

PACKAGE ID - 000625IBMPC00 HOTOILINGSPREADSHEET

KWIC TITLE - Hot Oiling Spreadsheet

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 03/10/1993 **PUBLICATION DATE** - 03/10/1993

DESCRIPTION - One of the most common oil-field treatments is hot oiling to remove paraffin from wells. Even though the practice is common, the thermal effectiveness of the process is not commonly understood. In order for producers to easily understand the thermodynamics of hot oiling, a simple tool is needed for estimating downhole temperatures. Such a tool has been developed that can be distributed as a compiled spreadsheet.

PACKAGE CONTENTS - Media Directory; Software Abstract; Spreadsheet for Calculating Hot Oiling or Hot Watering Temperatures; Media Includes Source Code, User's Guide, Executable Module, Object Module, Sample Problem Input and Output, Programmer Documentation;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 3.5 Diskette

METHOD OF SOLUTION - The spreadsheet development tool was facilitated by expressing downhole temperatures in terms of analytic formulas. Considerable algebraic work is required to develop such formulas. Also, the data describing hot oiling is customarily a mixture of practical units that must be converted to a consistent set of units. Derivation of the formulas considered falling film flow in the annulus and started from the transient differential equations so that the effects of the heat capacity of the tubing and casing could be included.

COMPUTER - IBM PC

OPERATING SYSTEMS - DOS 3.3 or higher

PROGRAMMING LANGUAGES - Baler XE

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - Self contained set of executables including printer drivers.

HARDWARE REQS - 590k or more conventional memory

TIME REQUIREMENTS - <2 min

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REFERENCES - A.J. Mansure, Spreadsheet for calculating Hot Oiling or Hot Watering Temperatures, April 1993.

ABSTRACT STATUS - Submitted October 1993. Released screened 12/16/93. No problems encountered.

SUBJECT CLASS CODE - TH

KEYWORDS -
COMPUTER PROGRAM DOCUMENTATION
H CODES
OIL WELLS
DEWAXING

EDB SUBJECT CATEGORIES -
990200 020300

SPONSOR - DOE/FE

PACKAGE TYPE - SCREENED