Accepted Manuscript

Effect of farmland type on the transport and spatial distribution of metal(loid)s in agricultural lands near an abandoned gold mine site: Confirmation of previous observations

Sung-Wook Yun, Dong-Hyeon Kim, Dong-Hyeon Kang, Jinkwan Son, Si-Young Lee, Chung-Keun Lee, Sang-Hwan Lee, Won-Hyun Ji, Philippe C. Baveye, Chan Yu

PII: S0375-6742(17)30103-6

DOI: doi: 10.1016/j.gexplo.2017.07.004

Reference: GEXPLO 5953

To appear in: Journal of Geochemical Exploration

Received date: 6 February 2017 Revised date: 26 June 2017 Accepted date: 8 July 2017

Please cite this article as: Sung-Wook Yun, Dong-Hyeon Kim, Dong-Hyeon Kang, Jinkwan Son, Si-Young Lee, Chung-Keun Lee, Sang-Hwan Lee, Won-Hyun Ji, Philippe C. Baveye, Chan Yu, Effect of farmland type on the transport and spatial distribution of metal(loid)s in agricultural lands near an abandoned gold mine site: Confirmation of previous observations, *Journal of Geochemical Exploration* (2017), doi: 10.1016/j.gexplo.2017.07.004

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Effect of farmland type on the transport and spatial distribution of metal(loid)s in agricultural lands near an abandoned gold mine site: Confirmation of previous observations

Sung-Wook Yun ^a, Dong-Hyeon Kim ^a, Dong-Hyeon Kang ^a, Jinkwan Son ^a, Si-Young Lee ^a, Chung-Keun Lee ^a, Sang-Hwan Lee ^b, Won-Hyun Ji ^b, Philippe C. Baveye ^c, Chan Yu ^{d,*}

^a Department of Agricultural Engineering, National Institute of Agricultural Sciences, RDA, Wanju, Jeonbuk 54875, Republic of Korea

^b Institute of Mine Reclamation Technology, Mine Reclamation Corp., 2 Segyero, Wonju, 26464, Republic of Korea.

^c Unité ECOSYS, AgroParisTech, Université Paris-Saclay, avenue Lucien Brétignières, 78850 Thiverval-Grignon, France.

^d Department of Agricultural Engineering, Gyeongsang National University (Institute of Agriculture and Life Science), 900 Gazwa, Jinju, Gyeongnam 52828, Republic of Korea

*Corresponding author: Tel.: +82 55 772 1932, Fax: +82 55 772 1939

E-mail address: chanyu@gnu.ac.kr (Chan Yu)

Abstract

In many parts of the world, metal(loid)s resulting from mining activities are causing significant environmental concern, in particular because they are contaminating agricultural lands. In this respect, a previous study in South Korea suggested that a specific agricultural practice, associated with the growing of rice in paddy fields, could contribute specifically to the geographic spread of metal(loid)s contamination away from mine sites. The purpose of the research described in this article was to confirm this hypothesis at a different site. Samples from the surface soil of agricultural lands were collected from 374 sites (267 paddy soils and 107 dry field soils). The concentrations of As, Pb, Cd, Cu and Zn from the samples

Download English Version:

https://daneshyari.com/en/article/5754532

Download Persian Version:

https://daneshyari.com/article/5754532

<u>Daneshyari.com</u>