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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/006,919	01/26/2004	5474142	101644-11	5103
21897	7590 11/23/2005		EXAM	INER
THE MATT 2000 BERING SUITE 700 HOUSTON,	- ···		ART UNIT	PAPER NUMBER

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

NOV 2 9 2005 NOV - 790



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EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. 90/006,919.

PATENT NO. <u>5474142</u>. 3993 ART UNIT<del>-5600</del>.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified ex parte reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

	Control No.	Patent Under R	eexamination
Notice of Intent to Issue	90/006,919	5474142	
Ex Parte Reexamination Certificate	Examiner	Art Unit 3993	- 1
	Matthew C. Graham	3888	C 1
The MAILING DATE of this communication appears of	n the cover sheet with the co	orrespondence ad	dress
1. Prosecution on the merits is (or remains) closed in this subject to reopening at the initiative of the Office or up issued in view of  (a) Patent owner's communication(s) filed:  (b) Patent owner's late response filed:  (c) Patent owner's failure to file an appropriate recommunication (d) Patent owner's failure to timely file an Appeal (e) Other: See attached Reasons for Patentability	esponse to the Office action Brief (37 CFR 41.31).	313(a). A Certific	
Status of Ex Parte Reexamination:  (f) Change in the Specification: ☐ Yes ☒ No  (g) Change in the Drawing(s): ☐ Yes ☒ No  (h) Status of the Claim(s):			
<ul> <li>(1) Patent claim(s) confirmed: 1-15.</li> <li>(2) Patent claim(s) amended (including dependence)</li> <li>(3) Patent claim(s) cancelled:</li> <li>(4) Newly presented claim(s) patentable:</li> <li>(5) Newly presented cancelled claims:</li> </ul>			
2. Note the attached statement of reasons for patentabilin necessary by patent owner regarding reasons for patento avoid processing delays. Such submission(s) shoul Patentability and/or Confirmation."	entability and/or confirmation	n must be submit	ted promptly
3. Note attached NOTICE OF REFERENCES CITED (P	ГО-892).		
4. X Note attached LIST OF REFERENCES CITED (PTO-	·		
5. The drawing correction request filed on is:		d.	
6. Acknowledgment is made of the priority claim under 3:  a) All b) Some* c) None of the certif  been received.  not been received.  been filed in Application No.  been filed in reexamination Control No.  been received by the International Burea	led copies have	·	
* Certified copies not received:			
7. Note attached Examiner's Amendment.			
8. Note attached Interview Summary (PTO-474).			
9. Other:			
		NOV - 79	92
cc: Requester (if third party requester)			
U.S. Patent and Trademark Office PTOL-469 (Rev.9-04) Notice of Intent to Issue Ex Pa	rte Reexamination Certificate	Part of Paper I	No 08312005

UNITED STATES DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

# REEXAMINATION

### **REASONS FOR PATENTABILITY / CONFIRMATION**

Reexamination Control No. 90/006,919

Attachment to Paper No. 08312005.

ઝ૧૧'3 Art Unit -<del>3683</del>.

See attachement

MATTHEW C. GRAHAM PRIMARY EXAMINER

(Example 3 (Signature)

PTOL-476 (Rev. 03-98)

Application/Control Number: 90/006,919

Art Unit: \$688 3993

#### STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding: the prior art of record, including Varney, US Patent 3,223,183, fail to show or suggest an automatic drilling system having drill string wherein a decrease in drilling fluid pressure results in a relay supplying a drill string control signal that operates a drill string controller to effect an "increase in the rate of release" of said drill string and an increase in drilling fluid pressure results in said relay supplying a drill string control signal that operates said drill string controller to effect a "decrease in the rate of release" of said drill string. While Varney shows drill string control based upon drilling fluid pressure that relaxes and tightens the drill string. Varney does not teach or suggest effecting an "increase in the rate of release" and a "decrease in the rate of release" as it pertains to independent claims 1, 9 and 11. Claims 2-8, 10 and 12-15 are patentable due to their dependency on claims 1, 9 and 11.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

All correspondence relating to this Ex Parte reexamination proceeding should be directed:

By Mail to: Mail Stop Ex Parte Reexam

Central Reexamination Unit

Office of Patent Legal Administration
United States Patent & Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

By FAX to: (571) 273-9900

Central Reexamination Unit

By hand: Customer Service Window

Randolph Building 401 Dulany St.

Alexandria, VA 22314

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Application/Control Number: 90/006,919

Art Unit: 3683 3993

Any inquiry concerning this communication or earlier communications from the examiner, or as to the status of this proceeding, should be directed to the Central

Reexamination Unit at telephone number (571) 272-7705.

Conferences: VE

MATTHEW C. GRAHAM PRIMARY EXAMINER **GROUP 310** 

NOV - 795

Page 3

E DNEC	37 CFR 1.4	the Paperwork Reduction Act of 1995, no persons are required to 37 CFR 1.501		Docket Number (Optional) 101644-11 Applicant Bowden		Patent Number 5, 474, 142	
200 2	RMATION DISCLOSURE CITATION IN A PATENT (Sheet 1 of 1 )		Issue Date Dec.12, 1995		Art Unit 3483 39		
EXAMPLE		:	U.S. PATE	NT DOCUMENTS		·, · · · · · · · · · · · · · · · · · ·	<u>:</u> !
EXAMPLE INITIAL	R DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DA
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This collection of information is required by 37 CFR 1.501. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentially is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including pathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# 

## (12) EX PARTE REEXAMINATION CERTIFICATE (5436th)

**United States Patent** 

(10) Number:

US 5,474,142 C1

Bowden

(45) Certificate Issued:

Jul. 4, 2006

(54) AUTOMATIC DRILLING SYSTEM

(75) Inventor: Bobbie J. Bowden, Gonzales, TX (US)

(73) Assignee: Wildcat Services, L.P., Cypress, TX

Reexamination Request:

No. 90/006,919, Jan. 26, 2004

Reexamination Certificate for:

Patent No.: issued:

5,474,142 Dec. 12, 1995

Appl. No.: Filed:

08/050,527 Apr. 19, 1993

(51) Int. Cl. E21B 19/08

(2006.01)

(52) U.S. Cl. ...... 175/27; 175/162; 175/57

(56)

References Cited

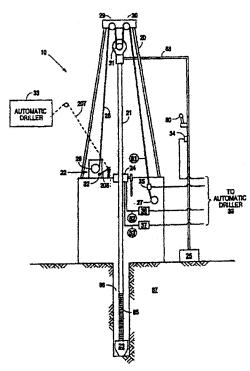
U.S. PATENT DOCUMENTS

3,223,183 A 12/1965 Varney ...... 175/27

#### ABSTRACT (57)

Primary Examiner-Matthew C. Graham

An automatic drilling system regulates the drill string of a drilling rig in response to any one of, any combination of, or all of drilling fluid pressure, bit weight, drill string torque, and drill string RPM to achieve an optimal rate of bit penetration. The automatic drilling system includes a drilling fluid pressure sensor, a bit weight sensor, a drill string torque sensor, and a drill string RPM sensor which deliver a drilling fluid pressure signal, a bit weight signal, a drill string torque signal, and a drill string RPM signal to a drilling fluid pressure regulator, a bit weight regulator, a drill string torque regulator, and a drill string RPM regulator. The regulators control a drill string controller in response to the above signals so that it manipulates the drilling rig to release the drill string at a rate which maintains the maximum rate of bit penetration.



US 5,474,142 C1

1 EX PARTE REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307

NO AMENDMENTS HAVE BEEN MADE TO THE PATENT

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims 1-15 is confirmed.

\* \* \* \* \*