



**ADDRESS**  
PO Box 35  
North Perth  
WA 6906 Australia  
  
ABN 96 095 684 389

**PHONE**  
+61 (08) 9295 0388  
**FAX**  
+61 (08) 9295 3480

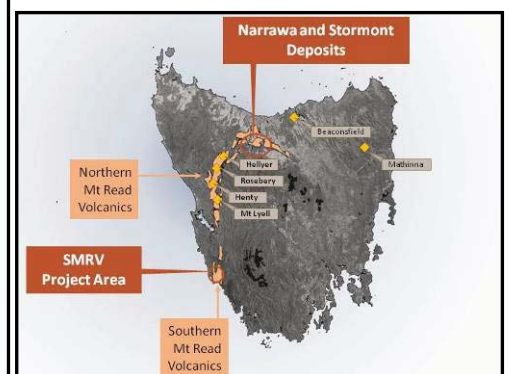
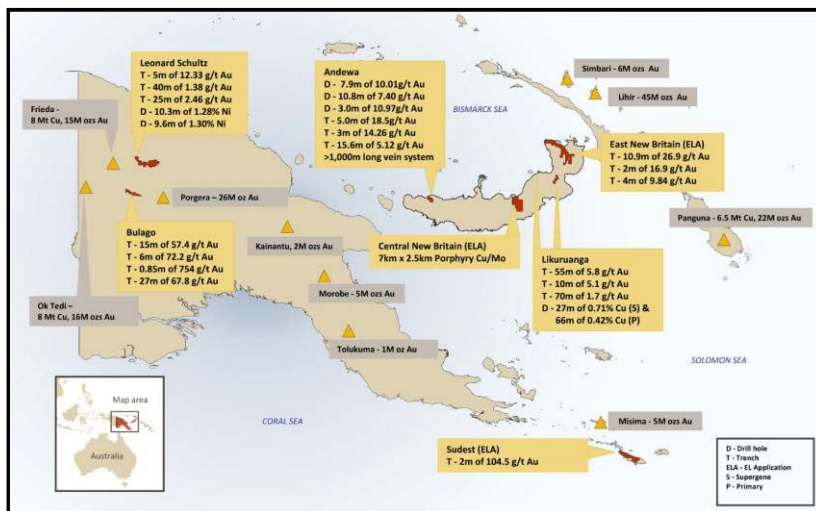
**EMAIL**  
info@frontierresources.com.au  
**WEBSITE**  
www.frontierresources.com.au

ASX Limited  
Company Announcements Office

30th July 2010

## TECHNICAL REPORT – QUARTER ENDED 30th JUNE 2010

- ❖ Excellent strategic alliance initiated with World Class copper producer Ok Tedi Mining Ltd on 3 Exploration Licenses & 2 EL Applications in Papua New Guinea (PNG) (figure 1).
- ❖ Extensive gold, copper and molybdenum in grid based soil anomalies were demonstrated at the Wasi Prospect, Leonard Schultz EL, PNG.
- ❖ Major 3D - Induced Polarisation geophysical, grid based soil and rock geochemical and geological exploration programs are progressing well at the Andewa Gold Project, PNG.
- ❖ Exploration will commence on Frontier's Tasmanian Retention and Exploration Licenses during the second half of 2010, targeting tungsten mineralisation and gold + base metal resource growth at the Narrawa and Stormont Deposits (figure 2).



## FRONTIER RESOURCES LTD ENTERED INTO AN EXCELLENT STRATEGIC ALLIANCE WITH OK TEDI MINING LIMITED (OTML) IN PNG.

### ○ Main Terms of the joint ventures are as follows:

- The agreement consists of 2 farm-in joint ventures on 3 Exploration Licenses and 2 EL Applications, covering 2,763 km<sup>2</sup> (excludes Andewa EL and Sudest ELA).
- OTML's total earn-in is US\$60 million over 6 years (US\$12 million/project).
- Frontier is then deferred carried to completion of any Bankable Feasibility Study on each tenement.
- Frontier will retain a 42% interest in the Bulago and Leonard Schultz ELs (up to the completion of a Bankable Feasibility Study) and a 19.9% interest in the Likuruanga EL and the Central and East New Britain Applications.

- OTML's minimum exploration commitment is US\$0.5 million/project, totalling US\$2.5 million if both applications are granted.
- **OTML also subscribed US\$1 million (A\$1.14 million) for Frontier shares at a premium to the market of 7.5 cents and will reimburse exploration costs of approximately US\$235,000.**
- **Additional Information**
  - OTML is the best joint venturer for these projects and the excellent terms of the farm-in JVs demonstrate the projects have World-Class, sought after copper-gold, gold and base metal potential. See Appendix 1 for information on OTML.
  - The Australian Government's recent proposal for a 40% resource industry 'Super Profits Tax' will have no effect on Frontier's PNG exploration projects.
  - Frontier will remain an active explorer in PNG, owning 100% of the Andewa gold Exploration License and the Sudest high-grade gold EL Application.
  - Chairman and Managing Director Peter McNeil, M.Sc. stated:

*Frontier Resources is very pleased to announce that a strategic alliance was initiated today with Ok Tedi Mining Limited. Two Farm-In Joint Venture Agreements were signed covering 3 of Frontier's Exploration Licences and 2 EL Applications in Papua New Guinea. The alliance is an excellent outcome for both companies, their shareholders, landowners in those regions and Papua New Guinea.*

*The \$60 million US dollar potential total earn-in and the 'Deferred Carried to Completion of Bankable Feasibility Study' commitments from OTML provide fantastic future upside potential for Frontier on all these projects.*

*Frontier's shareholders will view these agreements as extremely favourable because if major deposits are discovered by the OTML /Frontier JVs, there will be no significant requirement to dilute shareholder equity in order to fund either our 42% or 19.9% retained equities until Bankable Feasibility Studies are completed.*

*The farm-in joint ventures supply OTML with a large and highly prospective portfolio for systematic exploration with the goal of defining and developing 'World Class' and major mineral deposits that are located within their 'corridor of influence' in western PNG and on the Island of New Britain. OTML have indicated that they intend to vigorously pursue exploration on the properties commencing with detailed, high-resolution helicopter borne aeromagnetic and radiometric surveys on each Exploration Licence.*

*The A\$1.14 million placement from OTML introduces them as a long-term shareholder to Frontier's register and injects capital into the Company at an above market share price of 7.5 cents for future exploration on our remaining projects.*

*Frontier's Board of Directors warmly welcome Ok Tedi Mining Limited as a significant shareholder and believe they are the best joint venturer for our projects. OTML has the in-country PNG geological – exploration - human resources expertise and experience, combined with the financial, corporate and political capability necessary to optimise exploration and future development success in Papua New Guinea.*

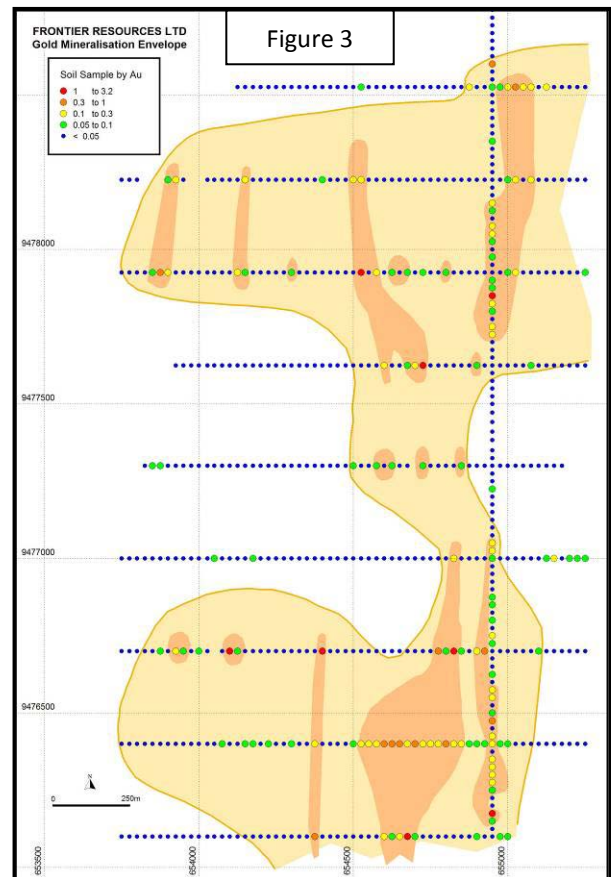
*The excellent terms of the farm-in joint ventures demonstrate that Frontier's projects have World-Class, highly sought after copper-gold, gold and base metal potential. Frontier will work with all stakeholders to produce the best outcomes from this alliance.*

*Frontier now has approximately \$1.9 million available for cost effective and targeted exploration on our remaining projects to create additional shareholder value.*

## **MAJOR GOLD, COPPER AND MOLYBDENUM IN SOIL ANOMALIES WERE DEMONSTRATED AT THE WASI PROSPECT, LEONARD SCHULTZ EL, PAPUA NEW GUINEA.**

- **The gold in soil anomaly discovered at Wasi is 525m wide and is greater than 900m long.**
  - The gold in soil anomaly (Figures 3 and 5) is open along strike to the south and merges into a major copper anomaly in the north and west.

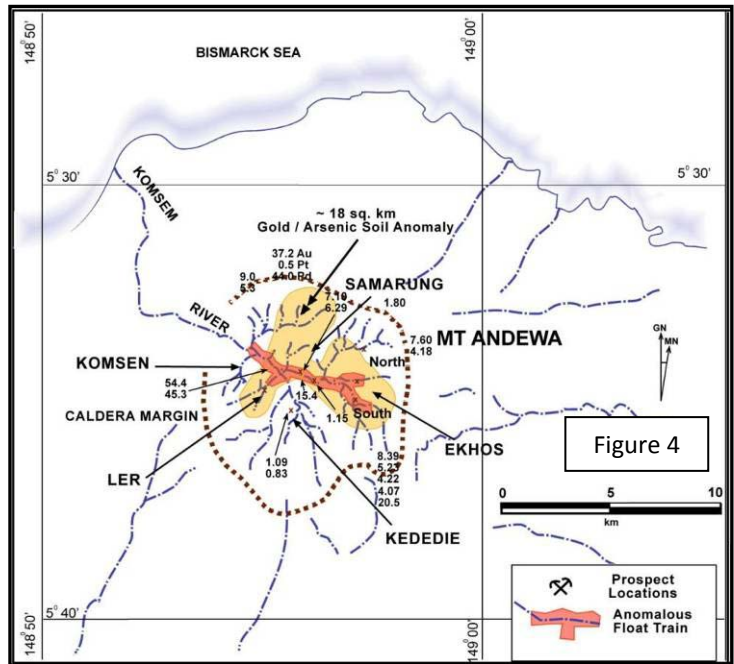
- The gold anomaly grades 0.23 g/t over its widest part, with a peak grade of 0.87 g/t.
- Several additional smaller soil anomalies were documented grading up to 3.2 g/t gold.
- **The main copper anomaly discovered at Wasi is 1,800m long and 600 to 900m wide.**
  - It is located in the south of the grid, has coincident molybdenum anomalism and is partly coincident with the above noted gold anomaly (Figure 6).
  - Peak copper in soil is 1080 ppm and peak molybdenum is 32 ppm.
- **A second copper in soil anomaly occurs in the far north of the grid along with significant gold and molybdenum.**
  - The anomaly is 600m wide along line and is totally unconstrained.
  - Peak copper in soil is 1160 ppm, molybdenum is 214 ppm and gold is 3.2 g/t.
- **The grid was sampled on a 25m basis, down lines that were separated by 300m. This is a wide reconnaissance style spacing. Infill sampling is required to better define the anomalies and their orientations.**
- **The Wasi and nearby Kru Prospects are continuing to demonstrate excellent copper and gold prospectivity.**



## **MAJOR GEOPHYSICAL, GEOCHEMICAL AND GEOLOGICAL EXPLORATION PROGRAMS ARE PROGRESSING WELL AT THE ANDEWA GOLD PROJECT (EL 1351).**

- **The Andewa Gold Project is located near the north coast of the island of New Britain, in Papua New Guinea (Figure 4).**
- **Rocks within the 9km wide crater show evidence of significant hydrothermal alteration, with five high-level gold prospects demonstrated within a 7 km by 2.5 km structural zone (see Figure 7).**
- **Management believe the Andewa Exploration License has excellent potential to yield significant gold mineralisation with further exploration.**
- **The Company commenced a major geophysical, geochemical and geological exploration program at the Andewa Gold Project in late June and it is progressing well.**
  - The goal is to demonstrate a major gold mineralised system at Andewa, producing new and systematically defined, high quality trenching and drilling targets in multiple prospect areas.
  - An assessment has shown geological and mineralisation similarities to the Round Mountain Gold Deposit in Nevada (> 11 million ounces of gold produced), where the gold occurs on the rim of an ancient collapsed crater/caldera and is mainly fine-grained, with visible gold occurring in structural intersections.
  - The known gold mineralisation at Andewa is controlled by steeply dipping structures, structural intersections and possibly also low dipping favourable rock units.
  - Subject to the 2010 program results an extensive drilling program is planned for 2011
- **A very large grid (approx. 18 sq km) is now about 40% surveyed and cut for the geophysical and geochemical programs.**

- Soil and rock geochemical sampling is continuing and the first group (450 samples) have been despatched to the laboratory. About 3,000 samples are expected in total.
  - A very large 3D - Induced Polarisation geophysical survey commenced in early July and it is anticipated to take about 3 months to complete the gridded area.
  - A ground magnetic survey will be undertaken concurrent with/subsequent to the 3D - Induced Polarisation.
- **The data (when finalised) will allow a comprehensive geological, geochemical and geophysical assessment of the Andewa gold mineralised system and will define high-quality, coherent and coincident anomalies for further evaluation.**
- **Frontier (and most previous explorers at Andewa) concentrated mostly on the Komsen Prospect, leaving 4 additional prospects plus large potentially mineralised areas still to be systematically explored.**
  - Komsem consists of at least 4 structurally controlled epithermal 'vein', breccia and silicified zones generally to 5m wide. They are located in a zone of phyllic alteration, with a total strike-length of about 2,000m, within an oval shaped, southeast trending, gold in ridge/ spur soil anomaly (Figures 7, 8 and 9).
  - Previous gold in trench assay results at Komsen include: 5.0m of 18.5 g/t, 3.7m of 12.6 g/t, 3m of 14.26g/t, 3.7m of 9.1 g/t, 5.0m of 5.0 g/t, 21.6m of 4.41 g/t and 9m of 6.44 g/t. Visible gold was noted in 3 trenches and silver was anomalous at a 1:1 level (but with results locally as high as 1m of 155 g/t).
  - Frontier's drilling program in 2007/08 consisted of 22 holes for 2,353.9m. It successfully demonstrated that the Komsen structure is consistently gold mineralised (where drilled), but only tested a limited strike length. The mineralised zone remains open along strike in both directions on surface and at depth (to >320m below surface).
  - Drill intersections show increasing gold grade and width (total contained gold) at depth in several cases, with a higher grade gold mineralised zone appearing to run the length of the system at shallow to moderate depths.
  - Previous drill results at Komsen include: 7.9m of 10.0 g/t gold, 10.8m of 7.0 g/t gold, 3m of 11.0 g/t gold, 4.5m of 5.7 g/t gold +2.34% zinc, 2.9m of 6.4 g/t gold, 17.9m of 2.1 g/t gold, 6.9m of 1.6 g/t gold, 18.6m of 1.3 g/t gold, 7.5m of 3.7 g/t gold, 0.2m of 5.43 g/t gold+ 95 g/t silver+ 11.1% zinc+ 2.3% lead, 5m of 2.5 g/t gold, plus 16 additional >1 g/t intersections. See Table 1 in Appendix 1.
  - The high grade zones in some of the holes at Komsen are related to medium grained pervasively silicified and brecciated andesite dykes /diorite intrusives.
- **Many silicified /auriferous zones are also known proximal/peripheral to the Komsen Prospect and are under-explored.**
  - Between the Komsen and Ekhos Prospects there is a consistent background of jarosite-limonite-clay-pyrite-fuchsite+silica+dog's-tooth quartz alteration along fractures, with sparse and patchy clay-pyrite+silica+fuchsite alteration overprinting the commonly propylitically altered host-rock, indicating potential for gold mineralisation.



- This is also a jarosite equivalent alteration zone/core', surrounded by a pyrophyllite clay alteration halo (Figure 7) in the Komsen porphyry from evaluation of Aster satellite data. A 1.1km diameter circular feature also shows alunite equivalent clay alteration. This requires further evaluation.
- Float samples assay to 54.4 g/t gold + 990 g/t silver and outcrop to 7.10 g/t gold.
- **The Ekhos Prospect is a 700m x 100m gold-in-soil anomaly, with gold occurring in quartz veins to about 10m width and associated with base metals.**
  - There are North and South Zones, with rock outcrop assays to 7.60 g/t gold and 20.5 g/t gold, respectively.
  - The best assay results from limited hand trenching (15 trenches for 750m) were 9m at 1.96 g/t gold, 15m at 1.83 g/t gold and 2m of 5.19 g/t gold, with associated copper.
  - Mineralisation is open to the northwest and strongly warrants evaluation.
- **Pasgoi Creek Prospect consists of gold associated with patchy siliceous iron oxides and moderate clay alteration.**
  - Creek outcrop sampling confirmed a 7m wide zone of 4.4 g/t gold trending north-westerly.
  - Ridge /spur sampling was inconclusive, but a result of 60m of 0.86g/t gold requires follow-up.
- **The Ler Creek Prospect consists of SW plunging gold bearing veins in a fault bounded breccia, with a peak rock chip assay of 41.7 g/t gold.**
  - Follow-up sampling of the breccia showed assays ranging from 0.24 to 0.79 g/t gold, with a peak of 34.8 g/t Au.
  - Evaluation of Aster satellite data indicates a dickite equivalent alteration zone at Ler (an epithermal alteration mineral) suggesting sub-surface mineralisation.
- **The Samarung Prospect had an anomalous float sample grading 37.2 g/t gold + 1.58% copper + 0.5 ppm platinum + 44 ppm palladium.**
  - The area could be a vent filled with breccia and overlying a dacitic intrusive.
  - Ridge /spur gold in soil geochemical anomalies and numerous narrow auriferous veins/ structures have been noted and require follow up.
  - Potentially auriferous, silicified structures are located adjacent to Samarung in the northeast.
- **The Kehedie Prospect has had limited exploration conducted and consists of 3 gold (to 0.22 g/t) and arsenic soil anomalies over a 300m N-S zone.**
  - A 0.5 to 1.0m wide, ~100m long, E-W trending clay-silica-quartz vein assayed to 1.09 g/t gold in sub outcrop (hand trench), within hydrothermally altered andesites.
- **The Tamo River Prospect consists of disseminated chalcopyrite, bornite and malachite mineralisation grading 0.35% copper in monzonite float**

## **EXPLORATION WILL COMMENCE ON FRONTIER'S TASMANIAN RETENTION AND EXPLORATION LICENSES DURING THE SECOND HALF OF 2010.**

- Known high-grade plus potentially bulk mineable tungsten mineralisation will be specifically targeted and drilled.
- The only hole previously drilled specifically for tungsten returned 0.65m grading 1.04% WO<sub>3</sub>, within 10.5m grading 0.228% WO<sub>3</sub>. This hole did not reach the target zone due to unintentionally drilling into the old adit (i.e. the best mineralisation was mined out!). A hole near the NW end of the Narrawa Deposit hole near the NW end of the deposit returned 1m grading 1.98% WO<sub>3</sub>, within a broad low grade geochemical halo that averaged 14m of 0.20% WO<sub>3</sub> (from 21 to 37m).
- The gold and base metal resources at the Narrawa and Stormont Deposits will be upgraded with additional drilling and additional metallurgical testwork will be completed.
- An Exploration Manager is being recruited to progress exploration on the tenements.

## DETAILS

### Strategic Alliance with Ok Tedi Mining Ltd.

Frontier Resources Ltd and Ok Tedi Mining Limited on 25/5/2010 entered into binding term sheets pursuant to which OTML has agreed to establish exploration joint venture arrangements with wholly-owned subsidiaries of Frontier on 2 Exploration Licences (ELs) in the Highlands of Papua New Guinea (PNG) and an EL and 2 Exploration Licence Applications (ELAs), if and when granted, in New Britain Island.

OTML is the largest copper/gold mining company in PNG and is a significant and successful copper and gold producer on a world scale. It is presently owned by the PNG Sustainable Development Program Limited (52%) and the Independent State of Papua New Guinea (30%) and Inmet Mining Corporation (18%). OTML has entered into these arrangements on behalf of its holding company, PNG Sustainable Development Program Limited. It is the intention that PNGSDPL will transfer its beneficial ownership in these arrangements to OTML once the publicly announced share exchange with Inmet Mining Corporation have been completed, giving OTML a full legal and beneficial interest in the arrangements. See Appendix 1 for additional information on OTML.

The first joint venture arrangement relates to the Bulago (EL 1595) and Leonard Schultz (EL 1597) tenements held by Frontier Gold PNG Limited. The second joint venture arrangement relates to the Likuruanga, West New Britain (EL 1351) tenement and two ELAs [Central New Britain (ELA 1598) and East New Britain (ELA 1592)], all located on New Britain Island and held by Frontier Copper PNG Limited.

#### **The terms of farm-in and joint venture arrangement for the Bulago/Leonard Schultz ELs are as follows:**

- Frontier's PNG Highlands ELs cover a total area of approximately 894 km<sup>2</sup> and have excellent geological prospectivity for various types of mineral deposits, including World Class porphyry copper-gold+/-molybdenum, high-tonnage moderate-grade gold and moderate-tonnage very high-grade gold deposits, plus base and precious metal skarns.
- OTML has the right to earn 58% participating interest in each of EL 1595 – Bulago and EL 1597 – Leonard Schultz, by spending US\$12 million in exploration on each licence within 6 years. If the right is exercised on both ELs, the total spend by OTML will be US \$24 million over 6 years. OTML will conduct a preliminary exploration program on each licence in the first year before deciding if it wishes to exercise its right to earn the 58% participating interest.
- Upon OTML completing the earn-in requirement, Frontier Gold can elect to defer payment of its 42% share of ongoing project expenditure costs incurred up to the date of a Bankable Feasibility Study to be reimbursed from 50% of its share of future mine revenue.
- Either party may elect not to contribute to project expenditure and dilute their participating interest.
- OTML will have an automatic and immediately exercisable option to purchase an additional 14% participating interest in the relevant tenement upon completion of a Bankable Feasibility Study. The price for the exercise of this option is the relevant percentage of net present value of the Project (as determined by the relevant Bankable Feasibility Study).
- OTML will subscribe for 7.62 million fully paid ordinary shares in Frontier at a subscription price of A\$571,232.70, representing just over 4% of the Company's issued share capital. The placement price is A\$0.075 per share and OTML must not transfer those shares until it completes its earning requirement. However, it may sell the shares if it withdraws from the joint venture arrangement and, in that event, Frontier will have an option to buy-back the shares at the current market price.
- OTML will reimburse Frontier Gold costs for the 2010 Leonard Schultz exploration program, estimated at US \$200,000. In addition, OTML will reimburse Frontier Gold US\$ 35,000 for the assay /sample preparation costs for the 2009 Bulago exploration program. These amounts will be deemed exploration expenditure for the purpose of the earning requirement.
- OTML has committed to a minimum expenditure of US \$1 million (total) within the first year and prior to any possible withdrawal from the joint venture arrangement. OTML has also committed to drilling the greater of 5 holes or 500m within year 2 at Bulago.
- OTML will not retain any interest in the ELs if it withdraws prior to completing earning requirements.



- If the Independent State of PNG exercises its right to participate in a development project on one or both of the ELs, and if OTML has not already exercised its option to acquire a further 14% participating interest, OTML has an option to acquire up to a further 9.5% participating interest to ensure it holds a participating interest of 50.1%. The price for the exercise of this option is the relevant percentage of net present value of the Project (as determined by the relevant Bankable Feasibility Study).

**The terms of the farm-in and joint venture arrangement in respect of the New Britain Island EL/ELAs are as follows:**

- Frontier's EL and 2 ELAs cover a total area of 1,870 km<sup>2</sup> on the island of New Britain Island, with EL 1351 -Likuruanga covering 127 km<sup>2</sup>. The areas have excellent geological prospectivity for various types of mineral deposits, including World Class porphyry copper+/-gold+/-molybdenum, moderate to high-tonnage and moderate to high-grade epithermal gold /silver deposits, moderate and higher grade base / precious metal skarns.
- OTML has the right to earn an 80.1% participating interest in each of EL 1351– Likuruanga, ELA 1598 – Central New Britain and ELA 1592 – East New Britain, by spending US\$12 million in exploration on each granted licence within 6 years. If the right is exercised on all licences, the total spend by OTML will be US \$36 million over six years. OTML will conduct a preliminary exploration program on each EL in the first year before deciding if it wishes to exercise its right to earn the 80.1% participating interest.
- Upon OTML completing the earn-in requirement, Frontier Copper can elect to defer payment of its 19.9% share of ongoing project expenditure costs incurred up to the date of a Bankable Feasibility Study to be repaid from 50% of its share of future mine revenue.
- OTML will subscribe for a further 7.62 million fully paid ordinary shares in Frontier, at a subscription price of A\$571,232.70, being A\$0.075 per share and representing just over 4% of the Company's issued share capital. OTML must not transfer those shares until it completes its earning requirement. However, it may sell the shares if it withdraws from the joint venture arrangement and, in that event, Frontier will have an option to buy-back the shares at the current market price.
- OTML has committed to a minimum expenditure of US\$1.5 million (total) on the initial phase of exploration and prior to any possible withdrawal from the joint venture arrangement. This commitment includes US\$0.5 million within the first 12 months and the remainder within 12 months of the granting of EL 1598 and EL 1592.
- If the Independent State of PNG exercises its right to participate in a development project on one or more of the licences, OTML's participating interest will be diluted and Frontier will retain a 19.9% participating interest.
- OTML will not retain any interest in the ELs if it withdraws prior to completing earning requirement.
- The joint venture arrangement in respect of ELA 1598 – Central New Britain and ELA 1592 – East New Britain is conditional on ELs being granted in respect of each of those tenements.

**Wasi Prospect, Leonard Schultz EL.**

Major gold, copper and molybdenum in soil anomalies were discovered at the Wasi Porphyry Copper Prospect, Leonard Schultz (EL 1597) Papua New Guinea (Figures 3, 5 and 6).

The Wasi soil grid was cut on a north south orientation to elucidate information relating to the location of the Wasi porphyry copper occurrence (no information is available on this prospect in the Geological Survey Library). It is located to the west of the Kru Prospect, where high grade gold was recently reported in hand trenches (16 metres of 18.60 g/t gold, within 76 metres of 5.35 g/t gold)(ASX release dated 12/4/2010).

A total of 1,491 soil samples were analysed and peak assays from the grid based soil sampling included: 3.2 g/t gold, 8 g/t silver, 1160 ppm copper, 214 ppm molybdenum, 2650 ppm zinc and 354 ppm lead.

Gold occurs as a major cohesive soil anomaly in the SE sector of the grid and also as several elongate and high-grade spot/ double spot anomalies. The gold in soil zone discovered is up to 525m wide and is greater than 900m long. Twenty one samples collected over the 525m width returned 0.23 g/t gold, with a peak

assay of 0.87 g/t gold. The gold anomaly occurs over 4 different soil lines covering >900 linear metres. The anomalous zone is open along strike to the south, where it trends off the end of the grid. Grid infill sampling is required to define the full extent of the anomalous zone and its significance.

Copper occurs in two distinct zones. The southern anomaly is approximately 1,800m long and 600 to 900m wide. Its peak copper in soil is 1080 ppm, Mo is 32 ppm and gold is 0.87 g/t. The northern anomaly is approximately 600m wide and is totally unconstrained in terms of strike and orientation. Its peak copper in soil is 1160 ppm, molybdenum is 214 ppm and gold is 3.2 g/t.

Gold assays over the entire grid included 9 samples > 1.0 g/t gold plus 13 samples between 0.3 and 1.0 g/t gold, 52 samples between 0.1 and 0.3 g/t gold and 75 samples between 0.05 and 0.1 g/t gold. 1342 samples were classified as not anomalous.

Copper assays over the entire grid included 14 samples > 600 ppm copper, 35 samples between 400 and 600 ppm copper and 160 between 150 and 400 ppm copper. 1,282 samples were classified as not anomalous.

Molybdenum assays are incomplete for the northern section of the grid and are being analysed. Grid infill sampling is required to define the full extent of the anomalous zones and their significance.

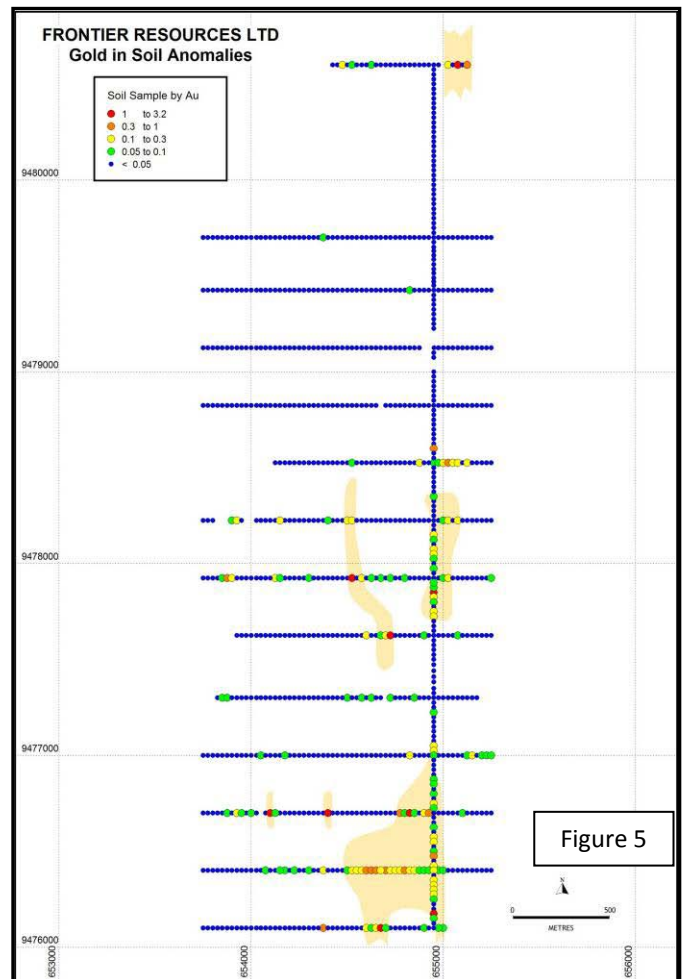


Figure 5

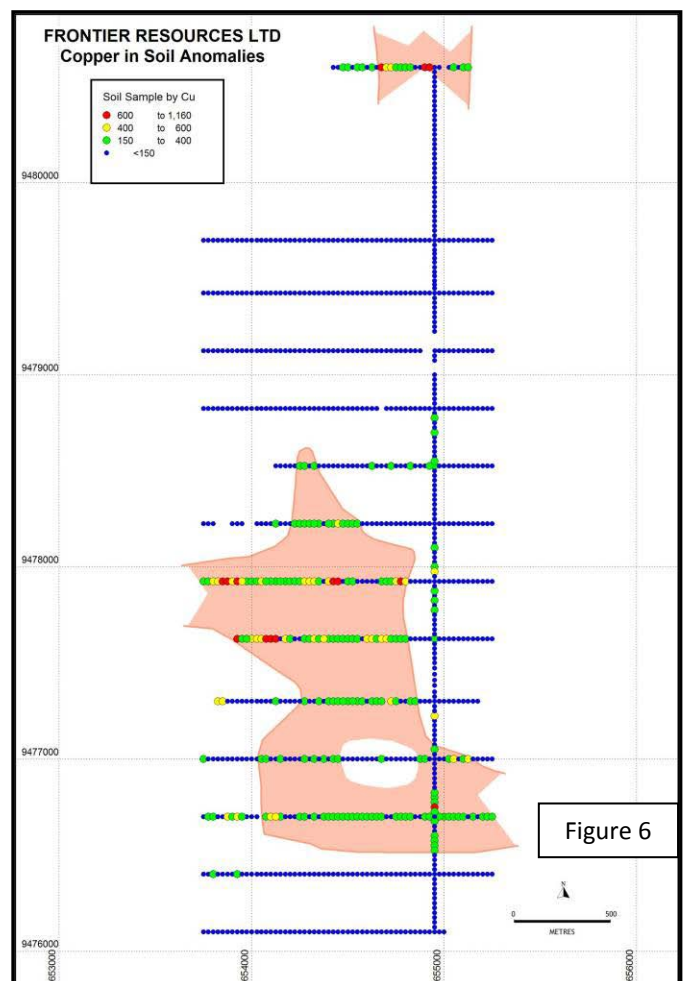
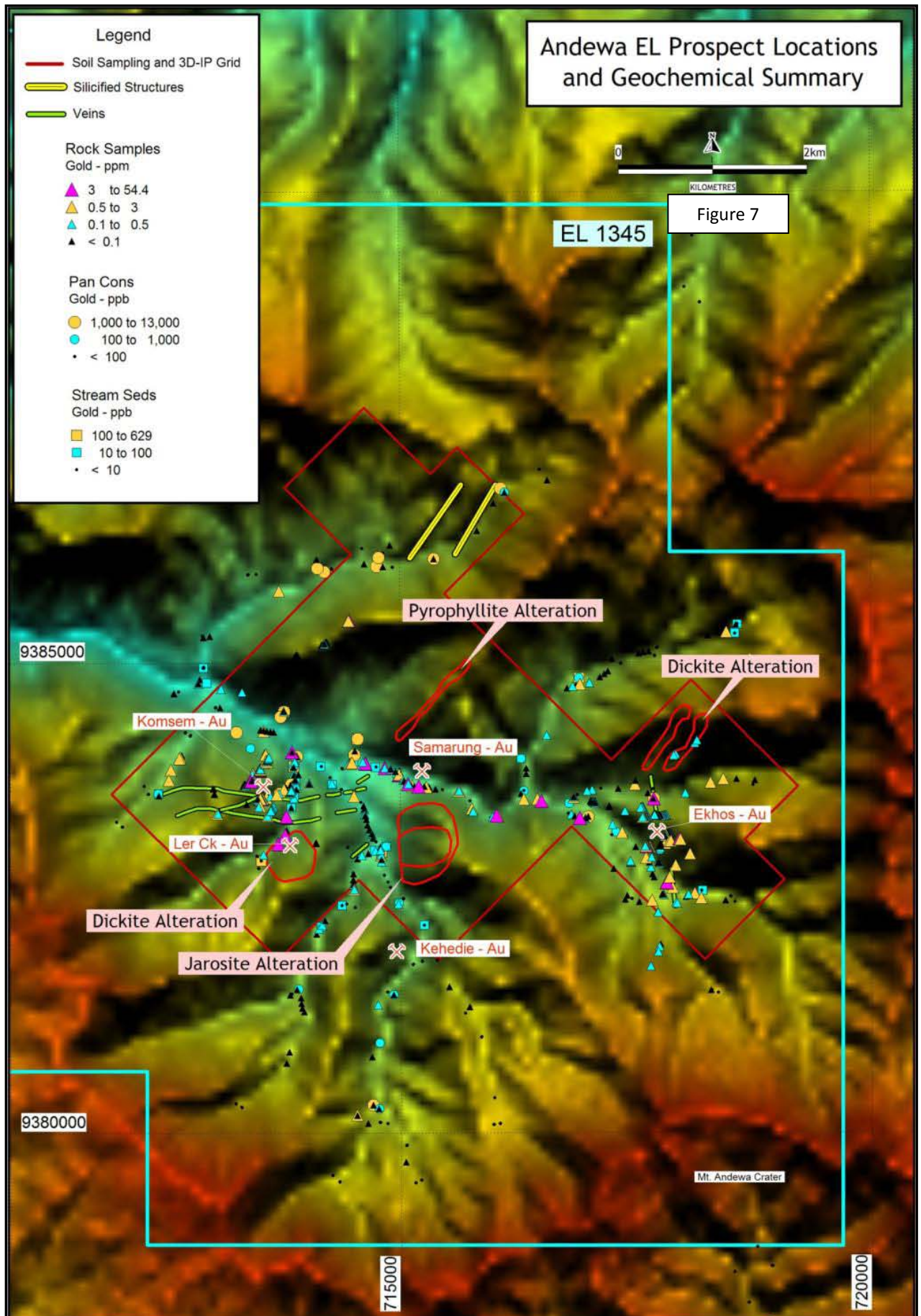


Figure 6



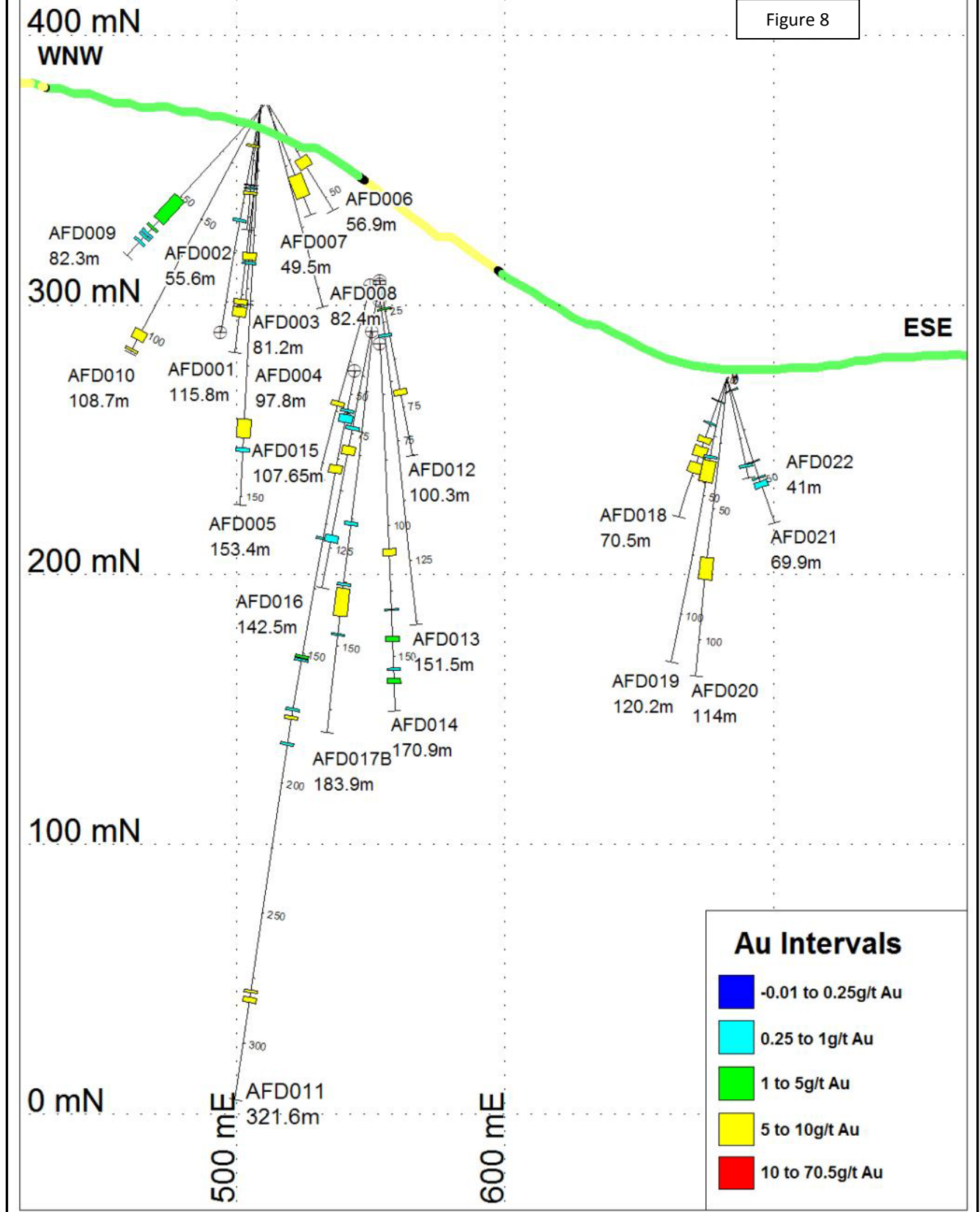
Major geophysical, geochemical & geological exploration programs are progressing well at the Andewa Gold Project.

Refer to the location (figure 4) and anomaly plans (figure 7), plus a long section (figure 8) and drill location plan (figure 9) below.

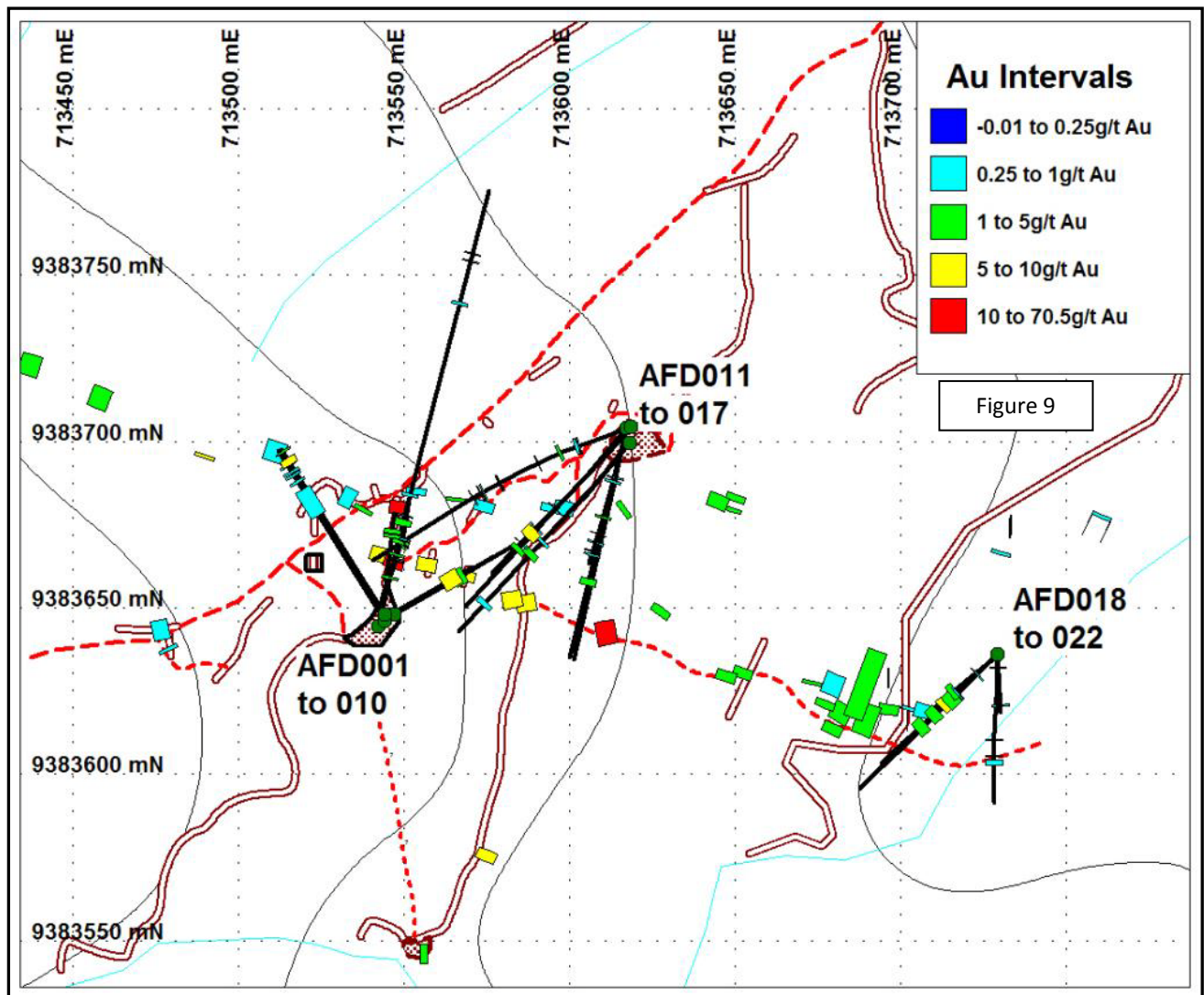


**Komsen Prospect  
EL1345 - Mt Andewa  
Drill Hole Long Projection  
Significant Gold Intervals**

Figure 8







The photographs and table below show several styles of mineralisation in drill core at Andewa.

	<p>AFD-017B 135.2-135.3m <b>26g/t Au</b></p> <p>Pervasively silicified with abundant silica-sulphide stockwork. There is a massive sulphide band to the right of the image. The dominant sulphide is arsenopyrite with subordinate chalcopyrite&gt; sphalerite&gt; galena. The greenish tint in the picture is likely due to the presence of fuchsite.</p>
	<p>AFD-007 37.35-39.35m <b>32.70g/t Au</b></p> <p>It is strongly broken core and the sampling appears to have been done across lithological boundaries. Two thirds of the material for this sample appears to be the oxidised /silicified material (picture above) and 1/3 the material on the left. This particular material appears to be shattered and argillised andesitic rock.</p>
	<p>AFD-017B 136.0m <b>4.54g/t Au</b></p> <p>Dominantly quartz-sericite pyrite with hint of dark grey green-fuchsite. Sulphide content here is relatively lower.</p> <p>This is more silica rich material with fewer sulphides and the grades are lower</p>

## **Tasmanian Exploration**

Exploration will commence on Frontier's Tasmanian Retention and Exploration Licenses during the second half of 2010, with the Company working towards future development of the northern Tasmanian gold and base metal resources.

Known high-grade plus potentially bulk mineable tungsten mineralisation will be specifically targeted and drilled (the only previous hole drilled returned to 1m grading 1.98% WO<sub>3</sub> (in hole NC048 near the NW end of the Narrawa Deposit), within a broad low grade geochemical halo that averaged 14m of 0.20% WO<sub>3</sub> (from 21 to 37m).

The gold and base metal resources at the Narrawa and Stormont Deposits will be upgraded with additional drilling and additional metallurgical testwork will be completed. The deposits are only 6.5km apart.

### **Project Review (no new data)**

#### **Narrawa Deposit**

Narrawa is a steeply dipping, on/near surface, stratabound/ stratiform skarn deposit hosted within 4 lodes which are near surface and can be mined by open pit mining methods.

The deposit contains an Indicated and Inferred resource with 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc at 0.5g/t gold cut-off grade. The mineralisation is contained within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc. An Indicated Resource consists of 162,755 tonnes grading 3.61 g/t gold equivalent (2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc). The Indicated and Inferred Resource is up to 220m long, 20m wide and 60m deep.

Good scope exists to continue to increase the Narrawa Resource along strike in both directions, within the fault offset dip component and in other relatively untested sectors of the project area. Mineralisation potential exists along strike to the southeast, with additional drillholes yielding 3.7m of 1.11 g/t gold (NC016) and 1.35m of 0.19g/t gold + 42 g/t silver+ 2.0% lead + 1.46% zinc + 0.25% copper (also NC016) and 2.2m of 0.12g/t gold + 15 g/t silver+ 0.79% lead + 3.26% zinc + 0.25% copper associated with a UTEM anomaly (NC017).

In addition, across strike from Narrawa in the 666 lode there are mineralised holes returning 1.5m of 25.2 g/t gold (NC025), 2m of 14.98 g/t gold (NC035), 7m of 2.13 g/t gold and 4.5m of 3.26 g/t gold (NC036), that are not included in the resource estimation.

#### **Stormont Deposit**

Stormont is a skarn-style stratiform deposit located in the core and on the limbs of a shallowly southeasterly plunging syncline at its northwestern end. The deposit is located on or very near surface and ranges in stratigraphic thickness between 10m and 15m. A consistently mineralised resource is modelled in the 150m long, NW part of the central syncline, referred to as the high grade zone.

The maiden Inferred Resource for the 'high grade' zone at Stormont contains 13,430 ounces gold, 27.7 tonnes bismuth and 10,340 ounces silver, within 91,400 tonnes of mineralised rock grading 4.57g/t gold, 0.30% bismuth and 3.52g/t silver (1.5g/t gold cut-off grade).

There is good scope to increase the resource with additional drilling in the SE of the central syncline, the untested western sector of the western syncline and proximal to the eastern thrust. Significant high grade gold+/-bismuth intersections have been demonstrated over the entire 300m known length of the central syncline, with drillholes SD8, SD10, SD33 and SD44, returning up to 4m of 12.7 g/t gold, that is not included in the resource estimation.

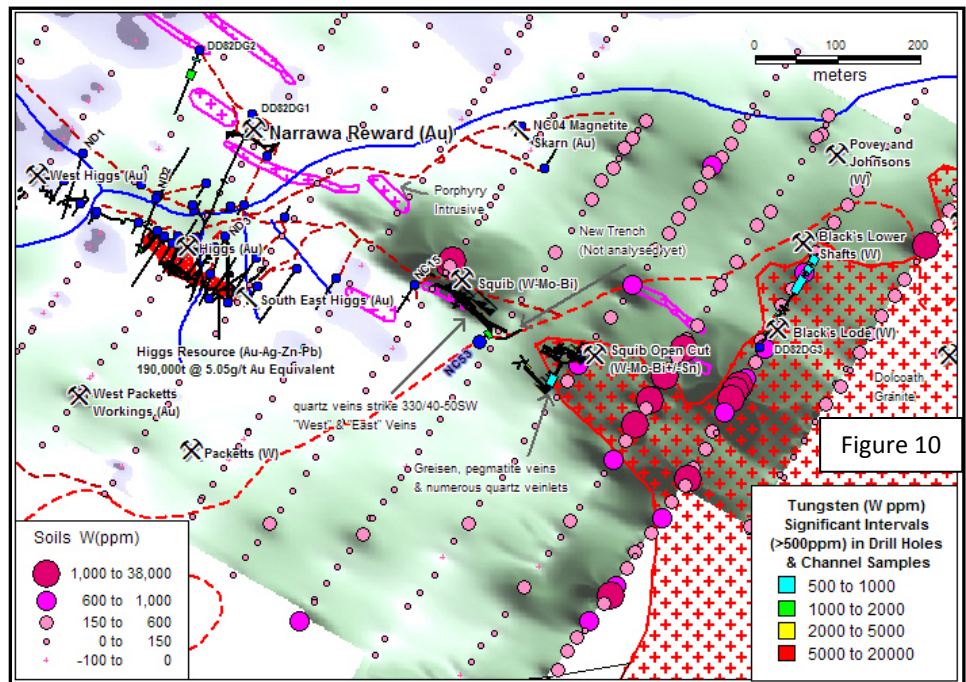
#### **Narrawa Tungsten Prospect (RL 4/2005)**

The tungsten potential of Narrawa was evaluated by a targeted drill hole (NC53) and by undertaking selected drill hole re-analysis (NC 48). NC48 returned 1m grading 1.98% tungsten, within 16m grading 0.178% tungsten, from 29.6m downhole.

This is a higher tenor of mineralisation than that demonstrated in hole NC53, being 0.65m grading 1.04% WO<sub>3</sub>, within 10.5m grading 0.228% WO<sub>3</sub> (which was only proximal to the target zone due to drilling into the old adit – i.e. the best mineralisation was mined out!).

These results have documented structurally controlled higher grade tungsten located within significant widths of lower grade, but potentially bulk mineable tungsten mineralisation. Holes NC 48 and NC53 are located more than 400m apart across strike but on the same general tungsten anomalous trend, indicating significant strike potential and multiple mineralised lodes.

Soil assays and historic drilling have demonstrated a large area of tungsten anomalism and the +800m known strike length between holes containing tungsten anomalism remains untested (see Figure 10).



Six historic holes drilled for gold also returned potentially economic grades of tungsten, peaking at 0.5m of 1.26% tungsten ( $WO_3$ ) with 0.12% molybdenum. Five channel samples also returned anomalous tungsten with up to 1.5m grading 0.70% tungsten ( $WO_3$ ) and also 3m grading 1.17 g/t gold + 0.1% tungsten ( $WO_3$ ). The historic Squib Mine produced 34.5 tonnes of tungsten. Dump samples have analysed up to 5% tungsten ( $WO_3$ ) and a sample from a lode in a drive returned 3.19% tungsten ( $WO_3$ ).

Note that calculations for Ferrotungsten herein assume all concentrate is FeW, equating to 76.7% tungsten, whereas commercial concentrate typically contains 70 to 75% tungstic oxide ( $WO_3$ ) or 55 to 63% tungsten.

### Corporate

On 31 May 2010, Frontier Resources Limited placed 15,232,872 new fully paid ordinary shares to OTML Ltd at 7.5 cents per Share to raise \$1,142,465.40.

On 3rd June, 1,862,190 fully paid, ordinary shares were issued from the exercise of options.

Announcements released to the ASX during the quarter included:

23rd July 2010 - Major Geophysical, Geochemical & Geological Exploration Programs are Progressing Well at the Andewa Gold Project.

4th June 2010 - Appendix 3y.

3rd June 2010 - Allotment of Securities.

25th May 2010 - Excellent Strategic Alliance Initiated With World Class Copper Producer.

24th May 2010 - Major Gold, Copper & Molybdenum in Soil Anomalies Demonstrated at the Wasi Prospect Leonard Schultz EL, Papua New Guinea.

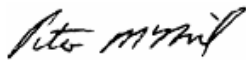
31st May 2010 - Frontier Resources Limited Placement – Notice Pursuant To Chapter 6d.2 And 6d.3 Of The Corporations Act.

Frontier Resources has purchased a diamond drill rig which will be used to help define the extent of mineralisation on the Company's PNG and Tasmanian properties and is expected to allow JORC compliant resources to be estimated as appropriate in the future.

Please visit our website at [www.frontierresources.com.au](http://www.frontierresources.com.au) and/or refer to ASX announcements released

during the June 2010 quarter for additional detailed information relating to the Company and its projects and/or feel free to contact me.

## FRONTIER RESOURCES LTD



P.A. McNeil, M.Sc.

**MANAGING DIRECTOR**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by, or compiled under the supervision of Peter A. McNeil - Member of the Aust. Inst. of Geoscientists. Peter McNeil is the Managing Director of Frontier Resources, who consults to the Company. Peter McNeil has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter McNeil consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

### About Frontier Resources

- Frontier is focused on exploring for and developing mineral deposits in the highly mineralised Pacific 'Rim of Fire' in Papua New Guinea and the highly prospective Dolcoath Granite and Mt Read Volcanics of Tasmania.
- Frontier has a 100% interest in 4 Exploration Licences (approx. 1,140 km<sup>2</sup>) and 3 Exploration Licence Applications (approx. 2,212km<sup>2</sup>) in PNG and 2 Exploration Licences + 2 Retention Licences covering 127 km<sup>2</sup> in Tasmania.
- The portfolio offers excellent mineral deposit potential, with primary targets being World Class copper-gold-molybdenum porphyry, high grade gold/silver epithermal, gold– base metal skarn and polymetallic VMS (zinc-lead-silver-gold) deposits.
- The projects all have high-grade exploration results in rock, trenches and/or drill hole and are in the same or similar geological terranes as existing World Class and/or major mines.
- Frontier's Directors have more than 150 years combined experience in PNG and Australia to serve the interests of the Company and its shareholders.
- Frontier operates with a general policy of 'DRILLING' our quality projects using our purpose built and self manufactured, cost effective, environmentally friendly, man-portable diamond core rig.
- The Company is an innovative and socially responsible ASX listed junior mineral explorer whose shares also trade on the Frankfurt, Berlin and Munich Stock Exchanges.

### Appendix 1:

#### About Ok Tedi Mining Limited:

Ok Tedi Mining Limited is a major producer of copper concentrate for the world smelting market. It currently has a single operation, the Ok Tedi mine, situated in the remote Star Mountains of PNG's Western Province, where it extracts and exports copper, gold and silver concentrate to customers throughout Europe and the Asia-Pacific region.

OTML's headquarters are in the town of Tabubil in the Western Province of PNG with the mine site located on Mount Fubilan, 18 kilometres from the PNG/Indonesian border. OTML also operates milling facilities at the mine site and shipping facilities at the port of Kiunga on the Fly River, 750 kilometres upstream from the Gulf of Papua.

The Ok Tedi mine started operations in 1984, and has become the single largest business contributor to the economies of both the Western Province and PNG. In 2009, OTML's export earnings were K4 billion, which represents approximately 33 per cent of PNG's total export earnings. OTML profit in 2009 was K1.6 billion. However, the contributions of the mine to the Western Province are not simply economic, with employment in spin off business on-going, provision of education and training facilities and programs, establishment and on-going maintenance of infrastructure such as roads, airstrips, water and communications systems and health services, all facilitated by the mine.

OTML's shareholders are PNG Sustainable Development Program Limited (PNGSDPL) (52 per cent), Inmet Mining Corporation (Inmet) (18 per cent) and the Independent State of PNG (30 per cent). In 2002, PNGSDPL accepted a transfer of BHP Billiton Limited's 52 per cent shareholding in OTML. The OTML dividends paid to PNGSDPL are used to generate sustainable development projects for the benefit of the people of the Western Province and Papua New Guinea.

Inmet has announced that it intends to exchange its shareholding in OTML for a net smelter return royalty on revenue of product from the Ok Tedi mine. Pending Inmet's exit as a shareholder in OTML, OTML has



entered into the farm in and joint venture arrangements as trustee for PNGSDPL as beneficiary. It is intended that PNGSDPL will transfer its beneficial ownership in those arrangements to OTML once the Inmet share exchange has completed, giving OTML a full legal and beneficial interest in the arrangements.

OTML directly employs 2,000 people. 95 per cent of employees are PNG nationals and 36 per cent are from the Western Province. In addition, businesses that work under contract to OTML are substantial employers in the region.

OTML has strong mining operations and technical capability as well as strong, community and government relations and environmental management skills developed over 30 years of operations in PNG. Using the strong skills base of its highly regarded workforce the company is looking to expand into other mines. Expansion of the exploration program into the regions outside of the immediate mine area through joint venture with junior exploration companies is a key strategy to provide opportunities for development of new mining operations. OTML aims to engage in exploration programs that are well resourced, efficient and safe. It aims to complete exploration programs in a timely manner so that mine development opportunities are presented as quickly as practical.

Further information on Ok Tedi Mining Limited can be found at [www.oktedi.com](http://www.oktedi.com)

OTML Contact -- Jane Mills  
Ok Tedi Mining Limited  
+675 649 3169 or +675 649 3932 or +675 76924128  
[Jane.mills@oktedi.com](mailto:Jane.mills@oktedi.com)

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

FRONTIER RESOURCES LIMITED

ACN

095 684 389

Quarter ended ("current quarter")

June 2010

### Consolidated statement of cash flows

Cash flows related to operating activities		Current quarter \$A'000	Year to date 12 Months \$A'000
1.1	Receipts from product sales and related debtors	1	15
1.2	Payments for (a) exploration and evaluation	(296)	(1,015)
	(b) development		
	(c) production		
	(d) administration	(245)	(684)
1.3	Dividends received		
1.4	Interest and other items of a similar nature received	3	7
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Other Expenditure reimbursable by others		
<b>Net Operating Cash Flows</b>		(537)	(1,677)
<b>Cash flows related to investing activities</b>			
1.8	Payment for purchases of:		
	(a)prospects		
	(b)equity investments		
	(c) other fixed assets	(181)	(181)
1.9	Proceeds from sale of:		
	(a)prospects		
	(b)equity investments		300
	(c)other fixed assets		
1.10	Loans to other entities		
1.11	Loans repaid by other entities		
1.12	Other (provide details if material)		
<b>Net investing cash flows</b>		(181)	119
1.13	Total operating and investing cash flows (carried forward)	(718)	(1,558)

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(718)	(1,558)
1.14	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc. net of costs	1,193	2,572
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		
1.18	Dividends paid		
1.19	Other (provide details if material)		
	<b>Net financing cash flows</b>	1,193	2,572
	<b>Net increase (decrease) in cash held</b>	475	1,014
1.20	Cash at beginning of quarter/year to date	729	190
1.21	Exchange rate adjustments to item 1.20		
1.22	<b>Cash at end of quarter</b>	1,204	1,204

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	128
1.24	Aggregate amount of loans to the parties included in item 1.10	

1.25 Explanation necessary for an understanding of the transactions

Consulting Fees and Director Fees

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

+ See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities		
3.2 Credit standby arrangements		

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	250
4.2 Development	
4.3 Production	
4.4 Administration	200
<b>Total</b>	<b>450</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	22	29
5.2 Deposits at call	1,182	700
5.3 Bank overdraft		
5.4 Other (provide details)		
<b>Total: cash at end of quarter</b> (item 1.22)	<b>1,204</b>	<b>729</b>

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1 Interests in mining tenements relinquished, reduced or lapsed				
6.2 Interests in mining tenements acquired or increased				

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	<b>Preference +securities</b> <i>(description)</i>	Nil	Nil		
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	<b>+Ordinary securities</b>	205,129,312	205,129,312		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	17,095,062	17,095,062		
7.5	<b>+Convertible debt securities</b> <i>(description)</i>	Nil	Nil		
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	<b>Options</b> <i>(description and conversion factor)</i>	41,194,277	41,194,277	<i>Exercise price</i> 4.5 cents	<i>Expiry date</i> 03-Dec-10
		180,000		14 cents	20-Oct-11
		270,000		16 cents	19-Oct-10
		3,200,000		20 cents	30-Nov-10
		100,000		15 cents	11-Dec-10
		2,750,000		4.0 cents	31-Dec-12
		3,250,000		5.0 cents	31-Dec-12
		3,200,000		4.0 cents	19-Oct-13
		950,000		3.0 cents	21-Jan-14
7.8	Issued during quarter				

+ See chapter 19 for defined terms.

7.9	Exercised during quarter	1,862,190	1,022,190		
7.10	Expired during quarter				
7.11	<b>Debentures</b> (totals only)	Nil	Nil		
7.12	<b>Unsecured notes</b> (totals only)	Nil	Nil		

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act [or other standards acceptable to ASX](#) (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here: ..... Date: 30 July 2010  
(Director/Company secretary)

Print name: Jay Stephenson

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** [ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic \(if any\) must be complied with.](#)

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