12.1	298	3.62	80.1	.7	1.1	8.0	3	.2	1.2	.3	14	.02	.053	16	23.9	.44	34	.005	<.1	1.25	.003	.04	.7	.02	1.5	<.1	<.05	4
RV-02-D-531	.3	46.3	100.5	156	.4	63.5	26.1	933	5.08	99.0	1.4	91.4	12.9	7	.4	2.6	.4	11	.10	.040	16	25.5	.51	66	.002	1	1.13	.005	.08	.5	.01	3.7	<.1	<.05	3
RV-02-D-532	.6	9.2	28.7	47	1.1	13.3	7.6	186	2.66	24.9	.9	4.1	4.8	4	.1	.4	.2	23	.03	.146	4	15.8	.09	41	.089	<.1	4.40	.010	.02	.4	.08	1.8	<.1	<.05	9
RV-02-D-533	.4	20.0	20.0	87	.2	32.5	14.4	583	3.20	50.4	.6	<.5	6.8	3	.1	.8	.2	15	.04	.085	16	26.8	.58	40	.005	<.1	1.53	.003	.04	.8	.02	1.4	<.1	<.05	5
RV-02-D-534	.5	13.0	35.2	46	.7	17.5	6.0	189	2.15	40.8	.7	1.9	4.2	3	.1	.8	.2	21	.02	.086	9	13.3	.16	51	.037	<.1	2.42	.009	.04	.4	.04	2.0	<.1	<.05	8
RV-02-D-535	.5	12.2	22.6	33	.4	21.2	11.1	129	2.35	19.9	.7	2.0	4.9	6	.1	.3	.3	22	.05	.126	3	13.3	.08	52	.107	1	4.35	.013	.02	.2	.07	1.4	<.1	<.05	10
RV-02-D-536	.5	30.3	27.6	62	.3	34.3	18.3	402	3.47	58.8	.5	1.1	10.4	4	.1	1.2	.5	15	.05	.037	17	24.0	.50	27	.004	<.1	1.20	.003	.04	.2	.02	1.7	<.1	<.05	5
RV-02-D-537	.6	41.8	19.5	54	.4	44.2	17.1	645	5.00	737.7	1.0	9.8	8.7	4	.2	2.3	.8	11	.03	.038	8	15.1	.21	17	.002	<.1	.69	.004	.03	.1	.02	2.5	<.1	<.05	3
RE RV-02-D-537	.7	40.5	18.5	51	.4	41.0	16.4	602	4.65	693.6	1.0	9.4	8.4	4	.1	2.3	.8	10	.03	.038	8	15.0	.21	17	.002	<.1	.67	.004	.03	.1	.03	2.2	<.1	<.05	3
RV-02-D-538	.4	9.5	21.0	85	.2	39.6	10.8	335	2.64	28.2	.5	1.8	5.7	12	.1	.4	.3	19	.16	.068	8	16.7	.25	82	.058	1	2.69	.013	.06	.3	.04	2.3	.1	<.05	7
RV-02-D-539	.4	22.2	34.2	90	.3	42.4	19.1	391	3.50	46.5	1.7	1.6	7.5	5	.2	.7	.3	18	.02	.036	16	29.7	.47	92	.022	1	2.45	.006	.06	.6	.04	2.2	<.1	<.05	6
RV-02-D-540	.4	11.9	25.6	65	.3	17.8	6.4	314	2.76	46.6	.3	2.9	3.5	4	.2	1.0	.3	23	.04	.043	16	17.5	.29	39	.015	1	1.14	.005	.04	.9	.03	1.1	<.1	<.05	7
RV-02-D-541	.6	67.1	303.5	243	1.0	39.8	18.8	362	8.44	1481.2	.9	96.6	9.6	4	.8	15.6	3.1	12	.04	.071	14	27.1	.47	36	.003	1	1.40	.002	.02	.3	.06	1.4	<.1	<.05	4
STANDARD DS4	6.4	122.4	33.0	158	.3	33.6	11.8	784	3.06	23.4	6.2	25.3	3.8	27	5.5	4.8	5.2	74	.51	.087	15	161.2	.58	140	.082	1	1.70	.029	.16	4.0	.28	3.5	1.1	<.05	6

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Jasper Mining Corporation PROJECT Ruth-Vermonde File # A203495

433 - 4th Ave S.W., Calgary AB T2P 1T5 submitted by: Rick Walker

SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Mo	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm
G-1	1.4	2.1	2.2	43	<.1	4.1	4.5	580	1.82	<.5	2.6	<.5	4.9	68	<.1	<.1	.2	45	.55	.107	8	14.7	.56	216	.136	1	.84	.055	.50	2.3	.01	1.9	.3	<.05	5
RV-02-S-01	.5	66.6	250.9	375	1.8	68.9	37.2	1817	6.58	969.4	2.3	41.9	4.5	16	2.1	17.4	.9	7	.39	.077	7	11.3	.21	17	.002	5	.34	.005	.03	3.2	.03	2.9	<.1	.12	1
RV-02-S-02	.5	63.0	297.3	390	1.9	69.4	33.0	1070	6.16	588.6	1.4	45.4	7.0	10	2.3	28.4	.8	5	.14	.050	8	8.3	.16	13	<.001	2	.18	.003	.02	4.6	.02	3.0	<.1	.11	<1
RV-02-S-03	.3	56.3	225.1	276	.9	70.5	29.7	963	5.35	492.3	1.3	62.5	7.9	9	1.1	24.3	.7	5	.12	.057	9	7.8	.12	13	<.001	1	.12	.003	.02	3.5	.02	2.8	<.1	.08	<1
RV-02-S-04	.4	37.9	82.1	114	.5	52.2	18.7	890	4.82	255.8	1.4	25.9	3.6	13	.4	4.7	.4	9	.29	.055	9	15.6	.31	12	.004	1	.54	.004	.02	5.5	.02	2.1	<.1	<.05	2
RV-02-S-05	.4	62.5	207.9	225	1.4	67.8	31.5	1130	6.17	451.8	2.6	28.3	6.8	6	1.1	6.1	1.2	8	.12	.053	9	17.3	.35	14	.001	<1	.53	.003	.02	4.8	.03	3.1	<.1	.18	2
RV-02-S-06	.4	59.0	196.4	172	.7	76.9	32.8	1032	5.78	392.7	1.4	44.1	9.6	8	.9	20.9	.6	9	.17	.056	9	18.1	.50	18	<.001	<1	.58	.003	.02	.5	.01	3.5	<.1	.17	2
RV-02-S-07	.8	66.7	241.5	236	1.3	65.7	30.4	1096	5.57	790.9	1.6	43.0	9.7	15	1.0	20.6	.7	11	.18	.064	15	19.2	.58	18	.001	<1	.79	.003	.02	.8	.01	3.1	<.1	<.05	3
RV-02-S-08	.5	59.5	219.1	258	1.0	74.4	33.7	1120	6.05	525.8	4.0	175.6	12.1	9	1.2	7.5	.7	9	.26	.062	8	17.3	.62	21	.001	1	.68	.004	.03	2.2	.03	2.7	<.1	.23	2
STANDARD DS4	6.7	125.3	32.0	154	.3	36.2	12.8	822	3.22	24.0	5.8	27.0	3.9	28	5.2	5.0	5.2	83	.55	.096	18	169.7	.61	146	.095	2	1.76	.031	.16	3.9	.27	3.5	1.1	.08	6

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 NCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C

DATE RECEIVED: SEP 3 2002 DATE REPORT MAILED: *Sept 16/02* SIGNED BY: *C. L.* TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.
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GEOCHEMICAL ANALYSIS CERTIFICATE



Jasper Mining Corporation PROJECT Ruth-Vermont File # A203608

415 - 4th Ave S.W., Calgary AB T2P 1T5 Submitted by: Rick Walker

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	% ppm	ppm	ppm	% ppm	% ppm	% ppm	%	%	%	% ppm	ppm	ppm	ppm	ppm	% ppm	
G-1	1.3	1.8	2.1	37	<.1	3.6	3.7	513	1.70	.5	2.7	6.7	4.6	67	<.1	<.1	.2	36	.51	.093	7	12.3	.52	208	.122	1	.80	.056	.47	2.2	<.01	1.9	.3	<.05	4
RV-02-S-09	1.0	68.6	60.5	113	.5	70.9	25.7	950	5.58	312.8	1.8	16.0	12.4	21	.3	4.9	.4	14	.25	.092	16	35.4	.85	19	.002	<1	1.43	.005	.03	.3	<.01	3.5	<.1	<.05	5
STANDARD DS4	6.5	124.8	32.0	149	.3	33.4	11.3	770	3.01	24.0	6.0	28.0	3.6	30	5.2	5.2	5.0	71	.52	.092	16	163.3	.59	144	.091	1	1.65	.034	.16	4.0	.26	3.7	1.0	<.05	6

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C

DATE RECEIVED: SEP 6 2002 DATE REPORT MAILED: *Sept 18/02* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Imperial Mining Corporation File # A201952
7050 Canadian Centre, 833, Calgary AB T2C 3T5 Analyzed by: Rick Geller



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Ng	Ba	Tl	B	Al	Na	K	W	Mg	Sc	Ti	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm
G-1	1.6	1.6	2.4	40	<.1	4.2	3.8	516	1.64	1.6	3.0	3.0	5.3	66	<.1	<.1	.2	40	.58	.093	9	11.9	.53	199	.124	2	.83	.060	.45	2.2	<.01	2.1	.3	<.05	5
RV-02-s-10	.4	21.7	27.2	104	.3	35.4	11.8	852	2.73	44.0	1.9	211.0	5.3	21	.4	.6	.2	17	.41	.059	15	20.0	.55	20	.007	3	.96	.005	.03	.1	.02	1.1	<.1	<.05	3
RV-02-s-11	.4	27.6	32.6	109	.3	37.3	11.0	1351	2.45	41.3	2.4	24.9	2.8	30	.5	.7	.2	19	.58	.079	14	20.5	.60	43	.009	1	1.19	.006	.04	.3	.05	1.0	<.1	<.05	3
STANDARD DS4	6.9	121.5	32.3	152	.3	34.4	11.5	762	3.01	24.0	6.1	25.2	4.0	30	5.2	5.5	5.0	73	.60	.088	16	171.5	.55	145	.099	2	1.64	.033	.17	3.8	.26	4.0	1.1	.08	6

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, NG, V = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT S880 60C

DATE RECEIVED: SEP 19 2002 DATE REPORT MAILED: *Sept 30/02* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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GEOCHEMICAL ANALYSIS CERTIFICATE

Jasper Mining Corporation PROJECT Rush-Vermont File # A204179

1030 Canadian Centre, 433, Calgary AB T2P 3T9 Submitted by: Rick Walker

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm
G-1	1.5	3.1	36.9	68	.1	3.8	3.9	546	1.68	16.6	2.9	2.0	5.2	69	.3	.5	.2	38	.56	.096	7	12.7	.52	203	.112	1	.82	.059	.51	2.6	.01	2.2	.3	<.05	5
RV-02-S-12	.4	41.1	90.3	171	.6	55.3	22.3	1484	4.89	236.3	2.2	14.0	6.5	21	.6	6.7	.4	8	.46	.059	7	20.2	.49	30	.002	1	.79	.005	.02	.6	.01	3.0	<.1	<.05	3
RV-02-S-13	.4	39.4	39.4	70	.1	42.9	17.7	796	3.73	104.1	2.3	6.1	9.3	6	.1	1.4	.4	9	.07	.034	18	19.6	.38	23	.004	1	.91	.003	.04	.5	.01	2.3	<.1	<.05	3
RV-02-S-14	.4	44.1	88.2	177	1.1	50.5	18.5	1029	4.17	345.5	2.0	44.2	5.1	26	.7	10.2	.4	7	.59	.065	7	13.5	.39	28	.002	3	.51	.004	.03	.7	.03	2.5	<.1	.06	2
RV-02-S-15	.4	56.0	220.3	259	1.1	64.2	27.3	1191	6.35	407.3	2.0	24.5	7.8	22	1.0	13.2	.5	9	.46	.068	7	17.7	.46	19	.001	1	.57	.006	.03	.4	.02	4.1	<.1	.09	2
RV-02-S-16	.4	24.4	32.0	107	.3	36.3	15.8	1715	3.27	93.4	1.8	66.8	3.0	28	.6	.5	.4	12	.44	.059	10	20.4	.52	45	.011	1	1.17	.006	.03	.8	.03	1.6	<.1	<.05	4
STANDARD DS4	6.4	122.4	33.0	158	.3	33.6	11.8	784	3.06	23.4	6.2	25.3	3.8	27	5.5	4.8	5.2	74	.51	.087	16	161.2	.58	140	.078	1	1.70	.029	.16	4.0	.28	3.5	1.1	<.05	6

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; NO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C

DATE RECEIVED: SEP 30 2002 DATE REPORT MAILED: *Oct 9/02* SIGNED BY: *C. Long* .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Jasper Mining Corporation PROJECT Ruth-Vermont File # A203497

833 - 4th Ave S.E., Calgary AB T2P 3T5 Submitted by: Rick Walker

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Y	S	Ga	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm
S1	.2	.9	1.7	4	<1	.2	<1	6	.02	<.5	<.1	<.5	<.1	2	.1	.1	<.1	2	.11	<.001	<.1	2.5	<.01	3	<.001	<.1	.01	.449	.01	.2	<.01	<.1	<.1	.29	<.1	
RW-02-01	.8	10332.7	25742.6	99999	232.0	4.5	1.1	272	3.01	5471.7	1.4	905.6	.1	9	2646.2	5325.3	1.7	<.1	.97	<.001	<.1	2.9	.03	4	<.001	<.1	<.01	<.001	<.01	.9	.69	<.1	.2	13.67	5	
RW-02-02	1.6	2345.6	20419.0	59343	234.0	90.2	18.5	666	15.41	2524.1	.5	650.9	.3	11	477.8	1293.0	42.3	<.1	.28	<.001	<.1	13.7	.11	4	.001	<.1	.03	.004	.01	6.6	.19	.3	.1	23.00	1	
RW-02-03	3.6	6911.8	26364.2	82761	272.2	3.1	1.1	62	14.48	99999.0	.7	19619.2	1.0	7	752.5	19986.4	.4	<.1	.81	.002	<.1	17.3	<.01	14	<.001	<.1	.14	.004	.03	4.4	.28	<.1	.1	11.74	2	
RW-02-04	1.9	9793.0	26384.7	24815	247.4	10.4	1.6	99	7.44	86700.8	1.1	7078.4	.4	8	300.6	15627.5	2.8	<.1	.02	<.001	<.1	13.8	<.01	13	<.001	<.1	.02	.005	<.01	6.3	.19	<.1	.4	13.96	1	
RW-02-05	.9	10985.2	26333.4	29746	267.9	5.4	1.3	33	11.44	99999.0	.6	12819.5	.4	2	707.4	15962.1	1.6	<.1	<.01	<.001	<.1	8.6	<.01	15	<.001	<.1	.05	.004	.02	4.0	1.36	<.1	.2	15.35	5	
RW-02-06	1.2	9791.6	23658.7	63015	226.7	2.2	.5	58	8.77	9759.1	.7	2554.1	.3	2	549.9	9068.3	.5	<.1	<.01	<.001	<.1	12.4	<.01	9	<.001	<.1	.01	.002	<.01	3.9	.45	<.1	.1	16.15	2	
RW-02-07	2.7	993.7	19808.3	95352	98.9	3.5	1.7	6109	17.20	4402.7	.4	149.3	.6	22	748.3	213.6	.8	<.1	2.26	.011	<.1	18.2	.50	6	<.001	<.1	.05	.003	.03	25.4	.19	.9	<.1	24.80	2	
RW-02-08	3.9	225.9	23022.0	63152	70.0	6.4	.6	1669	1.37	213.3	.3	29.0	.4	42	446.5	173.9	2.6	<.1	20.4	.46	<.1	30.4	.46	5	<.001	1	.03	.003	.01	17.7	.64	.9	1	4.18	<.1	
RW-02-09	1.8	4832.5	16060.3	99999	117.8	24.8	5.4	284	9.90	1334.6	.2	871.0	.1	2	2118.3	472.1	.1	<.1	.15	.004	<.1	19.6	.03	5	<.001	1	.02	.002	.01	9.4	.96	<.1	<.1	16.32	3	
RW-02-010	.9	46.0	566.5	1111	4.0	8.4	2.7	8833	4.46	638.0	.2	35.0	1.0	162	10.8	16.0	<.1	1	6.78	.003	1	12.1	2.02	10	<.001	1	.08	.006	.05	76.0	<.01	5.1	<.1	2.76	<.1	
RW-02-011	3.5	127.3	923.6	1922	8.5	6.9	3.5	346	1.40	200.6	1.2	19.0	2.1	29	9.3	75.3	1.1	2	1.41	.093	3	19.8	.03	24	.001	<.1	.15	.007	.10	10.3	.01	.6	<.1	.73	<.1	
RW-02-012	3.4	238.7	20798.6	8824	136.4	10.8	2.3	1476	13.69	50000.0	.8	611.5	.3	6	77.9	179.6	.5	<.1	.91	.032	<.1	23.0	.20	6	<.001	<.1	.06	.003	.03	14.6	.03	.5	.1	17.53	<.1	
RW-02-013	1.9	375.6	20759.8	26706	196.2	4.2	1.2	319	8.98	5149.1	.5	747.0	.2	12	266.1	1025.7	4.6	<.1	.24	.011	<.1	16.3	.03	3	.001	1	.12	.002	.01	37.9	.49	<.1	.2	15.66	1	
RW-02-014	1.9	1839.3	24769.0	64777	243.8	21.5	7.7	51	21.39	99999.0	.9	19806.5	1.3	2	480.7	902.2	75.7	<.1	.01	.001	<.1	15.1	<.01	10	<.001	3	.27	.007	.05	9.1	.18	1.0	.2	19.02	2	
RW-02-014A	1.4	4873.6	25470.5	4381	253.1	5.2	1.2	64	4.05	71393.0	.4	922.0	.1	<.1	44.9	9833.7	.4	<.1	.02	<.001	<.1	15.1	<.01	7	<.001	<.1	.02	.004	<.01	9.5	.01	<.1	.1	5.98	<.1	
RW-02-015	1.6	60.8	1364.1	617	5.0	9.9	3.5	62	21.72	99999.0	.1	11589.4	1.3	<.1	6.7	230.8	.3	4	.01	.001	<.1	12.5	<.01	7	.002	2	.37	.006	.05	2.7	<.01	.7	.1	11.95	<.1	
RW-02-016	4.4	5942.8	29981.1	55558	219.0	9.4	1.4	85	6.59	63800.0	.5	4190.6	<.1	<.1	579.9	22466.8	.3	<.1	<.01	<.001	<.1	29.5	<.01	15	<.001	1	.02	.003	<.01	12.9	.12	<.1	.1	9.54	1	
RE RW-02-016	4.1	6277.8	28879.4	58791	237.6	8.4	1.5	67	7.04	68200.0	.6	4499.8	<.1	<.1	608.3	21929.0	.4	<.1	<.01	<.001	<.1	34.4	<.01	15	<.001	<.1	.02	.004	<.01	12.8	.12	<.1	.1	10.25	1	
RW-02-017	.9	375.4	21547.8	38761	85.2	4.4	2.3	9434	3.43	447.3	1.9	52.0	1.5	76	321.8	259.0	.3	<.1	6.54	.125	<.1	9.5	1.80	19	<.001	<.1	.32	.009	.08	3.7	.21	2.6	.1	2.79	1	
RW-02-018	1.5	129.3	22774.7	40916	236.5	6.9	2.4	1560	1.98	121.9	.2	709.4	<.1	108	224.5	323.9	14.6	<.1	3.31	.001	<.1	17.9	1.28	2	<.001	<.1	.01	.004	<.01	8.5	.23	.6	<.1	3.20	1	
RW-02-019	2.2	11.2	12642.3	1304	34.4	13.4	5.9	513	1.02	295.2	.4	17.0	1.3	232	12.6	30.7	1.5	1	6.07	.032	2	13.3	.09	13	<.001	<.1	.15	.008	.07	3.0	.02	1.8	<.1	.34	<.1	
RW-02-020	3.1	108.5	21281.6	46677	95.7	10.5	1.5	1797	2.08	82.5	.4	112.4	.6	283	288.2	144.0	6.2	<.1	5.97	.002	1	24.9	.56	7	<.001	<.1	.03	.004	.02	11.4	.17	2.8	<.1	2.63	1	
RW-02-021	3.4	169.9	25830.9	4825	199.5	3.6	.4	96	1.55	418.8	<.1	249.8	.1	1	41.6	271.3	16.3	<.1	.84	.001	<.1	37.3	.01	2	<.001	<.1	.01	.002	<.01	21.4	.18	<.1	<.1	2.41	<.1	
RW-02-022	2.4	1904.0	2229.9	1175	80.2	224.0	2.1	131	32.67	1452.5	3.0	1.4	<.1	<.1	8.6	42.5	2060.1	<.1	.01	<.001	<.1	15.2	<.01	1	<.001	<.1	<.01	.002	<.01	47.6	.02	<.1	.3	37.53	<.1	
RW-02-023	2.4	43.8	348.7	55	1.7	6.3	.3	108	.95	932.1	<.1	9.9	<.1	<.1	.3	4.3	13.6	1	.01	<.001	<.1	24.6	<.01	1	<.001	<.1	<.01	.002	<.01	13.5	<.01	.1	<.1	.57	<.1	
RW-02-024	2.9	29.8	116.0	67	.8	41.6	14.1	566	2.61	17.1	1.1	2.1	9.4	22	.2	2.6	7.4	12	.09	.027	10	44.0	.79	34	.001	<.1	1.19	.036	.17	7.3	<.01	1.7	<.1	.24	4	
STANDARD 054	7.1	120.3	28.0	160	.4	33.8	12.6	750	3.09	22.0	6.2	27.0	3.8	24	5.6	4.8	5.6	76	.95	.095	17	181.2	.62	161	.091	3	1.73	.032	.16	4.0	.28	3.4	1.1	<.05	6	

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.

UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

** Not suitable for Au if samples contain graphite / massive sulf*

DATE RECEIVED: SEP 3 2002 DATE REPORT MAILED: *Sept 18/02* SIGNED BY: *C. Toy* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYER!

*Assay recommend for Cu, Zn, As > 1%
Pb > 5000 ppm
Ag > 30 ppm
Au > 1000 ppb*

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA

Ussper Mining Corporation PROJECT Ruth-Vermont File # A203609

833 - 4th Ave S.W., Calgary AB T2P 3T5 Submitted by: Nick Walker

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Ti	S	Ga
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm
SI	.1	1.5	4.4	9	.1	.5	.1	17	.06	1.1	<.1	<.5	<.1	4	.1	.5	<.1	1	14	.001	<.1	1.2	.02	5	.004	<.1	.03	.580	.01	.4	<.01	.1	<.1	.06	<.1
RW-02-025	2.2	4953.9	22826.8	99999	189.4	.2	.5	31	10.82	4622.2	1.1	992.9	<.1	3	1140.0	4043.1	1.7	<.1	.82	<.001	<.1	11.4	<.01	3	<.001	<.1	<.01	<.001	<.01	2.4	.76	<.1	.2	17.93	2
RW-02-026	.9	1855.1	23824.4	21770	129.3	12.9	4.1	39	5.97	28213.4	2.8	11546.9	<.1	15	210.6	13979.1	.6	<.1	<.01	.002	<.1	13.5	<.01	17	<.001	2	.12	.010	.07	.9	.07	.1	.2	8.63	1
RW-02-027	1.7	13196.0	22654.7	358	181.1	2.6	.8	2261	3.96	30540.8	2.1	2086.8	<.1	38	33.5	13886.6	62.4	<.1	2.05	.001	<.1	11.4	.87	9	<.001	<.1	<.01	.001	<.01	.3	.03	.1	.3	8.43	<.1
RW-02-028	1.0	2282.5	25374.9	526	270.1	2.5	.3	46	14.02	99999.0	.5	7739.9	.4	3	9.7	2565.8	.7	<.1	.01	.002	<.1	8.9	<.01	6	<.001	<.1	.02	.003	.02	6.3	.11	.1	<.1	7.83	<.1
RW-02-030	1.6	102.9	6060.7	1210	21.7	25.3	7.9	38	21.85	99999.0	.6	19181.8	6.9	13	12.7	311.3	1.0	<.1	<.01	.034	1	7.2	<.01	11	.002	<.1	.13	.007	.07	1.6	.02	.6	.1	11.59	1
RW-02-031	1.7	306.8	24633.3	36159	170.7	18.1	4.9	818	2.96	12242.7	.3	428.0	1.4	40	257.5	230.0	1.6	<.1	1.35	.009	1	20.4	.55	11	.002	4	.12	.008	.08	10.0	.22	2.2	.1	4.18	1
RW-02-032	1.2	6375.9	27651.9	99999	52.5	1.3	.8	61	7.89	59315.2	.4	12583.8	<.1	1	1652.9	18736.4	.2	<.1	.01	<.001	<.1	12.3	<.01	12	<.001	<.1	.03	.002	.01	48.1	.53	<.1	.2	7.85	4
RW-02-033	.8	189.5	23588.8	99999	203.7	17.6	6.7	12314	8.57	701.3	1.1	27.1	1.7	146	886.6	341.5	.5	1	8.18	.014	<.1	5.2	2.57	14	.001	3	.13	.009	.09	3.7	.79	4.2	.1	12.04	2
RE RW-02-833	.8	107.6	22878.3	98135	198.0	19.7	6.7	12016	8.47	658.6	1.1	22.3	1.7	149	865.5	362.0	.5	1	8.06	.015	<.1	3.8	2.53	13	<.001	<.1	.14	.009	.09	3.7	.86	4.2	.1	12.26	2
RW-02-034	4.1	255.1	25439.4	1511	198.8	60.4	11.4	302	4.58	564.0	.4	184.2	1.0	5	8.9	418.5	546.0	<.1	.13	.065	2	27.3	.03	7	<.001	2	.10	.008	.04	6.6	.01	.7	.1	2.52	<.1
RW-02-035	1.5	399.1	20453.1	89843	130.7	37.6	13.3	66	8.67	18248.9	1.6	1827.2	1.1	5	695.1	215.5	9.2	<.1	.06	.001	1	16.7	.01	12	<.001	1	.14	.011	.09	9.3	.71	.1	.1	15.09	2
STANDARD DSA	6.6	123.1	29.0	147	.3	35.2	11.5	797	3.13	27.0	6.6	23.3	4.1	29	5.4	5.3	75	.55	.092	18	169.1	.59	136	.103	3	1.79	.032	.17	4.0	.27	4.0	1.1	.06	6	

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
 UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
 - SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 6 2002 DATE REPORT MAILED: *Sept 20/02* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYER!

Suggest Fire Assay & Regular Assay

Jasper Mining Corporation File # A203953
 1020 Canadian Centre, 155, Calgary AB T2P 3T5 Submitted by: Rick Walker

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	
SI	.5	.5	2.6	2	<.1	.4	<.1	<.1	.03	1.3	<.1	<.5	<.1	2	<.1	.4	<.1	<.1	.07	.001	<.1	2.8	<.01	21	<.001	1	<.01	.360	<.01	.7	.01	.1	<.1	<.1
RW-02-036	.8	376.4	12561.7	33707	102.6	11.0	5.0	8799	15.53	41842.5	.6	507.6	1.1	75	307.1	198.5	.7	1	3.96	.008	<.1	9.1	1.17	8	<.001	<.1	.05	<.001	.04	6.2	.06	1.5	<.1	16
RW-02-037	1.6	1958.6	11765.5	34107	176.8	31.2	15.6	16106	10.12	1921.7	2.1	190.0	5.9	26	382.6	984.4	1.0	4	.28	.127	<.1	9.5	.02	64	<.001	1	.14	.010	.10	31.7	.35	5.4	.1	1
RW-02-038	1.6	1161.4	10098.9	16054	263.7	32.4	4.6	2531	3.48	595.9	1.1	122.5	1.8	24	225.2	648.7	.8	2	.78	.031	1	18.7	.24	37	<.001	2	.09	.007	.05	7.7	.23	5.0	.1	2
RW-02-039	1.3	104.7	11785.2	60806	136.6	5.2	2.2	82	12.28	2958.7	.5	100.4	.5	31	471.7	250.5	.2	<.1	.07	.020	<.1	9.2	<.01	10	<.001	<.1	.06	.005	.04	5.4	.46	.5	.1	17
RW-02-040	1.6	1035.8	11156.6	30310	40.5	4.7	1.5	33	4.70	17176.9	5.0	6088.6	.2	5	294.3	24655.3	2.3	<.1	.01	.003	<.1	20.3	<.01	41	<.001	2	.05	.002	.03	3.8	.31	.2	.1	6
RW-02-041	1.6	2561.6	10324.2	160	87.9	3.8	.6	21	4.10	14303.2	3.7	10727.0	<.1	2	6.1	20703.1	2.1	<.1	<.01	<.001	<.1	18.1	<.01	24	<.001	<.1	.01	.002	<.01	.8	.02	.1	.2	6
RW-02-042	1.5	5117.4	10883.2	9575	244.0	5.7	.7	27	4.56	36185.3	1.7	4235.7	.5	19	117.5	21918.4	.4	<.1	<.01	<.001	<.1	14.4	<.01	33	<.001	<.1	.02	.001	.02	6.0	.29	.3	.3	5
RW-02-043	1.9	44.6	1184.4	145	2.1	47.4	56.2	7139	6.46	260.6	2.6	49.2	3.0	8	1.0	212.1	.6	2	.02	.119	2	13.8	.02	16	<.001	<.1	.05	.004	.03	6.0	.02	5.4	<.1	<.1
RW-02-044	1.5	16.3	286.4	34	1.2	31.7	12.6	12347	1.37	84.7	.5	8.3	1.6	15	.5	47.6	2.3	1	.03	.007	3	17.8	.02	18	<.001	<.1	.06	.002	.02	7.1	.01	3.3	<.1	<.1
RW-02-045	1.7	6.7	179.6	15	.5	36.6	19.2	277	3.85	482.6	.8	15.4	6.8	6	.2	37.8	1.3	2	.07	.071	13	16.6	.03	25	<.001	32	.16	.008	.09	4.9	.01	1.8	<.1	3
RE RW-02-045	1.7	6.7	177.7	15	.5	38.7	18.8	221	3.81	475.9	.7	14.7	6.3	6	.1	35.8	1.3	3	.07	.070	12	16.0	.03	23	<.001	25	.15	.008	.09	5.1	.01	1.6	<.1	3
RW-02-046	.8	35.3	57.5	60	.2	57.7	25.3	1068	6.57	87.5	1.5	5.8	10.2	4	.2	8.1	.2	9	.01	.038	13	27.6	.38	33	<.001	1	.97	.016	.11	2.5	.02	2.7	<.1	<.1
RW-02-047	3.3	4.6	77.1	21	.2	9.7	1.4	1839	1.58	265.4	.1	7.4	.5	26	.2	19.7	.1	1	1.32	.008	<.1	31.0	.34	9	<.001	1	.04	.006	.02	12.5	<.01	1.7	<.1	<.1
STANDARD DS4	6.5	130.0	32.0	142	.4	30.8	11.7	805	3.10	22.0	6.1	25.6	3.8	28	5.0	5.0	5.0	73	.53	.092	15	164.2	.58	137	.091	2	1.73	.030	.15	3.9	.27	3.7	1.2	<.1

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
 UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
 - SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 19 2002 DATE REPORT MAILED: *Sept 30/02* SIGNED BY: *C. Toy* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

*Assay recommend for Zn, As > 1%
 Pb > 5000 ppm
 Ag > 30 ppm
 Au > 1000 ppb
 Sb > 1000 ppm*

AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

Jasper Mining Corporation PROJECT Ruth-Vermont File # A204180

1020 Canadian Centre, 833, Calgary AB T2P 3T5 submitted by: Rick Walker

AA
LL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	
SI	<.1	.7	.5	<.1	<.1	.5	.1	4	.02	<.5	<.1	.5	.1	3	<.1	<.1	<.1	<.1	.14	<.001	<.1	1.3	.01	3	<.001	<.1	.01	.533	<.01	.1	<.01	<.1	<.1	<.1
RW-02-48	5.8	254.1	23063.4	69	220.8	2.8	.4	56	.59	151.7	.6	26.9	.7	4	8.1	481.9	38.0	<.1	.01	.006	<.1	29.3	.01	3	<.001	1	.02	.003	<.01	9.4	.29	.2	.1	1.1
RW-02-49	.4	8.7	232.7	42	.6	10.8	4.8	2860	1.96	11.8	.7	1.7	2.1	448	.2	2.2	.3	2	30.04	.195	4	3.5	.82	14	.001	1	.11	.016	.05	.3	<.01	3.1	<.1	.1
RW-02-50	4.7	18.0	79.8	88	.2	25.0	6.3	2663	3.54	15.8	1.2	5.0	3.7	5	.5	2.5	.2	3	.17	.066	4	23.2	.04	21	.001	1	.14	.016	.04	7.0	<.01	2.5	<.1	.1
STANDARD DS4	6.3	121.6	32.8	156	.3	33.5	11.6	780	3.05	24.2	6.0	26.8	3.8	27	5.3	4.8	5.0	73	.53	.093	16	158.0	.58	143	.084	3	1.74	.029	.15	4.2	.28	3.4	1.1	<.1

GROUP 10A - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
 UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
 - SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: SEP 30 2002 DATE REPORT MAILED: *Oct 9/02* SIGNED BY: *C.L.* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Jasper Mining Corporation PROJECT Ruth-Vermont File # A203497R

833 - 4th Ave S.W., Calgary AB T2P 3T5 Submitted by: Nick Walker

SAMPLE#	Cu %	Pb %	Zn %	As %	Ag** gm/mt	Au** gm/mt
RW-02-01	1.095	36.58	30.63	.66	2271.4	1.06
RW-02-02	.197	10.83	5.37	.25	481.1	-
RW-02-03	.599	9.79	7.09	13.81	379.5	13.69
RW-02-04	.845	43.61	2.18	6.62	1856.7	6.26
RW-02-05	.943	22.99	6.80	8.76	793.0	10.69
RW-02-06	.871	26.50	5.64	1.04	1992.8	2.17
RW-02-07	.089	3.16	9.27	.40	114.8	-
RW-02-08	.022	2.89	6.46	.02	80.8	-
RW-02-09	.471	1.42	21.15	.12	124.7	-
RW-02-012	.019	6.30	.77	4.30	155.2	-
RW-02-013	.036	19.57	2.51	.59	443.4	-
RW-02-014	.086	19.38	5.26	18.20	383.0	17.04
RW-02-014A	.473	15.87	.38	3.42	312.4	1.25
RW-02-016	.533	14.25	4.80	5.19	219.9	4.41
RW-02-017	.040	4.31	4.13	.05	133.7	-
RE RW-02-017	.037	4.16	3.96	.04	129.2	-
RW-02-018	.013	9.03	3.95	.01	312.6	-
RW-02-019	.001	1.47	.12	.03	60.6	-
RW-02-020	.011	4.33	4.58	.01	129.3	-
RW-02-021	.017	9.60	.47	.04	247.7	-
RW-02-022	.158	.16	.12	.17	109.6	-
STANDARD R-1/AU-1	.849	1.30	2.28	.95	99.7	3.27

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.

AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 28 2002 DATE REPORT MAILED: Oct 15/02 SIGNED BY: C. Leong D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

REVISED COPY

for Pb on samples RW-02-04



ASSAY CERTIFICATE



Jasper Mining Corporation PROJECT Ruch-Vermont File # A203609R

833 - 42nd Ave S.W., Calgary AB T2P 1P5 Analytical Dept. 8162-1010

SAMPLE#	CU %	PB %	ZN %	AS %	SB %	Ag** gm/mt	Au** gm/mt
RW-02-025	.522	21.76	11.81	-	-	1278.6	1.15
RW-02-026	-	13.13	2.32	3.82	4.471	153.1	7.94
RW-02-027	1.426	39.98	-	1.76	2.962	1251.9	2.19
RW-02-028	-	4.95	-	11.89	-	543.8	7.13
RW-02-030	-	.59	-	25.39	-	-	17.90
RW-02-031	-	6.01	3.66	1.15	-	194.4	.53
RW-02-032	.614	13.03	18.07	8.93	5.615	58.7	13.30
RW-02-033	.011	7.06	13.03	-	-	232.9	-
RW-02-034	-	2.62	-	-	-	247.9	-
RW-02-035	-	5.70	9.62	1.68	-	148.0	1.82
RE RW-02-035	-	5.68	9.57	1.66	-	146.7	1.86
STANDARD R-1/AU-1	.838	1.32	2.24	.93	.157	102.7	3.35

GROUP 7AR - 1.000 GM SAMPLE, AQUA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.
Samples beginning 'RE' are Returns and 'RRE' are Reject Returns.

DATE RECEIVED: OCT 10 2002 DATE REPORT MAILED: *Oct 18/02* SIGNED BY: *Cheng* TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ASSAY CERTIFICATE



Handy Mining Corporation File # A203953R
1000 Columbia Centre, 800, Calgary AB T2P 3T5 Submitted by: Rick Walker

SAMPLE#	CU %	PB %	ZN %	AS %	SB %	Ag** gm/mt	Au** gm/mt
RW-02-036	-	4.17	3.68	6.56	-	137.2	-
RW-02-037	-	3.03	3.47	-	-	213.8	-
RW-02-038	-	14.90	1.79	-	-	459.4	-
RW-02-039	-	11.76	7.27	-	-	470.1	-
RW-02-040	-	7.74	3.25	2.35	2.877	48.9	6.89
RW-02-041	-	18.82	-	3.56	7.404	150.4	11.99
RW-02-042	.539	16.76	-	3.96	2.312	319.5	4.67
STANDARD R-1/AU-1	.838	1.32	2.24	.93	.157	101.3	3.30

GROUP 7AR - 1.000 GN SAMPLE, AQMA - REGIA (HCL-HNO3-H2O) DIGESTION TO 100 ML, ANALYSED BY ICP-ES.
- SAMPLE TYPE: ROCK PULP AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

DATE RECEIVED: OCT 10 2002 DATE REPORT MAILED: *Oct 21/02* SIGNED BY: *CT* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



JUNDAE Mining Corporation PROJECT Ruth Vermont File # A204178
1020 Canadian Centre, 233, Calgary AB T2P 1T5 Submitted by: Rick Walker

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg % ppm	Ba % ppm	Ti % ppm	B % ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S % ppm	Ga % ppm
G-1	1.4	2.1	4.0	42	<.1	4.8	3.5	517	1.63	2.1	2.6	<.5	4.8	78	<.1	<.1	.1	38	.55	.105	7	11.9	.55	255	.119	<.1	1.10	.246	.54	2.2	<.01	6.0	.3	.08	5
TR-02-01	.4	238.9	2561.5	8101	12.5	27.6	10.1	2829	5.77	3833.5	.7	219.5	3.6	70	79.5	49.1	.1	2	3.11	.024	1	8.7	.75	15	.004	1	.14	.003	.05	81.0	.04	2.5	<.1	4.38	1
TR-02-02	.5	158.7	1957.5	5136	10.1	23.6	8.2	4751	4.59	1081.6	.8	67.4	4.6	117	56.9	30.5	.1	4	5.47	.036	1	6.9	1.14	8	.004	8	.09	.005	.05	36.5	.03	2.8	<.1	3.21	<.1
TR-02-03	.9	326.9	4127.4	9362	16.3	33.5	9.0	4118	5.62	1664.2	1.7	91.6	5.6	95	71.2	52.5	.1	6	4.21	.032	2	15.9	1.07	48	.006	23	.38	.017	.19	54.1	.03	4.7	.1	3.82	1
TR-02-04	.3	344.0	9715.9	23215	52.9	53.6	19.3	2619	25.04	9571.2	.6	158.0	1.5	24	232.9	151.9	.2	<.1	1.26	.011	<.1	1.7	.49	2	.002	<.1	.03	.001	.01	157.3	.05	.9	<.1	29.11	1
TR-02-05	.2	472.9	8509.0	42363	57.1	49.8	18.9	2510	23.95	8235.5	.5	173.3	1.2	15	391.4	161.9	.2	<.1	1.15	.009	<.1	1.1	.45	2	<.001	1	.02	<.001	<.01	184.8	.09	.7	<.1	25.24	1
TR-02-06	.2	256.1	9359.6	13373	37.4	44.6	17.9	3331	19.10	8614.8	.6	382.8	2.1	72	147.3	112.1	.2	<.1	3.29	.018	<.1	1.8	.67	4	.002	<.1	.06	.001	.02	412.8	.05	1.4	<.1	19.77	<.1
TR-02-07	.2	337.9	12318.5	18646	51.4	60.7	24.1	2636	23.29	9690.8	.7	273.0	1.9	42	186.0	171.2	.3	<.1	1.98	.013	<.1	1.4	.58	1	.003	2	.03	.001	.01	330.7	.83	1.2	<.1	25.60	<.1
TR-02-08	.2	197.9	4809.0	4149	22.2	71.4	29.7	2984	21.57	13194.1	.7	400.1	2.3	48	46.9	86.6	.3	<.1	2.01	.016	9	1.9	.67	4	.006	1	.03	.002	.02	231.4	.01	1.3	<.1	20.68	<.1
TR-02-09	.2	218.1	5600.1	4351	24.8	65.4	24.7	2997	16.43	11317.7	.6	431.1	2.6	48	48.3	96.8	.3	<.1	2.36	.016	1	2.2	.71	4	.002	<.1	.03	.004	.01	233.1	<.01	1.4	<.1	16.88	<.1
TR-02-10	.2	215.2	5792.3	6258	24.6	41.7	16.4	3490	11.63	5822.1	.7	310.6	2.9	53	60.7	94.7	.2	<.1	2.92	.022	<.1	2.7	.93	4	.001	1	.04	.001	.02	81.5	.02	1.7	<.1	11.03	<.1
TR-02-11	.2	234.2	5731.9	9759	27.7	69.2	28.0	2259	20.54	14478.3	.6	287.5	1.9	32	91.5	114.1	.3	<.1	1.03	.013	1	1.5	.60	2	.001	<.1	.04	.001	.01	177.9	.03	1.0	<.1	22.81	<.1
TR-02-12	.1	160.6	3386.7	4476	19.5	73.8	28.6	2128	19.59	17796.5	.8	473.6	2.2	41	45.3	77.2	.3	<.1	1.34	.014	<.1	2.2	.59	3	.002	<.1	.03	.002	.01	236.4	<.01	1.1	<.1	21.42	<.1
TR-02-13	.2	155.8	2547.7	3651	15.3	78.8	32.3	2026	17.67	17893.9	1.9	563.5	2.7	46	35.7	62.6	.3	<.1	2.04	.014	<.1	3.0	.64	3	.010	15	.06	.001	.01	260.5	<.01	1.5	<.1	19.13	<.1
TR-02-14	.2	182.8	2871.2	4213	15.1	62.1	28.1	2628	16.99	12168.6	.7	489.6	2.6	82	42.2	57.9	.3	<.1	3.30	.017	1	2.7	.70	4	.002	<.1	.04	.004	.01	492.3	<.01	1.2	<.1	16.78	<.1
TR-02-15	.2	207.3	2217.9	9081	10.5	33.0	14.7	2838	9.75	5877.1	.7	284.7	2.3	197	89.9	64.0	.2	<.1	10.32	.021	1	2.0	.71	6	.001	<.1	.04	.002	.01	151.6	.02	2.0	<.1	9.83	<.1
TR-02-16	.1	186.9	1523.4	10938	8.9	18.4	7.4	3026	6.47	2780.4	.7	205.7	2.3	338	125.1	34.8	.1	<.1	14.84	.021	2	1.8	.69	6	.001	<.1	.03	.001	.01	68.0	.03	1.7	<.1	6.16	<.1
TR-02-17	.2	286.4	3100.4	19852	14.6	27.5	12.6	2668	9.69	5557.1	.6	300.6	2.1	251	187.6	42.8	.1	1	11.67	.019	1	1.8	.60	4	.001	<.1	.03	.002	.01	82.1	.06	1.8	<.1	10.82	<.1
TR-02-18	.2	287.4	5802.2	12389	27.2	57.2	26.6	2991	20.23	12925.4	.6	417.5	1.8	126	111.8	76.6	.3	<.1	4.61	.015	1	1.7	.62	3	.003	<.1	.06	.002	.01	179.0	.02	1.0	<.1	20.04	<.1
RE TR-02-18	.2	257.3	5580.8	11674	27.7	56.6	24.9	2595	19.29	12379.0	.6	420.4	1.8	117	110.4	79.3	.3	<.1	4.48	.013	1	2.1	.58	2	.001	<.1	.02	.001	.01	176.4	.01	1.1	<.1	19.97	<.1
TR-02-19	.2	211.8	4818.5	5302	23.1	43.6	18.5	4511	17.09	8825.3	.7	377.7	2.3	121	56.8	68.9	.2	1	5.59	.017	1	1.8	.81	3	.004	<.1	.04	.001	.02	177.4	<.01	1.5	<.1	16.74	<.1
TR-02-20	.2	252.1	4620.8	9918	20.6	40.0	15.7	4624	15.40	6859.4	.7	337.2	2.5	108	95.3	67.6	.2	1	4.34	.019	1	2.4	.86	3	.001	<.1	.06	.002	.02	152.5	.01	1.7	<.1	14.92	<.1
TR-02-21	.2	260.9	3284.4	14202	15.1	28.7	11.0	4996	10.53	3855.0	.7	221.1	3.0	101	127.1	45.6	.1	2	4.92	.024	1	2.9	.97	12	<.001	<.1	.06	.002	.02	67.5	.04	1.9	<.1	10.50	<.1
TR-02-22	.2	607.2	7710.6	45021	33.9	48.9	22.5	3683	18.63	7040.5	.6	305.6	2.0	76	370.8	82.3	.3	1	3.09	.018	<.1	4.3	.70	3	.001	2	.07	.001	.02	170.8	.10	1.5	<.1	19.31	1
TR-02-23	.2	755.8	16110.6	50684	60.4	51.4	20.3	3440	15.34	5074.3	.6	352.9	2.2	76	419.5	148.0	.3	<.1	3.31	.017	<.1	2.4	.72	3	<.001	<.1	.08	.002	.03	131.0	.13	1.3	<.1	17.38	1
TR-02-24	.2	642.3	16873.4	28391	80.4	48.8	20.1	3828	14.23	4483.9	.7	312.8	2.5	76	237.6	221.3	.3	1	3.33	.018	<.1	2.3	.79	3	<.001	<.1	.06	.002	.02	124.3	.06	1.4	<.1	15.32	1
TR-02-25	.2	351.5	10968.0	10279	46.8	38.0	15.3	5543	12.59	6189.0	.6	309.6	2.7	93	94.6	147.6	.2	2	4.75	.024	1	2.9	.98	4	.001	2	.04	.002	.02	86.6	.03	1.8	<.1	12.55	<.1
TR-02-26	.2	226.3	5481.9	5575	25.2	49.2	20.4	5250	15.96	10067.7	.6	384.4	2.5	77	53.7	81.7	.2	1	4.03	.020	<.1	3.0	.97	3	.004	1	.03	.003	.02	130.5	<.01	1.6	<.1	16.93	<.1
STANDARD DS4	6.4	125.4	35.4	151	.3	33.6	10.6	790	3.08	27.2	5.9	26.9	3.6	26	5.2	5.5	4.8	71	.50	.086	16	146.3	.52	144	.081	1	1.75	.035	.16	6.0	.28	3.8	1.1	.06	5

GROUP 1DA - 10.0 GM SAMPLE LEACHED WITH 60 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 200 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL SS80 60C Samples beginning 'RE' are Retuns and 'RRE' are Reject Returns.

DATE RECEIVED: SEP 30 2002 DATE REPORT MAILED: Oct 4/02 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Appendix D
Statement of Expenditures

STATEMENT OF EXPENDITURES

The following expenses were incurred on the Vowell Creek Project between August 13 and December 13th, 2002

Field - August 13th - October 6th

PERSONNEL

R. Walker (Geologist):	\$ 27,225.00
E. Walker (Administration):	\$ 600.00
Assistant:	\$ 10,625.00

EQUIPMENT

All Terrain Vehicles (2):.....	\$ 2,287.50
4WD Vehicle:.....	\$ 3,075.00
- mileage - \$0.40 / km:	\$ 2,851.14
- fuel:	\$ 1,084.95
Field Supplies:	\$ 660.00
Food / Accommodation:	\$ 7,700.00
Generator:	\$ 630.00
GPS (hand-held and differential):	\$ 559.07
Radios:	\$ 455.00

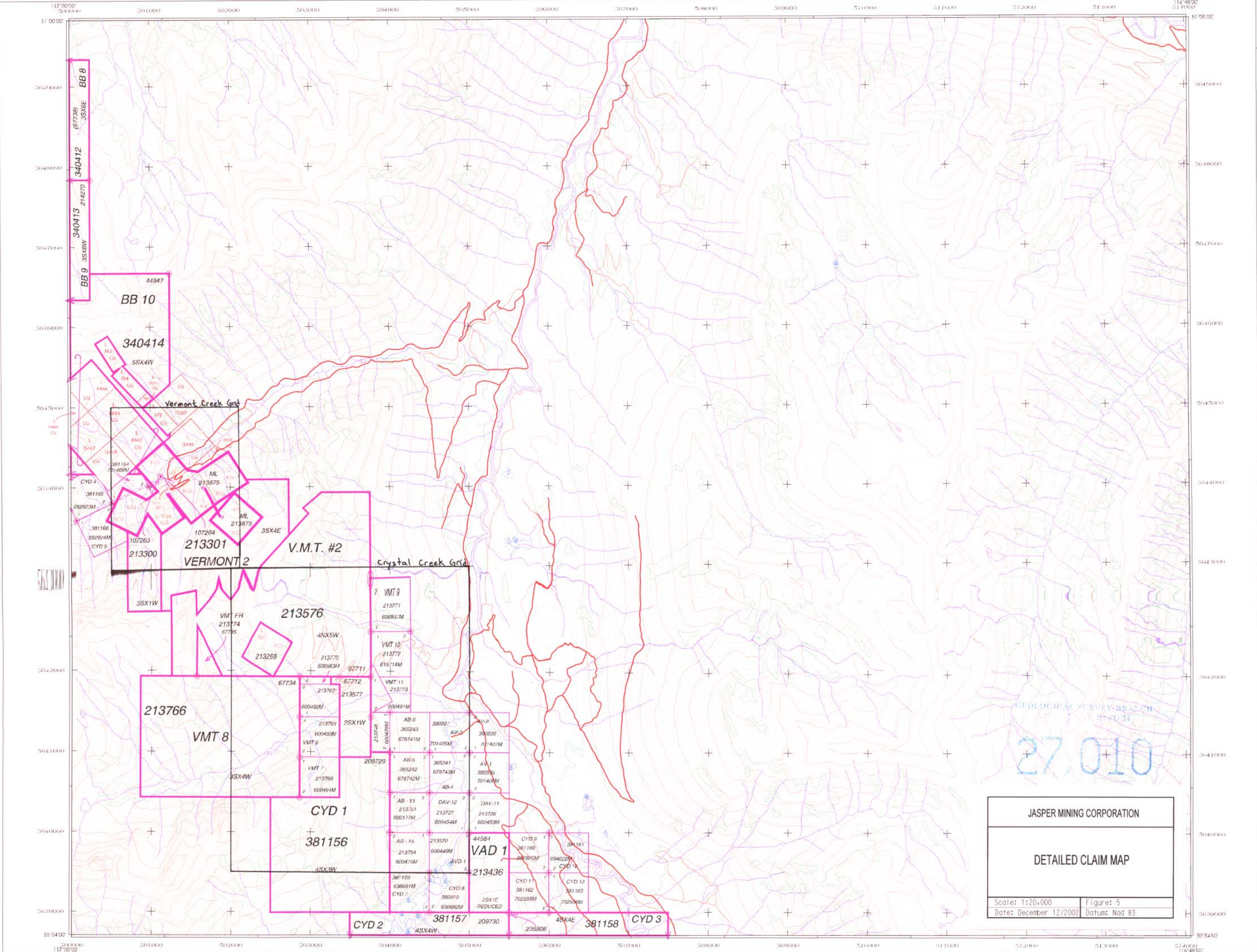
ANALYSES	\$ 8,623.57
DRAFTING	\$ 1,008.87
INSURANCE	\$ 223.00
MISCELLANEOUS	\$ 1,605.91
PERMITTING / DRILL BIDS	\$ 2,000.00
PHOTOFINISHING	\$ 113.94
REPRODUCTION	\$ 516.58
SATELLITE PHONE	\$ 2,154.01
SHIPPING	\$ 304.04
TELEPHONE	\$ 210.15

Post - Field October 7th - December 13th

REPORT / REPRODUCTION

R.T. Walker, P.Geo.:	\$ 2,000.00
Drafting:.....	\$ 600.00
Reproduction:	\$ <u>200.00</u>

Total \$77,312.73



M082K096

MINERAL LEGEND

- ADMINISTRATIVE AREAS**
 MINING DIVISION(S): GOLDEN
 LAND DISTRICT(S): KOOTENAY
- ADMINISTRATIVE BOUNDARIES**
 MINING DIVISION: [Symbol]
 LAND DISTRICT: [Symbol]
 PROVINCIAL BOUNDARY: [Symbol]
 INTERNATIONAL BOUNDARY: [Symbol]
- NO STAKING RESERVE**: [Symbol]
- ECOLOGICAL RESERVE, PARK, OR RECREATION AREA**: [Symbol]
- INDIAN RESERVE** (SEE NOTES 1): [Symbol]
- CONDITIONAL AREA**
 SUBJECT TO CONDITION RESERVE, RELEASE REQUIRED RESERVE, SECTION 23 RECREATION AREA (SEE NOTES 2)
 OR URANIUM / THORIUM REGULATION (SEE NOTES 3)
- MINERAL TENURES**
 MINERAL CLAIM: [Symbol]
 MINING LEASE: [Symbol]
 INDUSTRIAL MINERAL TITLE: [Symbol]
 MINING LEASE: ML
 INDUSTRIAL MINERAL: IM
 CLAIM NAME: EXAMPLE
 TENURE NUMBER: 234567
 TAG NUMBER: 243765
 CLAIM SIZE (UNITS): 4X3W
 LEGAL POST: [Symbol]
 WITNESS POST: [Symbol]
 TENURE HOOK: [Symbol]
 VERIFIED: VER
 SURVEYED: SUR
 GLOBAL POSITIONING SYSTEM: GPS
 CROWN GRANTED 2 POST CLAIM: CG
 F LOT (Real Estate Lot): F
REVERTED C.G. 2 POST CLAIMS
 Reverted C.G. (Not Open for Staking): RCG
 BID LOT: BCL
 R.C.G. (Issued under a former Act): RCG

PLANIMETRIC LEGEND

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

JASPER MINING CORPORATION

DETAILED CLAIM MAP

Scale: 1:20,000 Figure: 5
 Date: December 12/2002 Datum: Nad 83

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

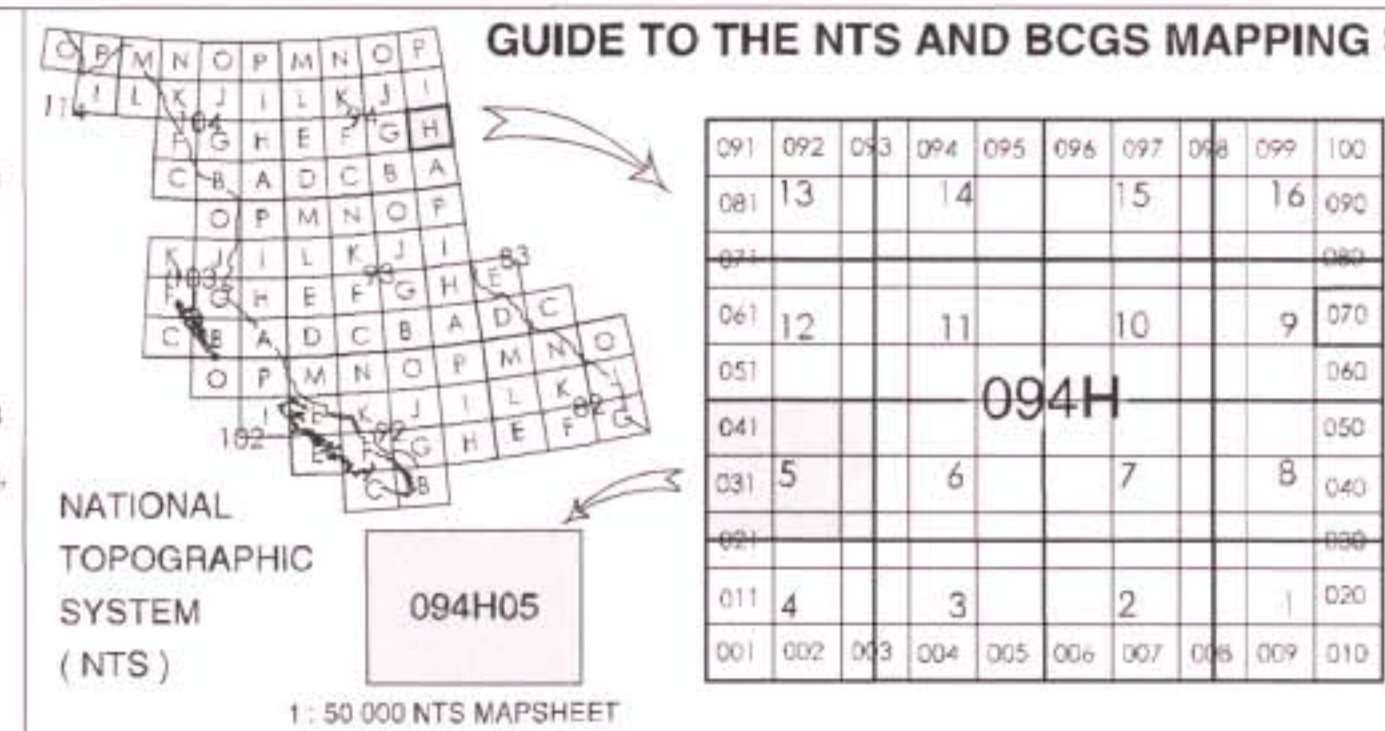
SOURCES OF INFORMATION
 Planimetric and topographic information obtained from the Terrain Resource Information Management (TRIM) base mapping program. For more information contact Geographic Data BC, Ministry of Sustainable Resource Management. Source Date: 1997 SEP 20.
 Cadastre produced from spatial data obtained from the Crown Land Registry Services (CLRS). For more information contact the Crown Land Registry Services, Ministry of Sustainable Resource Management. Source Date: 1999 SEP 21.
 This map depicts only the mineral tenure theme. For the placer tenure theme see appropriate placer map and for the coal tenure theme see appropriate coal map.
 Additional tenure information is available on the Internet: <http://www.srm.gov.bc.ca/mice>

NOTES FROM MINERAL LEGEND

- Staking is not permitted within Indian Reserves.
- Staking is not permitted over Section 23 Recreation Areas due to a No Staking Reserve. (B.C. Reg. 97/97)
- For Uranium and Thorium Regulations, please refer to Mines Act.

MISCELLANEOUS NOTES
 Staking is not permitted over all Crown Granted Lots issued since August 15, 1988. (B.C. Reg. 138/94)
 Staking is not permitted within tidal waters. (B.C. Reg. 100/98)
 Surface lots with mineral rights are not shown.
 Please refer to the Mineral Tenure Act, Mineral Tenure Act Regulation, Mines Act, and the Guide to Staking in British Columbia for more complete information.

- GOLD COMMISSIONER OFFICES**
- CARIBOO**
 102 250 Barlow Street
 Queenal BC V2J 2C1
 Public Query: (250) 992-4301
 FAX: (250) 992-4314
 Mining Division: Cariboo
- VANCOUVER ISLAND**
 3001 1810 Blenheim Street
 P.O. Box 9522 St. John's Govt
 Victoria BC V8W 9N9
 Public Query: (250) 952-0542
 FAX: (250) 952-0541
 Mining Divisions: Alberni, Clifton, Nanaimo, and Victoria
- OMINECA**
 1020 Murray Street, Bag 5000
 Smithers BC V0J 2N0
 Public Query: (250) 847-7207
 FAX: (250) 847-7232
 Mining Division: Omineca
- COAST / LIARD**
 302 856 Hombly Street
 Vancouver BC V6Z 2G3
 Public Query: (604) 660-2672
 FAX: (604) 660-2663
 Mining Divisions: Alton, Clinton, Lart, Lillooet, Skeena, New Westminster, and Vancouver
- KAMLOOPS / OKANAGAN**
 250 455 Columbia Street
 Kamloops BC V2C 6K4
 Public Query: (250) 828-4540
 FAX: (250) 828-4253
 Mining Divisions: Kamloops, Nicola, Osoyoos, Revelstoke, Similkameen, and Vernon
- EAST KOOTENAY**
 310 Cranbrook Street North
 Cranbrook BC V1C 3P9
 Public Query: (250) 426-1211
 FAX: (250) 426-1253
 Mining Divisions: Fort Steele and Golden
- KOOTENAY**
 310 Ward Street
 Nelson BC V1L 5S4
 Public Query: (250) 354-6104
 FAX: (250) 354-6407
 Mining Divisions: Greenwood, Nelson, Siccan, and Trail Creek



BRITISH COLUMBIA GEOGRAPHIC SYSTEM (BCGS)

091	092	093	094	095	096	097	098	099	100
081	13	14	15	16	09C				
061	12	11	10	9	07D				
051									
041									
031	5	6	7	8	04D				
021									
011	4	3	2	1	02D				
001	002	003	004	005	006	007	008	009	010

INDEX TO ADJOINING MAPS

082K095	082K096	082K097
082K095	082K096	082K097
082K095	082K096	082K097

ORIGINAL PRODUCED AT 1:20,000
 LAST MAP UPDATE: 2002 NOV 12
 Version Number: 0002

BRITISH COLUMBIA

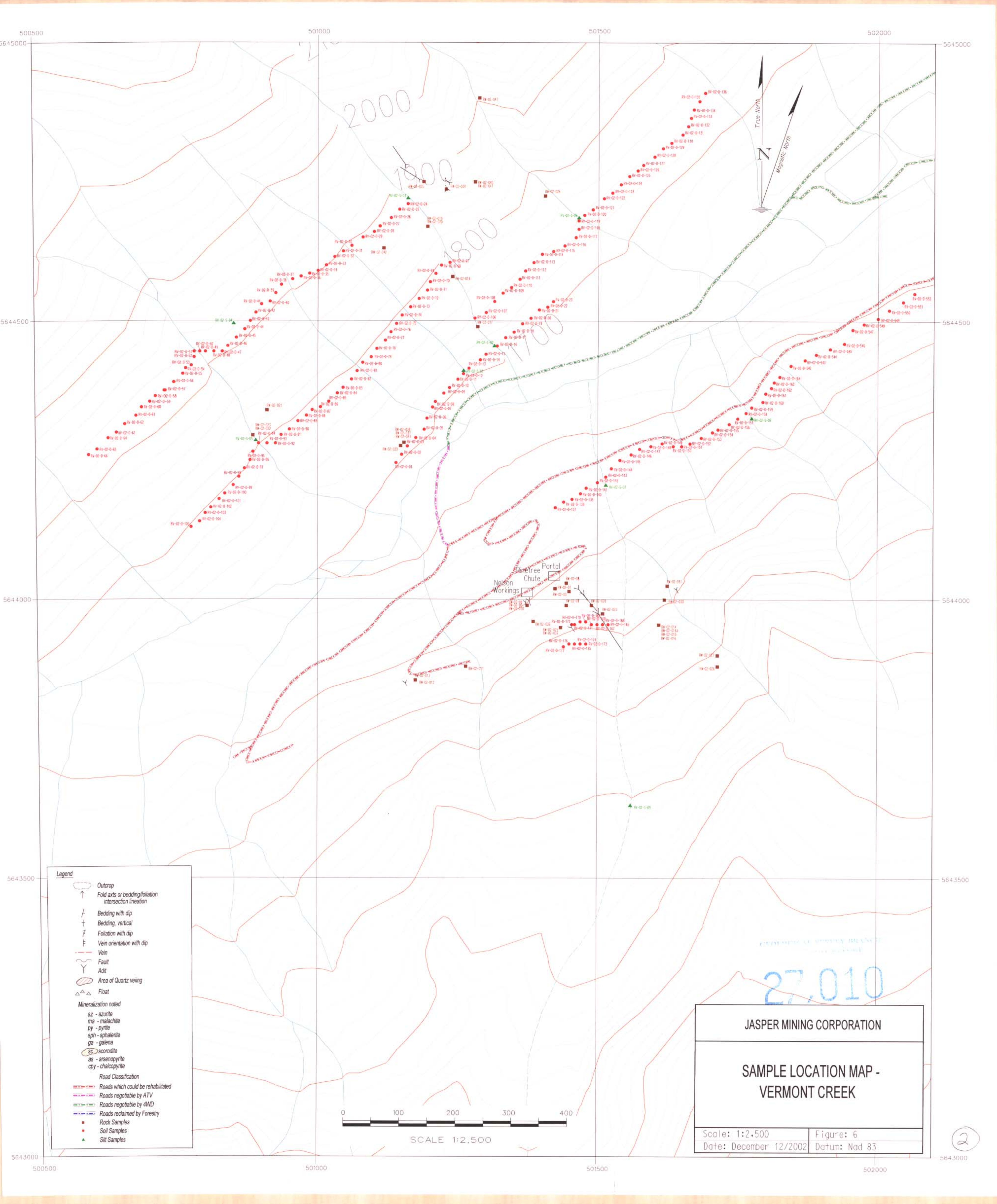
MINISTRY OF ENERGY AND MINES

MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT

MINERAL TITLES REFERENCE MAP

M082K096

North American Datum - 1983
 U.T.M. Coordinate System - Zone 11
 Compilation Date: 2002 FEB 13



Legend

- Outcrop
- Fold axes or bedding/foliation intersection lineation
- Bedding with dip
- Bedding, vertical
- Foliation with dip
- Vein orientation with dip
- Vein
- Fault
- Adit
- Area of Quartz veining
- Float

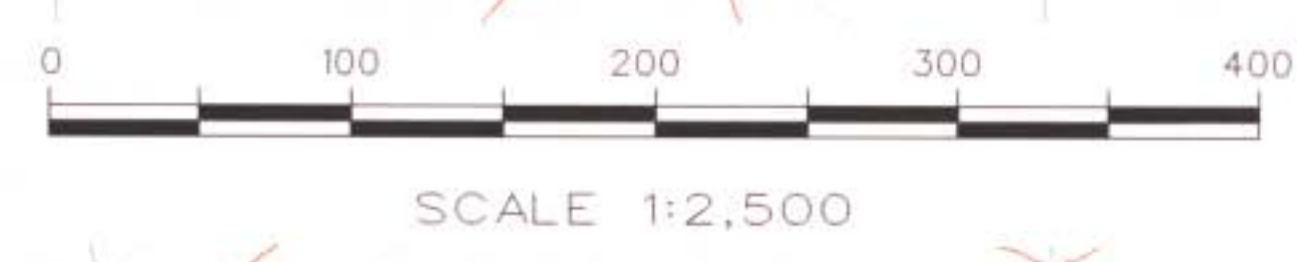
Mineralization noted

- az - azurite
- ma - malachite
- py - pyrite
- sph - sphalerite
- ga - galena
- sc - scorodite
- as - arsenopyrite
- cpy - chalcopyrite

Road Classification

- Roads which could be rehabilitated
- Roads negotiable by ATV
- Roads negotiable by 4WD
- Roads reclaimed by Forestry

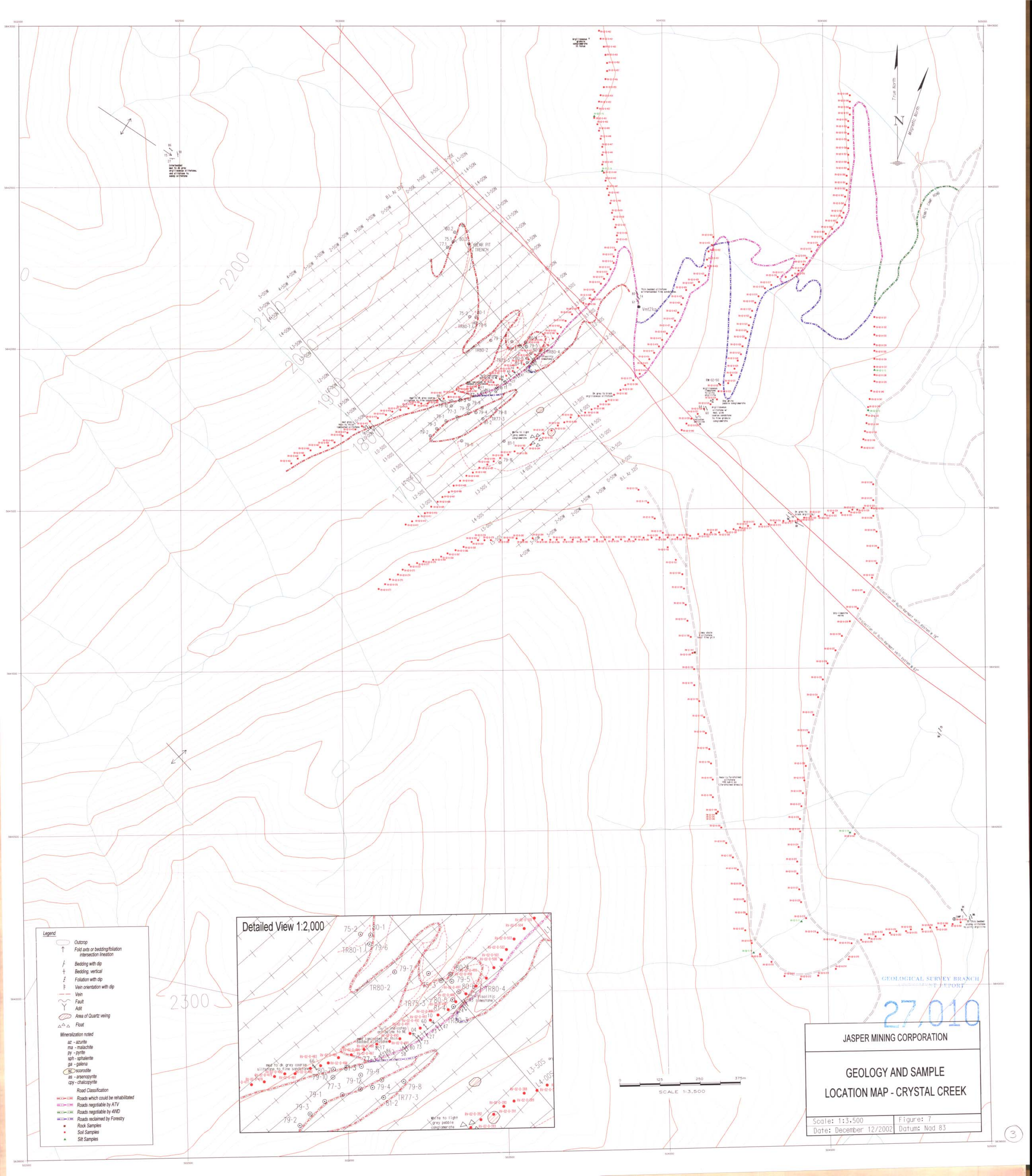
- Rock Samples
- Soil Samples
- Silt Samples



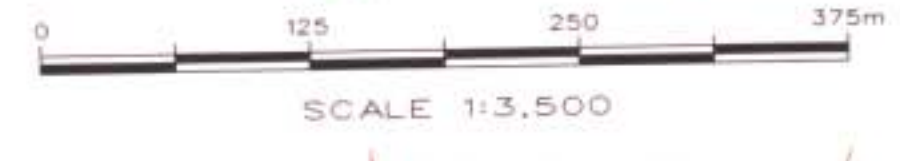
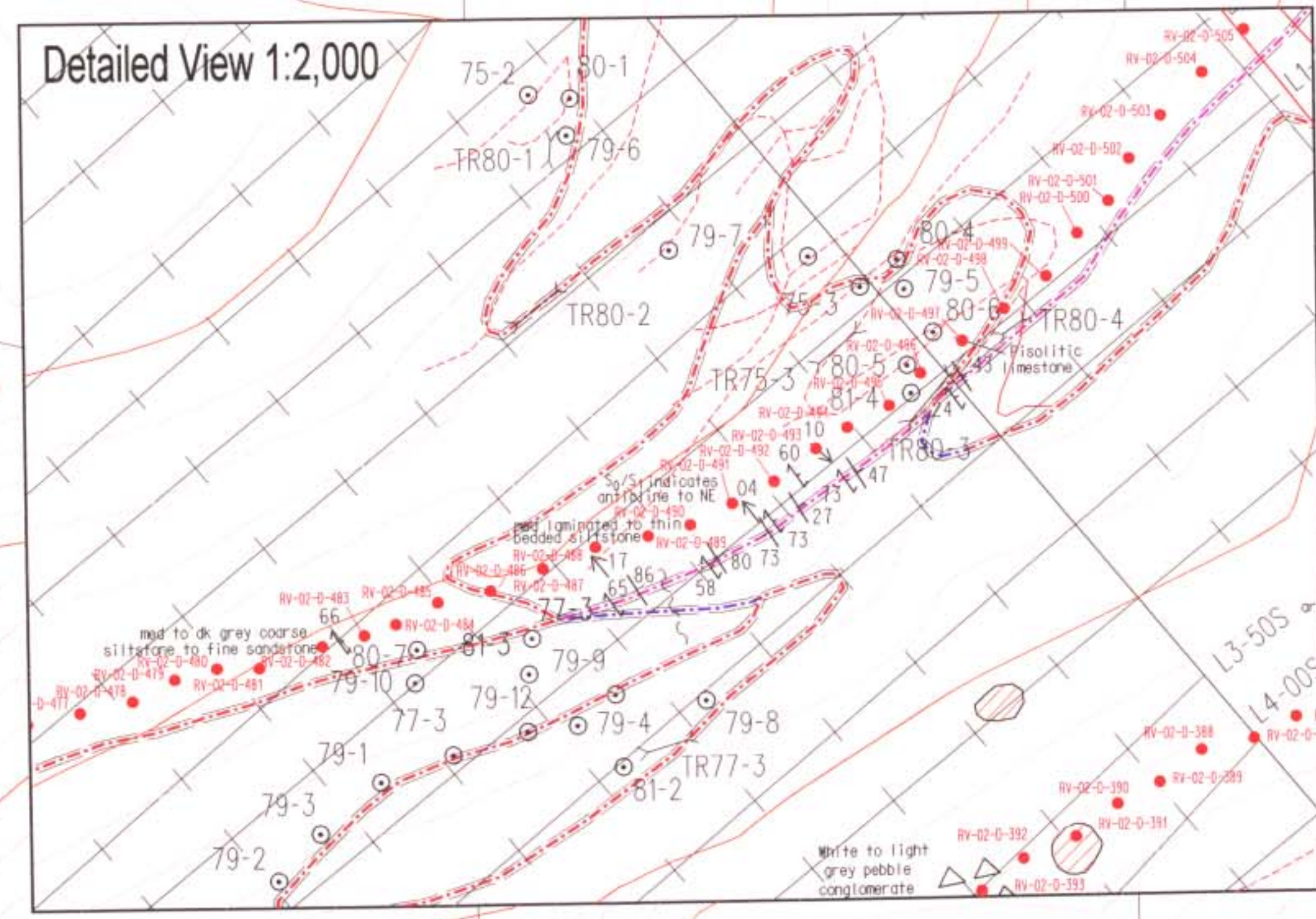
JASPER MINING CORPORATION

SAMPLE LOCATION MAP - VERMONT CREEK

Scale: 1:2,500	Figure: 6
Date: December 12/2002	Datum: Nad 83



- Legend**
- Outcrop
 - Fold axis or bedding/foliation intersection lineation
 - Bedding with dip
 - Bedding, vertical
 - Foliation with dip
 - Vein orientation with dip
 - Vein
 - Fault
 - Adit
 - Area of Quartz veining
 - Float
 - Mineralization noted
 - az - azurite
 - ma - malachite
 - py - pyrite
 - sph - sphalerite
 - ga - galena
 - sc - scorodite
 - as - arsenopyrite
 - cp - chalcopyrite
 - Road Classification
 - Roads which could be rehabilitated
 - Roads negotiable by ATV
 - Roads negotiable by 4WD
 - Roads reclaimed by Forestry
 - Rock Samples
 - Soil Samples
 - Silt Samples



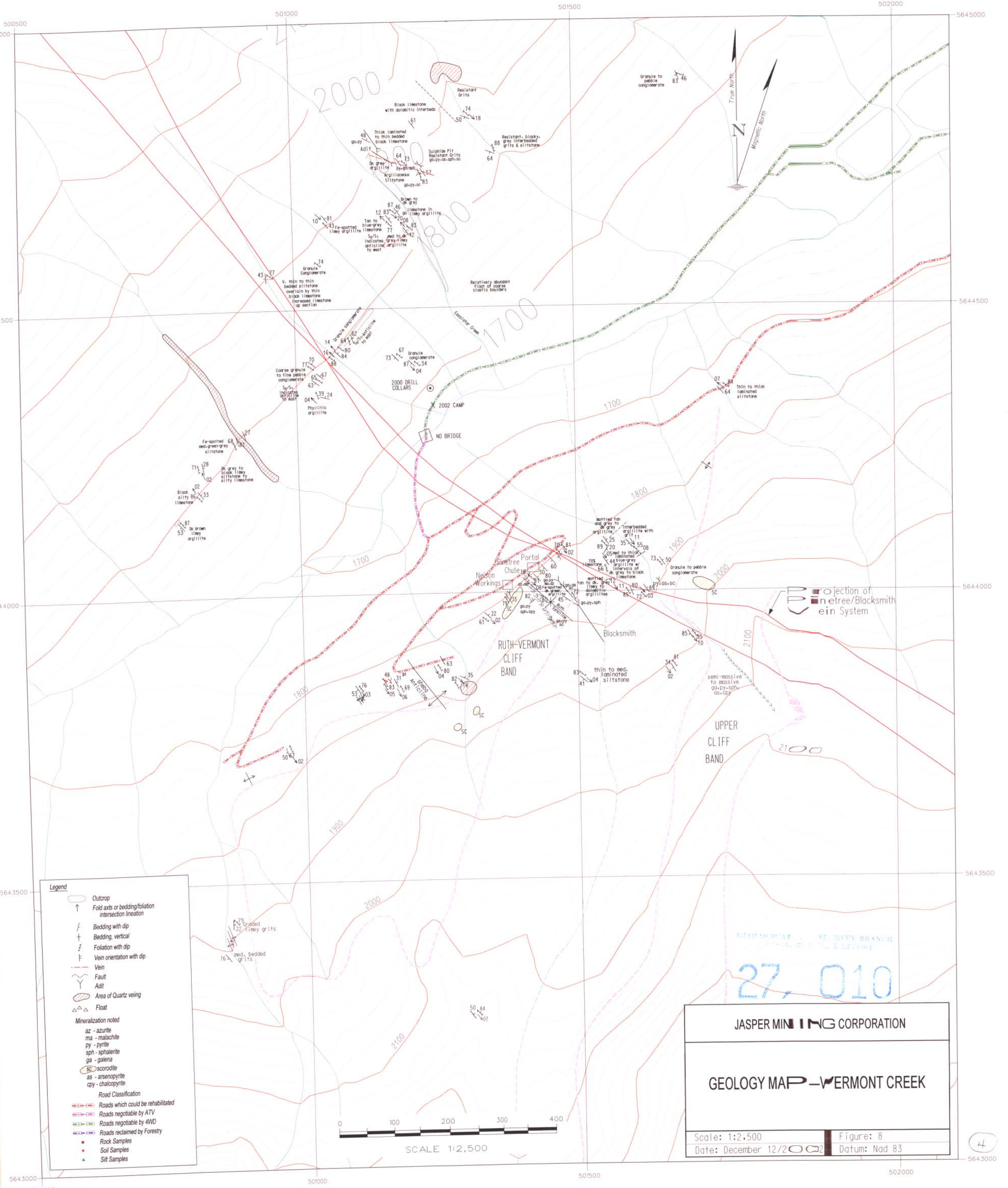
GEOLOGICAL SURVEY BRANCH
MINERAL REPORT

27,010

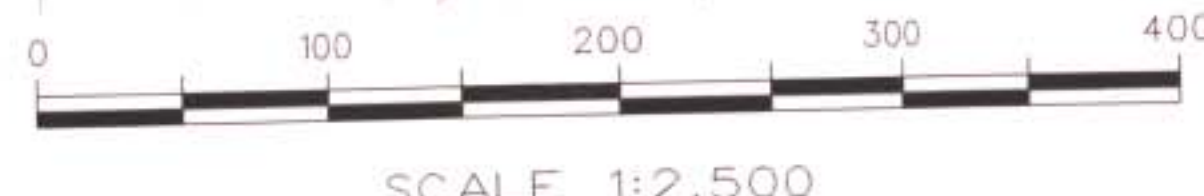
JASPER MINING CORPORATION

**GEOLOGY AND SAMPLE
LOCATION MAP - CRYSTAL CREEK**

Scale: 1:3,500	Figure: 7
Date: December 12/2002	Datum: Nad 83



- Legend**
- Outcrop
 - ↑ Fold axis or bedding/foliation intersection lineation
 - Bedding with dip
 - ⊥ Bedding, vertical
 - z Foliation with dip
 - ∩ Vein orientation with dip
 - Vein
 - ∩ Fault
 - ∩ Adit
 - Area of Quartz veining
 - △△△ Float
 - Mineralization noted**
 - az - azurite
 - ma - malachite
 - py - pyrite
 - sph - sphalerite
 - ga - galena
 - sc scorodite
 - as - arsenopyrite
 - cpy - chalcopyrite
 - Road Classification**
 - Roads which could be rehabilitated
 - Roads negotiable by ATV
 - Roads negotiable by 4WD
 - Roads reclaimed by Forestry
 - Rock Samples
 - Soil Samples
 - ▲ Silt Samples

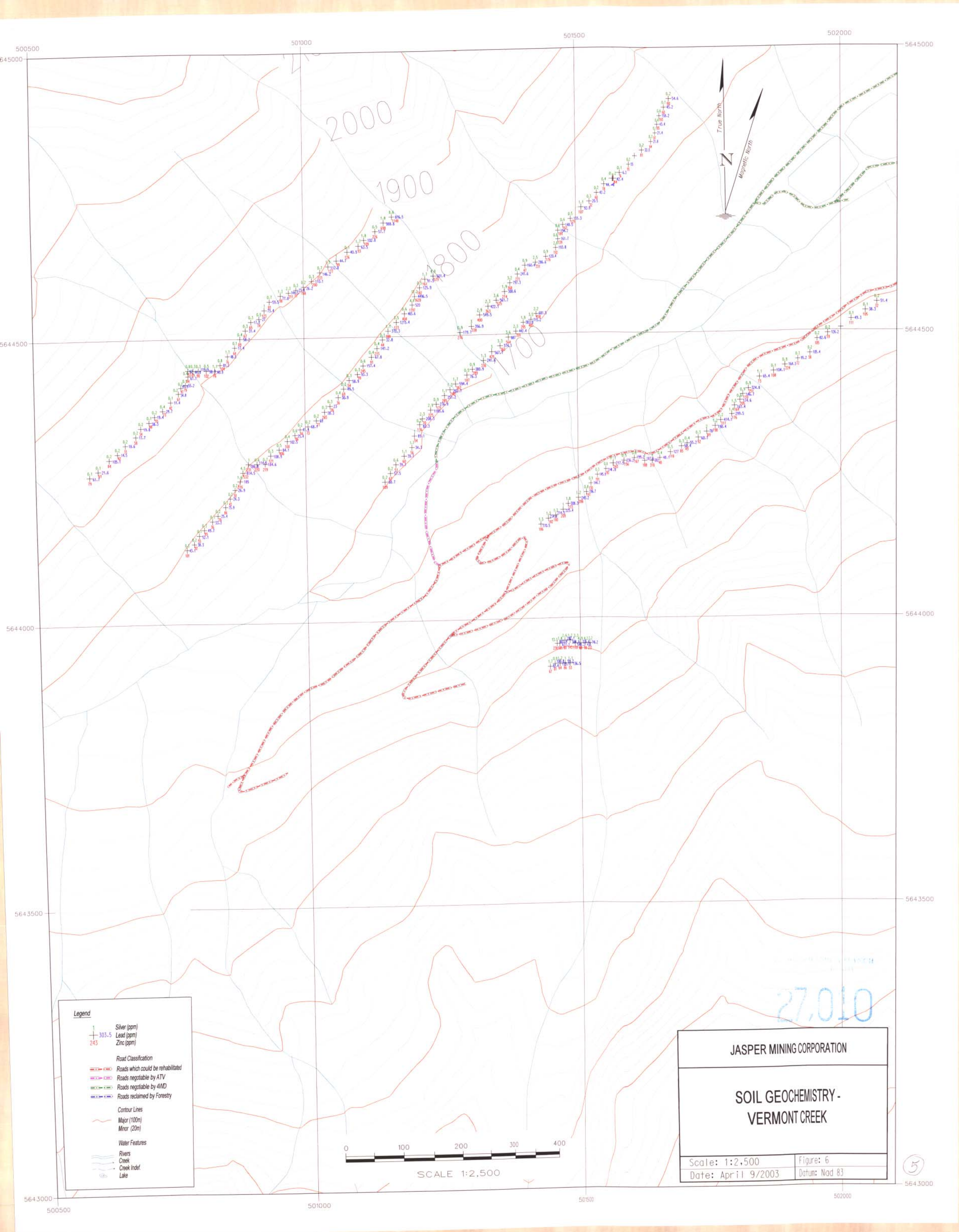


JASPER MINING CORPORATION

GEOLOGY MAP - VERMONT CREEK

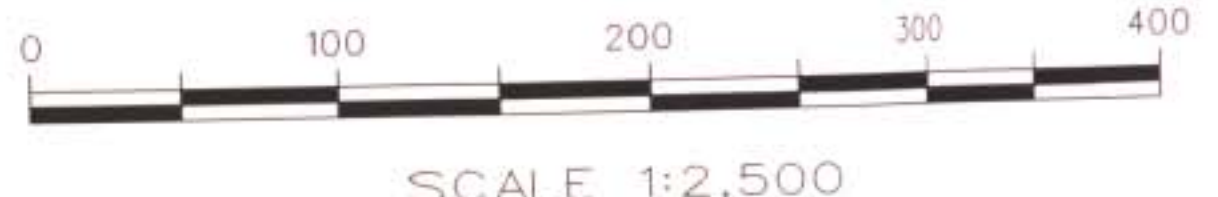
Scale: 1:2,500 Figure: 8
 Date: December 12/2002 Datum: Nad 83

27, 010



Legend

- Silver (ppm)
 Lead (ppm)
 Zinc (ppm)
- Road Classification**
 - Roads which could be rehabilitated
 - Roads negotiable by ATV
 - Roads negotiable by 4WD
 - Roads reclaimed by Forestry
- Contour Lines**
 - Major (100m)
 - Minor (20m)
- Water Features**
 - Rivers
 - Creek
 - Creek Inlet
 - Lake

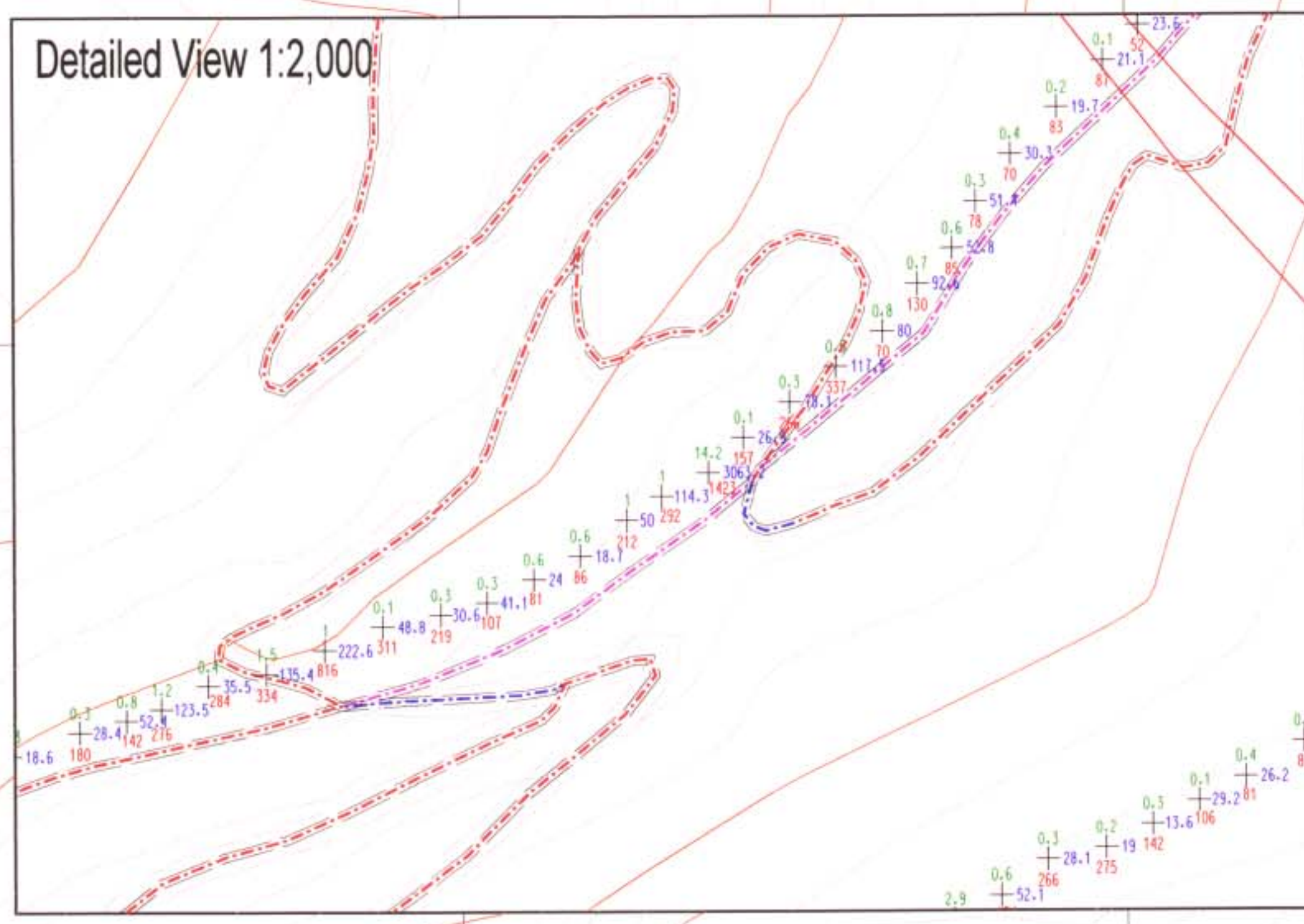
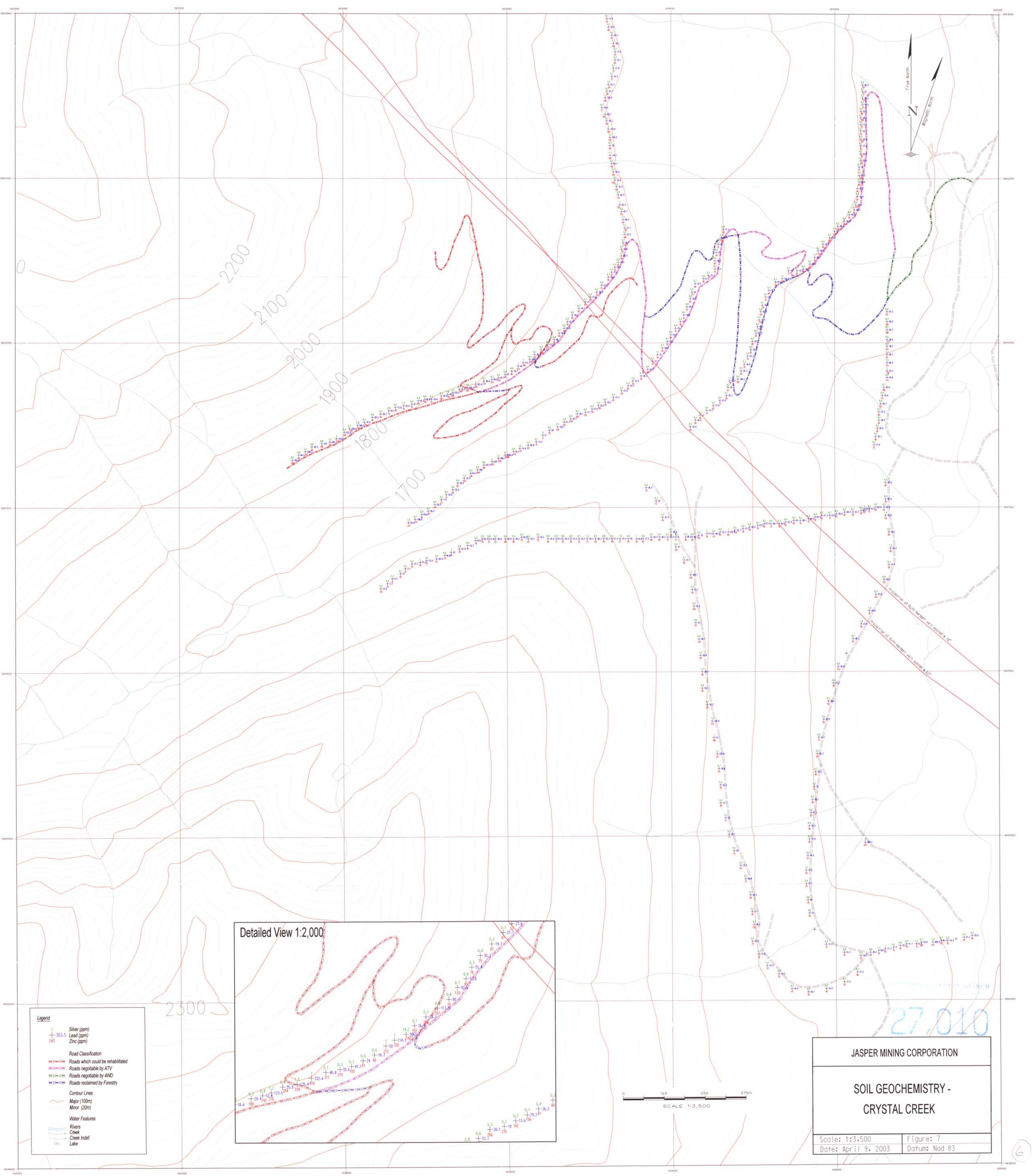


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**SOIL GEOCHEMISTRY -
VERMONT CREEK**

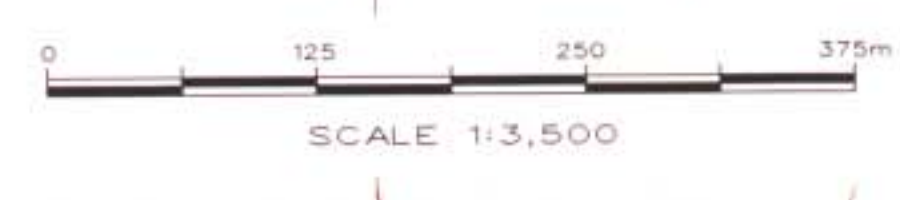
Scale: 1:2,500 Figure: 6
 Date: April 9/2003 Datum: Nad 83

27.010



Legend

+	Silver (ppm)
+	Lead (ppm)
+	Zinc (ppm)
Road Classification	
—	Roads which could be rehabilitated
—	Roads negotiable by ATV
—	Roads negotiable by 4WD
—	Roads reclaimed by Forestry
Contour Lines	
—	Major (100m)
—	Minor (20m)
Water Features	
—	Rivers
—	Creek
—	Creek Indef.
—	Lake



JASPER MINING CORPORATION

SOIL GEOCHEMISTRY -
CRYSTAL CREEK

Scale: 1:3,500	Figure: 7
Date: April 9, 2003	Datum: Nad 83

27,010