



DIVISION OF  
CORPORATION FINANCE

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

June 28, 2024

Paul Mann  
Chief Executive Officer  
ASP Isotopes Inc.  
1101 Pennsylvania Avenue NW, Suite 300  
Washington, DC 20004

**Re: ASP Isotopes Inc.**  
**Form 10-K for the Fiscal Year Ended December 31, 2023**  
**File No. 001-41555**

Dear Paul Mann:

We have limited our review of your filing to the financial statements and related disclosures and have the following comments.

Please respond to this letter within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to this letter, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2023

Consolidated Financial Statements

Note 11. Acquisitions, page 79

1. For the acquisition of PET Labs Pharmaceuticals, we see that goodwill arising from the acquisition was attributable mainly to certain existing doctor and service center relationships, which are not identifiable as a separate intangible asset, along with buyer specific synergies expected to arise from the acquisition. Please tell us why the amounts related to existing doctor and service center relationships was not recorded as a separate intangible asset in accordance with ASC 805-20-25-10.
2. We see that ASP Rentals is considered a variable interest entity. Please revise future filings to provide the disclosures required by ASC 810-10-50-2AA through AC, as well as 50-3, including the judgments and assumptions you made in determining that ASP Rentals is a VIE and you are the primary beneficiary. Please also tell us where you considered the disclosure requirements of ASC 810-10-45-25. In your response, please provide us with a copy of your proposed revised disclosure.

Paul Mann  
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Item 9A. Controls and Procedures

Management's Annual Report on Internal Controls Over Financial Reporting, page 88

3. We see that you concluded your internal controls over financial reporting were effective at December 31, 2023. Please tell us how you arrived at such a determination given your disclosure controls and procedures were not effective due to material weaknesses identified in your internal control over financial reporting. Refer to SEC Release No. 33-8238.

In closing, we remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Kristin Lochhead at 202-551-3664 or Li Xiao at 202-551-4391 with any questions.

Sincerely,

Division of Corporation Finance  
Office of Industrial Applications and  
Services