FORM PTO 1595 (Rev. 693) Fig. C 06-03-	2002 HEET U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office							
OMB No. 0651-0011 (exp. 4/94)	a recent action of the recent							
To the Honorable Commissioner of Parents 10210	ed original documents or copy thereof.							
1. Name of conveying party(ies): Roger L. Schultz, Orlando De Jesus, Andrew J. Osborne, Jr. Additional name(s) of conveying party(ies) attached? No	Name and address of receiving party(ies): Name: Halliburton Energy Services, Inc.							
3. Nature of conveyance: ■ Assignment	Address: 10200 Bellaire Blvd., Houston, TX 77072-5299, U.S.A. Additional name(s) & address(es) attached? ☐ Yes ■ No							
Execution Date: $\frac{2/(38/62)}{3/(6/62)}$, $\frac{3}{(6/62)}$, $\frac{2}{(26/65)}$								
Application number(s) or patent number(s):								
A. Patent Application No.(s) 10/040,304	B. Patent No.(s)							
Additional numbers attached? ☐ Yes ■ No								
Name and address of party to whom correspondence concerning document should be mailed: Report Consum:	6. Total number of applications and patents involved:							
Robert Groover 17000 Preston Rd. #230, Dallas TX 75248 (972) 380-6333	7. Total fee (37 CFR 3.41)\$40 ■ Enclosed □ Authorized to be charged to deposit account							
	8. Deposit account number: 07-2320 (Attach duplicate copy of this page if paying by deposit account)							
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9. Statement and signature. To the best of my knowledge and belief, the foregoing in of the original document. Name of Person Signing Total number of pages including cover shee	formation is true and correct and any attached copy is a true copy Signature Date							
Total number of pages including cover snee	t, attachments, and document.							
Mail documents to be recorded with	n required cover sheet information to:							

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PATENT REEL: 012933 FRAME: 0830

ASSIGNMENT

As a below-named inventor of the U.S. patent application entitled Differential Sensor Measurement Method and Apparatus to Detect a Drill Bit Failure and Signal Surface Operator, which names an inventorship of Roger L. Schultz and Orlando De Jesus and Andrew J. Osborne Jr., and which was filed 10/26/2001 (MM/DD/YY) and received Serial No. 10/040,304, I hereby sell, assign and transfer to Halliburton Energy Services, Inc., 10200 Bellaire Blvd., Houston, TX 77072-5299, U.S.A., (hereinafter referred to as ASSIGNEE), for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in all foreign countries to be obtained for said invention by said application or any division, continuation, continuation-in-part, renewal, substitute, extension, re—examination or reissue thereof or any legal equivalent thereof in any foreign country for the full term or terms of which the same may be granted, and specifically including the right to file foreign applications and claim priority therefor under the provisions of any convention or treaty;

and I also hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

and I further hereby covenant that I will, upon ASSIGNEE'S request, promptly provide ASSIGNEE with all pertinent facts and documents, relating to said application, to any invention disclosed therein, or to any of said Letters Patent or legal equivalents thereof in the United States or in foreign countries, as may be known and accessible to me, and that I will testify and give evidence as to the same in any litigation or interference which may arise, and that I will promptly execute and deliver to ASSIGNEE or its legal representative, without charge but at Assignee's expense, any and all papers, instruments or affidavits which may be required, necessary or desirable for the purpose of applying for, obtaining, maintaining, issuing or enforcing said application and said Letters Patent and said equivalents thereof in the United States or in any foreign country; and I further authorize ASSIGNEE or its legal representative to make any submissions or true declarations which may be needed in connection with the prosecution of this application or related applications in the U.S. or in other countries, consistent with the requirements of the applicable country;

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	1	ANDIF	IEREB	YA	UTHOR	RIZE AN	ID REQU	JES	T the	e issuing at	ithe	ority to issue a	any
and	all	United	States	and	foreign	patents	granted	on	said	invention	to	ASSIGNEE,	its
suco	ess	ors and	assign	S.									

IN WITNESS WHEREOF, this Assignment has been executed on the date set forth below.

Inventor's Name: Roger L. Schultz Signature: My h
Residence Address: 4792 Red Oak Circle, Aubrey, TX 76227, U.S.A. Today's Date, and Date Application Signed: 2/28/02
Inventor's Name: Orlando De Jesus Signature: Oldo of A
Residence Address: 120 Brumley, Apt #5, Stillwater, OK 74074, U.S.A. Today's Date, and Date Application Signed: 3/6/02
Inventor's Name: Andrew J. Osborne J.Z. Signature:
Residence Address: 10229 Linkwood Drive, Dallas, TX 75238, U.S.A. Today's Date, and Date Application Signed: 2/24/02

PATENT RECORDED: 05/24/2002 REEL: 012933 FRAME: 0832