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ASX Limited Company Announcements Office

29th January 2010

TECHNICAL REPORT - QUARTER ENDED 31st DECEMBER 2009

- A major exploration program was conducted at the Bulago high-grade gold Prospect in Papua New Guinea between early October and December 2009.
 - Soil, rock outcrop/float sampling and geological mapping were completed.
 - Approximately half the soil assay results have been returned to date.
 - All data is being compiled and will then be interpreted.
 - Rock sampling results from the Suguma Prospect will be released when possible.
- An exploration program commenced on January 19th at the Leonard Schultz EL, which is located 85km north of the Bulago tenement.
 - Targets are porphyry copper-gold -molybdenum at the Wasi Prospect and gold in quartz sulphide veins at the Kru Prospect.
 - Wasi will be geologically mapped, gridded / soil sampled and rock outcrop /float sampled.
 - Previous work at Wasi suggests higher copper grades remain unexposed at shallow depths to the south of the previous drilling.
 - These results have not been followed up and include outcrop to 1.22% copper + 0.32 g/t gold + 173 ppm molybdenum and float to 1.17% copper + 0.15 g/t gold + <u>1,650 ppm molybdenum</u>.
 - Kru is associated with significant gold in soil and rock anomalism over an area of approx. 2,500 x 100m (but up to 500m)
 - 19 soil samples assayed >1.0 g/t, including 42.1 g/t, 9.06 g/t and 8.85 g/t gold.
 - Previous trenching results include outcrop to 5m of 12.33 g/t gold and 25m of 2.46 g/t gold.
 - The soils anomalies and known gold mineralised areas will be systematically hand trenched.
- Discussions are continuing with 'Major' companies in relation to possible Joint Ventures on Frontier's PNG projects.
- The Board of Directors of Frontier Resources Ltd was restructured, with Managing Director, Peter McNeil B.Sc. (1982) and M.Sc. (Geochemistry-1985) to fulfil the role of Chairman, subsequent to the resignation of Mr Robert McNeil for personal reasons.

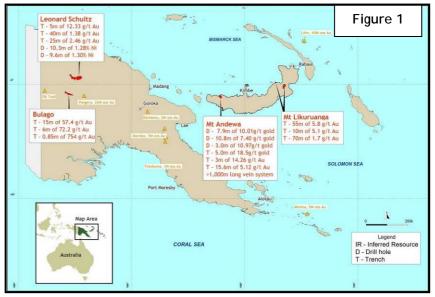
SUMMARY OF THE BULAGO PROGRAM

The duration and scope of the exploration program conducted at the Bulago Project was substantially increased due to exploration success and the area's high prospectivity.

- All the known occurrences of very high-grade gold in outcrop at the Suguma Prospect were re-located, sampled, mapped and evaluated.
 - ⇒ Multiple orientations of high-grade mineralisation were noted and the gold mineralisation model for Suguma has been substantially refined. Prospectivity has increased commensurately.
 - ⇒ Potential drilling targets were defined at the Suguma Prospect for evaluation.
 - \Rightarrow The Suguma rock sample assay results will be announced as soon as they are compiled.
- Massive sulphide skarn and new massive sulphide vein and breccia (hosted by intrusive) outcrops were discovered, mapped and sampled at the Funutu Prospect.
 - ⇒ The skarn discovery is highly significant because it was previously considered NOT possible. The limestones were hypothesised as being thrust faulted on top of /post intrusion. This means the entire 10km length of the basin margin is prospective for skarn deposits.
 - ⇒ The skarn mineralisation consists of very strong galena [lead] and sphalerite [zinc], with minor chalcopyrite [copper] and probable precious metals [requires assaying]. The outcrop occurs to the south of Funutu where massive magnetite skarn outcrop was also discovered.
 - A recent landslip obscures most of the general area of previously noted high-grade gold outcrop making sampling and hand trenching impossible and evaluation more difficult.
- ➤ A 7 sq km soil sampling grid was planned to cover many of the strongly gold anomalous prospective drainages.
- The exploration assays should document additional major zones of precious and base metal mineralisation and enhance the ELs overall prospectivity.
- The exploration team consists of 6 geologists (with more than 120 years of experience), plus 11 field technicians and 45 landowner labourers.
- Several additional high-quality precious and base-metal prospects remain to be sampled and evaluated and historic results for additional areas at Bulago are described below for the first time.

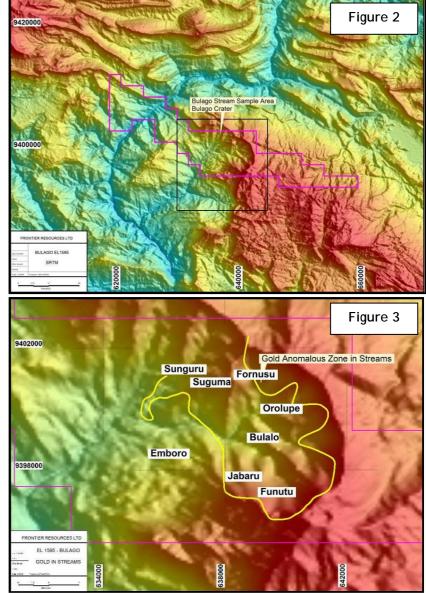
BULAGO PROJECT DETAILS

Bulago Exploration The License is located in the Southern Highlands Province of Papua New Guinea between the World Class OK-Tedi porphyry copper-gold Deposit and the World Class Porgera intrusive related epithermal gold Deposit. Figure 1 shows the location of Frontier's projects in PNG and figure 2 shows an SRTM - satellite image of the EL area.



 Targets are very high-grade intrusive related and epithermal gold, very high-grade lead zinc -copper -gold -silver skarns and veins plus bulk mineable, lower grade intrusive related gold deposits.

- The present area of interest is large (at about 14 sq km - see Figure 3) and outcrop is often very limited, even in the creeks due to their steepness, landslips and associated alluvial fill.
- The exploration program is major undertaking а evaluating the known highgrade gold targets with outcrop traverse, composite channel chip and grab sampling, with limited hand trenching along strike (where possible).
- A large ~5 sq km soil sampling grid was undertaken to define additional discrete areas of precious and base metal mineralisation.
- The soil grid consisted of about 40 kilometres of lines that are generally on a 100m spacing (but locally also 200m), with samples collected at 25m downline intervals. About 1600 soil samples will be collected.



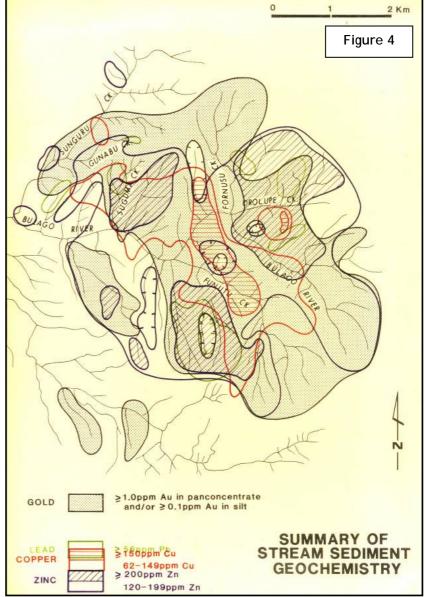
- Geological mapping was undertaken to define mineralisation trends, to allow the creation of mineralisation models for the prospects and to assist in refining future drilling targets.
- An extensive hand trenching program was planned on the high-grade gold targets, but this proved difficult to accomplish. Hand trenching was undertaken at the Bulalo (AuK1) Prospect (see below for a description of the project). However, due to various strategic, technical and logistic reasons it was also decided to undertake a much broader based program and evaluate as much of the area for gold and base metal mineralisation as possible, prior to undertaking a large amount of detailed work at any particular prospect.

BULAGO GOLD AND BASE METAL DRAINAGE ANOMALIES

- The Bulago drainage basin contains a very well defined, strong and cohesive approximately 14 sq km gold in stream sediment and panned concentrate anomaly (Figure 3).
- There are 6 discrete and large prospect areas within this gold anomaly, including Suguma and Funutu (Figure 4).
- The prospects are located within a large (3.5km x 5.5km), well-defined embayed but pseudo- elliptical gold, zinc and copper (+/- lead) drainage anomaly (Figures 3 & 4), that covers a centrally located porphyry copper / gold mineralised intrusive within an elliptical drainage basin.
- Precious and base metal anomalism continues up to and into the peripheral limestones demonstrating the potential for economic skarn deposits.

SUGUMA PROSPECT

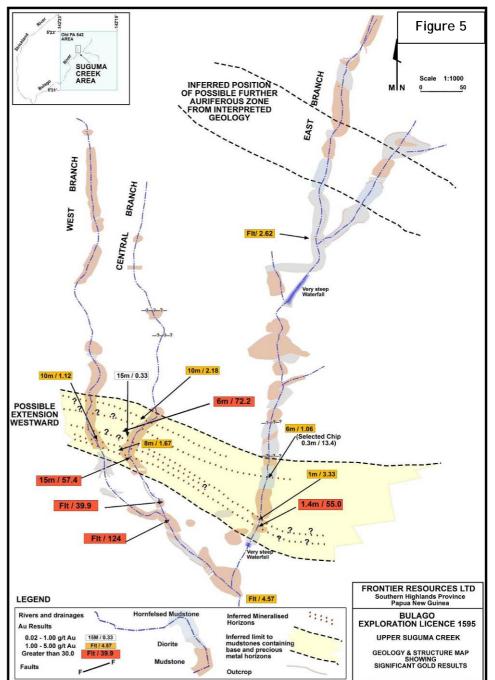
- The Suguma Prospect is located to the NW of a large (1 sq km) copper and disjointed gold in ridge and spur sample soil anomaly.
- The general Suguma area is defined by a higher tenor pan concentrate gold and coincident stream sediment silt gold anomaly, plus semi-coincident strong zinc (~1 sq km) and lead (~0.25 sq km), plus lower level copper in stream sediment silt.
- The Suguma Prospect area itself had never been soil sampled in detail. There are two historic ridge and spur soil lines that are separated by about 600m.
 - The western soil line has two discrete gold anomalies that are 60m and 120m long, with peak grades of 0.49 g/t gold and 1.22 g/t gold, respectively.
 - These soil anomalies are located about 150m west of the main Suguma mineralisation



and likely represent its strike extension in that direction and evidence of a possible subparallel second zone of mineralisation, respectively.

- Two pits were dug in the 1.22 g/t gold anomaly (named Anomaly 10) and the peak pit value returned 0.604 g/t gold. This is highly encouraging. It was noted that both pits may not have penetrated the talus/scree and reached bedrock. Further work was recommended but never undertaken. This remains to be followed up by Frontier.
- o The eastern soil line is discussed under the Ima Zone bullet point below.
- Suguma has very high gold grades in structures to unknown maximum widths in both the intrusives and contact aureole sediments. Variable quantities of base metal sulphides (sphalerite, galena and chalcopyrite) and arsenopyrite occur in the more strongly gold mineralised areas. Semi-massive mineralisation is common, along with disseminations and fracture coatings, mostly of pyrite and pyrrhotite.
- Historic Suguma channel samples of semi-massive sulphidic veining and breccia outcrop include a true width of <u>1.4m of 55 g/t gold + 34 g/t silver</u>. Apparent widths (sampled along strike/down dip) included <u>15m of 57.4 g/t gold</u>, <u>6m of 72.2 g/t gold</u>, <u>0.85m of 754 g/t gold</u> and <u>2m of 188 g/t gold</u>, with silver and base metal credits (see Figure 5).
- Petrographic and electron microprobe work by a previous explorer noted coarse free gold and also fine gold associated with sulphides in the high grade samples. The work suggested the copper, zinc and iron sulphides likely represent an early stage of mineralisation and the gold, arsenic and lead mineralisation is a later phase.

- The very highgrade gold that was discovered in outcrop at the Suguma Prospect by previous explorers was all re-located, sampled, mapped and evaluated by Frontier.
- Several new zones of base-metal + likely gold mineralisation were discovered field by the crews. The true width of all these zones is often difficult to establish, given the orientation of the mineralised zones combined with topographic constraints (i.e. you can't see the width).
- The last substantive exploration was conducted at Suguma in 1988, with the drilling of 5 highly optimistic (large step-out and thus poorly conceived) diamond core



holes, which failed to intersect potentially economic grades of gold mineralisation.

- The known gold mineralised zones were not tested for moderate/steep to vertical controls on the mineralisation due to their simplistic model that dictated the mineralisation should be on the same orientation as the slope of the ridge (a dip slope model).
- Information gained from Frontier's geological mapping at Suguma has allowed a substantial refinement of the previous gold mineralisation model.
- There are now <u>5 known gold mineralised structural orientations</u> at Suguma, including subvertical and dip slope (both on 2 orientations), plus flat lying. Intersections of these mineralised structures will result in plunging high-grade shoots of gold mineralisation that comprise valid drilling targets for 2010 (subject to Frontier's capital constraints).
- A <u>2.62 g/t gold</u> float rock sample was collected in the upper reaches of the eastern branch of Suguma Creek, about 300m north of the main Suguma mineralisation (see Figure 5). This has not been tracked to source and remains to be followed up. It shows that there is at least one additional mineralised zone to the north of the defined Suguma mineralisation.
- The Ima Zone is located about 400m east of central Suguma in Kapia Creek (see figure 6 for some creek names).

- Ima could represent Suguma's strike extension to the east, but this is a tenuous correlation at this stage. The eastern ridge and spur soil line (noted above) did not appear to demonstrate a strike extension to Suguma, however, it had a peak assay of <u>0.16 g/t gold</u> off the general Suguma strike line which could represent the strike extension of the Suguma mineralisation being fault offset or a discrete new zone of gold mineralisation.
- Ima is defined by gold and base metal anomalous stream sediment silt and panned concentrate samples to <u>0.166 g/t gold</u> and <u>5.9 g/t gold</u>, respectively. The area is part of the anomalous gold and zinc in stream sediment zone noted for Suguma, but it is not anomalous in lead.
- The last exploration conducted at the Bulago EL in 1997 consisted of geological mapping plus limited outcrop sampling at various prospects including Ima and virtually all the Ima samples were strongly anomalous including:
 - <u>12.5 g/t gold + 24 g/t silver + 0.66% zinc</u> over a <u>2m true width</u> fault breccia.
 - <u>26.3 g/t gold + 30 g/t silver + 1.88% zinc + 0.92% lead</u> in a grab sample of outcrop.
 - <u>8.9 g/t gold + 132 g/t silver</u> over a <u>0.5m wide outcrop</u>.
 - <u>0.563 g/t gold + 57 g/t silver + 0.12% copper</u> over a <u>1m wide outcrop</u>.
 - The samples noted above show several distinct geochemical variations including high gold and lower silver + zinc, moderate/high gold + high silver (but no zinc) and low gold + moderate silver + weak copper. These variations suggest multiple zones of mineralisation that strongly warrant additional exploration.
 - It is noted that while these intervals are relatively narrow they are highly significant, as mineralisation is structurally controlled, outcrop is generally not continuous and therefore sampling is by necessity also often discontinuous.

FUNUTU PROSPECT

- Funutu is located four kilometres to the SE of Suguma.
- The prospect is defined by <u>extremely consistent and high-grade gold in stream sediment silt</u> <u>and panned concentrate</u> samples to 2.09 g/t gold and 180 g/t gold, respectively. In addition, there are areally extensive strong zinc and lead drainage anomalies coincident with the gold.
- This is the <u>same geochemical signature as the Suguma mineralisation</u>, but the coincident gold and base metal anomalies at Funutu are more consistent, stronger and cover a much larger area. This likely reflects more widespread mineralisation and increased prospectivity for the discovery of a potentially economic deposit.
- The nearby Jabaru Prospect has the highest panned concentrate anomalies in the entire Bulago EL and is contiguous with and located to the WNW of Funutu. The Funutu-Jabaru area is a highly consistent and strong zone of stream sediments and panned concentrate anomalism over a <u>3km strike length</u>.
- No meaningful exploration has previously been conducted at the Funutu Prospect; it has never been systematically mapped, outcrop rock or soil sampled, trenched or drilled.
- Previous explorers collected very high-grade precious and base metal intrusive / breccia rock samples from outcrop and historic assay results included to <u>197 g/t gold + 363 g/t silver</u> + 0.55% copper + 5.72% zinc + 5.5% lead, also <u>108 g/t gold + 200 g/t silver + 0.38% copper + 4.8% zinc + 2.63% lead</u> and <u>43 g/t gold +120 g/t silver + 0.49% copper + 1.7 % zinc + 0.86% lead</u>.
- Frontier's program at Funutu determined that the general area of the high grade zones had been covered by a landslide, making exploration difficult and hand trenching pointless.
- The Company undertook a major rock sampling reconnaissance program in the area to define strike extensions to the known mineralisation and also new zones for trenching in 2010.

SKARN MINERALISATION

- The skarn potential of the Bulago region had <u>never</u> previously been evaluated past collecting a few float rock samples.
- Skarns can be significant mineral deposits, often containing large tonnages of higher-grade base and precious metal mineralisation.
- Skarn mineralisation forms in limestones and similar sediments that are proximal to porphyry copper intrusions. They result from chemical reactions between the limestones and the introduced hot metalliferous hydrothermal fluids.
- Bulago has both required lithologies proximal to each other and as such, there is a good probability of locating economically significant skarn mineralisation around the entire 10 km long margin of the basin within the areally extensive limestones.
- A historic sample of a 1.5m boulder of skarn assayed <u>145 g/t gold + 11g/t silver + 0.78%</u> <u>copper + 8.6% zinc + 0.34% lead</u>. It was reported as located 1.5 km to the SE of Suguma and 2 km downstream from Funutu. The boulder was not re-located, but was perhaps due to the high water levels in the creek.
- <u>Frontier's exploration</u> in the headwaters of Funutu Creek (just to the south of Funutu Prospect) <u>located highly mineralised skarn outcrop</u> and float, <u>proving the existence of insitu skarn mineralisation</u>.
- The skarn mineralisation consists of massive sphalerite (zinc) and galena (lead), plus lesser chalcopyrite (copper). Massive magnetite (iron) skarn was also located.
- There is a good possibility that the Company's soil sampling program will document anomalous, multi-element base and precious metal anomalies and skarns a *t* Bulago.

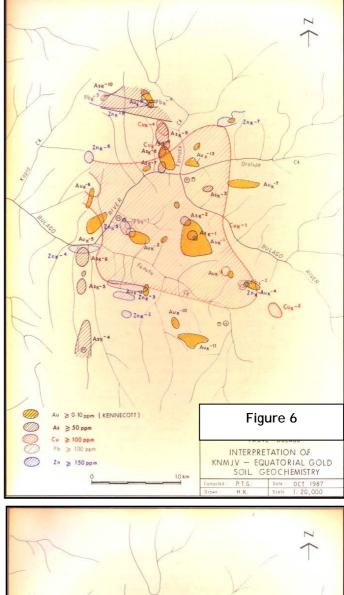
ADDITIONAL EXPLORATION TARGETS

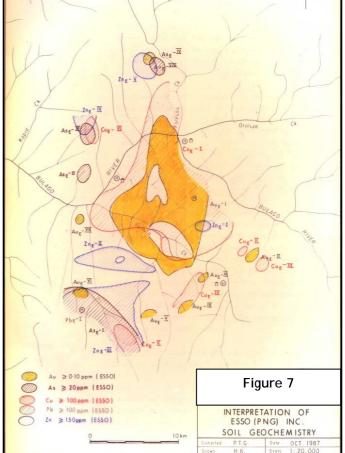
The exploration potential of the Bulago Exploration License is very impressive. There are many different mineralised zones within the local ~14 sq km area and at least 3 different major styles of potentially economic mineralisation have been discovered in outcrop. Many strongly gold and base-metal anomalous areas are being evaluated by soil sampling program. The entire area and all of these specific prospects clearly warrant substantial further exploration.

Bulalo (AuK-1) Prospect

- The Bulalo Prospect is the second most advanced prospect within the Bulago Exploration License. It is a relatively strongly gold mineralised, but weakly copper anomalous porphyry copper intrusion.
- Bulalo covers an area of about 1.5 sq km in the central sector of the Bulago basin and the associated precious and base metal drainage anomalies.
- The area is centred on a 700m wide and ~2,500m long NW-SE trending argillically to propylitically altered, leucocratic hornblende diorite stock (+/- silicification and very localised potassic alteration), plus an associated multiphase dyke swarm extending at least 1,000m around it (generally).
- The prospect is defined by up to 0.73 g/t gold in stream sediment silt and 96.0 g/t gold in panned concentrate.
- The first gold explorer in the region undertook ridge and spur soil sampling and defined several substantial gold in soil anomalies, with coincident copper (Figure 6). The peak gold grade in soil was 0.45 g/t. Check sampling (Figure 7) returned more areally extensive anomalous gold in soil results, but copper was effectively the same. It is not known why this variation occurred, but many samples were nearing the 0.1 g/t gold cutoff in the first batch of samples and they may have just crossed that threshold in the second batch. It could also be a combination of that, plus different sampling size fractions or minor lab discrepancies, etc.

- Strangely, very limited creek outcrop sampling has been conducted, but assay results to <u>2m of 0.18 g/t gold</u> +65 g/t silver + 0.46% copper have been obtained. This is unusually high silver for this type of target and likely represents a structural zone within the intrusive that should be further evaluated.
- A total of 26 pits were excavated in 1986/87 within a 300m x 400m zone of gold anomalous soils and sampled with vertical channels.
 - Most pits were gold anomalous (>0.1 g/t gold) and statistically they were 2 to 3 times greater than the average grade of the soil samples.
 - The best channel samples returned included <u>3.38 g/t gold</u>, <u>1.18 g/t</u> gold and <u>0.78 g/t gold</u>.
 - The highest gold grades appear to be correlated with remobilised zones of stronger iron oxides.
 - The pits were assayed for gold only in 1986 and the highest known copper value from 1987 is <u>900ppm</u>.
 - It is unclear if there is any supergene enrichment of the copper and increased grades at depth.
 - The pitting did not intersect fresh rock and may not reflect primary grades.
- Frontier's soil sampling program covered the Bulalo Prospect to provide much better coverage than presently exits. Contouring of the forthcoming assay results should provide future trenching and drilling targets.
- The Company has completed extensive hand trenching at Bulalo to attempt to define higher grade gold zones and assess Bulalo's potential to host economic gold mineralisation.
- Drilling was recommended by the previous explorers in conjunction with Suguma, but this was never accomplished. No effective exploration has been conducted on this area for 22 years.





Jabaru Prospect

- The Jabaru Prospect is located 1 to 1.5km WNW of Funutu and has had very limited historic reconnaissance exploration conducted. It consists of 2 relatively long drainages covering a rugged area of about 1.5 sq km.
- Jabaru is contiguous with Funutu and likely represents Funutu's strike extension to the WNW. The Funutu Jabaru region has a total strike length of 3 km and a width of 1 km.
- The area had the highest panned concentrate samples in the entire Bulago basin with >13,000 contained micrograms of gold in a concentrate sample that assayed 569 g/t gold.">>13,000 contained micrograms of gold in a concentrate sample that assayed 569 g/t gold.
- <u>Small gold nuggets</u> have been panned from Jabaru Creek and the adjoining Mukabalu Creek (located to the ESE between Jabaru and Funutu Creeks).
- Stream sediment silt samples returned up to <u>1.88 g/t gold</u>.
- Three ridge and spur soil lines were completed historically (generally in the lower parts of the creeks) and many double point (>60m) gold anomalies were defined. One 5 point anomaly was also defined being 150m wide/long with a peak grade of 0.132 g/t gold.
- An historic ridge and spur soil sample assayed <u>1.13 g/t gold</u> (with a re-sample assay of <u>0.86 g/t gold</u>). Unfortunately, the location was not plotted and is only known as 'west of Jabaru Creek'. It is believed to be designated AuE-VI on figure 7, which is an important multi element soil anomaly in the headwaters of Jabaru Creek, near the limestone /intrusive contact. The AuE-VI anomaly appears to join with multi-element anomaly CuE-V/ZnE-III, which is located about 750m to its SE.
- About 35 float and some limited outcrop rocks were previously collected in Jabaru and adjoining Mukabalu Creeks, <u>all in the lower reaches</u> of the creeks; few samples were significantly gold anomalous. The upper reaches of the creeks were not evaluated due to more difficult access.
- The peak float rock assay returned <u>1.08 g/t gold</u> in intrusive. Other peak assays were <u>0.12%</u> <u>copper</u> and <u>0.225% zinc</u> in separate samples.
- Frontier geologists are currently reconnoitring this region and massive sulphide float rocks have already been discovered. The area is planned to be covered by Frontier's soil sampling grid..
- The Jabaru area has good potential for high-grade intrusive related gold and also precious and base-metal skarns higher up the creek within the limestones and at the intrusive/limestone contact.

Orolupe Prospect

- Orolupe has very good potential for intrusive related and skarn precious and base-metal mineralisation. It has had very limited historic reconnaissance exploration conducted.
- The prospect is located 3km NNE of Funutu and it consists of 2 short drainages covering an area of about 0.5 sq km. It is planned to be covered by Frontier's soil sampling grid.
- Outcrop rock assays returned grades such as <u>2m of 3.78 g/t gold</u> + 6 g/t silver + 0.141% copper and also <u>2m of 1.35 g/t gold + 24 g/t silver + >1% zinc</u> + 0.51% lead (the over detection limit zinc sample was not re-run to determine its actual grade).
- An outcrop grab sample retuned 0.75% copper + >1% zinc + 0.524 g/t gold + 51 g/t silver (the over detection limit zinc sample was not re-run to determine its actual grade).

Additional Prospects remaining to be evaluated and explored at a later date are:

Fornusu Prospect

- The Fornusu Prospect is a highly prospective area for intrusive related and skarn precious and base-metal mineralisation with very limited historic exploration.
- Fornusu is <u>not</u> being covered by the planned soil sampling program for 2009 due to logistical and time constraints. However, following the discovery of skarn mineralisation in outcrop

south of Funutu, it was decided to attempt a geological and rock sampling evaluation of the contact zone at Fornusu also.

- The area is located 2km NE of Suguma and is defined by a 2 sq km gold and base metal stream sediment silt and panned concentrate drainage anomaly, with assay results to <u>0.192</u> g/t gold and <u>59.7 g/t gold</u>, respectively.
- The headwaters of Fornusu Creek (where the limestones occur) have never been geologically evaluated and there is a good possibility of locating skarn mineralisation in that region.
- Very limited historic rock outcrop sampling obtained assays such as <u>1m grading >1% copper</u> with 0.409 g/t gold + 21 g/t silver (the over detection limit copper sample was not re-run to determine its actual grade). An additional <u>~1m sample graded 2.65 g/t gold</u>, plus lead and zinc.
- Historic rock float sampling returned to <u>1.17% copper + 12.6 % zinc + 0.412 g/t gold + 31 g/t silver</u> and also <u>10.0 g/t gold</u> only, suggesting the existence of 3 different styles of mineralisation (high-grade precious + base-metal veins, high-grade gold and precious + base-metal skarns).

Sunguru Prospect

- The Sunguru Prospect is located approximately 800m north and west of Suguma and consists of Sunguru, Omia and Gunabu Creeks; it covers an area of about 0.75 sq km.
- Panned concentrate samples from Sunguru included up to <u>13 g/t gold</u>. Another sample contained <u>5.9 g/t gold</u> and also had a complimentary silt sample grading <u>0.141 g/t gold</u>.
- Omia Creek has only had 3 rock float samples collected historically and those assays included <u>16.5 g/t gold</u>, <u>8.5 g/t gold</u> and <u>1.56 g/t gold</u>.
- Gunabu Creek had 4 samples collected and 3 samples were anomalous, with a peak grade of 0.327 g/t gold + 4 g/t silver. These results are low tenor gold anomalies, however, they are significant because they were collected from mineralised <u>outcrop</u>.

Ridge and Spur Soil Anomalies, Work Completed and Results

- Reconnaissance ridge and spur soil sampling was completed historically and it defined multiple gold and base metal anomalous zones peripheral and separate to the prospects discussed previously.
- The criterion to be an anomaly was to have at least 2 consecutive soil assays >0.1 g/t gold. This anomalous distance equated to a 60m or greater width/ length for the ridge and spur soil sampling. There were many other single point anomalies >0.1 g/t gold with adjoining assays >0.8 g/t gold that are not plotted (see Figure 6 for their locations and anomaly numbers i.e.. AuK-soil number).
- Plan 7 shows the anomalies defined by the re-sampling of ridge and spur soils (as previously discussed in the Suguma section). Note that not all the same ridge and spur lines were re-sampled and a few additional lines were undertaken, so the plans are not totally comparable. Basically, the areas external to the sub-circular total 'anomalous zone' shown in the figures were <u>not</u> sampled.
- Many of the strongest individual gold anomalies were historically tested with limited pitting and the associated vertical channel sample assays returned variable gold results. This technique is not necessarily the most appropriate in this environment with steep slopes and the geochemical dispersion haloes that are likely to be displaced downslope from the actual source. Hand trenching within and upslope from the soil anomalies would have been more appropriate. It would potentially have documented the anomalies better and is the technique that Frontier will use in the future.
- Soil anomalies AuK-II through VI (2-6) were tested by a combined total of 12 pits, but they were noted as generally only having weakly anomalous gold.

- Anomaly AuK-VII (7) is 270m wide/long (0.9 g/t gold cutoff) on a single ridge and spur sampling line. It had soil results to 0.56 g/t gold and many samples above 0.2 g/t gold. Pitting returned assays to 0.362 g/t gold in highly pyritic, silicified leucocratic diorite, but generally assays were significantly lower. Further work was recommended but never undertaken.
- Anomaly AuK VIII (8) has about 14 anomalous soil samples in 2 crossing ridge and spur lines, forming a 250m long teardrop shape. The peak soil assay was <u>0.42 g/t gold</u>. Six pits were dug within the anomaly and to its SW, with best results of <u>0.183 g/t gold</u> and <u>0.116% copper</u>. Five of the 6 pits contained at least 1 sample >0.1 g/t gold, but several pits also showed assays that appeared to decrease in gold tenor with depth. One pit did not reach bedrock.
- Anomaly AuK-IX (9) is 210m wide/long with a peak assay of <u>0.36 g/t gold</u>. It is located in a contact zone between hornfelsed sediments and intrusive. Three pits were dug with a peak of <u>0.262 g/t gold</u>, but results were generally low.
- It is anticipated that the extent of these precious and base-metal anomalous soil zones will be enhanced by the grid-based soil sampling, as ridge and spur soil sampling produces disjointed anomalies (from my experience).
- Mineralisation trends will be defined from the contoured precious and base-metal grid-based soil assay results and this will ultimately result in the definition of additional prospects and future trenching and drilling targets.

Landowner Relations

- The entire upper Bulago drainage basin is <u>uninhabited</u>.
- The landowners living 5 to 10 kilometres downstream in this relatively remote area all <u>whole-heartedly support exploration</u> and possible future mine development on their land as a means of improving their lives and those of their children.
- There are no aid-posts or schools within the 219 sq km Exploration License and children that do attend <u>primary</u> school go Kopiago, which is located about 32 very hard walking kilometres to the east.
- These facts partly reflect why landowners were very pleased with our presence and the economic support that exploration provides through labour wages, vegetable/ produce purchase and compensation for camp sites, helipads and economic trees etc.
- The entire adult male population of the landowner's two villages, except a few very old men, were employed to assist Frontier's soil sampling and geological crews for most of the duration of the exploration program.
- There are no known negative environmental, social/ land use or historical issues relating to the Exploration License.

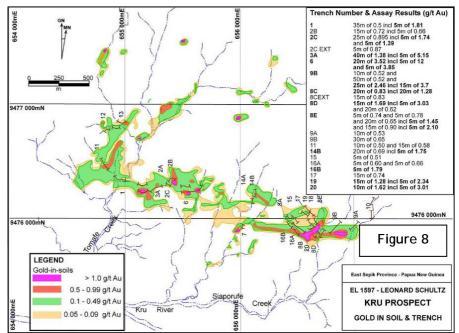
LEONARD SCHULTZ PROJECT DETAILS

An exploration program commencement at EL 1597 in PNG (on 19/1/10) for high-grade & bulk mineable gold and porphyry copper- gold -molybdenum. Additional targets include lateritic nickel. The >1 billion tonne Frieda porphyry copper- gold /epithermal deposits are located approximately 65km to the west on the same structural zone.

The Wasi porphyry copper system covers an area of >3.5 km by 1.5 km. Wasi has local higher grades to 0.92% copper from limited drilling (all results quoted herein are historic assays). Previous work completed at Wasi suggested higher copper grades remain unexposed at shallow depths to the south of the previous drilling. These results have not been followed up and include outcrop to 1.22% copper + 0.32 g/t gold + 173 ppm molybdenum and float to 1.17% copper + 0.15 g/t gold + <u>1,650 ppm molybdenum</u>. There has been no effective exploration completed in 37 years and the prospect clearly warrants it.

Peripheral mesothermal base metal sulphide-gold veins occur over an area of approximately

2,500m x 100m (but up to 500m) Kru at the Prospect, which is located 1 to 5km south of Wasi. Assay results from Kru included: 19 soil samples >1.0 g/t gold (incl. 42.1 q/t, 9.06 q/t and 8.85 q/t), quartz rock float samples to 17.6 g/t gold and outcrop/float samples with up to 2.75 oz/t silver and to 1.4% copper. Hand trenching for gold included: 20m of 3.52 g/t (incl. 5m of 12.33 g/t gold), 25m of 2.46 g/t (incl. 15m of 3.70 g/t), 5m of 2.10 g/t, 15m of 1.28 g/t, 10m of 1.62 g/t, 25m



of 0.85 g/t, 50m of 0.52 g/t, 10m of 1.28 g/t and 30m of 0.65 g/t. No exploration has been completed in more than 12 years. The figure shows the Kru Prospect with contours of gold in soil samples and trenches, plus trench locations and weighted assays.

Auger drilling for lateritic nickel at the Sitipa Prospect noted to 10.3m of 1.28% nickel and 9.6m of 1.30% nickel + 0.13% cobalt. The holes were located approximately 2km apart, and only 6 drilled in the area. This area will be followed up at a later date.

CORPORATE

BOARD OF DIRECTORS RESTRUCTURE

Mr Robert McNeil resigned as Chairman of Frontier Resources Ltd for personal reasons. Bob was the Chairman of Frontier from it's inception and contributed significantly to its development. The Board extends its appreciation to Bob for his leadership and guidance over the last 8 years and wishes him all the best for the future.

The role of Chairman will be fulfilled by Managing Director, Peter McNeil B.Sc. (1982) and M.Sc. (Geochemistry-1985), University of Houston, Texas. Peter has accumulated 27 years continuous professional post-graduate mineral exploration industry experience, with 25 of those in Papua New Guinea (including the Lihir gold Deposit). He has also worked several field seasons in Tasmania, WA's Kimberley and NE Goldfields, Arizona (U.S.A.) and Newfoundland (Canada). He was consultant site supervising geologist on the 'discovery' holes of both the Nimary and Sunrise Dam gold ore bodies in WA, which became the largest and second largest gold discoveries in Australia during the 1990's totalling about 15 million ounces combined.

Peter has 16 years corporate and managerial experience as a Director, Managing Director and President associated with several ASX and TSX-V listed companies. He is currently Chairman of Coppermoly Ltd (ASX:COY) and was a co-founding director of New Guinea Gold Corporation (TSX-V: NGG). Peter is a member of the Australian Institute of Company Directors, the Australian Institute of Geoscientists, the Society of Economic Geologists, the Society for Geology Applied to Mineral Deposits and the Society of Resource Geology.

Please visit our website at <u>www.frontierresources.com.au</u> and/or refer to the following ASX announcements released during the December 2009 quarter for additional detailed information relating to the Company and its projects and/or feel free to contact me.

28/1/10 Leonard Schultz Exploration program Commences
20/1/10 Board of Directors Restructure
15/1/10 Bulago Exploration Program Update
24/12/09 Appendix 3y

26/11/09	Results of Annual General Meeting
26/11/09	Clarifying Statement RE AGM Slide 22
26/11/09	AGM Presentation
22/11/09	Bulago High Grade Gold Exploration Update
27/10/09	Quarterly Report

Frontier Resources Ltd

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P.A.McNeil, M.Sc. Chairman and 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 covering approx. 1,139 km² in PNG and 1 Exploration Licence + 2 Retention Licences covering 18 km² in Tasmania.
- The portfolio offers excellent mineral deposit potential, with primary targets being World Class gold/silver epithermal, gold- base metal skarn, copper-gold-molybdenum porphyry and polymetallic VMS (zinc-lead-silver-gold) deposits.
- The projects <u>all</u> 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 nearly 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 ASX listed junior mineral explorer whose shares also trade on the Frankfurt, Berlin and Munich Stock Exchanges.

Appendix 5B

Rule 5.3

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") December 09

Year to date

6 Months

Current quarter

\$A'000

Consolidated statement of cash flows

Cash flows related to operating activities

Cushin	iows related to operating activities	φ Γ Γ 000	\$A'000
1.1	Receipts from product sales and related debtors	11	13
1.2	Payments for (a) exploration and evaluation (b) development	(335)	(465)
	(c) production(d) administration	(121)	(341)
1.3	Dividends received		
1.4	Interest and other items of a similar nature received		1
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Other Expenditure reimbursable by others		
	Net Operating Cash Flows	(445)	(792)
1.8	Cash flows related to investing activities Payment for purchases of:		
	(a)prospects(b)equity investments(c) other fixed assets		
1.9	Proceeds from sale of: (a)prospects (b)equity investments (c)other fixed assets		300
1.10	Loans to other entities		
1.11	Loans repaid by other entities		
1.12	Other (provide details if material)		
	Net investing cash flows		300
1.13	Total operating and investing cash flows (carried forward)	(445)	(492)

⁺ See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	(445)	(492)
1.14 1.15 1.16 1.17 1.18 1.19	Cash flows related to financing activities Proceeds from issues of shares, options, etc. net of costs Proceeds from sale of forfeited shares Proceeds from borrowings Repayment of borrowings Dividends paid Other (provide details if material)	486	1,379
	Net financing cash flows	486	1,379
	Net increase (decrease) in cash held	41	887
1.20 1.21	Cash at beginning of quarter/year to date Exchange rate adjustments to item 1.20	1,036	190
1.21	Cash at end of quarter	1,077	1,077

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	60
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

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	225
4.2	Development	
	Total	225

Reconciliation of cash

showi	nciliation of cash at the end of the quarter (as n in the consolidated statement of cash flows) to lated items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	23	194
5.2	Deposits at call	1,054	842
5.3	Bank overdraft		
5.4	Other (provide details)		
	Total: cash at end of quarter (item 1.22)	1,077	1,036

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.

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	Preference +securities	Nil	Nil		
7.2	(<i>description</i>) Changes during quarter (a) Increases				
	through issues (b) Decreases through returns of capital, buy- backs,				
	redemptions				
7.3	⁺ Ordinary securities	188,034,250	188,034,250		
7.4	Changes during quarter				
	(a) Increasesthrough issues(b) Decreasesthrough returns	13,651,274	13,651,274		
	of capital, buy- backs				
7.5	+Convertible	Nil	Nil		
	debt securities				
7.6	(description)				
7.0	Changes during quarter				
	(a) Increases				
	through issues				
	(b) Decreases				
	through securities				
	matured,				
	converted				
7.7	Options (description and			Exercise price	Expiry date
	conversion factor)	42,216,467	42,216,467	4.5 cents	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 3,250,000		15 cents 4.0 cents	11-Dec-10 31-Dec-12
		3,250,000		5.0 cents	31-Dec-12 31-Dec-12
7.8	Issued during	13,651,274	13,651,274	4.5 cents	03-Dec-10
	quarter	3,250,000		4.0 cents	31-Dec-12
	-	3,250,000		5.0 cents	31-Dec-12
7.9	Exercised during quarter				

⁺ See chapter 19 for defined terms.

7.10	Expired during quarter			
7.11	Debentures (totals only)	Nil	Nil	
7.12	Unsecured notes (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: 29 January 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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⁺ See chapter 19 for defined terms.