US 20240403739A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0403739 A1**

Geislinger et al. (43) **Pub. Date: Dec. 5, 2024**

(54) **COMPACTION IMPACTS ON A LEACH STOCKPILE**

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(21) Appl. No.: **18/804,547**

(22) Filed: **Aug. 14, 2024**

Related U.S. Application Data

(60) Division of application No. 18/485,143, filed on Oct. 11, 2023, now Pat. No. 12,099,942, which is a continuation-in-part of application No. 18/306,534, filed on Apr. 25, 2023, now Pat. No. 11,893,519, which is a continuation of application No. 17/985,446, filed on Nov. 11, 2022, now Pat. No. 11,681,959, which is a continuation of application No. 17/850,834, filed on Jun. 27, 2022, now Pat. No. 11,521,138.

Publication Classification

(51) **Int. Cl.**

G06Q 10/04	(2006.01)
C22B 3/06	(2006.01)
C22B 15/00	(2006.01)
G06Q 10/0631	(2006.01)
G06Q 50/02	(2006.01)

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

CPC ***G06Q 10/04*** (2013.01); ***C22B 3/06*** (2013.01); ***C22B 15/0067*** (2013.01); ***C22B 15/0095*** (2013.01); ***G06Q 10/0631*** (2013.01); ***G06Q 50/02*** (2013.01)

(57) **ABSTRACT**

The system may include a secondary irrigation feature that determines a percent of overlap of each of a plurality of submodules in a first lift over each of a plurality of submodules in a second lift and adjusts at least one of leaching operations or a leaching model based on the total tonnage weighted average of metal in the second lift. The method may further comprise determining an acid gap based on a difference between total acid given and total acid consumption; and further adjusting at least one of the leaching operations or the leaching model based on the acid gap. The method may further comprise determining a percentage of compacted material based on the material that is compacted and irrigated divided by the material that is irrigated; and further adjusting at least one of the leaching operations or the leaching model based on the percentage of compacted material.