

Title (en)

METHOD AND DEVICE FOR THE "IN-SITU" CONVEYING OF BITUMEN OR VERY HEAVY OIL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR "IN-SITU"-FÖRDERUNG VON BITUMEN ODER SCHWERSTÖL

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR UNE EXTRACTION IN SITU DE BITUME OU D'HUILE TRÈS LOURDE

Publication

EP 2321496 A1 20110518 (DE)

Application

EP 09780765 A 20090717

Priority

- EP 2009059218 W 20090717
- DE 102008044955 A 20080829

Abstract (en)

[origin: CA2735357A1] Providing an electric/electromagnetic heater to reduce the viscosity of bitumen or very heavy oil, wherein at least two linearly expanded conductors are configured in a horizontal alignment at a predetermined depth of the reservoir, has already been described. The conductors are connected to each other in an electrically conducting manner inside or outside of the reservoir, and together form a conductor loop, and are connected to an external alternating current generator outside of the reservoir for electric power. According to the invention, the heating of the reservoir is predetermined in a chronologically and/or locally variable manner in accordance with the electric parameters, and may be changed outside of the reservoir for optimizing the feed volume during the conveying of the bitumen. At least one generator (60; 60', 60'', 60''', 60''') is present in the related device, however multiple generators are preferred, wherein the parameters (l, fi f) thereof are variable for the electric power.

IPC 8 full level

E21B 43/24 (2006.01)

CPC (source: EP US)

E21B 43/2401 (2013.01 - EP US)

Citation (search report)

See references of WO 2010023035A1

Citation (examination)

US 4645004 A 19870224 - BRIDGES JACK E [US], et al

Cited by

CN108798623A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

DE 102008044955 A1 20100304; AU 2009286936 A1 20100304; AU 2009286936 B2 20150402; BR PI0917926 A2 20151117; CA 2735357 A1 20100304; CA 2735357 C 20170606; CN 102197191 A 20110921; CN 102197191 B 20160413; EP 2321496 A1 20110518; MX 2011002135 A 20110405; RU 2011111733 A 20121010; RU 2505669 C2 20140127; UA 105366 C2 20140512; US 2011146981 A1 20110623; US 8813835 B2 20140826; WO 2010023035 A1 20100304

DOCDB simple family (application)

DE 102008044955 A 20080829; AU 2009286936 A 20090717; BR PI0917926 A 20090717; CA 2735357 A 20090717; CN 200980142859 A 20090717; EP 09780765 A 20090717; EP 2009059218 W 20090717; MX 2011002135 A 20090717; RU 2011111733 A 20090717; UA A201102190 A 20090717; US 200913060840 A 20090717