



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

May 3, 2023

Gregory D. Swan
Chief Financial Officer
IperionX Limited
129 W Trade Street, Suite 1405
Charlotte, NC 28202

Re: IperionX Limited
Form 20-F for the Fiscal Year ended June 30, 2022
Filed August 26, 2022
File No. 001-41338

Dear Gregory D. Swan:

We have reviewed your April 17, 2023 response to our comment letter and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our April 13, 2023 letter.

Form 20-F for the Fiscal Year ended June 30, 2022

Exhibit 96.2

Section 11.8 - Cut-off Grade, page E-28

1. We note your response to prior comment 2 including your proposed disclosure of the historical, spot, and forecast Rare Earth Elements (REE) prices and their proportions found in your concentrates.

Please further revise your proposed disclosures for the annual report and technical report summary to clarify that resources must have "reasonable prospects for economic extraction" (i.e. remove the word "eventual" from your draft revisions) to more clearly align with the mineral resource definition in Item 1300 of Regulation S-K.

Please also disclose whether your cutoff grade is the marginal or breakeven economic

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cutoff grade, based on the parameters provided. After making these changes, please file your amended Form 10-K along with the revised technical report summary.

You may contact George K. Schuler, Mining Engineer, at (202) 551-3718 if you have questions regarding the engineering comments or Karl Hiller, Branch Chief, at (202) 551-3686 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Energy & Transportation