

Title (en)

Injection of gas to increase the production of crude oil sources

Title (de)

Injektion von Gas zur Erhöhung der Ausbeute von Rohölquellen

Title (fr)

Injection de gaz pour augmenter le rendement de sources de pétrole brut

Publication

EP 2180138 A3 20111026 (DE)

Application

EP 09011516 A 20090908

Priority

- DE 102008052465 A 20081021
- DE 102009038444 A 20090821

Abstract (en)

[origin: EP2180138A2] The method involves inserting a pipe into a crude oil-containing rock or earth layer, and injecting a technical gas for the purpose of an increased conveying of crude oil from the crude oil-containing rock or earth layer. The gas is introduced as compression waves with a speed that is sufficient to produce a turbulent flow of the gas in channels of the rock or earth layer. The duration of the compression waves is varied and selected between 3 minutes and 3 hours. An initial pressure of the pressure wave amounts to 10 bars higher than a rock pressure in the rock or earth layer.

IPC 8 full level

E21B 43/16 (2006.01)

CPC (source: EP US)

E21B 43/168 (2013.01 - EP US)

Citation (search report)

- [X] US 3759329 A 19730918 - ROSS S
- [X] US 4610304 A 19860909 - DOSCHER TODD M [US]
- [X] US 4516636 A 19850514 - DOSCHER TODD M [US]
- [X] US 4456069 A 19840626 - VIGNERI RONALD J [US]

Cited by

CN105507858A

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)

EP 2180138 A2 20100428; EP 2180138 A3 20111026; BR PI0904210 A2 20100914; DE 102009038444 A1 20100422; DE 102009038445 A1 20100422; EA 200901269 A1 20100830; MX 2009011336 A 20100517; US 2010096146 A1 20100422; US 2010206556 A1 20100819

DOCDB simple family (application)

EP 09011516 A 20090908; BR PI0904210 A 20091021; DE 102009038444 A 20090821; DE 102009038445 A 20090821; EA 200901269 A 20091020; MX 2009011336 A 20091020; US 57986509 A 20091015; US 58052409 A 20091016