



DIVISION OF
CORPORATION FINANCE

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

November 8, 2022

Paul Mann
Chairman, Chief Executive Officer and Chief Financial Officer
ASP Isotopes Inc.
433 Plaza Real, Suite 275
Boca Raton, Florida 33432

Re: ASP Isotopes Inc.
Amendment No. 4 to Registration Statement on Form S-1
Filed November 4, 2022
File No. 333-267392

Dear Paul Mann:

We have reviewed your amended registration statement 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 this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our November 3, 2022 letter.

Amendment No. 4 to Form S-1 filed November 4, 2022

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1. We note that your belief regarding the validity of your exclusive license from Klydon is based on "information currently available" and your "consultation with legal counsel in South Africa." Please describe for us the information that is available and the details of your consultation with counsel, including whether you received an opinion from counsel and the type of counsel (e.g., your intellectual property counsel).

Paul Mann
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You may contact Ibolya Ignat at 202-551-3636 or Brian Cascio at 202-551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Jordan Nimitz at 202-551-5831 or Margaret Schwartz at 202-551-7153 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Industrial Applications and
Services

cc: Brenda Hamilton, Esq.