FORM PTO-1619A Expires 06/30/99 OMB 0651-0027	U.S. Department of Commerce Patent and Trademark Office PATENT				
RECORDATION FORM COVER SHEET S-105437 PATENTS ONLY					
TO: The Director of the United States Patent and Trademark Office: Please record the attached original document(s) or copy(ies).					
Submission Type New	Conveyance Type Assignment Security Agreement				
Resubmission (Non-Recordation) Document ID#	License Change of Name				
Correction of PTO Error Reel # Frame #	Merger				
Corrective Document	U.S. Government				
Pool # Frame # (For Use CNLY by U.S. Government Agencies)					
	✓ Departmental File Secret File				
Conveying Party(ies) Name (line 1) BATTELLE MEMORIAL INSTITU	Mark if additional names of conveying parties attached Execution Date Month Day Year				
Maine (line 1) BATTELLE MEMORIAL INSTITU	TE, PACIFIC NORTHWEST DIVISION 09/21/2005				
Name (line 2)	Execution Date				
Second Party Name (line 1)	Month Day Year				
Name (line 1)					
Name (line 2)					
Receiving Party Mark if additional names of receiving parties attached					
Name (line 1) U. S. Department of Energy	(line 1) U. S. Department of Energy				
is an assignment and the receiving party is not domiciled in the United					
Name (line 2)	States, an appointment				
Address (line 1) 1000 Independence Avenue, S.W.	of a domestic representative is attached. (Destantation must be a				
separate document from					
Address (line 2)					
Address (line 3) Washington	D.C. 20585-0162				
Domostic Poproportative Name and A	State/Country ZIp Code				
Domestic Representative Name and Address Enter for the first Receiving Party only.					
Name					
Address (line 1)					
Address (line 2)					
Address (line 3)					
Address (line 4)					
FOR OFFICE USE ONLY					

Public burden reporting for this collection of Information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-027), Washington, D.C. 20503. See DMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. Do NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS Mail documents to be recorded with required cover sheet(s) information to:

Mail documents to be recorded with required cover sheet(s) information to:

Mail Stop Assignment Recordation Services, Director of the United States Patent Fire Transformark Office,

P.O. Box 1450, Alexandria, VA 22313, 1450 L: 017280 FRAME: 0452

FORM PTO-1 Expires 06/30/99 OMB 0651-0027	619 B	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspond	lent Name and Address	Area Code and Telephone Number	202-586-2805 (FAX)
Name	Brenda K. Banks	Area dode and relephone Number	202-300-2003 (FAA)
	U. S. Department of Energy		
	1000 Independence Avenue, S.W.		
	Washington, D. C. 20585-0162		
	Telephone (Voice): 202-586-2802		
Pages		es of the attached conveyance docum	ent # 1
	Number(s) or Patent Num	` '	additional numbers attached
Pa 11/179,230	tent Application Number(s)	Patent Number (DO NOT ENTER BOTH numbers for patent application, enter the date the patent application	t Number(s)
Patent Coop	peration Treaty (PCT)	PCT PCT	PCT
only	er PCT application number / if a U.S. Application Number not been assigned.	PCT PCT	PCT
Number of F	Properties Enter the total	number of properties involved. #	1
Fee Amount	Fee Amount	for Properties Listed (37 CFR 3.41): \$	0.00
Deposit		itional fees can be charged to the account.) Deposit Account Number: #	
		Authorization to charge additional fees:	Yes No 🗸
To the attach indica		lief, the foregoing information is true as riginal document. Charges to deposit to the second	
Hallie	or reison olynling	olynature 	Date

PATENT

REEL: 017280 FRAME: 0453

CONFIRMATORY LICENSE (Nonprofit Organizations or Small Business Forms)

PACKET FLOW MONITORING TOOL AND METHOD

Inventor(s): DR Thiede, COLeary, J Mauth Serial No.: 11/179,230

File Date (U.S.): 07/11/2005 Contractor: Battelle Memorial Institute, PNWD DOE Case No.: S-105,437

Docket No: E-14448

DOE Contract No.: DE-AC05-76RL0 1830

Patent Right Clause No.: I-99

The Contractor, having the right to retain title to subject inventions as a result of Public Law 96-517, has reported the above-identified invention as a subject invention to DOE with its election to retain title thereto.

Accordingly, this document is confirmatory of the nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States. Required by the Public Law and the above-identified contract, in this invention and of all other rights acquired by the Government by the above-identified contract, in this invention and of all other rights clause. It is understood and agreed that this license does not preclude the Government from asserting rights under the provisions of said contract or of any other agreement between the Government and the Contractor, or from asserting any other rights of the Government with respect to the above-identified invention.

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

Signed this 21st day of September, 2005.

BATTELLE MEMORIAL INSTITUTE, PACIFIC NORTHWEST DIVISION

(Contractor)

Vincent A. Branton, Contracting Officer

P.O. Box 999, Richland, Washington 99352 **Business Address**

> PATENT REEL: 017280 FRAME: 0454

RECORDED: 02/22/2006