

**PASMINCO ROSEBERY MINE**

**WHITE SPUR EL 5/1996**

**PROGRESS REPORT  
FOR THE PERIOD ENDING 5 MARCH 2002**

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## 1. SUMMARY

This report details work undertaken on exploration licence 5/96 White Spur between March 2000 and 5 March 2002, years 5 and 6 of the licence. The principal exploration targets sought within the licence area are Hellyer- or Rosebery-type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposits.

Work completed during the reporting period has comprised:

- Partial leach soil sampling (881 samples collected) and surveying (with DGPS) of the existing Goldfields 400m spaced grid over the CVC/White Spur Formation contact.
- Cutting of 2.6 line km of extensions to the Goldfields grid preparatory to geological mapping and partial leach soil sampling.

An initial interpretation of the Partial leach data has been completed, with two anomalous areas deemed worthy of further follow-up. A detailed interpretation will be completed once all data has been collected.

## **2. INTRODUCTION**

This report details work undertaken on exploration licence 5/96 White Spur (Figure 1), between March 2000 and 5 March 2002, years 5 and 6 of the licence.

The White Spur licence covers a portion of the Cambrian Mount Read Volcanics to the South of the Rosebery and Hercules Mines and to the west of the Henty Mine in Western Tasmania (Figure 2). The principal exploration targets sought within the licence area are Hellyer- or Rosebery-type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposits. A 5 km strike length of the contact between the White Spur Formation and the Central Volcanic Complex (a stratigraphic position that is a direct correlate of the Rosebery and Hercules ore positions; although not recognised as such until the mid-1990's) runs through the centre of the tenement and has been the main target of recent exploration. A second and less well understood target is the Jones Creek package, in the NE part of the EL. This sequence of shales and fine volcanogenic sediments associated with rhyolitic intrusives, is thought to correlate with the Rosebery host position, but, correlations are not as clear as for the base of the White Spur Formation due to structural complications.

Access into the tenement is via Howards Rd. (off the Anthony Rd) or on 4WD tracks (in particular the Moores Pimple track) heading south from Mt Read and the Hercules Mine. Within the EL access is via a series of old logging tracks and a new HEC road, which follows a major canal.

Exploration activities undertaken during this reporting period have focused on the completion of partial leach soil sampling over the White Spur Formation (WSF)/ Central Volcanic Complex (CVC) contact, based on the 400m spaced grid cut by RGC in 1997 (with minor extensions).

### **2.1 Attribution**

The following personnel were responsible for the work carried out within the Lake Barrington licence area during the reporting period:

Senior Geologist:                      Andrew McNeill - Pasminco Exploration Rosebery

## **3. LAND TENURE**

White Spur EL 5/1996, 20 sq km, was granted to RGC exploration on 5 April 1996 after a successful bid on ETA 401 (resulting from the relinquishment of EL 11/85 by a Pasminco/North Ltd./Australian Resources JV). In June 1998 RGC merged with Westralian Sands to form a new company, Iluka Resources, whose core activity was mineral sand mining. As a result RGC's gold and base metal interest were to be divested. Goldfields Exploration commenced negotiations with Iluka for the transfer of all RGC's Tasmanian tenements to Goldfields in 1998 and these negotiations were concluded in July 2000. However, by this

time Goldfields were focussed almost exclusively on gold exploration and they decided to seek a joint venture partner for the base metal prospective White Spur Tenement.

In August 2000 Goldfields approached Pasminco Exploration with the proposal for a direct swap of EL 5/96 for Pasminco's EL 6/98 Queenstown. An agreement was signed in May 2001, however, due to internal changes in both companies the transfer of tenements was not completed at the time of writing. In the interim Goldfields granted permission to Pasminco to commence exploration on EL 5/96 White Spur.

Due to the ongoing negotiations between Goldfields and Pasminco the statutory 50% relinquishment of EL 5/96 White Spur, due on 5<sup>th</sup> April 2001, has been deferred until April 2003.

Land covered by EL 5/96 comprises land vested in the HEC (105 ha) with the remainder being Crown Land designated as Deferred Forests. The EL is almost entirely within the Mt Dundas Regional Reserve (exploration allowed, but, programs must be approved by the MEWG).

#### **4. GEOLOGY**

The regional geology of EL 5/96 White Spur is described on MRVP Map 3 (Corbett, 1986) and in Vicary (1997, 1998). Some areas have been mapped in more detail as Honours (Dugdale, 1992; Nunn, 1995) and M Econ. Geol. (Poltock, 1992) theses.

The regional geological framework of the Mt Read Belt (MRB) is subdivided, from an exploration perspective, into three elements. The central MRB covering the area of outcrop from south of Queenstown to north of Hellyer, the northern MRB covering the area from Back Bluff eastwards through Gowrie Park and Mole Creek, and the Southern MRB comprising areas west and south of Macquarie Harbour. EL 5/96 is in the central part of the central MRB.

Basement in the Central and Northern MRB is of Precambrian age, comprising predominantly greenschist facies meta-sediments with minor basalts and dolerites. Higher-grade amphibolite and eclogite facies are also present within the Precambrian. This Precambrian basement termed the Tyennan Block, lies to the east of the White Spur licence.

Cambrian volcanism and sedimentation developed on the Precambrian continental crust and, in the Central MRB, is subdivided into the Eo-Cambrian Tholeiitic Crimson Creek Formation (CCF), the mid to late Cambrian Dundas Group and the predominantly calc-alkaline, Mt Read Volcanics (MRV).

The CCF was deposited in shallow but rapidly subsiding basins comprising basaltic lavas and volcanoclastics, turbidites, carbonates, chert and minor evaporites. Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian. They are absent from the licence area.

The MRV in the area of EL 5/96 can be subdivided into three main units; the WSF, CVC and Henty Fault Wedge Sequence. Of these only the first two are part of the VHMS prospective sequence.

The White Spur Formation was formally defined by Corbett and Lees (1987) as a west facing sequence of felsic tuff, siltstone, greywacke and slate that unconformably overlies the Central Volcanic Complex between the North Henty Fault and Williamsford. It is conformably overlain by Dundas Group type conglomerates, quartzwacke, mudstone and lithicwacke on the western end of Howards Road. The abundance of quartz-phyric detritus in the White Spur Formation may suggest derivation from Tyndall Group rocks located to the east of the Henty Fault Zone.

The WSF can be divided into 8 mappable sedimentary lithofacies in the White Spur area (Vicary 1997, 1998). These are:

- A Black pyritic siltstones
- B Micaceous volcanoclastic sediments
- C Ashy volcanoclastic siltstones
- D Medium – fine grained volcanoclastic sandstones
- E Crystal-rich volcanoclastic sandstones
- F Coarse lithic rich volcanoclastic conglomerate

The internal stratigraphy of the WSF is complex, but, in general in the northern part of EL 5/96 the CVC are directly overlain by coarse mass flow deposits (Facies F), whereas to the south finer grained lithologies (particularly Facies A and B) predominate. In addition there are intrusive feldspar-quartz-phyric rhyolite and quartz-feldspar porphyry bodies at different levels in the sequence. Clasts of sulphide have been identified in the basal mass flow deposits of the WSF to the north of 5362200mN. These clasts are considered to have been derived from the erosion of the sulphide deposits by down-slope mass flow movements.

The CVC comprises largely feldspar-phyric dacitic pumiceous sandstone and breccia, with lesser intrusive Quartz-feldspar porphyry and minor feldspar-phyric rhyodacitic lava. In addition to these typical CVC lithologies, feldspar-pyroxene-hornblende-phyric pumice breccia and rhyolitic sills are present in some drill holes (e.g., WSP7; Allen, 1998).

In the Jones Creek area, typical CVC-“type” pumice breccia and lava hosts a package of up to 400m of shale, sandstones and crystal-rich (feldspar>quartz) volcanoclastic sandstones (Corbett, 1986; Corbett in Vicary and Dauth, 1999). It is possible that this “Jones Creek Shale Sequence” is a correlate of the Rosebery-Hercules hangingwall shale sequence. Parts of the Jones Creek Sequence are strongly sericite altered (but, without the pyrite typical of VHMS alteration) and mineralisation comprises disseminated and vein pyrite-pyrrhotite-sphalerite-galena, generally best developed in shale/sandstone units. The best overall intersection was 32m @ 0.22% Zn, 0.09% Pb in DDH JCP211 (drilled to the north of the current EL 5/1996).

Base-metal poor massive pyrite lenses are hosted in intensely sericite altered CVC close to the WSF contact, and the North Henty Fault, in the south of the licence (the Annaliese Prospect). This mineralisation has a possible Cambrian age, based on Pb isotopes (Vicary, 1997), but has extremely light S isotopes (-10 to -17‰), dissimilar to any known Cambrian mineralisation from western Tasmania. No other significant mineralisation or alteration has been located in the CVC on the licence area.

Thin mafic dykes/sills (generally <5m, but up to 80m wide) are common within the Central Volcanic Complex in the eastern part of the EL and are correlated with the tholeiitic Henty Dyke swarm.

In the South eastern corner of the tenement the CVC is separated from the Henty Fault Wedge Sequence by the North Henty Fault (Figure 2). The Henty Fault Wedge Sequence (or Henty Valley Sequence; Poltock, 1992) comprises a west facing sequence of quartz sandstone, chert, hematitic greywacke/sandstone and minor tholeiitic basaltic andesite. These lithologies are considered to correlate with units in age from the Eo-Cambrian Crimson Creek Formation to the mid-Cambrian Mount Read Volcanics (Poltock, 1992). This sequence is not considered to be VHMS prospective.

Pleistocene glacial deposits, consisting predominantly of Cambrian volcanic, Cambro-Ordovician Owen Conglomerate and Jurassic dolerite (on the eastern slopes of Mt Dundas) derived clasts, are common throughout the tenement.

## 5. PREVIOUS EXPLORATION

The area of EL 5/96 White Spur has a long history of ‘modern’ exploration, commencing in the 1950’s, that has been reviewed in detail by several authors (Purvis et al., 1983; Poltock and Fitzgerald, 1991; Fitzgerald, 1987; Vicary, 1997 and Corbett, in Vicary and Dauth, 1999). All previous exploration is summarised on Tables 1 and 2.

In the period 1957-1962 the area was explored by Rio Tinto Australia Exploration as part of SPL320 and ELs 4/1959 and 6/1959. From 1962 onwards the area has a complicated tenement history, dominated by ELs 9/66 (RGC), to the south, and 1/62 (EZ Co.) to the north.

EL 1/62 was initially granted to the EZ Company, but after 1978 was subject to a joint venture with the Getty Oil Development Company (GODC). EZ managed the JV from 1978-1983 at which point GODC assumed management (thus permitting exploration in conjunction with that on EL 9/66 to the south). However, in 1985 GODC’s share of the JV was sold to Little River Goldfields NL and in October 1985 a new agreement was entered into between Shell Company of Australia, Little River Resources and the EZ Company, with Shell managing and operating the tenement. In January 1988 EL 1/62 was relinquished, with the northern part of the tenement being incorporated into the “Rosebery Extension leases” (MLs 10M/88, 11M/88/ and 15M/88) and the remainder being incorporated into EL 11/85 (see below).

EL 9/66 was granted in August 1966 and in the period to 1980 was gradually amalgamated with other tenements to reach a maximum area of 637 sq. km. The tenement area was then progressively reduced through voluntary (in 1983 and 1984) and statutory (in 1985) reductions with complete relinquishment, apart from that area retained as the Henty Mine leases, in 1987. The tenement was explored by Renison Goldfields Consolidated Ltd. until 1976 when a Joint venture agreement was signed with GODC, who maintained an interest in the area until 1985 at which time their interest was sold to Little River Goldfields, later Little River Resources.

Following the statutory partial relinquishment of EL 9/66 in 1985 the vacant areas were picked up by Amoco Minerals Australia as EL 11/85. Title was then transferred to Cyprus Minerals (1985), Cyprus Gold (1988), Hudspeth and Company (1990) and finally to Arimco (1991). In this period the tenement was subject to two joint ventures, the second of which between Hudspeth and Co., Norgold and Pasminco commenced on 4 December 1990 and continued until relinquishment in 1995, with Pasminco as operators and managers of the JV.

**Table 1: Exploration on the area of EL 5/96 prior to 1996**

<b>Reporting Period</b>	<b>Work Completed</b>
1957-60 (King, 1960; McCarthy et al., 1960)	Helicopter borne EM in 1957 failed to locate any conductors. In 1960 the area was grided, geologically mapped and a TURAM survey completed; the 3 significant anomalies located by this survey were followed-up by Vertical EM, gravity, SP and magnetics; costeaning and drilling was recommended.
1961? (Campana, 1962)	Drilling of DDH WSP103.
1969-70 (Newnham, 1970)	Grid cut in upper part of White Spur Creek.
1971-72 (McKibben, 1972)	White Spur Area: Re-open RTAE grids, mapping and limited rock-chip sampling.
1971-72 (Reinhardt, 1972)	Turair survey, line cutting mapping and soil sampling (Dalwitz and White Spur Grids).
1973-74 (Williams, 1974)	Geological mapping, grid extensions and soil sampling on the White Spur and Dalwitz grids.
1974-75 Stevens-Hoare, 1975)	Re-clear and extend grid, Re-log DDH WSP103, C horizon soil and rock-chip sampling and detailed mapping.
1974-75 (Williams, 1975)	Mapping and soil geochemistry on the White Spur and Dalwitz grids.
1975-76 (Stevens-Hoare, 1976)	Limited track cutting, further soil sampling (incomplete at the time of reporting) and mapping, which located a massive pyrite boulder (low base and precious metal assays).
1976-77 (Walter and Brophy, 1977)	Extended existing grid, gradient array IP and ground magnetics completed; defined 13 main IP anomalies. Soil sampling indicated black shale units have high base metals (to 1500 ppm Pb) and correspond to IP anomalies.
1977-78 (Walter, 1978)	White Spur Area: Infill gridding and EIP to follow-up anomalies; costeaning and soil sampling. Jones Creek Area: gridding, gradient array and dipole-dipole IP, ground magnetics, costeaning and associated rock-chip sampling, C horizon soil sampling and geological mapping; recommended that 2 x DDH test EIP anomalies.
1978-79 (Reid et al., 1979)	White Spur Area: Additional mapping, soil and rock-chip sampling, ground magnetics and EIP. Jones Creek Area: DDH WSP1 completed (hole drilled outside area of current EL); hole intersected weakly mineralised and altered volcanics. IP explained by zones of up to 2% pyrite.
1979-80 (Meares et al., 1980)	White Spur Area (EL 9/66): IP, Rock-chip and soil sampling to evaluate drill target on line 37.5N; DDH WSP2 tested this anomaly intersecting weak mineralisation in a black shale.
1979-80 (Mill et al., 1980)	Dobsons Creek Area (EL 1/62): Re-peg and infill previous EZ grid, gradient array IP, C Horizon soil sampling of new lines and over IP anomalies, limited geological mapping.
1980-81 (McDonald, 1981)	Dobsons Creek Area (EL 1/62): Mapping of grid and access tracks. Recommend drill testing combined IP/soil geochem target.

**Table 1: Exploration on the area of EL 5/96 prior to 1996 cont....**

<b>Reporting Period</b>	<b>Work Completed</b>
1981-1982 (Mathison and McDonald, 1982a; McDonald and Mathison, 1982; Mathison and McDonald, 1982b)	Dobsons Creek Area (EL 1/62): Access track completed and DDH DCP235 (161.6m) drilled to test IP/geochem. target; downhole IP survey failed due to blocked hole. Best assay 0.7m @ 1.45% Pb, 2.2% Zn, 11 g/t Ag from a fault. Concluded that there was insufficient alteration to warrant further work.
1983 (Purvis et al., 1983)	Review of prospectivity of EL 9/66; reviewed previous work and did not recommend any further follow-up on the White Spur area.
1983-1984 (Fitzgerald et al., 1984)	Jones Creek Area: Jones and Dobsons Creek cut open for mapping and sampling, roads and creeks mapped and rock-chip sampled
1983-84 (Roberts and Cartwright, 1984; Fitzgerald and Pease, 1984)	White Spur Area: Exploration managed by Getty; reviewed previous exploration; concluded that further work warranted. Completed geological mapping, rock-chip sampling and a single loop UTEM survey. Some coverage by DIGHEM survey flown in December 1983.
1984 (Fitzgerald and McNaught, 1985)	Jones Creek Area: geological mapping, re-opening of the EZ imperial grid, UTEM survey and VLF-EM; a low amplitude EM response located in Jones Creek.
1985 (Purvis, 1985)	Jones Creek Area: Drilling of DDH JC1, which failed to intersect any significant mineralisation.
1985 (Corbett, 1985)	Tasmania Department of Mines drilled a 108.7m DDH (MR1) to determine the nature and attitude of the WSF/CVC contact.
1989 (Wyatt, 1990)	Helimag survey flown over EL 9/66 and vacant ground west of EL 9/66 by RGC; several anomalies and lineaments identified in the area of EL 5/96.
1990-1991 (Poltock and Fitzgerald, 1991)	Reconnaissance geological mapping, rock geochemistry and a review of previous exploration. Mapping located additional sulphide clasts in the WSF.
1991-92 (Poltock, 1992)	Regional geological mapping (located a significant zone of Se-Fd-py alteration), lithochemical sampling, interpretation of gravity and magnetic data.
1992 (Dugdale, 1992)	Honours study on "Lithostratigraphy of the White Spur area, western Tasmania".
1992-93 (Quayle, 1993)	Geological mapping, collection of mag. Susc. data from outcrops, lithochemical sampling, interpretation of airmagnetic and radiometric data and a review of old geochemistry and IP surveys..
1993-94 (Quayle, 1994)	The WSF/CVC contact was tested by a single 430.5m DDH (YWS1); no significant mineralisation was intersected. S.G. and Mag. Susc. data collected from drill core, further lithochemical assaying of rock-chips and core.
1994-95 (Quayle, 1995)	Surface rock chip sampling of CVC/WSF contact in the area of DDH MR1; high AI values were recorded in some samples, however, it is unclear whether this indicates alteration or is a function of weathering..
1995 (Nunn, 1995)	Honours study on "The sedimentology, volcanology and structure of the lower Dundas Group, Hall Rivulet Canal, western Tasmania".

**Table 2: Exploration on EL 5/96 from 1996 to present**

<b>Reporting Period</b>	<b>Work Completed</b>
1996-1997 (Vicary, 1997)	Relogging of old drill core; Location of a pyrite occurrence at the top of the CVC (Annaliese prospect) followed up by gridding (7.1 line km), soil and rock chip sampling, mapping, S and Pb Isotope analysis, ground magnetics, IP, VLF-EM and a 306.6m DDH (ANNE001) with DHEM; no significant anomalies worthy of follow-up. Roads and tracks on remainder of tenement mapped at 1:5,000 scale.
1997-98 (Vicary 1998)	20.7 line km of gridding (400m spaced lines covering the tenement) followed by mapping, rock-chip sampling, CSAMT, ground mag. and VLF-EM surveys. Historical IP data digitally compiled. 3759.3m of diamond drilling (9 holes) completed with DHEM in two holes; best result 17m @ 0.77% Zn and 0.4% Pb in WSP5. S, O and Pb isotopes on surface and drill samples; reviews of stratigraphy and alteration completed.
1998-99 (Vicary and Dauth, 1999)	DHEM results for 4 holes presented; Review of Jones Creek area completed; core from Jones Creek area relogged.
1999-2000 (Vicary, 2000)	No field work completed – a review of exploration by Goldfields was presented.

## **6. WORK COMPLETED 2000-2002 REPORTING PERIOD**

### **6.1 Data Compilation**

All digital data provided by Goldfields has been incorporated into the Pasminco GDB. All core from the Goldfields core yard has been transferred to the Pasminco core compound at Tullah. Hole DCP235 has been relocated in the Pasminco Mining Rosebery core shed and moved to Tullah ready for re-logging.

The 1985 UTEM survey completed by Getty (Fitzgerald and Pease, 1984) has been reviewed by Consultant Jovan Silic and his report is included as Appendix 1. No significant anomalies were located.

### **6.2 Partial Leach soil geochemistry**

During the reporting period a partial leach soil sampling program designed to test the highly prospective White Spur Formation/CVC contact from the South Hercules prospect south to the White Spur Canal was commenced. This program involved work on three tenements: EL's 21/96, 5/96 and ML 28M/93. Results from work on the other tenements (EL 5/96 and ML 28M/93) have been reported elsewhere (Briggs and McNeill, 2001; Edwards et al., 2001).

Sampling on EL 5/96 was completed on 20.8 line km of nominally 400m spaced grid lines cut by Goldfields in 1997/1998 (Plan 1). Additionally 2.575 line km of extensions to the Goldfields lines were cut in February-March 2002 (Figure 3). At the time of writing sampling and mapping had not been completed on these lines.

Randomised sample numbers were used in partial leach sampling to reduce the effect of analytical variations. The partial leach soil samples were collected at 25m intervals, at or near a grid peg, and involved digging a hole with a pick, removing the organic rich A horizon and collecting approximately 500g of sample from the nominal B horizon. The samples were then placed in ziplock plastic bags and, once returned to the field office, the bags were stored open to prevent anaerobic reactions. When a batch of 200 or 300 samples was collected, the sample bags were sealed and the samples despatched to Amdel in South Australia for analysis by partial leach technique DL42. Elements determined were Ag, As, Au, Ba, Bi, Cd, Cu, Co, Mo, Ni, Pb, Ni, Y, Zn, Zr and the rare earth elements Ce, Eu, Gd, La and Sm. The pH of the leachate, after digestion, was also determined. Results are included as Appendix 2 and 3 and sample locations are shown on Plan 1.

Three duplicate and two standard samples were collected per 100 samples. The field duplicates were also analysed in duplicate to allow assessment of both the sample and laboratory variance. Additionally at each sample site a small amount of soil was collected and stored in a chip tray for reference and to allow soil colour to be recorded. Soil colour was assigned from a Munsell Colour chart with 19 colours and was then assigned to one of 6 colour groups.

The 881 samples (including duplicates) collected for this program were analysed as part of five batches (SDS 4507, 4509, 4514, 4515 and 4516).

No samples are obviously contaminated, however, 78 samples, 9.8% of the data set, have a low (pH<8.0) post-digest pH. At these 'low' pH's the speciation of reagents in DL42 may change and the resulting assays may be unreliable. Many of the low-pH samples had high Pb and Zn results that could be important in the interpretation of the dataset. These 78 samples would previously not have been considered in the analysis of the data set. However, Test work at Amdel indicated that decreasing the sample:liquid from 10:1 (method DL42) to 5:1 (method DL43) could buffer the solution to a higher, acceptable, final pH (for samples with a post-digest pH of >7.2) and not significantly affect the precision of the analysis. Accordingly all 78 samples, with low post-digest pH, were re-assayed with the new protocol with the result that 73 had post-digest pH's of >8.0. Of the 65 samples with low post digest pH's, from the DL43 analysis, all were black in colour and had high Zn contents (>15 ppm, i.e., in the top 10% of results from this survey). In the preliminary interpretation discussed below the low (pH 6.7-7.5) samples from the original dataset have had their assay results replaced by the re-assayed data and those samples with low pH's after analysis by DL43 have been deleted, giving a dataset of 873 samples.

An initial interpretation of the raw data, shown on Figures 4-11, indicates two significant anomalous areas:

- Anomaly 1: Centred on 5363000mN, 376350mE, with a strike length of approximately 1.5 km, in the core of the doubly plunging syncline in the WSF as shown on Goldfields mapping (Vicary, 1998). This zone is anomalous in Pb, Cu, and Bi, and weakly anomalous in Ag, Au, As and Zn (peripheral to the main anomaly). This suite of elements corresponds to those that were found to be significantly anomalous over line 1200N at Rosebery (Briggs in Edward et al., 2001) and gives confidence that the anomaly may reflect buried VHMS mineralisation. Four holes have been drilled into this structure (WSP2, 11 and 12 and DCP235) however, none have tested the axial, and deepest, part of the structure and additionally only one of these holes (WSP11), in the SE of the structure, has been read with DHEM. This zone represents an attractive target that warrants further follow-up.
- Anomaly 2: Cu, Pb and Zn anomaly with associated (but offset) Ag and As centred on 5359600N, 377200E, where the WSF is folded into a tight anticline/syncline pair. The anomaly occurs between and slightly west of the YWS1 and WSP6 collars (neither of these holes have been read with DHEM). The element signature (no Bi) may be less encouraging than Anomaly 1, however, some further follow-up is warranted.

Single point anomalies occur at 5359400N, 378150E (Cu, Pb, Zn) and 5361800N, 377475E (Cu, Pb, Zn, Au) and a zone of anomalous As, Bi and Cu occurs to the east of the North Henty Fault, in the SE corner of the grid, however, these are not considered worthy of any further follow-up at this time. A detailed interpretation will be completed when all data from the White Spur Grid has been collected and will include data from the adjacent EL 21/96 Dundas and ML 28M/93, Rosebery Mine Leases.

## 7. CONCLUSIONS & RECOMMENDATIONS

A Partial leach soil sampling program over 20.8 line km (881 samples including duplicates) of the 1997/1998 Goldfields grid has been successful in locating two significant zones of base and precious metal anomalism. This work has provided encouragement to continue exploration of this area and it is recommended that in the next 12 months:

- The partial leach soil sampling program be completed and any anomalies be followed-up by sampling on 200m spaced infill lines and geophysical surveys where required.
- Mapping be completed on the 2.6 line km of new gridding in the south of the tenement.
- The Goldfields CSAMT survey be interpreted in detail.
- DHEM be completed in those holes not previously read (YWS1, WSP6, 10 and 12).
- Work (gridding, mapping and soil sampling) should commence on the Jones Creek Prospect (in combination with work on the adjacent ML 28M/93).
- Hole DCP235 be re-logged to confirm the interpreted stratigraphic sequence and lack of alteration in the hole.
- At least one diamond drill hole be completed on the highest ranked target defined by the proposed program.

## 8. EXPENDITURE

Total expenditure for all work undertaken by Pasminco Exploration/Pasminco Rosebery Mine within White Spur EL 5/96, for the period ending 05/03/02 was \$65,074. A detailed expenditure statement is given below.

Computing	\$369
Drilling	\$0
Geochemical Assays	\$19,144
Geoscience Consultants	\$1,700
Land Environment	\$259
Depreciation, Office, Sundry	\$3,046
Other Contractors	\$3,535
Personnel Costs	\$27,640
Stores & Supplies	\$0
Travel & Accommodation	\$0
Vehicles, Plant & Maintenance	\$3,466
Administration Fee 10%	\$5,915
<b>Total</b>	<b>\$65,074</b>

## 9. KEYWORDS & LOCALITY

### Keywords

GEOCHEMISTRY, SOIL GEOCHEMISTRY, PARTIAL LEACH, WHITE SPUR, ANNALIESE, WHITE SPUR FORMATION, CENTRAL VOLCANIC COMPLEX, MOUNT READ VOLCANICS

### Locality

1:250,000      QUEENSTOWN SK55-5  
1:100,000      SOPHIA 8014, PIEMAN 7914  
1:25,000      OCEANA 3635, DUNDAS 3636

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