

30 November 2023

Sam Dorland
Adviser
Listings Compliance (Perth)
ASX Limited

By email

Response to ASX Query Letter dated 23 November 2023

We refer to your letter dated 23 November 2023 addressed to Pure Resources Limited (**Pure** or the **Company**) and respond as follows (using the terminology ASX has adopted in your letter).

1. Please provide a detailed explanation regarding the processes and methodologies followed to achieve the Results, specifically addressing each of the Key Factors set out in the AIG Guidance.

- Portable X-ray fluorescence (**pXRF**) analyzers are tools that aid in the exploration and investigation of lithium-bearing mineral deposits.
- While direct analysis of lithium is impossible using pXRF due to X-ray physics limitations, the latest generation of instruments can be used effectively to identify a key suite of whole rock and associated pathfinder elements. This includes potassium (**K**), calcium (**Ca**), rubidium (**Rb**), strontium (**Sr**), yttrium (**Y**), niobium (**Nb**), tin (**Sn**), caesium (**Cs**), tantalum (**Ta**), antimony (**Sb**), tungsten (**W**), bismuth (**Bi**), arsenic (**As**), gallium (**Ga**), thallium (**Tl**), and the rare earth elements (**REEs**) of lanthanum (**La**) and cerium (**Ce**). Many of these correspond to Group 1 alkali metals and high-field-strength elements (**HFSE**) on the periodic table.
- Work completed by Trueman and Cerny (1982) describes a number of correlations used to differentiate rare metalbearing pegmatites from barren pegmatites, including the use of K/Rb ratios, where Rb substitutes for K in muscovite and K-feldspar during late-stage crystallization.
- They noted that a K/Rb ratio of 160 indicates increasing fractionation, and ratios of 15 correlate to highly fractionated pegmatites often containing rare metal mineralization, particularly Ta, Nb, Be, Cs, and Li.
- In an exploration environment, it is possible to systematically analyse K-feldspar and muscovite in pegmatites, using the pXRF, to determine the Rb content in these specific minerals and build vectors towards possible Li-rich pegmatites. The Rb content in K-feldspar and muscovite increases with the degree of fractionation.
- During the Company's study at Jarkvissle, the Rb content showed consistent results, however, the potassium measured on K-feldspar varied too much, with respect to the chemical formula of the mineral, often being strongly underestimated. This was inferred to be due to the fact that, unlike Rb, potassium is a light element and its signal is easily absorbed by air, especially when the analysed surface of the sample is irregular, like in the case of some of

the K-feldspars. This occurs significantly less with muscovite, that often shows a much smoother surface and better readings. Therefore, in this study, we preferred to use the absolute Rb grades as an indicator, not the K/Rb ratio. K-feldspar has been preferred due to the availability of large crystals that are easy to measure, with respect to the muscovite that not always shows large enough crystals for this test. Nonetheless, muscovite has also been measured wherever possible and the results were reported as absolute Rb grades, for comparison with K-feldspar

- Laser-induced breakdown spectroscopy (**LIBS**) has recently emerged as tool for geochemical analysis outside the traditional laboratory setting and is an ideal tool for Li exploration because it is the only technique that can measure Li in minerals, rocks, soils, and brines in-situ in the field.
- In LIBS, a rapidly pulsed laser beam is focused onto a sample to ablate a minute amount of it and create a plasma on the sample surface in which constituent elements can be detected and identified through spectral analysis of emitted light. Because all elements have at least one emission line over the spectral range between 200–900 nm, any element can be analyzed by LIBS in situations where its abundance is above the limit of detection in the materials of interest
- An important governing consideration with LIBS is the set of chemical and physical phenomena termed 'matrix effects' which determine the amount of mass ablated by an incident laser pulse. Chemical matrix effects occur when the emission behaviour of one element in the plasma is interfered with by the presence of another element. By contrast, physical matrix effects arise from the nature of the sample. For example, there are a multiplicity of factors that determine the extent of laser–material coupling with geological materials, and therefore the resultant plasma character, which is primarily determined by the nature of the sample (e.g., its compositional homogeneity, degree of crystallinity or induration, hardness, grain size and porosity, surface texture and roughness, moisture and organic content, absorptivity and thermal conductivity, and optical transmissibility and reflectivity). Although full, broadband LIBS spectra may be used without preprocessing for elemental detection and applications, such as geochemical fingerprinting, the shot-to-shot variation that characterizes LIBS analysis of geological materials requires preprocessing that includes baseline correction of spectra and peak intensity normalization for development of calibration curves for quantitative analysis.
- LIBS was used in the office for one day on the samples collected in the field, focussing primarily on analysing the lithium content in micas (muscovite and biotite).
- LIBS was also used to assist in determining the mineralogy of pegmatite samples and the technique successfully confirmed the presence of triphylite-lithiophilite and cassiterite, also possibly indicating the presence of zinnwaldite. It should be noted that this technique is still in its infancy, and the reported values should only be considered qualitative. While the Li content in muscovite is not considered a quantitative tool in LCT-pegmatite exploration, our measurements still show a tendency of positive variation of the Li grade with the increase of the fractionation degree (as measured by pXRF).
- As stated in Section 1 of the JORC Table 1;
 - p-XRF and LIBS results should never be considered a proxy or substitute for laboratory analysis which is required to determine if there exists the potential for lithium or rare metal mineralisation.

- The p-XRF and LIBS data is exploratory in nature and is used to assist in target prioritisation through an exploration program.
- p-XRF results of rock chip samples were reported using a Bruker S1 Titan XRF in Geochem mode (3 beam) and a 20 second read time for each beam.
- No calibration factors were applied.
- The SciAps Z-903 LIBS has an extended spectrometer range from 190 nm out to 950 nm and measures a sensitive line for lithium near 675 nm to achieve limits of detection in the 2-5 ppm range.
- No previous comparisons of p-XRF and LIBS data with laboratory data at the project have been undertaken to date.

2. Please explain what quality assurance measures were taken by the Competent Person in relation to the Results. Please explain why the Competent Person considered these measures sufficient to ensure the Results were representative of the corresponding samples.

The major feature of pXRF is that it can provide data on most geologic materials in almost any situation. But, despite the apparent simplicity of readings, the kind of information produced depends totally upon the level of sample preparation. Direct point-and-shoot counting on raw surfaces will provide only semi-quantitative information, and in many cases nothing more than an abundant/present/absent classification for most elements. This might provide useful trend analyses at a site scale, and valuable insights on mineral processes (ore genesis, alteration) that complement bulk sample analyses. Other measures taken to ensure the best possible pXRF results included;

- Keep the analyser in contact with the sample,
- Careful selection of the right analytical mode. In this instance, geologists used the Geochem mode (3 beam) and a 20 second read time for each beam which offers an adequate coverage of trace level elements,
- Regular measurement of certified reference materials (**CRMs**). Besides the necessary double-check of performing laboratory analyses on selected samples (underway), selected CRMs were regularly measured, and those results incorporated into the instrument's quality assurance and quality control (**QA/QC**) scheme.
- Regularly calibrate, and verify the calibrations, of the instrument.
- Ensure systematic QA/QC monitoring of pXRF results. QA/QC protocols are the same as in the laboratory, with blanks, CRMs and standards, systematic and random duplicates, and careful performance monitoring of each instrument.

Handheld LIBS is an attractive tool for undertaking geochemical measurements during exploration, drilling, or ore assessment campaigns because in-situ analytical results can be acquired rapidly under ambient environmental conditions with a minimum of sample preparation. Elevated values of Li in muscovite can suggest the presence of Li-bearing assemblages in LCT pegmatite populations. Lithium can substitute in the octahedral site of the muscovite structure via coupled substitutions involving Si, Al and vacancies. Using qualitative elemental analysis, the LIBS can differentiate minerals with similar field appearance such as muscovite and lepidolite and can identify accessory minerals like tourmaline and secondary minerals such as

triphylite-lithiophilite. Using laboratory-derived calibrations prior to fieldwork, quantitative Li abundance in minerals was measured in the field by handheld LIBS.

- For this study, we used a SciAps Z-300 handheld LIBS analyzer. This instrument contains a Nd:YAG diode-pumped solid-state pulsed laser that generates a beam of focused laser light at 1,064 nm that delivers a 5–6 mJ pulse of 1 ns pulse duration onto a 100-µm area of the sample at a user-selected firing rate between 1 and 50 Hz.
- Before analysis of our samples, calibrations were prepared on the instrument in the laboratory for mica and bulk powdered pegmatite of known composition prior to using it.
- Analysis for Li was undertaken using the Geochem application by processing the average LIBS intensity values obtained from averaging of four spectra on a sample using the on-board calibrations.
- As per APPENDIX II of the announcement, multiple LIBS sample points were often taken on samples, specifically those in which there were highly anomalous Li readings.

3. Please confirm whether PR1 and the Competent Person considers the Results comply with clause 4 and clause 19 of the JORC Code. If the answer is yes, please explain the basis for this conclusion, with specific reference to the following matters:

3.1 whether the lithium grade of each sample can be reliably measured using LIBS analysis;

Using laboratory-derived calibrations prior to fieldwork, quantitative Li abundance in specific minerals can be measured.

3.2 whether the Results were validated against laboratory analysis and if not, why it is appropriate to refer to the LIBS analysis as a “A peak LIBS assay from a triphylite-lithiophilite sample”;

As stated in Section 1 Table 1;

- No previous comparisons of p-XRF and LIBS data with laboratory data at the project have been undertaken to date.
- p-XRF and LIBS results should never be considered a proxy or substitute for laboratory analysis which is required to determine if there exists the potential for lithium or rare metal mineralisation.

The Company specifically states that pXRF and LIBS analyses were taken from specific minerals, as outlined in Table 1, APPENDIX II and APPENDIX III.

In light of the above, the Company believes that it is clear from the announcement that the Results are results from LIBS analysis which are subject to further laboratory analysis and “**A peak LIBS assay from a triphylite-lithiophilite sample**” is an accurate statement. However, the Company notes the perceived ambiguity of the word “assay” in the statement and has removed these words in the amended announcement accompanying this letter (**Amended Announcement**).

3.3 whether in the opinion of the Competent Person, the 11.69% lithium grade reported from the LIBS analysis is representative of the actual grade of lithium in the corresponding sample;

As per the highlights, Table 1 and APPENDIX II; 6 analyses were taken from the corresponding sample JARR037.

As such, the reported value is the peak lithium value within a specific mineral within the sample.

It is expected that the whole-rock laboratory assays will differ to the LIBS results. The Company has updated the Cautionary Statement to include the following statement "The analysis that are the subject of this report will be submitted for laboratory assay, and some variation from the results presented herein should be expected." Refer to the Amended Announcement accompanying this letter.

Sample Point	Spectra	Mineral	Li ppm	Li %	Comments
JARR037	602	triphylite-lithiophilite	116900	11.69	
JARR037	601	triphylite-lithiophilite	54800	5.48	
JARR037	641	biotite	7041	0.7041	Black mica. Less glassy/shiny
JARR037	600	muscovite	1613	0.1613	
JARR037	599	muscovite	1483	0.1483	
JARR037	598	muscovite	1125	0.1125	Irregular surface.

3.4 in light of the Cautionary Statement, why it is appropriate to report the LIBS analysis results in the title of the Announcement and in the 'Highlights' section of the Announcement;

The Company considers that the title and 'Highlights' section briefly and accurately conveys the contents of the Announcement. Nevertheless, the Company has amended the title of the Announcement to remove the LIBS analysis results, which are of a preliminary nature. Refer to the Amended Announcement accompanying this letter. The Company has retained the LIBS analysis results in the 'Highlights' section and moved the Cautionary Statement so that it is proximate to the 'Highlights' section.

3.5 why the Cautionary Statement was not given equal prominence and was not proximate to the 'Highlights' section in the Announcement.

The Company considers that the Cautionary Statement has been given prominence and is proximal to the 'Highlights' section. Nevertheless, the Company has moved the Cautionary Statement from the second page of the Announcement to the first page. Refer to the Amended Announcement accompanying this letter.

4. Please confirm whether PR1 and the Competent Person considers the Announcement complies with clause 5 of the JORC Code. If the answer is yes, please explain the basis for this conclusion.

The Company released all material information in its possession and did not exclude any results. The Company provided detailed information in the body of the text and in the associated Appendices. The Company also provided further clarification and information in the JORC Table 1, Sections 1 & 2, as referred to previously in our response. For these reasons the Company and Competent Person confirms that the Announcement complies with Clause 5 of the JORC Code.

5. Please confirm who drafted/prepared the Announcement for release on MAP.

GeoVista AB geologists completed the fieldwork and analysis and provided a technical report to the Company. Using the information contained in the GeoVista Report, technical aspects of the Announcement were drafted by the Competent Person. The Appendices and JORC table were drafted by the Competent Person. The Company Secretary drafted the highlights and body of the text.

6. Please confirm that PR1 is in compliance with the Listing Rules and, in particular, Listing Rule 3.1.

I confirm that PR1 is in compliance with the Listing Rules, in particular, Listing Rule 3.1.

7. Please confirm that PR1's responses to the above have been authorised an approved in accordance with its published continuous disclosure policy or otherwise by its board or an officer of PR1 with delegated authority from the board to respond to ASX on disclosure matters.

I confirm that PR1 responses to the above have been authorised and approved in accordance with its published continuous disclosure policy.

The responses have been approved and authorised by the Board of Pure Resources Limited.

Sincerely,

Mr Patric Glovac
Executive Chairman
Pure Resources Limited



23 November 2023

Reference: 85272

Mr Quinton Meyers
Company Secretary
Pure Resources Limited

By email

Dear Mr Meyers

Pure Resources Limited ('PR1'): JORC general compliance - Query

ASX refers to the following:

A. PR1's announcement entitled, "11.7% Lithium in Mica from LIBS – Järkvissle Project, Sweden", lodged on the ASX Market Announcements Platform ('MAP') and released at 9:12am AEDT on 21 November 2023 (the 'Announcement') disclosing the following, among other things:

(i) in the 'Highlights' section of the Announcement:

"Significant results from LIBS analysis up to 11.69% Li (JARR037)..."

Additional High grade lithium samples include:

- *JARR036 – 10.13%, 7.04% and 3.94 Li%*
- *JARR037 – 5.48% Li*
- *JARR024 – 1.36% & 1.21% Li"*

(ii) in the body of the Announcement:

"A peak LIBS assay from a triphylite-lithiophilite sample returned a result of 11.69% lithium (Li)"

(iii) Appendix II in the Announcement, disclosing LIBS lithium analysis for each sample point;

(iv) Appendix III in the Announcement, providing pXRF analysis across multiple elements for each sample point;

(together, the 'Results'),

(v) Table 1 on page 15 of the Announcement ('JORC Table 1'), disclosing the following in relation to the section, 'Quality of assay data and laboratory tests':

"p-XRF and LIBS results should never be considered a proxy or substitute for laboratory analysis which is required to determine if there exists the potential for lithium or rare metal mineralisation.

The p-XRF and LIBS data is exploratory in nature and is used to assist in target prioritisation through an exploration program."

(the 'Cautionary Statement').

B. The change in the price of PR1's securities from a closing price of \$0.17 on 20 November 2023 to an intraday high of \$0.32 on 21 November 2023.

C. The significant increase in the volume of PR1's securities traded from 20 November 2023 to 21 November 2023.

D. ASX Listing Rule 5.6, which states:

“Subject to rule 5.10, a public report prepared by an entity must be prepared in accordance with rules 5.7 to 5.24 if applicable and Appendix 5A (JORC Code) if applicable if the report includes a statement relating to any of the following.

- *Exploration targets.*
- *Exploration results.*
- *Mineral resources or ore reserves.*
- *Production targets.”*

E. Clause 4 of the JORC Code, which states:

“Transparency requires that the reader of a Public Report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information or by omission of material information that is known to the Competent Person.”

F. Clause 5 of the JORC Code, which states:

“Table 1 provides a checklist or reference of criteria to be considered by the Competent Person in developing their documentation and in preparing the Public Report.

In the context of complying with the principles of the Code, comments relating to the items in the relevant sections of Table 1 should be provided on an ‘if not, why not’ basis within the Competent Person’s documentation. Additionally comments related to the relevant sections of Table 1 must be complied with on an ‘if not, why not’ basis within Public Reporting for significant projects (see Appendix 1 Generic Terms and Equivalents) when reporting Exploration Results, Mineral Resources or Ore Reserves for the first time. Table 1 also applies in instances where these items have materially changed from when they were last Publicly Reported. Reporting on an ‘if not, why not’ basis is to ensure that it is clear to an investor whether items have been considered and deemed of low consequence or are not yet addressed or resolved.”

G. Clause 19 of the JORC Code, which states:

“Public Reports of Exploration Results must contain sufficient information to allow a considered and balanced judgement of their significance. Reports must include relevant information such as exploration context, type and method of sampling, relevant sample intervals and locations, distribution, dimensions and relative location of all relevant assay data, methods of analysis, data aggregation methods, land tenure status plus information on any of the other criteria listed in Table 1 that are material to an assessment.”

H. The Australian Institute of Geoscientists Quarterly Newsletter, ‘AIG News’, No 115 of February 2014 (‘AIG Guidance’), which states:

“The inherent technical limitations of pXRF and the lack of internal QA/QC means that raw pXRF data should be generally treated as semi-quantitative and preliminary.

Reporting of stand-alone pXRF data requires rigorous validation of the results including checks on detection limits and matrix effects, review of procedures and QA/QC analysis.....

When a company wants to release pXRF results there are a number of issues to consider.

Firstly, before reporting any results from pXRF the Competent Person needs to ensure that they have a good understanding of what elements can actually be reliability measured by this method, and at what levels...

Furthermore, the measurements by pXRF can give very different results from the same sample depending on a complex range of interacting factors. Key Factors Include:

- *how the sample is prepared;*
- *the individual instrument used;*
- *how the instrument is used – portion of samples, duration and number of readings taken;*
- *what measurement mode (e.g. soil vs mining) it is used in;*
- *what temperature (internal and external) the readings are taken at;*
- *how the readings are taken (for how long, at how many points of the sample);*
- *if, how and when the machine is calibrated; whether the results are “corrected” based on a calibration; and,*
- *how much moisture is present in the sample.*

(together, the Key Factors)

Additionally, and critically, quality assurance must be considered when reporting pXRF results. The JORC Code discusses this aspect at length in various sections of Table 1...

The responsibility falls to the Competent Person releasing the data to satisfy the above requirements. This requires them to:

- *be formally trained in pXRF operation;*
- *to have practical and relevant experience in their use;*
- *understand the collection; and monitoring and interpretation of quality control data.’*

‘What is important is that whatever sampling approach is adopted, it must be validated against laboratory analyses for that specific project, so that the Competent Person has confidence in the data.’

Request for information

Having regard to the above, ASX asks PR1 to respond separately to each of the following questions and requests for information:

1. Please provide a detailed explanation regarding the processes and methodologies followed to achieve the Results, specifically addressing each of the Key Factors set out in the AIG Guidance.
2. Please explain what quality assurance measures were taken by the Competent Person in relation to the Results. Please explain why the Competent Person considered these measures sufficient to ensure the Results were representative of the corresponding samples.
3. Please confirm whether PR1 and the Competent Person considers the Results comply with clause 4 and clause 19 of the JORC Code. If the answer is yes, please explain the basis for this conclusion, with specific reference to the following matters:
 - 3.1 whether the lithium grade of each sample can be reliably measured using LIBS analysis;
 - 3.2 whether the Results were validated against laboratory analysis and if not, why it is appropriate to refer to the LIBS analysis as a “A peak LIBS assay from a triphylite-lithiophilite sample”;
 - 3.3 whether in the opinion of the Competent Person, the 11.69% lithium grade reported from the LIBS analysis is representative of the actual grade of lithium in the corresponding sample;
 - 3.4 in light of the Cautionary Statement, why it is appropriate to report the LIBS analysis results in the title of the Announcement and in the ‘Highlights’ section of the Announcement; and

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- 3.5 why the Cautionary Statement was not given equal prominence and was not proximate to the 'Highlights' section in the Announcement.
4. Please confirm whether PR1 and the Competent Person considers the Announcement complies with clause 5 of the JORC Code. If the answer is yes, please explain the basis for this conclusion.
 5. Please confirm who drafted/prepared the Announcement for release on MAP.
 6. Please confirm that PR1 is in compliance with the Listing Rules and, in particular, Listing Rule 3.1.
 7. Please confirm that PR1's responses to the above have been authorised and approved in accordance with its published continuous disclosure policy or otherwise by its board or an officer of PR1 with delegated authority from the board to respond to ASX on disclosure matters.

When and where to send your response

This request is made under Listing Rule 18.7. Your response is required as soon as reasonably possible and, in any event, by no later than **2:00 PM AWST Tuesday, 28 November 2023**. You should note that if the information requested by this letter is information required to be given to ASX under Listing Rule 3.1 and it does not fall within the exceptions mentioned in Listing Rule 3.1A, PR1's obligation is to disclose the information 'immediately'. This may require the information to be disclosed before the deadline set out in the previous paragraph and may require PR1 to request a trading halt immediately.

Your response should be sent to me by e-mail at ListingsCompliancePerth@asx.com.au. It should not be sent directly to the ASX Market Announcements Office. This is to allow me to review your response to confirm that it is in a form appropriate for release to the market, before it is published on the ASX Market Announcements Platform.

Trading halt

If you are unable to respond to this letter by the time specified above, you should discuss with us whether it is appropriate to request a trading halt in PR1's securities under Listing Rule 17.1. If you wish a trading halt, you must tell us:

- the reasons for the trading halt;
- how long you want the trading halt to last;
- the event you expect to happen that will end the trading halt;
- that you are not aware of any reason why the trading halt should not be granted; and
- any other information necessary to inform the market about the trading halt, or that we ask for.

We require the request for a trading halt to be in writing. The trading halt cannot extend past the commencement of normal trading on the second day after the day on which it is granted. You can find further information about trading halts in Guidance Note 16 *Trading Halts & Voluntary Suspensions*.

Suspension

If you are unable to respond to this letter by the time specified above, ASX will likely suspend trading in PR1's securities under Listing Rule 17.3.

Listing Rules 3.1 and 3.1A

In responding to this letter, you should have regard to PR1's obligations under Listing Rules 3.1 and 3.1A and also to Guidance Note 8 *Continuous Disclosure*: Listing Rules 3.1 – 3.1B. It should be noted that PR1's obligation to disclose information under Listing Rule 3.1 is not confined to, nor is it necessarily satisfied by, answering the questions set out in this letter.

Release of correspondence between ASX and entity

ASX reserves the right to release all or any part of this letter, your reply and any other related correspondence between us to the market under Listing Rule 18.7A.

Questions

If you have any questions in relation to the above, please do not hesitate to contact me.

Yours sincerely

Sam Dorland
Adviser, Listings Compliance