US 20250102077A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2025/0102077 A1**

Romo et al. (43) **Pub. Date: Mar. 27, 2025**

(54) **UNMANNED AERIAL VEHICLE SYSTEMS AND METHODS FOR HEAP LEACH PAD IRRIGATION LINE PLACEMENT**

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(21) Appl. No.: **18/891,407**

(22) Filed: **Sep. 20, 2024**

Related U.S. Application Data

(60) Provisional application No. 63/671,960, filed on Jul. 16, 2024, provisional application No. 63/584,730, filed on Sep. 22, 2023.

Publication Classification

(51) **Int. Cl.**

F16L 1/024	(2006.01)
B64U 10/16	(2023.01)
B64U 30/24	(2023.01)
B64U 101/40	(2023.01)
G05D 1/656	(2024.01)
G05D 105/05	(2024.01)
G05D 109/25	(2024.01)

(52) **U.S. Cl.**

CPC ***F16L 1/0243*** (2013.01); ***B64U 10/16*** (2023.01); ***B64U 30/24*** (2023.01); ***G05D 1/665*** (2024.01); *B64U 2101/40* (2023.01); *G05D 2105/05* (2024.01); *G05D 2109/254* (2024.01)

(57) **ABSTRACT**

An Unmanned Aerial Vehicle ("UAV") system includes a UAV configured for lifting, positioning, and placing irrigation lines on a heap including side slopes. The UAV can be equipped with an irrigation line support structure configured for supporting, transporting and/or releasing one or more irrigation lines. Placement of the irrigation lines via the UAV system can enable accurate distribution of raffinate solutions to enhance leaching efficiency in areas which are typically difficult to access.