

Title (en)  
MONITORING FILL SOIL VIA COMPACTOR ROLLING RESISTANCE

Title (de)  
ÜBERWACHUNG VON FÜLLERDE ÜBER DEN KOMPAKTOR-ROLLWIDERSTAND

Title (fr)  
SURVEILLANCE D'UN REMBLAI DE TERRE PAR LE BIAIS D'UNE RESISTANCE AU ROULEMENT D'UN COMPACTEUR

Publication  
**EP 1407262 A4 20060823 (EN)**

Application  
**EP 01935521 A 20010515**

Priority  
US 0115638 W 20010515

Abstract (en)  
[origin: WO0188529A1] A composite of interdependent engineering methods for earthen fill engineering and construction is described. The development, utilization, and correlation of actual, cumulative field compaction energies, unique to and based on field combination-specific variables in combination including at least all of the following: soil type, compactor type, and moisture content are included. Lift thickness and soil amendment type and mix can also be included. Interdependent development of the field combination-specific compaction energies include the following novel combination-specific steps: rolling resistance energy versus dry density field trials, generation and direct curvilinear utilization of parabolic rolling resistance energy curves with roller passes, determination of asymptotic energy-density approach ranges, selection and application of percentage density sectors on moisture-density curves, and projection of percentage density sectors onto corresponding roller compaction energy curves for selection and use of design compaction energy levels. Field combination cross-matrices are used in engineering design.

IPC 8 full level  
**G01N 33/24** (2006.01)

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**G01N 33/24** (2013.01)

Citation (search report)

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- [A] US 6041582 A 20000328 - TIEDE DUANE D [US], et al
- [A] US 6004076 A 19991221 - COOK ERIC JOHNSTONE [ZA], et al
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- [XD] TRITICO PHILIP A ET AL: "Practice improvements for the design and construction of clay barriers", GEOTECH SPEC PUBL; GEOTECHNICAL SPECIAL PUBLICATION 1995 ASCE, NEW YORK, NY, USA, no. 46/1, 1995, pages 624 - 640, XP008066784
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 085 (P - 1319) 28 February 1992 (1992-02-28)
- See references of WO 0188529A1

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