

Title (en)

IN-SITU METHOD AND SYSTEM FOR REMOVING HEAVY METALS FROM PRODUCED FLUIDS

Title (de)

IN-SITU VERFAHREN UND SYSTEM ZUR BESEITIGUNG VON SCHWERMETALLEN AUS PRODUZIERTEN FLÜSSIGKEITEN

Title (fr)

PROCÉDÉ IN SITU ET SYSTÈME PERMETTANT D'ÉLIMINER LES MÉTAUX LOURDS DE FLUIDES PRODUITS

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2013173634A1] Methods and systems relate to the in-situ removal of heavy metals such as mercury, arsenic, etc., from produced fluids such as gases and crudes from a subterranean hydrocarbon-bearing formation. A sufficient amount of a fixing agent is injected into formation with a dilution fluid. The fixing agent reacts with the heavy metals forming precipitate, or is extracted heavy metals into the dilution fluid as soluble complexes. In one embodiment, the heavy metal precipitates remain in the formation. After the recovery of the produced fluid, the dilution fluid containing the heavy metal complexes is separated from the produced fluid, generating a treated produced fluid having a reduced concentration of heavy metals. In one embodiment, the dilution fluid is water, and the wastewater containing the heavy metal complexes after recovery can be recycled by injection into a reservoir.

IPC 8 full level

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Citation (search report)

- [X1] US 2012073811 A1 20120329 - MOCK JON MARVIN [US]
- [X1] US 2011247811 A1 20111013 - BEER GARY LEE [US]
- [XP] WO 2013033492 A1 20130307 - PREFERRED UNLTD INC [US], et al
- [A] US 2010200465 A1 20100812 - DANA TODD [US], et al
- See references of WO 2013173634A1

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