

**Mineral Creek Property, Gold Exploration Project, Port Alberni,
British Columbia, Canada**

**MINERAL CREEK PROPERTY
(Formerly Debbie Property)
GOLD EXPLORATION PROJECT**

PORT ALBERNI, BRITISH COLUMBIA, CANADA

By

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&

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Revised

By

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**Mining Divisions: Alberni & Nanaimo
NTS map sheet: 92F/2E
Latitude: 49° 12'North
Longitude: 124° 40'West**

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Topographic location: McLaughlin Ridge - Mineral Creek

SUMMARY

The Mineral Creek Property (formerly called the Debbie Property) is located 10 kilometers East of Port Alberni on Vancouver Island, British Columbia. The property is comprised of 24 claims covering approximately 5560 hectares. The Mineral Creek Property is accessible by an extensive network of all weather logging roads and is close to industrial infrastructure including grid power and a deep water port.

The property includes many significant gold occurrences within an elevation range of more than 800 meters. These occurrences represent various phases of a very large, gold mineralized, hydrothermal system. This Tertiary system produced epigenetic gold enrichments within and close to carbonate-sericite-quartz-pyrite-arsenopyrite altered fault zones.

Host rocks are Sicker Group basalt flows, basaltic volcanoclastics and cherty sediments representing the Duck Lake Formation and overlying McLaughlin Ridge Formation (Myra Formation equivalent). The contact zone marks an important transition from a cycle of aphyric basalt flows of arc tholeiitic affinity to a cycle of calc alkaline, pyroxene and feldspar phyric, basaltic volcanoclastics. The transition zone is marked by beds of chert and cherty tuff including magnetite bearing black chert and jasper of exhalative character as well as flows and breccias of low potassium rhyolite and mixed volcanoclastics containing rhyolite and basalt fragments. This complex transition zone is prospective for volcanogenic massive sulfide deposits.

The epigenetic gold deposits found to date are located within, and close to, this formational contact zone. Geochemical enrichment of gold up to several hundredths of an ounce is common in the black and red cherts of the transition zone and it is possible that these Devonian strata were, in part, source rocks for gold remobilized and enriched by the Tertiary hydrothermal system.

Three principal styles of mineralization contain gold grades of economic significance. **The Mineral Creek Zone** represents pervasive, low to moderate grade gold mineralization distributed within a wide zone of cataclastically deformed, altered and quartz veined rock lying along the Mineral Creek Fault. This major regional fault strikes 010 degrees and dips 75 to 80 degrees east. The complex fault zone was active over a long period and shows evidence of multiple episodes of deformation, dyke intrusion, and mineralization over a width up to 100 meters. The second style of mineralization is represented by moderate to very high grade gold localized in quartz veins which occupy altered shears, generally less than 2 meters thick. Such structures form a complex system of veins extending at least 300 meters into the hanging wall block of the Mineral Creek Fault. These veins include a variety of orientations, however the most important ones tend to strike northeast and dip moderately southeast, as well as north northeast with steep dips in conformity with the Mineral Creek Fault. These vein shears probably represent conjugate shears formed during largely right lateral offset on the Mineral Creek Fault. Three of these veins produced a small amount of high grade gold ore mined in the 1890's and again in the 1930's. The **Linda Zone** is a set of three or four veins discovered in 1986 which appear to present more potential than the past - produced veins. The lower Linda Vein was exposed in a trench where samples indicated an average grade of 1.23 oz Au/ton and 1.85 m thickness along the 15 meter -long trench.

Similar veins and vein shears containing high grade gold were discovered at the **900 Zone** in 1986, located approximately 300m west of the Mineral Creek Fault. Here the controlling structures are oriented 020-75 degree W and 090-60 degrees N. The later mentioned direction includes the 900 high grade vein, 1-2m thick, which produced an estimated 1,500 tonnes of ore grading approximately 2 oz Au/short ton in

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the last few years. A similar veined shear (294 deg. - 60 degrees N) containing high grade vein quartz was discovered in 1990 in the **1050 Zone**, located approximately 800m west of the 900 Zone. A single hole tested this structure and intersected 8.38 oz Au/ton over a length of 1.7m with only a 30% recovery. This hole has not been followed up and step-out drilling on the 1050 Zone shear is recommended.

The third style of significant gold mineralization includes low to high grade gold in **pyritic cherty sediments** close to mineralized faults. Such mineralized chert usually, but not always, contains quartz veinlets. At the 900 mineralized chert comprises much of the mineral inventory tonnage calculated by Westmin Resources Ltd. In 1990. Gold bearing, pyritic cherts, including black argillaceous chert and jasper, have been intersected on the east side of the Mineral Creek Fault, particularly to the north and south of the Mineral Creek Zone. One example was discovered by drilling 35m below the Debbie exploration tunnel where 1.43 oz Au/ton was intersected over 2 meters. This intersection has not yet been followed up.

The property has a long history of mining and exploration beginning with placer mining of China Creek in the 1860's. Limited high grade was mined from quartz veins east of the Mineral Creek Fault in the 1890's and again in the 1930's. There are seven historic adits, with a total of 686 meters of lateral development. A considerable amount of exploration work was carried out on the claims in 1986 through 1990; mostly by Westmin Resources Ltd. . This included 300 diamond drill holes totaling approximately 50,000 m. A 4 by 3 meter 1.8 km long exploration tunnel was driven through McLaughlin Ridge in 1988 to provide a drill platform in the hanging wall of the Mineral Creek Fault and to evaluate the Mineral Creek Zone with two crosscuts, three raises and a short sublevel drift. These workings total 1928m of lateral and 65m of vertical development. These modern, trackless workings are in excellent condition and represent an important asset for further exploration. Much of the exploration drilling planned from the tunnel was not done due to Westmin's financial constraints at the time.

The high grade 900 Zone was test mined on a small scale by Whitehawk Ventures in 1993 to 1995. Underground workings here consist of a 201m trackless drift, 135m of raises and 40m of subdrift. These workings are also an asset for further exploration work. No drilling has been done from them and the 900 Zone has not been effectively tested below this adit.

Mineral resources on the property were compiled in a series of mineral inventory estimates by Westmin in the period 1988 - 1990 as listed below. These do not incorporate all relevant data currently available but give a good impression of the inventory indicated by Westmin's work. Cut-off grade and minimum true thickness used were 0.05 oz Au/ton over a 2m thickness.

Please note: Standards set by the Canadian National Securities Commissions or British Columbia Securities Commission (BCSC) on arriving at and reporting mineral resources/reserves etc. have considerably changed since the 1980's. The resource figures quoted in this report are Pre - National Instrument 43 - 101 Standards of Disclosure for Mineral Projects. So Westmin Resources Ltd. inventory of the "Debbie" property listed below is to be viewed as historic. (M. Becherer, 2001)

Pre: 43 - 101.

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Zone	Probable Inventory		Possible Inventory
	Short Tons	Oz. Au/Ton	Short Tons
Mineral Creek	189622	0.095	497241
Linda	57158	0.245	75316
900	31179	0.339	19270
Total	278000	0.153	592000

References: Walker (1989), Butterfield (1989, 1990), Belanger (1988a, 1988b, 1989) and Crowe (1989).

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9.0 CONCLUSIONS & Recommendations

1.0 INTRODUCTION

The Mineral Creek Property, currently under option to Bitterroot Resources Limited, is located approximately 10 km east of Port Alberni on Vancouver Island, British Columbia, Canada. The property comprised of 24 claims, encompasses an area of approximately 5560 hectares, which includes several documented gold deposits and prospects.

R.R. Walker (1947- 1998) supervised exploration of the Debbie(Mineral Creek) Property for Westmin Resources Ltd. in the period 1979 to 1990 as Exploration Manager - Vancouver Island and also consulted to White Hawk Ventures in the period 1993 to 1996. The authors (R.R.Walker & M.Becherer) last examined the property in the field together over six days in October 1996. Recently one author (Becherer) also spent several days at the Debbie (Mineral Creek Property) in the year 2000 to 2003, while, working as a consultant for Boliden - Westmin Resources Ltd. during the period 1998 - 2004 at their Myra Falls operation.

Gold grades quoted in this report are given in troy ounces per short ton as all assay certificates, compiled averages and mineral inventory estimates are specified in these units in the primary references. One troy ounce equals 31.103 grams; to convert from ounces/short ton to grams/metric ton use as a multiplication factor 34.286; to convert grams/metric ton to ounces/short ton multiply g/t by 0.02917.

2.0 LOCATION AND ACCESS

The Mineral Creek Property is located about 10 km east of Port Alberni on Vancouver Island, British Columbia or 110 km west of Vancouver in the Alberni and Nanaimo Mining Divisions of British Columbia, Canada. The property is centered at approximately 49° 12' latitude, 124° 40' longitude.

The property is readily accessible from Port Alberni via an extensive network of all-weather logging roads maintained by Weyerhaeuser. The claims are accessed from the south via the Bamfield Highway to China Creek Road and the Mineral Creek Road. Access from the north is via Highway 4 east to the Mt.Arrowsmith Road to Cameron Main Road to Yellow Creek Main Road.

Port Alberni is a community of 18,000 with an economy based largely on the forestry industry. It provides extensive infrastructure including a deep sea port, railway, grid power and labor market. Port Alberni is about three hours from Vancouver by ferry and highway and about a half hour from the property by highway and logging roads.

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3.0 PHYSIOGRAPHY

The property straddles a portion of McLaughlin Ridge (formerly named Mineral Hill) including the watersheds of Mineral Creek which drains south into China Creek and Yellows Creek which drains north into Cameron River. Slopes are moderate to steep with elevations ranging from 350m in Cameron River and China Creek to 1300m at the top of McLaughlin Ridge, a broad flat topped ridge trending east-southeast. Mineral Creek and Yellows Creek are deeply incised into the flanks of the ridge and follow the trace of a major north-south, mineralized fault; the Mineral Creek Fault.

The property has been mostly clear-cut in the past 20 years leaving an extensive network of intact logging roads. Portions of the property remain timbered with commercial hemlock, fir and cedar up to a few feet in diameter. Logging is still active by Weyerhaeuser which owns the surface rights as private land. Use of roads is by road licence agreement with Weyerhaeuser requiring a nominal annual fee. The area receives relatively high annual precipitation mostly as rain, with a dry, warm summer season. Snow at higher elevations is a mild impediment to exploration only for two or three months. Drilling through the height of winter has been facilitated by modest plowing of access roads.

4.0 MINERAL PROPERTY

The following claims which comprise the Mineral Creek Property, are owned 100% by Mineral Creek Ventures.

*(Not included in total area. The Grizzly 2 and the Cathy claim are basically underlying owned claims).

Tenure #	Claim Name	Area (ha)
511064	Yellow	190.1
511101	Debbie #1	422.05
511031	Debbie #2	189.9
511029	Debbie #3	675.1
511042	Linda 1	422.4
511098	Linda 2	190.1
511030	Oets	527.2
511028	Oets#2	421.7
511032	Cam	189.9
511107	China	84.5
511108	Grizzly	422.5
511106	Katrina	84.5
200402	Cathy	200.0*
200403	China 2	25.0
200404	Grizzly 2	75.0*
200695	Lynn Fr	25.0
200696	Deva 1	25.0
200697	Deva 2	25.0
511099	Lucy 1	422.05

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511047	Lucy 2	253.3
511039	Lucy 3	527.8
511096	Cop	295.6
509263	DM	42.3
511102	Mik	105.5

5.0 PREVIOUS WORK

The Mineral Creek (former Debbie-) Property and adjacent area has a long history of exploration and small scale production focused on gold beginning in the mid 1880's. By the early 1860's significant placer mining was conducted by Chinese miners in China Creek. Mineral City mining camp was located near the confluence of Mineral Creek and China Creek a few hundred meters south of the claims. Hydraulic placer mining displaced the early miners and the search for gold extended to bed-rock quartz veins in the latter 1800's.

In 1895, gold bearing quartz veins were staked on Mineral Creek, (within the current property) and acquired by James Dunsmuir who operated a small high grade gold mine for two years. After changing ownership, the Alberni Consolidated Gold Mines Ltd. "built an 8-stamp mill the following year, but quit after making a few satisfactory clean-ups" (Clouthier, 1934). Vancouver Island Gold Mines Ltd. acquired the now reverted crown grants and undertook an extensive exploration program involving substantial underground development. Limited production was shipped to the smelter in Tacoma, Washington while a 35 ton per day mill was constructed, but because of operating difficulties it milled only a few tons of ore prior to suspension of work in 1936. The company reactivated the mine in 1939 and made a final shipment of ore to Tacoma before leasing the property to a small scale miner. Total production reported to 1939 was 403 short tons which yielded 303 ounces of gold (0.75 oz Au /t recovered) and 52 oz Ag. (Stevenson 1945). This record may not include all production, particularly during the 1800's when ore was crushed and gravity separated. The Vancouver Island Gold Mine workings developed to 1936, include seven adits totaling 686m of lateral development.

After an extended period of little activity, systematic exploration work in the area resumed in 1979 when Westmin Resources Ltd. and Silver Cloud Mines Ltd. staked the claims comprising the property now owned by Mineral Creek Ventures Ltd. Silver Cloud staked the current Yellow Claim over Vancouver Island Gold Mines workings while Westmin acquired the surrounding area to also explore for volcanogenic massive sulphide deposits similar to their Myra Falls operating mine located in the same volcanic formation 80 km to the northwest.

Westmin conducted mapping and extensive grid soil geochemical survey over the property and adjoining areas. Geophysical surveys were conducted on massive sulphide targets at the Rogers Creek zinc showing, the north west limit of the property, in China Creek adjacent the south boundary of the claims, and at the old Regina adits 1.5 km to the south. Westmin and Noranda Exploration Ltd. jointly diamond drilled the Rogers Creek showing and geophysical anomaly with three holes totaling 745m in 1984.

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In 1986 Westmin reactivated work on the property as a gold exploration program in joint venture with Nexus Resources Corporation. Strong soil gold anomalies detected in their earlier surveys within the current property, were the focus of attention in Westmin's gold program. At the same time Silver Cloud had initiated geological and geochemical surveys on the Yellow Claim to evaluate the gold potential in the area of the old Vancouver Island Gold Mine. Reward Resources Ltd. and Angle Resources Ltd. controlled by the same interests as Nexus, optioned the Yellow Claim in 1986 in the first step towards consolidation of the property; substantial drill programs were initiated, and in 1986 Westmin discovered economically significant gold intersections over long intervals in the Mineral Creek shear zone immediately north of the Yellow Claim and in the 900 Zone west of the Yellow Claim (Watkins et al, 1987). Drilling by Reward and Angle Ltd. extended the Mineral Creek Zone south along the Mineral Creek Fault well into the Yellow Claim as well as testing veins developed by the old mine (Naciuk et al, 1987). Westmin's program also discovered previously unrecognized high grade Au veins - the Linda Zone - east of the Mineral Creek Fault and north of the Yellow Claim. In total 14,045m of drilling in 114 holes were completed by March 1997 on these zones within the area of the current claims. Extensive rock and soil geochemistry, mapping and geophysical surveys were also completed. Survey control was established and background environmental studies initiated.

In 1987 Westmin assumed operatorship of the Yellow claim under a joint venture agreement with Reward Resources and Angle Resources. In 1988, Reward and Angle amalgamated with Nexus Resources Corp. which assumed control of the Yellow claim. Westmin did substantial drill programs in the area of the current property in 1987,88 & 89 as well as further geology mapping, geochemical sampling and geophysics. Extensive overburden trenching and rock sampling was done, the old adit collars were reopened and a 2.5km drill access road was constructed to logging standards on the east side of Mineral Creek.

In 1988 a major exploration tunnel was driven south from a portal in Yellow Creek at 850m elevation along the hanging wall side of the Mineral Creek Fault Zone to the Mineral Creek gold Zone. A raise was broken through to surface in Mineral Creek on the Yellow Claim to provide ventilation and second access. This trackless underground development includes 1780m of 3x4m main adit, two smaller crosscuts through the Mineral Creek Zone total 121m, three raises total 65m and a subdrift is 27m long. These exploration workings were established at a cost of approximately \$3 million to provide a drill platform for exploration drilling of the Mineral Creek fault zone, to evaluate the Mineral Creek zone and to provide a platform for definition drilling of the Mineral Creek Zone and Linda Zone. Accessing the Mineral Creek Zone with this exploration tunnel eliminated the need for road access south at an estimated cost of approximately \$1 million and provides drainage to enter the Cameron River Watershed rather than China Creek from which Port Alberni municipal water is drawn. Potential mill sites are available on the north side of McLaughlin Ridge whereas a mill in China Creek would be less favourably received.

In 1990 Westmin's program was reduced to a limited drill test of the 1050 zone located on the current property 800m west of the 900 Zone. Here a strong soil anomaly led to discovery of a quartz veined shear containing high grade gold intersected in core. This hole was not followed up and no further exploration work was done on the property since 1990.

In total close to 300 diamond drill holes totaling 50,000m have been drilled on the property in the period 1986 to 1990.

In 1993 White Hawk Ventures Inc. leased a 37 hectare area over the 900 zone from Westmin for the purpose of test-mining the high grade 900 vein. Development and mining of the 900 vein proceeded

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intermittently through 1995. Development includes 201m of 2.5 x 2.5m trackless drift, 135m of raises and 40m of drift on two sublevels. Approximately 1000 tons of ore were mined with potential for a similar amount indicated in place within the developed block of ground. The area of this lease is now included within the current property. In 1996 White Hawk concluded agreements with Westmin on the other claims comprising the current property. In 2000 White Hawk forfeited all their interest on the Debbie Property to Boliden-Westmin (Canada) Limited. Boliden-Westmin (Canada) Ltd. forfeited the Jenny (Regina workings) and Stokes claims, approximately 40 units out of a total of 250 units.

In January of 2004, Mineral Creek Ventures Inc. acquired 100% ownership of Boliden's remaining 210 units of the Debbie Property. In the first half of the year 2004, Mineral Creek Ventures renewed the tenure of the 22 claims for a period of five years. The claims consist of a total of 210 units and are in *Good Standing* until the year 2009. In 2005 Mineral Creek Ventures converted the majority of the tenures to the new cell -system of mineral titles online. Two claims were added to the property, constituting a total of 24 claims.

In May 2005 Mineral Creek Ventures entered an option agreement with Bitterroot Resources Ltd, a Vancouver based Exploration Company. Under the terms of the agreement Bitterroot Resources Ltd. can earn 75% ownership of the Mineral Creek Property. Bitterroot plans to aggressively target the high grade gold potential of the property by carrying out diamond drilling, geological mapping, and bulk sampling. The aim of Bitterroots exploration approach is to outline a substantial high grade gold resource and move the property from the exploration stage to production.

6.0 REGIONAL GEOLOGY

Vancouver Island is an allochthonous terrain representing a large piece of Wrangellia, a dismembered block of Paleozoic to Mesozoic volcanic and sedimentary rocks which docked with North America in the Jurassic to Cretaceous Periods to produce the Insular belt of the Canadian Cordillera. After amalgamation with North America the allochthonous rocks of Vancouver Island were unconformably overlain by sandstone, shale conglomerate and coal measures of the Cretaceous Nanaimo Group deposited in Graben controlled successor basins.

Shallow level intrusions ranging from diorite to granite were widely emplaced in the early Tertiary. Preserved Tertiary volcanics in the Ucluelet-Tofino area indicate at least some Tertiary intrusions vented to the surface. Diatreme breccias, porphyry copper deposits (e.g. Catface near Tofino) and widespread gold bearing quartz veins are associated with this Tertiary magmatic event. The epigenetic gold deposits of the Debbie Property were apparently formed by this Tertiary event although the host Paleozoic volcanics may have played a role as a source of gold.

The older rocks of the Wrangellia Terrane on Vancouver Island comprise three major volcanic cycles separated by two limestone formations. The Sicker Group at the base of the section underlies all of the current Debbie Property. The Sicker Group is a thick sequence of calc-alkaline, basaltic to rhyolitic volcanics and associated volcanoclastics and chemical sediments. These volcanics represent an oceanic island arc with no known continental basement.

The Sicker Group is subdivided into a lower Nitinat Formation of pyroxene basalt which is overlain by more differentiated and interbedded mafic to felsic volcanics and volcanoclastics known as the Myra Formation near Buttle Lake and the McLaughlin Ridge Formation in the Port Alberni and Mount Sicker areas.

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The Myra (McLaughlin Ridge) Formation hosts major, precious metal rich, volcanogenic massive sulphide deposits which were being mined by Boliden-Westmin (Canada) Limited at Buttle Lake 80km northwest of the Mineral Creek property. Similar but smaller deposit was produced by the Twin J Mine on Mt. Sicker, 75km to the southeast. Zircon dating of rhyolites associated with ore in both areas indicate a Devonian age of 370 million years.

In the China Creek area, extending into the property, a thick sequence of essentially aphyric pillow basalt, pillow breccia and massive flows of more arc tholeiitic composition underlies the Myra (McLaughlin Ridge) Formation with the contact providing an important stratigraphic marker at its top. This unit was originally called the China Creek basalt and has been more recently been named the Duck Lake Formation.

The Sicker Group is overlain by the Buttle Lake Group with Cameron River Formation cherty tuffs and chert overlain by Permian limestone of the Mt. Mark formation (equivalent to the Buttle Lake Fm.). The Paleozoic section represented by the Sicker and Buttle Lake groups is exposed in three large, anticlinal uplifts on Vancouver Island with the property located near the northwest end of the Cowichan-Horne Lake Uplift.

The Paleozoic rocks of Vancouver Island are unconformably overlain by a very thick section of Triassic, pillowed to massive, tholeiitic, flood basalt known as the Karmutsen Formation which flanks the Cowichan-Horne Uplift but does not occur on the property. The Karmutsen basalt is capped by limestone of the Quatsino Formation and together these two units comprise the Vancouver Group. The Jurassic Bonanza Group includes marly, argillaceous and black sediments overlain by calc alkaline, differentiated volcanics representing an arc built on the Wrangellian crustal block. Major, Jurassic granitoid plutons, known as the Vancouver Island Intrusion are coeval with Bonanza Volcanics, and regional folding and metamorphism. This volcanic-plutonic event apparently marks the docking of Wrangellia with the Alexander Terrane of the Coast Range. Folding and regional metamorphism of Sicker Group rocks on the property record this event. Substantial uplift and erosion preceded the Cretaceous, basin filling sediments of the Nanaimo Group described previously.

7.0 PROPERTY GEOLOGY

The current Mineral Creek Property encompasses an area of metamorphosed Sicker Group volcanics including the Duck Lake Formation overlain by the McLaughlin Ridge Formation (Myra Fm.) A thick section of pillowed and massive basalt flows occupies the south side of the property on the mid to lower slope of McLaughlin Ridge facing south into China Creek. These usually dark green, aphyric basalts represent the upper part of the Duck Lake Formation (China Creek basalt). This unit is overlain to the north by the McLaughlin Formation (Myra Fm.), a more complex and bedded section dominated by light green, pyroxene and feldspar phyric basaltic volcanoclastics with minor massive flows and rare pillows. Coarser breccias are apparently flow breccia or pillow breccia while finer clastics in the range of tuff to lapilli size include bedded density flows and turbidites.

The contact zone between these two major volcanic cycles is a complex transition zone of variable thickness involving the appearance of chert and cherty tuff beds including magnetite bearing black chert and red jasper of exhalative origin. Thick bodies of low potassium rhyolite including coarse breccia, massive and flow banded phases are developed on this contact adjacent the north side of the property and one kilometer south of the property. Within the claims, mixed clastics commonly contain some

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proportion of felsic fragments up to several centimeters near the base of the McLaughlin Formation (Myra Fm.). This complex stratigraphic transition zone is prospective for volcanogenic massive sulphide deposits and contains various sulphide occurrences. The significant gold zones on the property occur within a couple of hundred meters of this formational contact, even though the gold deposits appear to be much younger (Tertiary) hydrothermal vein and fault zone deposits.

The Sicker Group rocks in the area have been folded and metamorphosed to the lower greenschist facies. Schistosity is variably developed from, not apparent to, broad zones of very strong phyllitic schist. Schistosity strikes north-northwest with steep dip, axial planar to folds. Lineation and stretch fabrics are penetrative with shallow plunge of 0-15 degrees either northwest or southwest. This lineation parallels the general fold hinge direction. Small scale folding varies from strong and tight similar folds to apparently unfolded. On a large scale, a major northwest trending, shallow plunging, broad, flat topped anticline underlies McLaughlin Ridge with the contact zone between the Duck Lake and McLaughlin (Myra) Formations passing below the top of the ridge and exposed on both north and south flanks of the ridge.

Triassic, Karmutsen Formation basalt is exposed adjacent the southwest side of the property, south of China Creek where it unconformably overlies the Sicker Group. Cretaceous, Nanaimo Formation sediments are preserved as an apparently thin plate surrounding a Tertiary stock one kilometer southwest of the claims. Thin plates of Nanaimo Formation lying unconformably on the Sicker Group are also found 1.5 km north of the property and east of the claims on the north flank of McLaughlin Ridge. This distribution suggests that the sub-Cretaceous unconformity in the area of the property lay close to the current erosion surface and shows considerable relief. It appears that the post Tertiary erosion has largely exhumed the pre-Cretaceous erosion surface by removing the relatively weaker Nanaimo Formation. Local preservation of these sediments occurs preferentially as rims around Tertiary intrusions on Patlicant Mtn. and in the Nanaimo watershed northeast of the property, apparently due to induration or alteration of the sediments in aureoles around Tertiary stocks.

Intrusive rocks on the property are limited to occasional dikes of limited extent. A Tertiary diorite plug is located on Patlicant Mountain 1.5 km southwest of the claims. On the claims a few dikes of hornblende - plagioclase porphyry are assumed to represent this early Tertiary intrusive event. A few irregular dikes of mafic to ultramafic rock occur in the immediate area of Mineral Creek and Linda Zones. This rock is mostly altered and was mapped under the name "mottled dike". Other phases look less altered and pyroxenitic. A very fine grained, light grey, siliceous rock (resembling the low potassium rhyolite found as flows) was intersected within the Mineral Creek fault zone where it was mapped under the name "fels". The distribution of this rock suggests it may be a dike emplaced within the fault. The fels is strongly broken or shattered by brittle fractures apparently due to movement on the fault following emplacement of the fels.

Post-metamorphic brittle faults of many attitudes cut the rocks in the area. They are usually marked by gouge, sheared and broken rock or crumpled schists. Gold bearing quartz veins and hydrothermal alteration are extensively developed along faults in several areas on the property.

The Mineral Creek fault is the most important major structure controlling gold mineralization. It strikes nearly north-south (010 deg.) through the axis of the property along the trace of Mineral Creek and Yellows Creek. This regional fault lineament can be traced for many kilometers to the north and south of the property. In the area of significant drilling (over a 2.5km strike length on the claims) the fault dips steeply east at 70 deg. to 80 degrees over a vertical elevation range of 1000m. The fault is wide and the hanging wall rocks in particular are transected by ancillary shears and veins for a distance of

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approximately half a kilometer east of the footwall gouge zone.

Structurally, the Mineral Creek Fault is complex. It is characterized by a footwall gouge zone, commonly several meters thick, which appears to have been the focus of late, post mineralization movement. In the hanging wall of this gouge zone, major lenses of intensely sheared and altered fault breccia or cataclasite are developed up to 30m thick. This rock is shear foliated and contains angular to rounded clasts of carbonate-sericite altered wall rock and vein quartz. The cataclasite unit is relatively soft but solid rock underground which does not require artificial support. The pyritic cataclasite zone is variably mineralized with gold, and arsenopyrite and intruded by shattered fels locally. The cataclasite is transected by anastomatic gouge seams and late quartz veinlets which may also be gold rich. East of the cataclasite, the hanging wall basalts and tuffs are heavily faulted and veined over a width of 100 to 200m to a sub-parallel fault, the Dunsmuir vein structure. Fault related, veined and altered shears oriented 060 - 60 degree SE have been traced in the Linda Zone as much as 300 meters east of the Dunsmuir shear. The Linda Zone shears consistent with left lateral shears conjugate to right lateral offset, with a hanging wall component, on the main Mineral Creek fault. A few apparently ultramafic dikes up to 10m thick intrude the faulted and veined hanging wall block parallel to the fault.

The Mineral Creek Fault has a long and complex history probably dating at least from the Cretaceous to recent. It appears to be essentially a right lateral transcurrent fault but it has probably accommodated vertical movement and tension at various times. Net offset is not known and the Mineral Creek gold zone may be offset by the essentially barren footwall gouge zone.

The 900 Zone is localized along an east northeast fault parallel to the Mineral Creek fault in strike but dipping 70 to 80 degrees west instead of east. This veined and mineralized smaller fault zone, several meters thick, lies 300m west (in the footwall block) of the Mineral Creek Fault. The high grade 900 vein occupies an east-west striking shear which dips 80 - 55 degree N. The 900 Zone fault appears to off-set the 900 vein. At the 1050 Zone, 800m west of the 900 Zone, gold has been found in a veined and altered shear oriented 294 - 60 deg. N, approximately parallel to, and on strike projection from the 900 high grade vein. The 900 vein and 1050 vein shears approximately parallel the China Creek lineament, a probable major fault which has dropped the elevations of the sub-Triassic and sub-Cretaceous unconformities on its south side.

The Gap Fault oriented 340 - 75 degrees East, is a major regional shear which rivals the Mineral Creek Fault in prominence, width and large scale hydrothermal alteration. The surface trace of this structure is marked by geochemical anomalies in soil and altered rock. The Gap Fault intersects the Mineral Creek fault on the property in an area of little drill information. This warrants significant additional work.

8.0 PROPERTY MINERALIZATION

8.1 Mineral Inventory

Several significant gold deposits on the property have been tested with substantial diamond drilling by Westmin Resources Ltd. Progress was monitored through a series of mineral inventory estimates, revisions and statistical analyses. These were not ore reserve estimates. They were based on a uniform set of criteria that did not allow for the variable mining parameters which would apply in such a diverse set of gold zones which range from potential for bulk minable low grade to selective mining of narrow high

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grade veins. These estimates do provide an accounting of significant gold intersections, based on geological interpretation, using the same criteria for each zone. This inventory is summarized in Table 2.

Please note: Standards set by the Canadian National Securities Commissions or British Columbia Securities Commission (BCSC), for determining and reporting mineral resources/reserves have considerably changed since the 1980's. The resource figures quoted in this report are Pre - National Instrument 43-101 Standards of Disclosure for Mineral Projects . So Westmin Resources Ltd. inventory of the Debbie property listed below is to be viewed as historic (pre; 43-101). (M.Becherer, P.Geo. 2001)

Table 2: Debbie Property Mineral Inventory (as of 1990, Pre-43-101)

Zone	Probable Inventory		Possible Inventory
	Short Tons	Oz. Au/Ton	Short Tons
Mineral Creek	189622	0.095	497241
Linda	57158	0.245	75316
900	31179	0.339	19270
Total	278000	0.153	592000

references: Walker (1989), Butterfield (1989,1990), Belanger (1988,1989) and Crowe (1989)

This mineral inventory does not incorporate underground sample data from the Mineral Creek Zone. The Linda inventory does not include the results of the late 1989 drill program of 12 holes (849m). The 900 Zone inventory does not consider the results of subsequent underground development and limited mining of the 900 vein.

The traditional method based on cross-sections was used for the inventory estimates, supplemented by longitudinal sections and level plans. Sections were drawn at 10m section spacing through the Mineral Creek Zone although drill sections are spaced mostly at 25 to 50m apart. The smaller section spacing permits adequate accounting of holes which deviated significantly or which were drilled off section bearings. Metallics fire assays, available for higher grade samples were used in preference to ½ assay ton fire assays. A little data is represented by geochemical gold analysis for some very low grade samples (< g/t) included as dilution in making up standardized minimum thickness. Inventory blocks were included in the estimate if they exceeded 0.05 oz Au/short ton (1.7 g/t Au) over a 2.0m true thickness. Probable inventory blocks were limited to 10m strike length and 10m dip length centered on drill intersections. Interpreted blocks between drill intersections were accounted in the possible category. Probable inventory blocks were totaled with a tonnage-weighted average grade defined using arithmetic averaging and no grade cutting. No grade was calculated for the possible blocks, however, the grade of the possible inventory for each zone was expected to be similar to the probable inventory.

8.2 Mineral Creek Zone

The Mineral Creek Zone represents variable and pervasive gold mineralization developed in altered and fault deformed rocks along the Mineral Creek Fault Zone. These host rocks are intensely altered by rusty-weathering carbonate, probably mostly ferroan dolomite, and sericite with common, apple green sericite (mariposite). Quartz in the form of veinlets and cataclastic fragments of vein quartz is an essential component of the gold mineralized rock, but extends beyond inventory blocks. Pervasive silicification is

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only locally developed. The altered zone contains pyrite, in the range of a few to several percent, as fine disseminations and thin pyritic seams along gouge slips. Minor arsenopyrite is similarly distributed.

The area of inventory blocks extends for 500 meters along strike and to 150 meters below surface extending over an elevation range of 210 meters. Inventory blocks range up to 30m thick but are mostly less than 10m thick. The cut off criteria for inventory blocks results in multiple blocks stacked through the thickness of the Mineral Creek Fault zone.

The Mineral Creek Zone is sensitive to cut-off grade and shows a mild lognormal grade distribution lacking extreme high values. A lognormal average was calculated for the probable inventory using Sichel's t-estimator. This average grade is 0.111 oz Au/ton which is 16% higher than the comparable arithmetic average. Grade cutting to account for a lognormal distribution during arithmetic averaging is not warranted in the Mineral Creek Zone. Cutting sample grades to a maximum of 1 oz Au/ton does not significantly affect the inventory.

The Mineral Creek Zone was developed by two crosscuts and three raises from the Debbie Tunnel in 1988. Underground sampling of the north crosscut and raises, 40m north of the north boundary of the Yellow Claim, indicated grades consistent with the drill data. Eighty meters to the south, the south crosscut indicated an interval significantly better than projected from drill data. Both walls of the crosscut, 3m apart, were consistent and averaged 0.176 oz/ton over a thickness of 9.5m (including 0.241 oz Au/ton over 5m). These crosscut samples were continuous, heavy chips one meter long analyzed by metallics fire assay. This data has not been incorporated into the mineral inventory. Further work is needed to evaluate the potential of this high grade zone. No definition drilling from underground has been done.

8.3 Linda Zone:

The Linda Zone includes a set of three or four veined and altered shears oriented approximately 060 - 60 degrees SE. They are marked by zones up to at least two meters thick of strong carbonate alteration, gougy shears and quartz veining. Some vein quartz is sheared into fragments. A few percent of pyrite and arsenopyrite occur in altered rocks and veins and a small amount of carbonate occurs in the quartz veins. The three Linda veins are stacked subparallel through an interval of about 80 meters. The Lower Linda vein is the strongest most continuous structure with the most continuous gold grades although some inventory blocks are listed on the middle and upper veins.

The Lower Linda vein is best exposed in Linda Trench 1 on a drill access road, built to logging standards for drill access by Westmin. The steep slope facing west into Mineral Creek was logged in the area of the Linda veins in 1987 by MacMillan Bloedel and the road is accessible with minor culvert repairs. The trench exposes the Lower Linda vein over 15.1m length on a sloping surface. Preliminary chip sampling on six profiles across the vein suggest an average grade of 1.23 oz Au/ton over 1.85m true thickness along a length of 15.1m. Extending this profile line through diamond drill holes D149 and D171 produces a length of 36.7m averaging 1.78 oz Au/ton over an average true thickness of 1.26m. This suggests the presence of a high grade zone in part recoverable by trenching. A dozen drill holes intersected intervals of 0.3 to 6.0 oz Au/ton in a 55 m elevation range and up to 100m northeast along strike in the Lower Linda vein.

The presence of coarse, free gold of heterogeneous distribution makes accurate evaluation of grade and thickness from a limited number of chip samples or core samples unlikely. Evaluation of the grade of the Linda Vein in Trench 1 requires bulk sampling. Evaluation of the grade and thickness on strike would require drifting on the vein. The Debbie Tunnel ventilation raise provides a convenient route for drill or adit

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water discharge to a settling pond located at the tunnel portal. The tunnel workings, 125m below the Linda trench, provide a drill platform for economic drilling of the down dip projection of the Linda Veins and a potential production access for the narrow vein, high grade potential of the Linda Zone. Further exploration should include tracing the Lower Linda Vein southwest to its intersection with the Dunsmuir Vein which produced high grade in the 1890's. The middle and upper Linda Veins should be trenched on surface. The inventory estimate should be revised to include the results of the 1989 drilling program and recast on parameters more suited to this zone including a narrow minimum thickness and a higher cut-off grade.

8.4 Vancouver Island Gold Mine Veins

A system of several quartz veins located in the hanging wall block of the Mineral Creek Fault were developed, and in part mined, during the operations of the Alberni Consolidated Gold Mines Ltd. in the late 1890's and again during the 1930s by Vancouver Island Gold Mines Ltd. Three veins were developed by five adits and a few raises or shafts, totaling 582m of lateral development and 75m of vertical development. Two adits totaling 104m explored the Mineral Creek Zone in the 1930's but these produced no ore.

The past productive veins are located in the north third of the Yellow claim from 20 to 120m east of the Mineral Creek Fault. These quartz veins vary in thickness from centimeters to 1.2m and are composed of quartz containing minor pyrite, arsenopyrite and carbonate. Visible gold is present locally. Basaltic wall rocks are altered by rusty weathering carbonate over narrow envelopes adjacent the veins. gouge seams commonly developed on vein walls and within veins suggest the veins follow shears which were reactivated after vein deposition. Reported grades of samples ranged up to 94 oz Au/ton and direct smelter shipments included 40 tons of 2.9 oz Au/ton and 0.12 Oz Ag/ton (Stevenson 1944).

The Linda Zone veins, which apparently were not found by the previous miners, represent a part of the same system of gold rich veins extensively developed in the hanging wall of the Mineral Creek Fault. The Linda veins occupy adjoining areas but have not been traced into any of the Vancouver Island Mine veins.

8.4.1 Dunsmuir Vein:

The Dunsmuir Vein produced high grade ore in the 1890's. The vein strikes north dips 80 degrees east and was drifted on for a length of 56 meters. The vein was overhand stoped over an 18 m length with the stope reaching surface 25 to 30m above adit level. The Dunsmuir Vein follows a strong carbonate altered shear which was exposed in the Debbie Tunnel 70m north of the north end of the Dunsmuir adit and 10m higher in elevation. The Debbie Tunnel intersected this major shear zone 170m farther north and was driven along this structure to the south end of the tunnel. For most of this distance the shear strikes 020 and dips about 70 degrees East. Near the south end of the Debbie Tunnel the strike curves to south with many narrow spay shears and thin veins curving southwest towards the Mineral Creek Zone. The Dunsmuir fault zone in the Debbie Tunnel ranges up to 5m thick and is variably veined by quartz and contains sheared fragments of quartz in cataclasis similar to the larger Mineral Creek zone. Quartz content varies up to 25% and the sheared and adjacent basalt is intensely altered to carbonate with a few percent pyrite and minor arsenopyrite. Multiple stages of shearing and veining are indicated. The Dunsmuir Vein is subparallel to, and part of, the Mineral Creek Fault zone in the broad sense.

The Dunsmuir shear in the Debbie Tunnel is characterized by anomalous arsenic and gold values with sample grades less than 0.07 oz Au/ton. Surface holes which penetrated this structure above the tunnel did return several significant intersections, (up to 0.373 oz Au/ton over 2.4m and 0.273 oz/ton over 3.04m)

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which were included in the mineral inventory with the Mineral Creek Zone. This structure is only sparsely tested by surface hole above the Debbie Tunnel and has not been drilled below the tunnel. Additional drilling of the Dunsmuir from the tunnel was planned by Westmin but not executed. Significant potential for ore is indicated.

One intriguing situation was revealed in a fan of three down holes drilled from the Debbie Tunnel, 460m north of the Yellow claim, to test the Mineral Creek Fault at depth. These holes penetrated a black chert horizon on close spacing 35m below the tunnel. The pyritic chert hosts gold which greatly increases in grade to the east over 10m in the up-dip direction towards the Dunsmuir Fault which is projected to intersect the chert 35m up dip from D189 which intersected 1.43 oz Au/ton over 2.0m. In other areas, such as the 900 Zone, cherts are enriched in gold adjacent to gold bearing faults, however the grade in this hole is most unusual. This suggests the possibility of a gold enrichment in the Dunsmuir structure in this area. The projected intersection of the gold rich chert and the Dunsmuir fault can be reached with holes only 40m long from the tunnel. Surface hole D124 intersected 0.996 oz Au/ton over 1.48m in the hanging wall (east) side of the Dunsmuir fault 270m south of hole D189 and 90m above the tunnel. Follow up drilling of the Dunsmuir veined shear and adjacent chert horizon is warranted. The Debbie Tunnel access permits good control and low cost per diamond drill hole for such a program.

8.4.2 Belcher Vein

The Belcher Vein strikes 027, dips 50 degrees Southeast and outcrops about 90m east of the Dunsmuir vein. It was first developed by a 14m inclined shaft in the 1890's when a small tonnage was mined from a high grade pocket or shoot over a length of about 23 meters. The vein at surface here is approximately 0.6m thick. In the 1930's, the lower Belcher adit developed the vein about 45m down dip from the old shaft collar and a raise was driven up into the old shaft stope. It is unclear whether the stope was enlarged at that time. The Lower Belcher adit followed the vein for 72m but supposedly did not encounter ore grades on this level. The Upper Belcher was then driven NNE along the vein, from the top of the old shaft stope, a distance of 116m. Under-hand stoping was done for 12m from the raise followed by over-hand stoping for another 30m, suggesting a shoot plunging shallow south. In the Upper Belcher adit, the vein follows a shear and is typically 30 to 15 cm thick but pinches and swells to as much as 1.2meters or as little as a few centimeters.

8.4.3 Mac Vein

The Mac Vein was developed and mined in the 1930's. It strikes 042 and dips 40 degrees to 70 degrees Southeast. The Mac Vein was developed by two adits at a 27m vertical spacing with portals located about 180m SSW from the Dunsmuir adit. The Upper Mac Adit was driven NE along the vein and vein shear for 131m until this structure intersects the Dunsmuir Vein. This adit then follows the Dunsmuir Vein for another 12m. Under-hand stoping was done from a point 10m S of the portal to 8m NE of the portal. The vein was over-hand stoped to surface from the portal for 37m NE and an additional over-hand stoping was started over another 53m when operations were suspended in 1936. A 76.2m length of the Upper Mac Adit averaged 3.69 oz Au/ton over an average width of 15.5 cm based on the average of 63 samples and a shipment of 40 tons of ore from here recovered 2.9 oz Au/ton and 0.5 oz Ag/ton (Stevenson 1935). The vein varies over the length of the adit from banded quartz 30cm thick to a narrow vein shear. reported sample assays included a maximum grade of 94.42 oz Au/ton although no assay over 20 oz Au/ton were included in the average quoted above.

The Lower Mac Adit is 64m long and followed the vein for 47m but did not contain encouraging values. Here the vein varies from 8 to 45cm and averages about 15cm thick. A 9m raise connects the lower adit to surface 10m south of the upper portal. Limited mining was reported from this raise in 1939. A smelter

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shipment reported that year recovered 0.71 oz Au/ton.

8.5 900 Zone:

The 900 Zone includes a complex system of gold enriched faults and rocks 300m west of the Mineral Creek Fault. Gold mineralization is localized within and near to the 900 Fault oriented 020 - 75 degrees West. This fault zone, a few meters thick, is sheared, carbonate altered and in part veined quartz. Minor pyrite and arsenopyrite trace sphalerite, galena, chalcopyrite and coarse native gold occur in quartz veins lying along the 900 Fault and in the 900 vein oriented 090-55 to 80 degrees North. The vein system surrounding the 900 vein is complex, multidirectional and includes stockwork development in wall rocks suggesting significant dilation of the rock mass by hydraulic pressure during vein formation. This intense vein system adjacent to the intersection of the 900 Fault and 900 vein shear can be viewed broadly as a pipe like zone of veined rock plunging steeply north. It has not been drilled deeper than 150m below surface.

The 900 Zone veins are developed principally in massive pillowed basalt at the top of the Duck Lake Formation. The basalt is overlain by a significant bed up to 10m thick of thin bedded chert and cherty tuff. The chert varies from light grey to black and magnetite bearing. Magnetite bearing, red jasper is developed locally. Smaller beds and lenses of cherty tuff occur in the basalt below the main chert bed. These cherts are altered to gold bearing pyrite and quartz veined chert above the 900 Zone veins and adjacent the 900 Fault. A portion of Westmin mineral inventory is represented by gold bearing chert adjacent the surface. The chert inventory totaled 12,960 probable tons averaging 0.111 oz Au/ton, and 14,700 possible tons. Gold in the chert correlates along the folded chert horizon. Away from the 900 Fault the chert horizon is commonly enriched in gold up to the level of several hundredths of an ounce without veining, suggesting the possibility of a stratigraphic enrichment of gold in this formation-bounding exhalite horizon. Quartz veinlets in McLaughlin (Myra) Formation volcanoclastics above the chert horizon are not gold enriched.

White Hawk Ventures Inc. undertook development and limited test mining of the highest grade portion of the 900 vein as indicated by surface drilling. Various estimates of this high grade reserve were made prior to mining. The last estimate, which benefited from development of an adit and raise seems the most reasonable in light of subsequent development. This estimate totaled 2000 tons averaging 1.5 oz Au/ton in a vein 1 to 2m thick (R.R.Walker, 1994). This segment of the 900 vein extends over 11m to 17m strike length and 30m elevation range.

The problems of estimating reserves in this vein, as in the Linda veins, are severe due to the presence of coarse disseminated gold grains up to 2mm or more combined with evidence of a shortage of fine gold. Drill core and underground samples ranged up to 30 oz Au/ton over meter lengths. The result of the test mining is not known. About 1000 tons were mined. A muck pile stored outside the portal was sampled by the authors in October 1996. Five large samples, each representing about a one meter length, were taken. A powered auger and driven steel pipe were used to take samples totaling 100kg. These samples were entirely, secondary cone crushed and two approximate 650 gram splits from each sample were screened for metallics fire assay. The resulting ten assays averaged 2.1 oz Au/ton and 0.62 oz Ag/ton. The duplicate assays for each sample varied up to 100%.

Potential for additional reserves exist in the 900 vein and related splay veins beyond the developed area as indicated by surface drill holes. Further evaluation of the zone would benefit from limited underground definition drilling which was not done during the development of the 900 Zone. Potential for additional small scale mining reserves exist in the south veins distributed along and parallel to the 900 Zone Fault,

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south of the 900 vein and above the access adit. An indication of this potential is provided by Westmins 1988 inventory estimate for the south veins which totaled 7,220 probable tons averaging 0.42 oz Au/ton. This estimate could be improved by reducing the minimum thickness from 2 meters to 1.2 meters. Ground conditions in the 900 Zone development are excellent.

From an exploration point of view, the general area of the 900 Zone offers several untested targets which warrant drilling in the effort to locate a larger body of mineable ore. Principal among these is the area below the current tested depth of about 150m. The 900 vein system was not tested on strike more than 25m east of the existing mine workings where one hole intersected 0.8m of 3.39 oz Au/ton at the elevation of a sublevel drift on the vein which exposes high grade over 1m thick. The vein was not drilled further east due to the proximity to the boundary of the Yellow claim, which was not controlled by Westmin at the time of drilling. The 900 vein structure should be tested on strike to the east in an attempt to follow its projection to an intersection point with the Mineral Creek Fault located 300 meters east of the 900 workings.

The 900 vein is clearly offset by the 900 Fault. Comparable high grade was not intersected on the immediate west side of the fault although gold bearing quartz veins were. Only a few surface holes tested this area in the elevation range of interest with hole D130 intersecting 0.18 oz Au/ton over 1.7m in the possible 900 vein extension 6 m west of the 900 fault at adit level. Beyond this the vein is largely open to the west. The 1050 Zone vein lies on the approximate 900 vein projection 800m west of the 900 Zone and is essentially parallel to the 900 vein. Other north-south faults, similar to the 900 Fault, cross this westerly projection. The most significant lies 400m west of the 900 zone, where a 1m thick quartz vein is oriented 350 - 50 deg.E. This limited exposure lies within a strong soil gold anomaly, however surface vein samples returned assays to a maximum of 0.007 oz Au/ton. This structure is prospective but covered by overburden. A focal point for drilling is the intersection of this north-south fault with the projection of the 900 and 1050 vein shears, approximately 200 to 300m south of an old adit. Another target lies down dip on the old adit vein where it intersects the 900 Zone chert horizon below the soil anomaly.

8.6 1050 Zone:

The 1050 Zone is located 800m west of the 900 Zone. A very strong soil gold anomaly 300 x 200m across, including a few soil samples in the range of 0.1 to 0.345 oz Au/ton focused attention to this area. Trenching produced a limited exposure of a gold bearing quartz veined, carbonate altered shear oriented 294 deg. - 60 deg. N. The altered zone is 3.8m thick where exposed and grab samples produced highly variable assays up to 2.7 oz Au/ton from narrow quartz veins in the zone. Chip samples across the altered zone averaged up to 0.11 oz Au/ton over 1.5m thickness along 4 meters of strike length.

In 1990 Westmin tested the area with four short holes totaling 240m using a small drill. All four holes were abandoned prematurely due to surface fracturing on this steep slope for which the very light drill was inadequate. Two of these diamond drill holes intersected the 1050 vein. Hole D215 suffered essentially complete loss of core over 12.9m through the veined shear zone. Hole D217, the last drilled on the property, intersected 2.9m of carbonate altered shear zone containing a 1.7m interval of vein quartz, but core recovery was only 30%. The quartz contained 8.38 oz Au/ton over 1.7m based on the average of two samples assayed by metallics fire assay. The higher grade sample, representing 1m, contained 11.0 oz Au/ton, 84 ppm Ag, >10,000 ppm As, 8,400 ppm Pb, 5,830 ppm Zn and 19 ppm Hg. Visible gold, sphalerite, galena and realgar along with 20% pyrite, 10% arsenopyrite were reported in the quartz vein (Prefontaine, 1990).

The 1050 vein differs from the other high grade veins on the property by virtue of its high sulphide, zinc,

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lead and mercury contents. This suggests the location is in a somewhat different zone of the hydrothermal system compared to the other veins. More weakly anomalous mercury was reported peripheral to the 900 Zone and the strong enrichment of mercury in the 1050 vein suggests it may be high in the system.

At surface, the 1050 vein is hosted in basaltic volcanoclastics at the bottom of the McLaughlin (Myra) Formation. The top of the underlying massive and pillowed basalts of the Duck Lake Formation lies less than 100m down slope south of the trench and probably dips shallow southwest. The chert bed which lies on this contact at the 900 zone should be present in the 1050 Zone but may be discontinuous. A chert bed intersected over 4.1m in hole D214 probably represents this contact zone sediment facies. At the 900 Zone the largest and highest grade veins are developed below this chert in the underlying basalt. This suggests a prime target area down dip from hole D217 where the vein structure penetrates the upper part of the underlying basalt flows. The 1050 Zone is approximately parallel to the high grade 900 vein and is approximately 800m on strike projection from the 900 vein. The 1990 drill program discovered high grade gold in the 1050 veined shear. The zone has not been evaluated and no diamond drill holes were drilled after the discovery hole. Systematic drilling of this structure is warranted. A proposal for a 1050 Zone exploration program was submitted for Provincial work permit approval and was approved in December 1997 (M.Becherer, 1997). Reactivating this permit should be considered.

9.0 Conclusions and Recommendations:

The Mineral Creek Property is a very significant gold exploration property. Placer mining and three periods of high grade gold production have taken place on the claims. Extensive exploration has been conducted from 1986 to 1990. This work included geological, geochemical and geophysical surveys, a considerable amount of diamond drilling and development of a major exploration tunnel which will facilitate further evaluation and exploration and reduce costs.

A significant mineral inventory of gold resources was established by Westmin Resources Ltd. in three different zones. All three zones present opportunities for additional gold resources with further work. At least several more exploration targets indicated by present data warrant systematic exploration drilling. One of the most promising new areas to explore for additional high grade gold resources is the 1050 Zone where a high grade discovery in a veined shear awaits systematic follow-up drilling.

The Mineral Creek Property encompasses a very large and complex gold mineralized system manifested by several inter-related styles of mineralization which occur extensively across the claims through an elevation range of 800 meters. The extent of known mineralization, the past mining history, the large exploration expenditures of recent years and the abundance of available drill targets serve to subjectively rank the property in the top 10 percentile of available gold exploration properties in Canada. Good road access, industrial infrastructure, a mild climate and proximity to Vancouver all serve to reduce costs and improve the likelihood of achieving an economic mining operation. Significant addition to the current mineral inventory is required to achieve this potential.

A significant, systematic, exploration program is recommended. The geological complexities and large amount of data to integrate indicate a slower paced program than those of the recent past would be more appropriate and cost effective.

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References

Belanger, M. Westmin Resources Ltd.; Mineral Inventory Evaluation (Debbie Data), 1989

Benvenuto, G.; Sicker - Debbie Project - 1982

Bundred, O. Westmin Resources Ltd; Drilling and Trenching of the 900 Zone, April 1990

Butterfield, S. Westmin Resources Ltd; Mineral Inventory Revision, September 1990

Crowe, G.; Debbie - Yellow Mineral Inventory, 1989

Haynes, L. ; Geology, Geochem, Geophysics 900 Area, 1989

Massey, N.W.D., 1992. Geology and mineral resources of the Duncan sheet, Vancouver Island, Geological Survey of Canada Report 92B

McDonald, C.; Debbie 1987-1988 Drill Program

Muller, J.E., 1980. The Paleozoic Sicker Group of Vancouver Island, British Columbia. Geological Survey of Canada, Paper 79-30.

Naciuk, T, Hawkins, T.G. Reward Resources Ltd., Angle Resources Ltd.; Report on Phases 1 To 3, Geology, Geochemistry, Geophysics and Diamond Drilling, Yellow Property, 1987

Oiye, H. Westmin Resources Ltd.; Debbie-Yellow Underground Mapping Sampling, 1990

Prefontaine, M., Walker, R.R., Wojak, P., Westmin Resources Limited; April 1990 Overview Of The Debbie-Yellow Property, Alberni & Nanaimo Districts, Port Alberni, B.C.

Debbie Property, R.R.Walker ,M.Sc. & P.E. M.Becherer, P.Geo., Sept.19, 1997, revised by P.E.M.Becherer, P.Geo., June 7, 2005

**Mineral Creek Property, Gold Exploration Project, Port Alberni,
British Columbia, Canada**

Price, G. Westmin Resources Ltd. ; Yellow Claim Surface Mapping, 1988

Seto, S.; Drill Report, Linda Veins, 1989

Wasteneys, H.; Cop Creek Area, 1988

Watkins, J.; Debbie - Yellow Mineral Inventory, 1988

Watkins, J., Trueman, G., Price, G. ; Debbie Project Report, 1987

Wilson, R., Bradish, L., Noranda Exploration Company Ltd., Report on Geophysical, Geochemical and Geological Surveys on the China-Lu-Linda Groups, July 1985

In Memoriam

Richard R. Walker, 1947 - 1998

Richard R. Walker graduated from the University of Alberta, Edmonton, Canada, with a B.Sc. Degree in 1970. This degree was in the four year program of specializing in geology and was accompanied by the Lieutenant Governor's Gold Medal for highest standing in geology in Alberta.

Richard R. Walker graduated from the University of Alberta, Edmonton, with an M.Sc. degree in geology in 1977.

Richard R. Walker was an outstanding geologist.

He was a practicing geologist for 30 years in the Canadian mining industry.

His experience included five years as Research Geologist at Kidd Creek Mine in Timmins, Ontario, two years as Joint Venture Geologist with the Saskatchewan Mining Development Corporation responsible for representing their interest in the Key Lake Mine and fifteen years with Westmin Resources Ltd. in British Columbia as Exploration Manager, Chief Geologist and Technical Advisor to the General Manager - Myra falls

Debbie Property, R.R.Walker ,M.Sc. & P.E. M.Becherer, P.Geo., Sept.19, 1997, revised by P.E.M.Becherer, P.Geo., June 7, 2005

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Operations. He consulted to major and small mining companies.

Richard R. Walker is credited as the discoverer of the major HW - ore deposit at Myra Falls, British Columbia.

Richard R. Walker authored published papers on the geology of the Kidd Creek Mine in Ontario and the Myra Falls Mine in British Columbia. He also presented numerous geological papers at scientific forums. He was appointed the Geological Association of Canada, H.S. Robinson Distinguished Lecturer for 1987.

Richard R. Walker, much respected and admired in the geological - and mining industry community, loved to freely share his genial knowledge of geology to anyone willing to listen, in his time. His family, friends, former colleagues and associates miss him.

STATEMENT OF QUALIFICATION

I, P.E. Michael Becherer of Black Creek British Columbia, Canada hereby certify:

- 1) I am a registered PROFESSIONAL MEMBER of the Association of Professional Engineers and Geoscientists of British Columbia.
- 2) I have been practicing my profession as a geologist for 24 years, since 1981. I was an underground miner from 1967 to 1981.
- 3) I worked as a mine and exploration geologist as an employee and as a consulting geologist for major and junior mining companies involved in mining of base-precious metal and industrial mineral deposits.
- 4) I have a proven record in finding ore. At Myra Falls an ore lens was named, the Becherer Zone, in honour of my achievements.
- 5) I have been involved with resource and reserve estimates for base metal deposits, since 1983. I prepared the Lynx Mine reserves from 1983 to 1993 for Westmin Resources Ltd. Myra Falls Operation. I prepared and assisted in the resource estimates at several other base-precious metal exploration properties since 1993.
- 6) I am the president of Mipoz Geological Inc. and of Mineral Creek Ventures Incorporated.
- 7) **I have financial interest in the Port Alberni Debbie Property** and hold shares in Mineral Creek

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British Columbia, Canada**

Ventures Inc. which has ownership of the Mineral Creek Property.

8) This report is for “in house” use only and not in compliance with National Instrument 43-101.

P.E. Michael Becherer, P.Ge

Dated this 7th day of June 2005 at Black Creek, British Columbia