505276231 01/14/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANSSI HYVARINEN	12/13/2017
KIMMO ERONEN	11/30/2017
RISTO KALLINEN	11/30/2017
STEPHEN CONNELLY	11/30/2017
ESA RANTALA	12/11/2017
PAUL BROWN	11/30/2017
JUHA PIIPPONEN	12/18/2017
TEEMU MAJANDER	12/18/2017
SIRPA LAUNIS	01/24/2018

RECEIVING PARTY DATA

Name:	SANDVIK MINING AND CONSTRUCTION OY
Street Address:	PIHTISULUNKATU 9
City:	TAMPERE
State/Country:	FINLAND
Postal Code:	33330

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16222648

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Email: rima.malik@sandvik.com

Correspondent Name: CORINNE GORSKI

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ATTORNEY DOCKET NUMBER:	SMC 14951US
NAME OF SUBMITTER:	CORINNE GORSKI

505276231 PATENT REEL: 047982 FRAME: 0831

SIGNATURE:	/Corinne Gorski/	
DATE SIGNED:	01/14/2019	
Total Attachments: 9		
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source=P14951RTDEP 2018-01-26 Assignments signed#page2.tif		
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source=P14951RTDEP_2018-01-26_Assignments signed#page4.tif		
source=P14951RTDEP_2018-01-26_Assignments signed#page5.tif		
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PATENT REEL: 047982 FRAME: 0832

Confirmation of Assignment Patent

I/We Risto Kallinen, Stephen Connelly, Paul Brown, Anssi Hyvärinen, Kimmo Eronen, Teemu Majander, Esa Rantala and Juha Piipponen, as The "Inventor/-s" and "Assignor/-s" hereby finally and irrevocably assign my/our entire rights and title to the patentable invention included in the Invention disclosure entitled:

"ID01032: Multilayer composite feed beam"

to the Assignee, being:

SANDVIK MINING AND CONSTRUCTION OY

PIHTISULUNKATU 9 33330 TAMPERE

FINLAND

I/We confirm that as at the date of this Agreement I have assigned to the Assignee all my rights and title that I/We may have anywhere in the world in relation to the Invention. This Assignment includes the exclusive right for the Assignee to seek and obtain in its sole name patent or other intellectual protection for the Invention in any country, including the right to claim priority from any patent application describing the Invention. I undertake to, without delay, assist the Assignee in all work with patent applications that concern the Invention, including but not limited to signing all documents, providing necessary information and undertaking other reasonable measures which are necessary in order for the Assignee id free and not limited by the terms of this Assignment to assign or otherwise convey any interest in the Invention to any third part.

This Assignment shall be governed by and construed in accordance with the laws of Finland.

Place and Date:	13.12.2017 1	läneen linn-		
Inventor(s)/Assignor(s) Sig	nature: UF			
Clarification of signature:	Aussi Hyvari	· e	······································	
Home Address:	Vuokam mitti	3 8 22	33270 Tan	uperc

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Place and Dates	Tampere 30,11,2017
Inventor(s)/Assignor(s) Sign	nature: <u>Kie Ce</u>
Clarification of signature:	Kimmo Eronen
Home Address:	Kukkulantie 4 A6
	33960 Pirkkala

Confirmation of Assignment Patent

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Place and Date:	Tampere	30.11	. 2017	********
Inventor(s)/Assignor(s) Signa	ture:	*	****	
Clarification of signature:	Pisto	Kalli	'nen	
Home Address:	Tahkokotu	1	37120	Notas

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Place and Date:	Tampere	<u> 30 - 11 - 2017</u>
Inventor(s)/Assignor(s) Sig	nature: <i>S Gaia</i>	<u>#</u>
Clarification of signature:	STEPHEN	CONNECT
Home Address:	ONKINIEMENKI	4TU 3 B12
	33230 , TAM	PERE

Confirmation of Assignment Patent

I/We Risto Kallinen, Stephen Connelly, Paul Brown, Anssi Hyvärinen, Kimmo Eronen, Teemu Majander, Esa Rantala and Juha Piipponen, as The "Inventor/-s" and "Assignor/-s" hereby finally and irrevocably assign my/our entire rights and title to the patentable invention included in the Invention disclosure entitled:

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Place and Date:	Tampere 11.12.2017	**********
Inventor(s)/Assignor(s) Sig	gnature:	·····
Clarification of signature:	Esa Rantala	******************************
Home Address:	Abolantie 4, 34150 Kyrönlas	<u>.}:</u>

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I/We Risto Kallinen, Stephen Connelly, Paul Brown, Anssi Hyvärinen, Kimmo Eronen, Teemu Majander, Esa Rantala and Juha Piipponen, as The "Inventor/-s" and "Assignor/-s" hereby finally and irrevocably assign my/our entire rights and title to the patentable invention included in the Invention disclosure entitled:

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Place and Date:	HELSINKI	3	<u>0/11/201</u>	7
Inventor(s)/Assignor(s) Sig	nature:	77	7/4	-\$-
Clarification of signature:	P.	BEOWN		***************************************
Home Address:	TEHTAANKATU	42a, 12	00120	HELSINK

Confirmation of Assignment Patent

I/We Risto Kallinen, Stephen Connelly, Paul Brown, Anssi Hyvärinen, Kimmo Eronen, Teemu Majander, Esa Rantala and Juha Piipponen, as The "Inventor/-s" and "Assignor/-s" hereby finally and irrevocably assign my/our entire rights and title to the patentable invention included in the Invention disclosure entitled:

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Any dispute, controversy or claim arising out of or in connection with this Assignment or the validity hereof shall be finally settled by arbitration in accordance with the Rules of the Arbitration Institute if the Central Chamber of Commerce in Finland. The arbitral tribunal shall be composed of a sole arbitrator who shall be appointed in accordance with the said rules. The place of arbitration shall be Tampere, Finland.

Place and Date:

TAMPERE

18,12.2017

Inventor(s)/Assignor(s) Signatures

Clarification of signature: 3

inventor (3)/ Assignor (3) Signatures

Vaha Piipponen

Home Address:

Torpankatu 24 as. 3 33240 Town

Confirmation of Assignment Patent

I/We Risto Kallinen, Stephen Connelly, Paul Brown, Anssi Hyvärinen, Kimmo Eronen, Teemu Majander, Esa Rantala and Juha Piipponen, as The "Inventor/-s" and "Assignor/-s" hereby finally and irrevocably assign my/our entire rights and title to the patentable invention included in the Invention disclosure entitled:

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Place and Date:	Tampere	Dec	181h	2017
Inventor(s)/Assignor(s) Sign	nature:		the state of the s	
Clarification of signature:	Teems May	-de		
Home Address:	Kehmankoari	30	832	
	33310 Tampo Finland	rc		

Confirmation of Assignment Patent

I/We Risto Kallinen, Stephen Connelly, Paul Brown, Anssi Hyvärinen, Kimmo Eronen, Teemu Majander, Esa Rantala, Sirpa Launis and Juha Piiponen as The "Inventor/-s" and "Assignor/-s" hereby finally and irrevocably assign my/our entire rights and title to the patentable invention included in the Invention disclosure entitled:

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Place and Date:	Tampere 24.1.2018
Inventor(s)/Assignor(s) Sig	nature: Land
Clarification of signature:	Sirpa Launis
Home Address:	Unholankata 24 B4, 33820
	Tampere

PATENT REEL: 047982 FRAME: 0841

RECORDED: 01/14/2019