



Address
Level 11, BGC Centre, 28 The Esplanade, Perth WA 6000
Phone
+61 8 9486 4036

ABN
96 095 684 389
WEBSITE
www.frontierresources.com.au

ASX Limited
Market Announcements Platform

23 October 2020

Fieldcrew Completes Fieldwork Program at Kimono

- Fieldcrew demobilised from the Kimono South prospect after completing a six week sampling and mapping program to identify additional gold vein extensions and drill targets.
- A total of 219 rock and trench samples have been collected. Soil sampling was also completed over an argillic alteration zone as part of a program to define historical gold in soil targets.
- The newly identified **Tasi vein** has been mapped up to **2.7m** wide with a strike length of **151m**. Initial rock and trench geochemical results along this vein are pending.
- A total of 61 rock and trench samples have been received by ALS Laboratories in Brisbane with results expected in October. The remainder of samples are due to be shipped to ALS Laboratories with results expected in early November.

Frontier Resources Limited (**Frontier** or the **Company**) is pleased to announce the completion of its sampling and mapping program at the Kimono gold prospect. Fieldcrew have demobilised to Port Moresby together with all remaining rock, trench and soil samples and are currently finalising geological reports and sample descriptions prior to sending remaining samples to ALS Laboratories in Brisbane for analysis. Assay results from the first batch of 61 samples (27 trench, 26 rock chip and 8 rock float) are due in October.



Frontier's fieldwork program helped locals and landowners benefit from employment and compensation payments to help support the local community (Photo 1).

The Kimono system of gold veins extends for over 4.0km, including the 120 and Dudu veins (Figure 1). Field mapping and sampling by Frontier has identified the newly discovered 'Tasi Vein' as well as follow-up extensions and continuity of historical gold veins identified by Newmont.

Photo 1: Local Casual Employees at Kimono Camp

A total of **219 rock and trench** samples (114 trench, 55 rock chip, 50 rock float) have been collected from Kimono and Kimono South (Figure 1) together with approximately **89 soil** samples. Final geological reporting is underway including sample descriptions prior to all remaining samples being dispatched to ALS Laboratories in Brisbane.

The **Tasi vein** was discovered in the upper reaches of the main Holsiga Creek. It pinches and swells between 8cm and 2.7m in width with a strike length of 151m trending 300°-353° and steeply dipping towards the SSW (Figure 1). One rock chip and four trench samples across the vein are awaiting assay results while an additional 15 trench samples await dispatch to the laboratory for analysis.

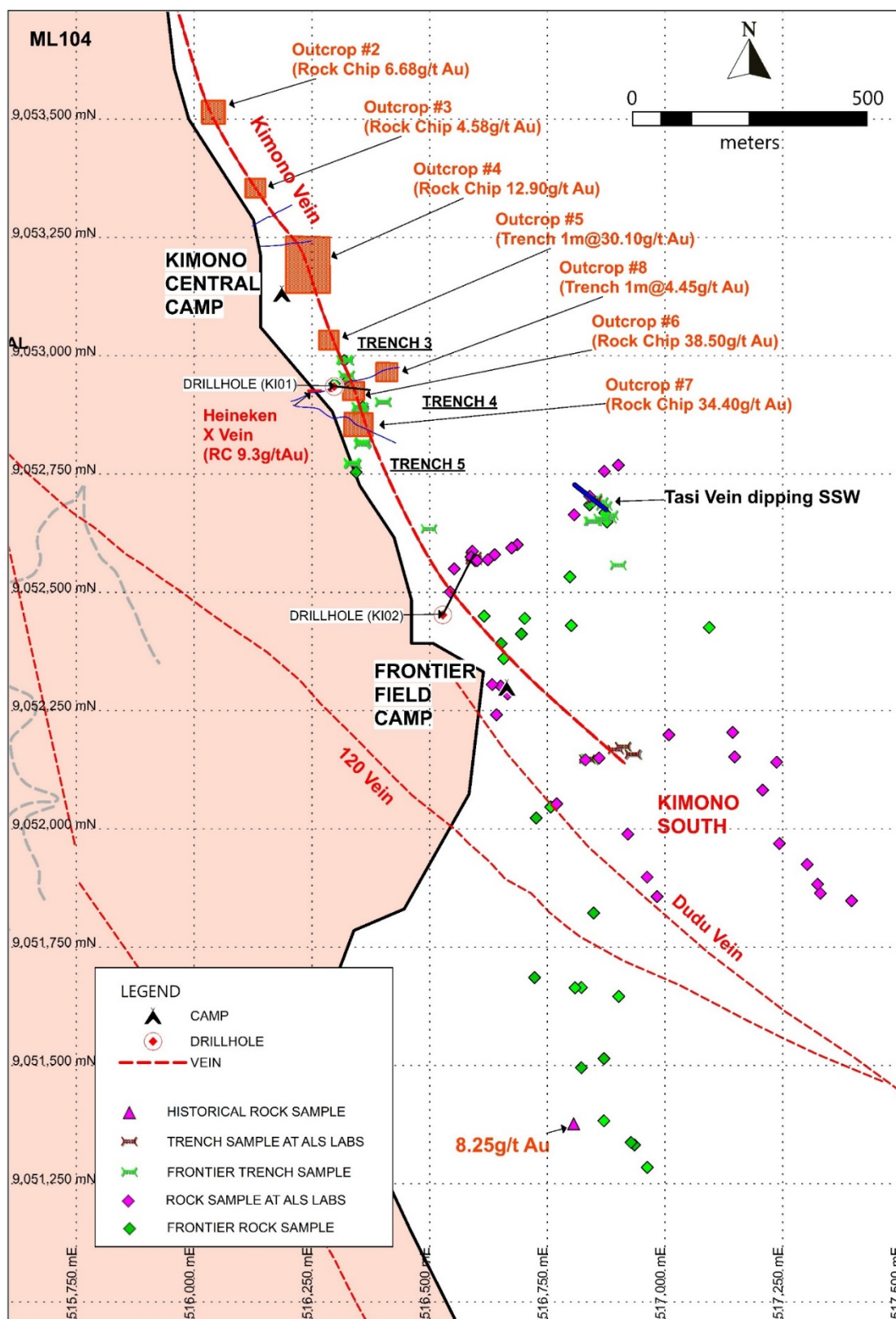


Figure 1: Kimono Rock and Trench Sample Locations

Kimono Vein Trench 3 (between historical Outcrop#5 and Outcrop#8):

Two trenches (6m and 2m in length) have been opened with 7 samples collected. Abundant quartz \pm sulfide vein floats were encountered. Alteration consist of quartz>sericite-smectite clays>>fine sulfides, hosted in andesitic volcanic rocks intercalated with volcanic breccia. The trenches appear to have intersected the surface expressions of the Kimono vein at Outcrop #6, where historical rock chip samples returned **38.5 g/t Au** (refer to ASX Announcement dated 2 July 2020).

Kimono Vein Trench 4 (between historical Outcrop#6 and Outcrop#7):

Trenching was carried out a further 27m SE and 75m E from historical trench locations at Outcrop #6 and #7 (Figure 1). A total of 3 samples were collected in the first trench over 2.6m in length where a 2.1m wide quartz \pm sulfide vein trending 115-170° was intersected. At the second trench, a total of 3.1m was opened with 3 samples collected. Mineralised intersections include quartz>MnO and clay-sulphide>quartz veins trending 160°. All samples are pending dispatch to ALS laboratories.

Kimono Vein Trench 5 (south of historical Outcrop#7):

Trenching was carried out 46m and 80m southwest of historical trench locations at Outcrop#7 (Figure 1). A series of four pits averaging 1.2m depth were dug and all encountered quartz-clay altered andesitic volcanic rocks with stringers of quartz-MnO-hematite-goethite present.

The first trench sampled a 0.8m wide vein trending 010° to 020° and a 0.4m wide vein trending 105°. A total of 3.0m was cleared with 3 samples collected. At the second trench, the 010°-020° vein was again intersected and a total of 5.0m was cut with 4 samples collected. Veins appear to be splays from the main Kimono vein. In total at this site, 10.3m of trenching was dug and 11 samples collected.

Nagai Creek:

Approximately 360m northwest from the Frontier Field Camp, a 1.0m wide vein trending 75° crops out as a series of sheeted to stockwork crackled-brecciated veins (<1-5cm thick). These rocks are altered to quartz>clay (hematite-goethite). An additional five interpreted mineralised zones were identified representing cross-cutting splays from the main Kimono vein. All samples from these newly discovered veins are pending dispatch to ALS laboratories.

Ridge and Spur Soil Sampling

Ridge soil lines were established to intersect the general trend of mineralisation seen in historical soil samples (refer to ASX Announcement dated 4 September 2020). Ridges trending SW were traversed and geological data such as rock type, alteration, mineralisation and structural data collected to aid in identifying the source of the soil anomaly. A significant observation was a zone of argillic alteration trending 280deg and dipping steeply at 80deg. All soil samples are currently being catalogued and ready for dispatch to ALS Laboratories.

This announcement has been authorised for release by the Directors of the Company. For additional information please visit our website at www.frontierresources.com.au

FRONTIER RESOURCES LTD

Competent Person Statement:

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 Swiridiuk - Member of the Aust. Inst. of Geoscientists. Peter Swiridiuk is a Technical Consultant and Non-Executive Director for Frontier Resources. Peter Swiridiuk 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 2012 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter Swiridiuk consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Additionally, Mr Swiridiuk confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

Frontier Resources Ltd Exploration Licence Information

Exploration Licence Number and Name	Ownership	sub-blocks	AREA (sq.km)*	Grant Date	Expiry Date
EL2531 - Tolukuma	100% Frontier Copper PNG Ltd	130	441.72	25-Feb-19	24-Feb-21
ELA2529 - Gazelle	100% Frontier Copper PNG Ltd	211	719.51	N/A	N/A
Total of Granted EL's		130	441.72		

*1 sub-block approx. 3.41 sq.km

NB: The PNG Mining Act-1992 stipulates that EL's are granted for a renewable 2 year term (subject to satisfying work and expenditure commitments) and the PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease is granted.

JORC Code, 2012 Edition – Table 1 Report of Exploration Results

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Rock and channel samples have been sent to the ALS Laboratories in Brisbane, Australia for assaying. Trench samples were collected at approximate depths of 1.5 to 2.5m with widths ranging from 0.5m to 1.2m. Samples were collected using the chip-channel technique with geological hammers to collect a continuous series of chips along a horizontal "channel" ensuring as far as possible that each sample was representative of the interval sampled. Roughly 1 to 1.5 kg of material was collected per 0.5m sampling width. Each sample was bagged and labelled on-site and transported to field Camp by or under the supervision of a geologist. In camp the samples were checked to verify numbers; sun dried and packed in sealed poly-weave sacks ready for consignment to Por Moresby and air freighted to ALS Laboratories. Sampling was supervised and reported by on-site geologists to ensure sample representivity. Material aspects of the mineralisation are noted in the text of the document.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> No drilling undertaken.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling undertaken.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> No drilling undertaken.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> No drilling undertaken. Sampling was supervised by a Frontier Senior Geologist by visual inspection. Samples were transported to the main field camp, sent by helicopter to Port Moresby, then air freighted to the laboratory. Sampling sizes are appropriate for the quartz vein material being sampled. 1-2kg samples were crushed to less than 2mm and riffle split off 250g, pulverised to better than 85% passing 75 microns with a final 20g submitted for assay.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Trench, rock and soil samples taken by Frontier have been sent to ALS Laboratories in Brisbane, Australia for preparation. Soils are Fire assayed for total gold (ALS code Au-AA24). Trench and rock samples were fire assayed for total gold with a 50g charge. All rock, trench and soil samples have undergone aqua regia digestion with ICP-MS Finish (ME-MS41 0.5g sample) at the ALS laboratory in Brisbane for a suite of 50 elements (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, Ln, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, U, V, W, Y, Zn, Zr). Acceptable levels of accuracy are obtained: Au 0.005 ppm, Ag 0.01 ppm, As 0.1 ppm, Ba 10 ppm, Cu 0.2 ppm, Mo 0.05 ppm, Pb 0.02 ppm, Sb 0.2 ppm and Zn 2 ppm. All samples have been stored at ALS laboratories for future re-analysis if required. Normally QA/QC control of analytical procedures is provided by inserting assay "standard" samples with known metal content to check the accuracy of results reported by the laboratory. Standards, blanks and duplicates have not been used by Frontier due to the reconnaissance nature of this sampling program. Duplicates, Standards and Blanks have been used by ALS Laboratories for their own quality assurance procedures. No Geophysical tools were used.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Sampling has been verified by senior geologist and other geologists onsite at the time. No drilling has been undertaken by Frontier in this fieldwork program. All assay data is stored as digital Excel spreadsheets and stored in reports submitted to the MRA library in digital PDF and Excel formats. There has been no adjustment to assay data.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> No drilling undertaken. Trench/costeans were located initially by GPS and tape and compass surveying of creeks. Map Datum is AGD66. Topographic control is low with 40m contours from 1:100,000 plans and 10m contours from airborne DTM contours.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Refer to any attached plans and tables for rock and trench/costean spacing. No drilling undertaken. Trench locations and hence data spacing and distribution is not yet sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures. Sample compositing was not applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program. Sample intervals are selected based upon observed geological features and the strike of the narrow quartz veins. Trench/costean samples have been taken perpendicular to known structures to reduce any sampling bias.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Access to site is controlled and rock and soil samples stored on-site in a remote location. Site employees transport samples to the PNG Capital of Port Moresby by helicopter. Local employees transport the samples to the

Criteria	JORC Code explanation	Commentary
		analytical lab via air cargo. The laboratory compound is secured.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews of sampling techniques and data have been performed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Frontier Resources Ltd have a 100% ownership of Frontier Copper (PNG) Limited, which hold 100% title to Exploration Licence EL 2531-Tolukuma. There are no joint ventures or partnerships in place. Frontier Copper PNG Ltd IPA Certification Number: 91414 was re-issued on 26th April 2019 and originally Certified 8th November 2005. There are no known impediments to operate in the Tolukuma EL. Tenements are granted by the Minister of Mines for a period of two years and security is governed by the PNG Mining Act 1992 and Regulation.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> EL2531 Tolukuma was initially stream sampled by Kenecott in the 1960's afterwards by CRAE who completed both stream sediment sampling and rock chip sampling. Newmont 1985-1989 discovered the Tolukuma vein and completed costean and soil sampling and diamond drill holes testing the NW-SE Taula Vein. Newmont completed resource drilling and mine feasibility studies. Dome Resources purchased the Exploration license from Newmont in 1992 and completed feasibility studies at ML104, granted in 1994, with production commencing in 1995. In 2000, Durban Roodepoort Deep purchased Dome Resources and took over all its interests in PNG. TGM's work programs (now 100% DRD included trench sampling and mapping. Work commenced at Saki in 2002 with a programme of extensive trench sampling and mapping and drilling at the Kunda prospect both inside ML104 and within the current EL2531. Petromin PNG Holdings acquired 100% of the Tolukuma projects from Emperor Mines in 2008. Singapore company Asidokona purchased Tolukuma Gold Mines Ltd from Petromin (PNG Government) in November 2015. The Tolukuma gold mine is currently under control of a newly appointed investor in which approximately A\$21million will be spent on refurbishing the mine, environmental work and resource drilling. EL2531 was acquired by Frontier on a first application basis when it was offered by the MRA.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Kimono consists of narrow gold mineralised structures of mainly quartz with minor sulphides including pyrite, marcasite, stibnite and cinnabar and silica-sulphide banding. Mineralisation is described as "poddy style" with higher gold grades located where cross-cutting clay-sericite altered cross structures containing local minor silicification and trace sphalerite intersect the main Kimono Vein. The Kimono structure was traced for about 1km SSE from the Auga River. The outcrops range from 20-40m in strike length and 0.1m-3.0m wide. The quartz veins are hosted within rocks of the Pliocene to Miocene Mt.Davidson Volcanics comprised of a complex of Andesitic flow units and Pyroclastic flow units that have been subsequently intruded by quartz Diorites and Monzonites. The dominant lithology of Kimono is basaltic andesites with minor agglomerate breccias and tuffaceous volcanics, which are members of the Boundary Volcano Suite. At Kimono South, wide intervals of weakly anomalous gold (>0.05g/t Au) were defined by ridge-spur soil samples, including separate intervals of 160m and 140m. Historical mapping, rock chip sampling, soil sampling, trenching and airborne geophysics have defined a mineralised zone extending for about 4.0km from the Auga River SSE to upper Muile Creek.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Mineralisation is described in the text.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> A summary of any relevant historical drillhole information is noted within Tables in the text of this report. No drilling has been undertaken by Frontier in this fieldwork program. Frontier has acquired historical reports which have drillhole information. It has also acquired the drillhole digital database, however information on drilling at Kimono and Kunda prospects has not yet been obtained Historical information has been summarised in previous ASX announcements.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Exploration results are reported typically within veins. Trench grades are compiled using length weighting. Cut-off grades are reported in the text of this announcement where relevant. No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The relationship between mineralisation widths & intercept lengths from trench/costeans is moderately well understood No drilling undertaken.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Appropriate maps, sections and tabulations of drillhole rock, soil and trench/costean intercepts are included where relevant in this report; or referred to in previous ASX announcements.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> Comprehensive reporting of all drilling, trench and soil sample results has occurred in historical reports and reported here where appropriate. Representative reporting of Exploration Results by Frontier is comprehensive and all results shown.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> All meaningful exploration data to date has been included in this and previous ASX announcements.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Analysis of historical exploration results on prospects within EL2531 is continuing with the current phase of fieldwork has been completed at Kimono and Kimono South. Any additional historical drilling results will be announced once obtained. Appropriate plans are included where possible.