506104784 06/12/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6151506

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ADONIRAN JUDSON DE BARROS BRAGA	05/06/2020
LEONARDO AGUAYO	05/05/2020
ANDRÈ NOLL BARRETO	05/04/2020
WILSON MIOLA	04/28/2020
LUIS GUILHERME UZEDA GARCIA	05/06/2020

RECEIVING PARTY DATA

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Street Address:	TORRE OSCAR NIEMEYER, PRAIA DE BOTAFOGO Nº 186
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Postal Code:	22250-145

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16850742

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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Correspondent Name: ARENT FOX LLP **Address Line 1:** 1717 K STREET, NW

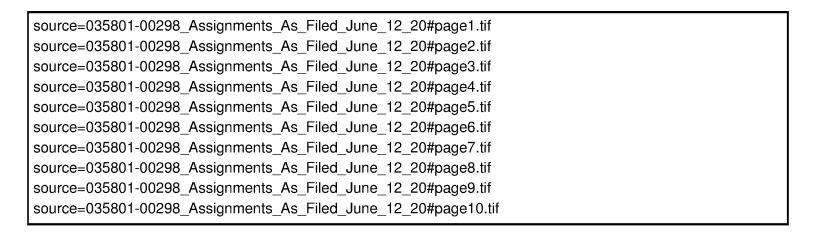
Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	035801.00298
NAME OF SUBMITTER:	SHABNAM SHAFIEE
SIGNATURE:	/Shabnam Shafiee/
DATE SIGNED:	06/12/2020

Total Attachments: 10

PATENT REEL: 052927 FRAME: 0967

506104784



WORLDWIDE ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable consideration paid to the undersigned inventor(s) (hereinafter ASSIGNOR) by

Vale S.A.
Torre Oscar Niemeyer, Praia de Botafogo nº186
Sala 701 a Sala 1.901, Botafogo
22250-145 Rio de Janeiro (RJ)
Brazil

(hereinafter ASSIGNEE), the receipt of which is hereby acknowledged, the undersigned ASSIGNOR agrees to and hereby sells, assigns, and transfers to ASSIGNEE the entire and exclusive right, title, and interest, including the right to sue for past infringement, if any, and all rights pursuant to 35 U.S.C. § 154, to the invention titled

TRACKING AND SPATIAL LOCATION SYSTEM OF MAGNETIC SENSORS AND TRACKING AND LOCATION METHOD

for which application for Letters Patent of the United States was executed on even date herewith unless otherwise indicated below:

filed on April 16, 2020, Serial No. 16/850742
(Arent Fox LLP is hereby authorized to insert the series code, serial number, and/or filing date when known)

and all Letters Patent of the United States and its territorial possessions and in any and all foreign countries to be obtained therefor on said application or any continuation, division, continuation-in-part, renewal, substitute, reissue, or reexamination thereof, and any other application claiming priority thereto, including future inventions or improvements, for the full term or terms for which the same may be granted.

The ASSIGNOR agrees to execute all papers necessary in connection with application and any continuing, divisional, continuation-in-part, reissue, or reexamination applications thereof, and any other applications claiming priority thereto, including future inventions or improvements, and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

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IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

	Wilson MIOLA	
(SIGNATURE)	(TYPE NAME)	(DATE)
	Luis Guilherme UZEDA	
	GARCIA	
(SIGNATURE)	(TYPE NAME)	(DATE)

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| Adonima Judson DE | BARROS BRAGA | (DATE) | (

	Wilson MIOLA	
(SIGNATURE)	(TYPE NAME)	(DATE)
	Luis Guilherme UZEDA	
	GARCIA	
(SIGNATURE)	(TYPE NAME)	(DATE)

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22250-145 Río de Janeiro (RJ)
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BARROS BRAGA
(SIGNATURE) (TYPE NAME)
Leonardo AGUAYO
(TYPE NAME)
André NOE S. EABRETTO

André NOLL BARRETO (TYPE NAME)

Adoniran Judson DE

(DATE)

34 May 2020 (DATE)

	Wilson MIOLA	
(SIGNATURE)	(TYPE NAME)	(DATE)
	Luis Guilherme UZEDA	
	GARCIA	
(SIGNATURE)	(TYPE NAME)	(DATE)

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	Adoniran Judson DE BARROS BRAGA	
(SIGNATURE)	(TYPE NAME)	(DATE)
	Leonardo AGUAYO	
(SIGNATURE)	(TYPE NAME)	(DATE)
	André NOLL BARRETO	
(SIGNATURE)	(TYPE NAME)	(DATE)

Willian Willa	Wilson MIOLA	April 28, 2020
(SIGNATURE)	(TYPE NAME)	(DATE)
	Luis Guilherme UZEDA	
	GARCIA	
(SIGNATURE)	(TYPE NAME)	(DATE)

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(SIGNATURE)	(TYPE NAME)	(DATE)
	André NOLL BARRETO	
(SIGNATURE)	(TYPE NAME)	(DATE)

ARENT FOX LLP

Docket No. 035801,00298

(SIGNATURE)

Wilson MIOLA (TYPE NAME) Luis Guilherme UZEDA GARCIA (TYPE NAME)

(DATE)

<u> 06-05-2</u>0 (DATE)

PATENT REEL: 052927 FRAME: 0978

RECORDED: 06/12/2020