01/26/2017 504198677

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHRIS W. RELLA	04/01/2016
ERIC R. CROSSON	04/01/2016
MICHAEL R. WOELK	04/01/2016
SZE MENG TAN	04/01/2016
YONGGANG HE	04/01/2016
DAVID STEELE	04/01/2016

RECEIVING PARTY DATA

Name:	PICARRO, INC.
Street Address:	3105 PATRICK HENRY DRIVE
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15088885

CORRESPONDENCE DATA

Fax Number: (650)424-0141

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.

Phone: 650-331-8414 Email: bob@lumen.com

ROBERT LODENKAMPER **Correspondent Name:** 550 S. CALIFORNIA AVE. Address Line 1:

Address Line 2: SUITE 300

Address Line 4: PALO ALTO, CALIFORNIA 94306

ATTORNEY DOCKET NUMBER:	PCR-156B/CIP2	
NAME OF SUBMITTER:	ROBERT LODENKAMPER	
SIGNATURE:	/Robert Lodenkamper/	
DATE SIGNED:	01/26/2017	

PATENT REEL: 041096 FRAME: 0971 504198677

Total Attachments: 6 source=PCR-156B-CIP2-ASN#page1.tif source=PCR-156B-CIP2-ASN#page2.tif source=PCR-156B-CIP2-ASN#page3.tif source=PCR-156B-CIP2-ASN#page4.tif source=PCR-156B-CIP2-ASN#page5.tif

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PATENT REEL: 041096 FRAME: 0972

This Assignment of Invention and Patent (the "Assignment") is made and effective as of April 1, 2016, by and between Eric R. Crosson, an individual residing in Livermore, CA, USA, (the "Assignor") and Picarro, Inc., an entity whose address is 3105 Patrick Henry Drive, Santa Clara, CA 95054, USA (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/088885 filed 4/1/2016 entitled Methods for gas leak detection and localization in populated areas using two or more tracer measurements (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
- 2) Assignor hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into by Assignor which would conflict with this Assignment. Assignor represents and warrants to Assignee that at the time of the execution and delivery of this Assignment, Assignor solely owns (or jointly owns, if the invention(s) were jointly made) the entire right, title and interest in and to said invention(s).
- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of April 1, 2016.

Signature:

Assignor: Eric R. Crosson

Lumen Ref.: PCR-156B/CIP2

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **April 1, 2016**, by and between **Yonggang He**, an individual residing in **Union City, CA, USA**, (the "Assignor") and **Picarro, Inc.**, an entity whose address is **3105 Patrick Henry Drive**, **Santa Clara, CA 95054, USA** (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/08885 filed 4/1/2016 entitled Methods for gas leak detection and localization in populated areas using two or more tracer measurements (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
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- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of April 1, 2016.

Signature: _

Assignor: Yonggang He

Lumen Ref.: PCR-156B/CIP2

This Assignment of Invention and Patent (the "Assignment") is made and effective as of April 1, 2016, by and between Chris W. Rella, an individual residing in Sunnyvale, CA, US, (the "Assignor") and Picarro, Inc., an entity whose address is 3105 Patrick Henry Drive, Santa Clara, CA 95054, USA (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/088885 filed 4/1/2016 entitled Methods for gas leak detection and localization in populated areas using two or more tracer measurements (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
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- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of April 1, 2016.

Signature:

Assignor: Cifris W. Rella

Lumen Ref.: PCR-156B/CIP2

This Assignment of Invention and Patent (the "Assignment") is made and effective as of April 1, 2016, by and between David Steele, an individual residing in San Francisco, CA, USA, (the "Assignor") and Picarro, Inc., an entity whose address is 3105 Patrick Henry Drive, Santa Clara, CA 95054, USA (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/088885 filed 4/1/2016 entitled Methods for gas leak detection and localization in populated areas using two or more tracer measurements (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
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- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of April 1, 2016.

Signature:

Assignor: David Steele

Lumen Ref.: PCR-156B/CIP2

This Assignment of Invention and Patent (the "Assignment") is made and effective as of April 1, 2016, by and between Sze Meng Tan, an individual residing in Santa Clara, CA, USA, (the "Assignor") and Picarro, Inc., an entity whose address is 3105 Patrick Henry Drive, Santa Clara, CA 95054, USA (the "Assignee").

- For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/088885 filed 4/1/2016 entitled Methods for gas leak detection and localization in populated areas using two or more tracer measurements (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
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- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of April 1, 2016.

Assignor: Sze Meng Tan

Lumen Ref.: PCR-156B/CIP2 PID: 21315 IID: 2832

This Assignment of Invention and Patent (the "Assignment") is made and effective as of April 1, 2016, by and between Michael R. Woelk, an individual residing in Livermore, CA, USA, (the "Assignor") and Picarro, Inc., an entity whose address is 3105 Patrick Henry Drive, Santa Clara, CA 95054, USA (the "Assignee").

- 1) For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee and the successors, assigns, and legal representatives of Assignee, all of its right, title and interest in and to (i) the invention or inventions described in US patent application 15/088885 filed 4/1/2016 entitled Methods for gas leak detection and localization in populated areas using two or more tracer measurements (the "Application") naming Assignor as an inventor, (ii) any and all patent applications (whether provisional or non-provisional) relating to said invention(s), including all continuations, continuations-in-part, divisions, substitutes, reissues or renewals thereof, in any and all countries, (iii) any and all patents relating to such invention(s) in any and all countries that may be granted on any such application(s), including all reissues or extensions of any such patents and (iv) any and all domestic and foreign rights of priority resulting from the filing of the Application.
- 2) Assignor hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into by Assignor which would conflict with this Assignment. Assignor represents and warrants to Assignee that at the time of the execution and delivery of this Assignment, Assignor solely owns (or jointly owns, if the invention(s) were jointly made) the entire right, title and interest in and to said invention(s).
- 3) Assignor agrees that Assignee may apply for foreign patents relating to said invention(s) and irrevocably authorizes Assignee and grants Assignee the right to do so.
- 4) Assignor agrees, on request and without further consideration, but at the expense of Assignee, to sign all lawful papers, make all rightful oaths, and give any required testimony in any legal proceedings relating to said invention(s), and to generally aid Assignee, or its successors or assigns to obtain and enforce patent protection for said invention(s) in any and all countries.
- 5) Assignor authorizes and requests any official whose duty it is to issue patents to issue any patent on said invention(s) to Assignee, as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made.
- 6) This Assignment shall bind and inure to the benefit of the successors, assigns and personal representatives of the respective parties.

Assignor has executed this Assignment as of the Effective Date of April 1, 2016.

Signature: _

Assignor: Michael R. Woelk

Lumen Ref.: PCR-156B/CIP2 PID: 21315 IID: 4606

PATENT REEL: 041096 FRAME: 0978

RECORDED: 01/26/2017