

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 August 2007 (16.08.2007)

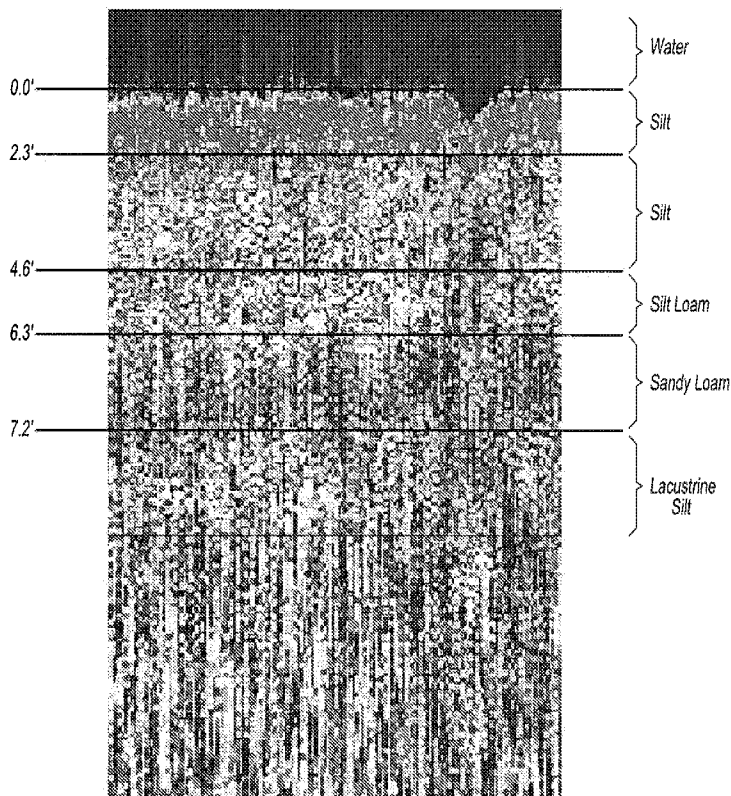
PCT

(10) International Publication Number
WO 2007/092892 A3

- (51) International Patent Classification:
G01N 33/24 (2006.01) G06T 17/50 (2006.01)
G01V 1/28 (2006.01)
- (21) International Application Number:
PCT/US2007/061784
- (22) International Filing Date: 7 February 2007 (07.02.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/765,899 7 February 2006 (07.02.2006) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,

[Continued on next page]

(54) Title: GEOMORPHOLOGY FOR ENVIRONMENTAL REMEDIATION PROCESSES AND SYSTEMS INCLUDING SEDIMENT SURVEY



(57) Abstract: The present invention uses one or more sediment survey techniques to map the sediment of a water course in three dimensions. The sediment survey techniques result in sediment definition that may be used to identify zones of sediment (whether areas or volumes) that are likely to contain contaminants. This may be based on the identity of the sediment, the location of the sediment in the water course, the depth of the sediment and/or the thickness of the sediment layer. In one embodiment, the sediment survey techniques, and the resulting sediment definition, may be used in combination with geomorphology techniques to calculate an adjusted contaminant concentration for sediment zones. Based on the adjusted contaminant concentrations for a site, selective sediment removal may be used to achieve the most effective removal of contaminant with the least of sediment removal or sediment testing.

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RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
25 October 2007

Published:

- with international search report
- with information concerning one or more priority claims considered void

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/061784

A. CLASSIFICATION OF SUBJECT MATTER

INV. G01N33/24 G01V1/28 G06T17/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01N G01V G06T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/098420 A (ANN ARBOR TECHNICAL SERVICES [US]; EARTH TECH INC [US]; SIMON PHILIP B) 20 October 2005 (2005-10-20) paragraphs [0027] - [0032], [0037] - [0042]; figures	1-20
A	CRAVE A ET AL: "A stochastic precipiton model for simulating erosion/sedimentation dynamics" COMPUTERS AND GEOSCIENCES, PERGAMON PRESS, OXFORD, GB, vol. 27, no. 7, August 2001 (2001-08), pages 815-827, XP002335941 ISSN: 0098-3004 paragraphs [2.2.3], [2.2.4], [03.1], [0004]; figure 2	1-20
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 Further documents are listed in the continuation of Box C. See patent family annex.

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Date of the actual completion of the international search

16 July 2007

Date of mailing of the international search report

23/07/2007

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/061784

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>MILLER J R: "Role of fluvial geomorphic processes in the dispersal of heavy metals from mine sites" JOURNAL OF GEOCHEMICAL EXPLORATION, ELSEVIER, AMSTERDAM, NL, vol. 58, no. 2-3, 18 September 1995 (1995-09-18), pages 101-118, XP002335942 ISSN: 0375-6742 paragraphs [03.1] - [03.4], [04.1]; figure 5</p>	1-20
A	<p>MOSSA J: "Sediment dynamics in the lowermost Mississippi River" ENGINEERING GEOLOGY, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 45, no. 1, 30 December 1996 (1996-12-30), pages 457-479, XP004033977 ISSN: 0013-7952 paragraphs [04.2], [04.3], [06.2]; figures</p>	1-20
A	<p>MOSSA J ET AL: "Thalweg variability at bridges along a large karst river: the Suwannee River, Florida" ENGINEERING GEOLOGY, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 49, no. 1, 26 February 1998 (1998-02-26), pages 15-30, XP004117014 ISSN: 0013-7952 page 17, left-hand column, paragraph 2 - page 19, right-hand column; figure 7</p>	1-20

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/061784

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			EP 1728075 A1	06-12-2006
			US 2005226688 A1	13-10-2005
