PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
EFFECTIVE DATE:	10/02/2006

CONVEYING PARTY DATA

Name	Execution Date
Robert C. DeVault	09/29/2006
David J Wesolowski	10/02/2006

RECEIVING PARTY DATA

Name:	UT-Battelle, LLC	
Street Address:	One Bethel Valley Road	
Internal Address:	4500N, MS-6258	
City:	Oak Ridge	
State/Country:	TENNESSEE	
Postal Code:	37831-6258	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	11536988

CORRESPONDENCE DATA

Fax Number: (865)574-0381

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (865) 574-4178

Email: bowmanke@ornl.gov

Correspondent Name: Joseph A. Marasco

Address Line 1: One Bethel Valley Road

Address Line 2: 4500N, MS-6258

Address Line 4: Oak Ridge, TENNESSEE 37831-6258

ATTORNEY DOCKET NUMBER: 1535

NAME OF SUBMITTER: Karen E. Bowman

PATENT REEL: 018347 FRAME: 0337

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Total Attachments: 4 source=1535_Assignment#page1.tif

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PATENT

REEL: 018347 FRAME: 0338

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Form PTO-1595 RECORDATION FORM COVER SHEET U.S. DEPARTMENT OF COMMERCE (Rev. 10/02) U.S. Patent and Trademark Office				
OMB No. 0651-0027 (exp. 6/30/2005) PATENTS ONLY				
Tab settings ⇔ ⇔ ▼	▼ ▼	▼ ▼	▼ ▼	
	of Patents and Trademarks: I	Please record the attached	original documents or copy thereof.	
Name of conveying party(ies):		2. Name and address	s of receiving party(ies)	
Robert C. DeVault		Name: UT-Battelle	- · · · · · · · · · · · · · · · · · · ·	
David J. Wesolowski				
Bava C. Wedelellell		Internal Address:	P.O. Box 2008	
Additional name(s) of conveying party(es)	attached? Yes ✓ No		MS-6258	
3. Nature of conveyance:				
✓ Assignment	Merger		no Rothel Valley Road	
Security Agreement	Change of Name	Street Address: <u>`</u>	ne Bethel Valley Road	
Other				
		City: Oak Ridge	State: TN Zip: 37831-6258	
10/2/2006 Execution Date:		Additional name(s) & a	ddress(es) attached? Yes No	
4. Application number(s) or patent	number(s):			
,,	• •	cation the evecution d	ate of the application is:	
•	·	ĺ		
A. Patent Application No.(s) 11.		B. Patent No.(s)		
	Additional numbers att	ached? Yes ✓ No		
5. Name and address of party to v	·	6. Total number of ap	plications and patents involved: 1	
concerning document should be			40.00	
Name: Joseph A. Marasco		7. Total fee (37 CFR	3.41)\$40.00	
UT-Battelle, I Internal Äddress:	LLC	Enclosed		
		Authorized to	be charged to deposit account	
P.O. Box 2008 MS-6258		V / tational to		
		8. Deposit account n	umber	
Street Address: One Bethel Valle	y Road	o. Bopoon account	a25	
Street Address:		13-1958		
		-		
City: Oak Ridge State: TN Z	Zip: 37831-6258			
DO NOT USE THIS SPACE				
9. Signature.				
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Joseph A. Marasco		Hund	OCT 0 2 2006	
Name of Person Signin	g //	Signature //	Date	
Total nu	mber of pages including cover	▽ er sheet, attachments, and d	ocuments: 4	

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

ASSIGNMENT

WHEREAS, we the below-named inventors whose residences and post office are as stated below, have invented certain new and useful improvements in

Liquid Metal Heat Exchanger for Efficient Heating of Soils and Geologic Formations

(hereinafter referred to as "Subject Invention") for which an application for United States Letters Patent was executed by us on even date herewith, and

WHEREAS, UT-BATTELLE, LLC, a limited liability company of the State of Tennessee, having an office at One Bethel Valley Road, P. O. Box 2008, Oak Ridge, Tennessee 37831-6258, hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest of the undersigned in the Subject Invention and to any Letters Patent that may be granted therefor in the United States of America and in any and all foreign countries.

NOW, THEREFORE, in accordance with the terms of our employment agreement with ASSIGNEE and for good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign to ASSIGNEE our entire right, title and interest in the Subject Invention to all rights of priority thereto pursuant to the International Convention for the Protection of Industrial Property, and in any Letters Patent on the Subject Invention that may be granted in the United States of America and in any and all foreign countries, including any and all Letters Patent that are divisions, reissues, continuations, substitutions or extensions of any Letters Patent or applications therefor on the Subject Invention.

We hereby authorize and request the Commissioner of the United States Patent and Trademark Office and the officials of any and all foreign countries to issue any and all of said Letters Patent, when granted, to the ASSIGNEE.

Further, we hereby agree to communicate to said ASSIGNEE or its representatives any facts known to us respecting said Subject Invention, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, to execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, and to make all rightful oaths and generally do everything possible to aid said ASSIGNEE and its representatives to obtain and enforce proper protection for said Subject Invention in the United States of America and in any and all foreign countries.

We further agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE, its successors, assigns, and legal representatives, and shall be binding on us, our heirs, legal representatives, and assigns.

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Full name of inventor: Robert C. DeVault

Date: Systemles 29, 2006

Residence:

3132 West Gallaher Ferry Road, Knoxville, TN 37932-1023

Post Office Address:

3132 West Gallaher Ferry Road, Knoxville, TN 37932-1023

State of Tennessee

County of Roane

On this 29 day of 2006, before me, a Notary Public in and for the County and State aforesaid, appeared Robert C. DeVault to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

SEAL THOUSE OF TENNESSEE NOTARY PUBLIC My Compression of the compressi

Notary Public

My Commission Expires April 6, 2010

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PATENT REEL: 018347 FRAME: 0341

Full name of inventor:	David J. Wesolowski
Signature:	rid J. Wesolowshi Date: 10/2/06
Residence:	208 Euclid Avenue, Kingston, TN 37763
Post Office Address:	208 Euclid Avenue, Kingston, TN 37763
State of Tennessee)
County of Roane)
On this 2	day of October 2006, before me, a Notary Public in and for the County
	peared David J. Wesolowski to me personally known to be the same person whose
name is subscribed to t	he foregoing instrument, and acknowledged that he executed said instrument as his
free and voluntary act a	nd for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.



RECORDED: 10/04/2006

Notary Public

My Commission Expires April 6, 2010