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ASX Announcement | Tuesday, 4 September 2018

Rafaella Resources Limited (ASX:RFR)

Rafaella Commences Gold Exploration at Wholly-Owned Sandstone Project

Highlights:

- Commenced first soils geochemistry programme at its 100%-owned Sandstone Project
- The Sandstone Project has undergone limited modern exploration and lies along a historical gold belt, known for its gold endowment
- Confirmation of historic and new gold anomalies to be followed by AC drilling

Exploration company **Rafaella Resources Limited (ASX: RFR)** ("Rafaella", "the Company") is pleased to announce that it has planned and commenced its first soils geochemistry program at its 100%-owned Sandstone Project.

The Sandstone Project is located 640km north-east of Perth and 450km north north-west of Kalgoorlie and is centrally located between the towns of Sandstone to the south, Meekatharra to the northwest and Wiluna to the northeast.



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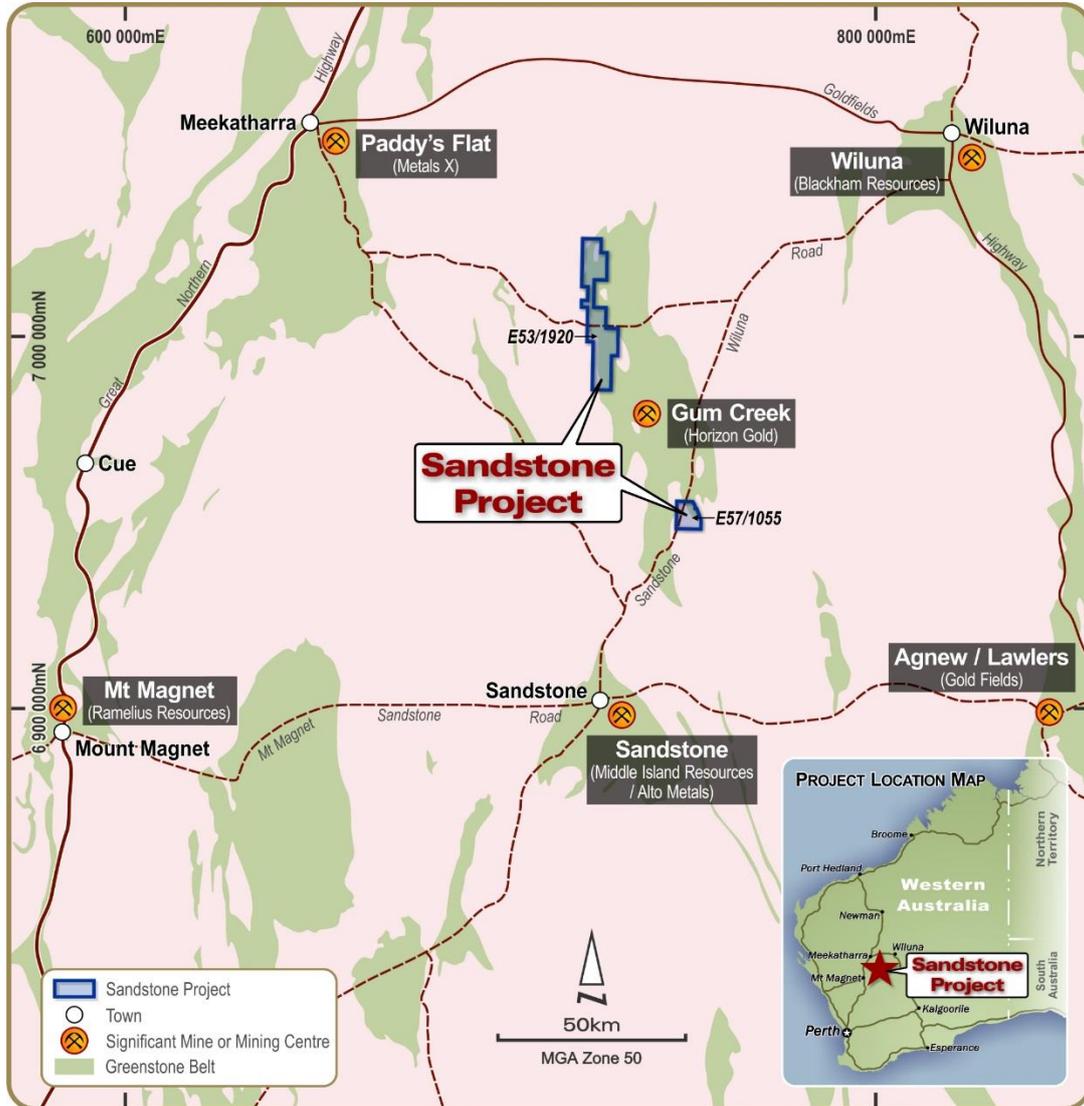


Figure 1. Rafaella's Sandstone Project Location over Greenstone Belts.

The Sandstone Project is adjacent to Horizon Gold Limited's (Horizon Gold) Gum Creek Project, refer to Figure 1. E53/1920 is located along the north-western boundary of the Gum Creek Project and E57/1055 lies along the southern boundary.

A very compelling aspect of the Sandstone Project is that it has largely received limited recent modern exploration. Given the project lies within the Gum Creek greenstone belt and along strikes from known gold mines, this first pass comprehensive geochemistry survey presents an interesting opportunity to discover anomalies and build them into shallow drilling campaigns leading to deeper more comprehensive programs, should results prove fruitful.



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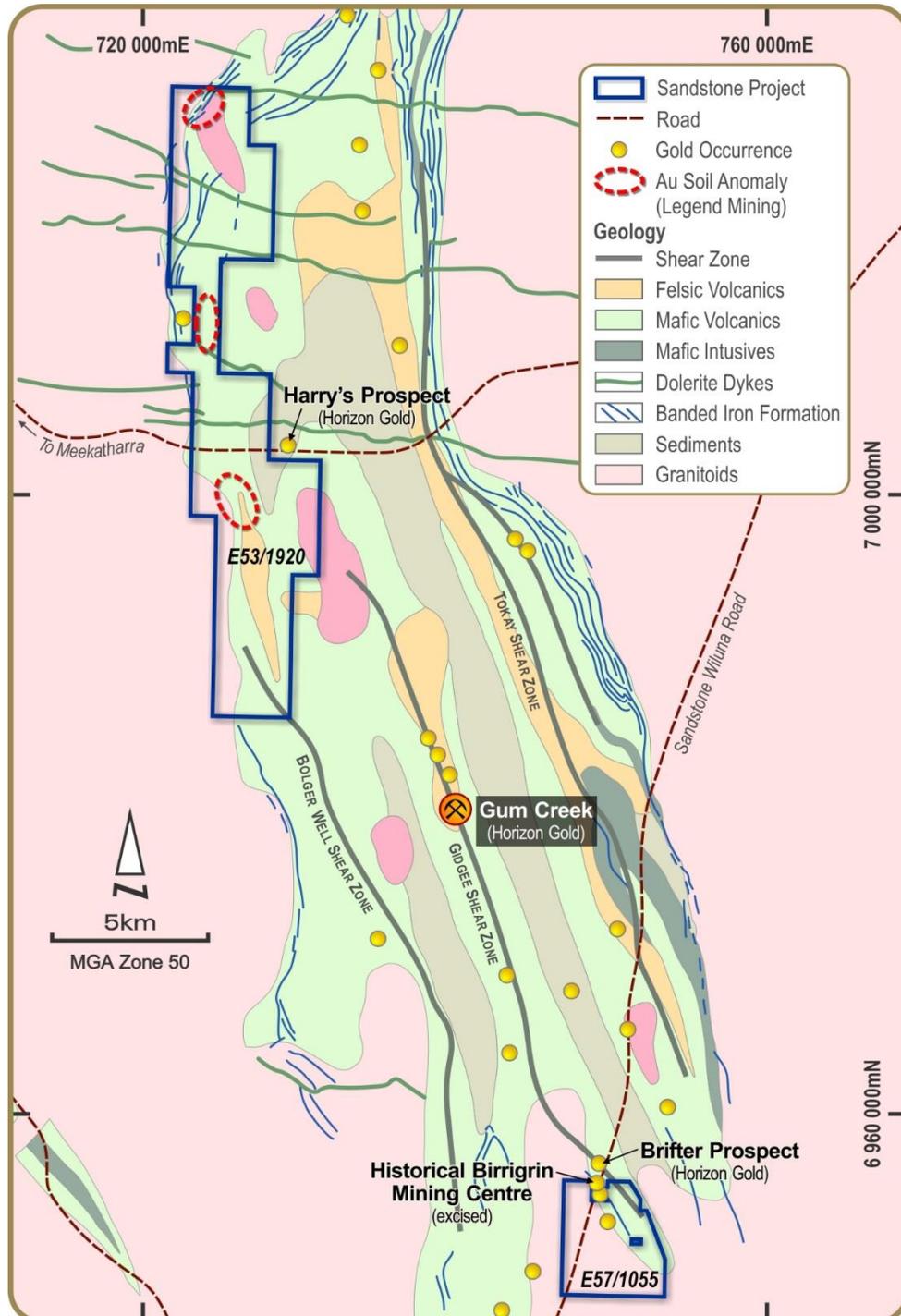


Figure 2. Sandstone Geology and Existing untested Gold targets



Soil geochemistry will be utilised across the Project as a rapid and relatively cheap method to generate near-surface gold drill targets. Three historically reported gold geochemical targets, as shown on Figure 2 above (Refer to Independent Geologist Report contained in the second replacement Prospectus released to ASX on 24 July 2018) will be covered by this geochemistry survey. Should the survey confirm these anomalies, follow up AC drilling will be carried out immediately.

Targets identified by soil geochemistry and structural interpretation will also be assessed for Induced Polarisation (IP) survey and/or ground gravity survey suitability. Drilling by Horizon Gold has demonstrated that IP is effective within the region in further developing and refining targets for follow-up drill testing and the subsequent locating of gold mineralisation associated with sulphide minerals.

Rafaella Managing Director Ashley Hood: “We are very pleased to have commenced gold exploration at our wholly-owned Sandstone Project. This is a really exciting region to be exploring for gold, as it is a well-endowed and known gold belt in Western Australia. We are also fortunate to have a head start with untested gold geochemistry targets. We look forward to updating the market on further developments.”

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About Rafaella Resources

Rafaella Resources Limited (ASX:RFR) is a junior exploration company which owns the McCleery cobalt and copper project in the Yukon territory Canada, and the Sandstone gold project in Western Australia.

The Company was established with the purpose of exploring and developing gold, cobalt, copper and other mineral opportunities. Rafaella sees the McCleery and Sandstone projects as having excellent potential due to being under-explored, with limited drilling and exploration completed at the sites to date.

To learn more please visit: www.rafaellaresources.com.au



Competent Persons Statement

The information in this announcement that relates to Exploration Results has been compiled under the supervision of Mr Bill Oliver, a consultant to the Company. Mr Oliver is a Member of the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Oliver consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Forward Looking Statements Disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.



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The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the Sandstone Project.

Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i>	<p>Limited exploration has been undertaken on the Sandstone Project. The Sandstone Project has been part of the various greater tenement packages, but limited work has been completed on the Project itself.</p> <p>The results detailed in this Report are from rockchip sampling undertaken by Black Swan Gold Mines Ltd during 1991.</p> <p>All results have been previously reported to the Department of Mines, Industry Regulation and Safety (DMIRS).</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Rockchip samples were selectively sampled from quartz veins in a 15m deep trench around existing artisanal workings.
	<i>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.</i>	<p>All aspects of the determination of mineralisation are described in this table.</p> <p>Rock chip sampling is only indicative of potential for mineralisation.</p> <p>All of the geochemical samples were sent to a commercial laboratory for crushing, pulverising and chemical analysis by industry standard practises.</p>



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Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (e.g. core diameter, triple of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).</i>	Not applicable. No drilling has been completed on the Project.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable as no drilling undertaken.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not applicable as no drilling undertaken.
	<i>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.</i>	Not applicable as no drilling undertaken.
Logging	<i>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.</i>	Rockchip samples were geologically described in the open file report.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging of rockchips is both qualitative (eg. colour) and quantitative (eg. alteration and minerals percentages).
	<i>The total length and percentage of the relevant intersections logged.</i>	All rockchips are logged.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	The entire rockchip sample was submitted to the laboratory for preparation (crushing / pulverising) prior to any sub sampling.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	The sampling technique for selective sampling of quartz veins is deemed



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		appropriate given the exploratory stage of the Project.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Quality control procedures are not documented in the open file reports submitted to the DMIRS.
	<i>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.</i>	The selective rockchip samples were taken to target the quartz veins within a 10m wide sericite and haematite altered shear zone. The rockchips are considered to be indicative of potential for mineralisation.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate given the early stage of exploration.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The rockchip program completed by Black Swan Gold Mines Ltd during 1991 involved the collection of 2 samples. The samples were sent to Australian Laboratory Services Pty Ltd, Perth for sample preparation and assay analysis. Sampling and analytical methods are unknown.
	<i>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.</i>	Hand held assay devices have not been reported.
	<i>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.</i>	Detailed information on QAQC practises for the historical surface geochemistry is not available. No use of external standards is recorded. The Competent Person notes that the Company does not propose to follow up any specific results in its exploration program without collecting new data to support the results and therefore does not believe the absence of this information to be material.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No verification of sampling and assaying has been undertaken by Rafaella for the historical geochemical sampling.



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	<i>The use of twinned holes.</i>	Not applicable, no drilling has been completed on the Project.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Detailed procedures for sampling and geological logging are not comprehensively included in Open File reports, although summaries of the processes employed are provided in various exploration reports. Digital data has been collated from hardcopy reports submitted to the DMIRS.
	<i>Discuss any adjustment to assay data.</i>	The data shows no indication of assay adjustment being performed.
Location of data points	<i>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.</i>	Sample locations were determined from air photos.
	<i>Specification of the grid system used.</i>	The grid system for the Sandstone Project is Map Grid of Australia GDA 94, Zone 50.
	<i>Quality and adequacy of topographic control.</i>	Topographic data was obtained from public download of the relevant 1:250,000 scale map sheets.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	The spacing of the quartz rockchip sampling is variable, based on the outcrop location of the veins and degree of exposure.
	<i>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.</i>	Data spacing is insufficient to establish geological and grade continuity to establish a mineral resource estimate but a mineral resource has not been estimated.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied.
Orientation of data in relation	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is</i>	Orientation of the mineralised system is unknown currently.



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to geological structure	<i>known, considering the deposit type.</i>	
	<i>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.</i>	Exploration is at too early a stage to determine orientation of key mineralised zones and therefore assess the orientation of sampling.
Sample security	<i>The measures taken to ensure sample security.</i>	Sample security is not reported in exploration reports.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No independent audits have been undertaken.

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	<i>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.</i>	The Sandstone Project comprises one granted Exploration Licence, namely E53/1920 covering a land area of 214 km ² and one pending Exploration Licence, namely E57/1055 covering a land area of 45 km ² . Both Exploration Licence are currently held by Topdrill Pty Ltd. Rafaella has entered into a conditional sale agreement with the current holder, Topdrill Pty Ltd.
	<i>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.</i>	Two Exploration Licences are granted.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	The Project has been explored for gold by a number of companies. Work has ranged from early stage geochemical sampling to RAB drilling. Work reported in the IGR is documented within this Table. All data presented in this IGR is of historical nature.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	The Sandstone Project is located within the Gum Creek Greenstone Belt which hosts the gold deposits in the surrounding area. The Gum Creek Greenstone Belt is comprised of



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		<p>Archaean volcanic and sedimentary rocks and forms a lensoidal, broadly sinusoidal structure. It is surrounded by intrusive granitoids which contain rafts of greenstone.</p> <p>Five styles of mineralisation have been identified in the greater project area. The styles are include; quartz-carbonate (\pmpyrite, arsenopyrite, galena & sphalerite) veins, ductile shear hosted mineralisation (arsenopyrite dominant), ductile shear hosted mineralisation (pyrite dominant), BIF hosted mineralisation and quartz veins.</p>
Drill hole Information	<p><i>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:</i></p> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> • <i>dip and azimuth of the hole</i> • <i>down hole length and interception depth</i> • <i>hole length.</i> 	Not applicable. No drilling has been completed on the Project.
	<p><i>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.</i></p>	Not applicable.
Data aggregation methods	<p><i>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.</i></p>	Not applicable, geochemical sampling results presented are single point data.
	<p><i>Where aggregate intercepts incorporate</i></p>	No top cuts have been considered in



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	<p><i>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.</i></p>	<p>reporting of grade results, nor was it deemed necessary for the reporting of significant intersections.</p>
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>No metal equivalent values are currently being used for reporting exploration results.</p>
Relationship between mineralisation widths and intercept lengths	<p><i>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').</i></p>	<p>Not applicable. No drilling has been completed on the Project.</p>
Diagrams	<p><i>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.</i></p>	<p>See Figures in body of Report.</p>
Balanced reporting	<p><i>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.</i></p>	<p>All results have been reported. The accompanying document is considered to be a balanced report with a suitable cautionary note.</p>
Other substantive exploration data	<p><i>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</i></p>	<p>All relevant exploration data is shown on figures, in text and in tables within the body of the Report.</p>



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	<i>deleterious or contaminating substances.</i>	
Further work	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Rafaella plans to acquire effective geophysical, geospatial and imagery datasets over the Project. The integration of this data with all historical data, geology, geochemistry and field data will be used to generate conceptual targets. Drilling will be completed on identified targets.</p> <p>All relevant diagrams and inferences have been illustrated in this Report.</p>