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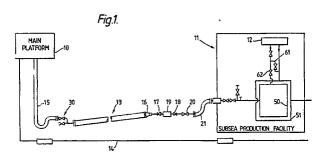
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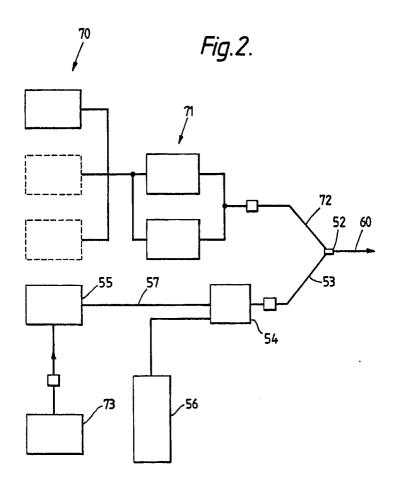
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- (54) Displacement of free fluid accumulations in pipelines.
- Find A method of removing at least a substantial proportion of fluid left in a generally horizontal section of a pipeline, by injecting into the pipeline a pressurized, high expansion foam and advancing the foam through the pipeline section in contact with a layer of the fluid left therein to displace the layer towards a remote end of the pipeline by frictional pick-up of the layer by the foam and to effect mass transfer of a foaming agent from the foam to the fluid, followed by passing into the pipeline a pressurized gas to create turbulence in fluid left in the pipeline causing foaming of the fluid and to displace a substantial proportion of the foam left within the pipeline. At least some of the bulk of the fluid in the

pipeline may be displaced by injecting the foam so as to establish a transverse foam/fluid interface which is advanced through the pipeline at or above a minimum velocity required to maintain said interface leaving a residual amount of fluid which is treated as aforesaid. The method may include the further subsequent step of injecting into the pipeline a pressurized foam containing a treatment agent to displace residual foam left in the pipeline, and then allowing the foam to decompose in the pipeline to deposit the treatment agent within the pipeline either on the pipewall or in solution with any liquids remaining therein.







## **EUROPEAN SEARCH REPORT**

EP 87 30 5168

	Citation of	document with indication, where appropriate,	Relevant	CLASSIFICATION OF THE
tegory	Citation of	of relevant passages	to claim	APPLICATION (Int. CI.5)
Α	US-A-3 773 110	(CONTINENTAL OIL CO.)		F 17 D 3/14 E 21 B 21/14
Α	US-A-3 819 519	(CHEVRON RESEARCH CO.)		
Α	GB-A-2 023 270	(VICKERS LTD)		
				TECHNICAL FIELDS
				TECHNICAL FIELDS SEARCHED (Int. CI.5)
				F 17 D 3/00 F 17 D 1/00 E 21 B B 08 B F 26 B
	The present searc	h report has been drawn up for all claims		
	Place of search	Date of completion of search		Examiner
	The Hague	27 November 90		DE SMET F.P.

- X: particularly relevant if taken alone
- Particularly relevant it came alone
   P: particularly relevant if combined with another document of the same catagory
   A: technological background
   O: non-written disclosure

- P: intermediate document
- ${\sf T}: \ {\sf theory} \ {\sf or} \ {\sf principle} \ {\sf underlying} \ {\sf the invention}$

- the filing date
- D: document cited in the application
  L: document cited for other reasons
- - &: member of the same patent family, corresponding document