



# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/24103

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : E21B 19/00, 23/00  
 US CL : 166/382,85.5

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 166/382,85.5,387,368,85.4,88.2,94.1,75.13

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
---	US 4,597,448 A (Baugh) 01 July 1986 (01.07.1986), see Figures.	-----
Y		1-33
Y	US 5,967,235 A (Scott) 19 October 1999 (19.10.1999), see Figures.	1-20,26-33
A	US 5,615,737 A (Ables) 01 April 1997 (01.04.1997), see Figures.	1-33
A	US 3,421,580 A (Fowler et al.) 14 January 1969 (14.01.1969), see Figures.	1-33
A	US 3,741,294 A (Morrill) 26 June 1973 (26.06.1973), see Figures.	1-33
A	US 4,353,420 A (Miller) 12 October 1982 (12.10.1982), see Figures.	1-33

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

01 November 2005 (01.11.2005)

Date of mailing of the international search report

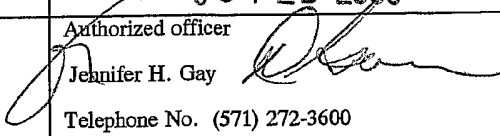
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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Jennifer H. Gay   
 Telephone No. (571) 272-3600

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US05/24103

Continuation of B. FIELDS SEARCHED Item 3:  
EAST  
search terms: wellhead, rotat, lock, seal, lubricator, dog