# 503350108 06/15/2015

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3396728

		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY DA	TA		
		Name	Execution Date
CHRIS W. RELLA			09/23/2014
ERIC R. CROSSON			09/23/2014
MICHAEL R. WOELK			09/23/2014
SZE MENG TAN			09/23/2014
YONGGANG HE			09/23/2014
DAVID STEELE			09/23/2014
RECEIVING PARTY DAT	۲ <b>A</b>		
Name: PICARRO, INC.			
Street Address:	3105 PATRICK HENRY DRIVE		
City:	SANTA	CLARA	
State/Country:	CALIFC	DRNIA	
Postal Code:	95054		
PROPERTY NUMBERS	Total: 1	Number	
PROPERTY NUMBERS		<b>Number</b> 14493853	
Property Type Application Number: CORRESPONDENCE DA Fax Number: <i>Correspondence will be</i>	ATA ( sent to	14493853 (650)424-0141 • <b>the e-mail address first; if that is unsuc</b>	
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Property Type Application Number: CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	ATA sent to rovided	14493853 (650)424-0141 • <b>the e-mail address first; if that is unsuc</b> <b>I; if that is unsuccessful, it will be sent vi</b> 650-331-8414 bob@lumen.com ROBERT LODENKAMPER	
Property Type Application Number: CORRESPONDENCE DA Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1:	ATA sent to rovided	(650)424-0141 <b>the e-mail address first; if that is unsuc</b> <b>if that is unsuccessful, it will be sent vi</b> 650-331-8414 bob@lumen.com ROBERT LODENKAMPER 550 S. CALIFORNIA AVE.	
Property Type Application Number: CORRESPONDENCE DA Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA sent to rovided	(650)424-0141 <b>the e-mail address first; if that is unsuc</b> <b>if that is unsuccessful, it will be sent vi</b> 650-331-8414 bob@lumen.com ROBERT LODENKAMPER 550 S. CALIFORNIA AVE. SUITE 300	
Property Type Application Number: CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	ATA sent to rovided	(650)424-0141 <b>the e-mail address first; if that is unsuc</b> <b>if that is unsuccessful, it will be sent vi</b> 650-331-8414 bob@lumen.com ROBERT LODENKAMPER 550 S. CALIFORNIA AVE.	
Property Type Application Number: CORRESPONDENCE DA Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA sent to rovided	(650)424-0141 <b>the e-mail address first; if that is unsuc</b> <b>if that is unsuccessful, it will be sent vi</b> 650-331-8414 bob@lumen.com ROBERT LODENKAMPER 550 S. CALIFORNIA AVE. SUITE 300	
Property Type Application Number: CORRESPONDENCE DA Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA sent to rovided	(650)424-0141 <b>the e-mail address first; if that is unsuc</b> <b>if that is unsuccessful, it will be sent vi</b> 650-331-8414 bob@lumen.com ROBERT LODENKAMPER 550 S. CALIFORNIA AVE. SUITE 300 PALO ALTO, CALIFORNIA 94306	
Property Type Application Number: CORRESPONDENCE DA Fax Number: Correspondence will be using a fax number, if pa Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA sent to rovided	(650)424-0141 the e-mail address first; if that is unsuc if that is unsuccessful, it will be sent vi 650-331-8414 bob@lumen.com ROBERT LODENKAMPER 550 S. CALIFORNIA AVE. SUITE 300 PALO ALTO, CALIFORNIA 94306 PCR-156B/CIP	

Total Attachments: 6
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source=PCR-156B-CIP-ASN#page6.tif

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **September 23, 2014**, 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 **14/493853** filed **9/23/2014** entitled **Methods for gas leak detection and localization in populated areas using isotope ratio 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 September 23, 2014.

the R Crosson\_ Signature:

Assignor: Eric R. Crosson

Lumen Ref.: PCR-156B/CIP PID: 19852 IID: 897

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **September 23, 2014**, 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 **14/493853** filed **9/23/2014** entitled **Methods for gas leak detection and localization in populated areas using isotope ratio 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 September 23, 2014.

Children and Child Signature:

Assignor: Yonggang He

Lumen Ref.: PCR-156B/CIP PID: 19852 IID: 4401

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **September 23, 2014**, 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 **14/493853** filed **9/23/2014** entitled **Methods for gas leak detection and localization in populated areas using isotope ratio 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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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 September 23, 2014.

Signature:

Assignor: Chris W. Rella

Lumen Ref.: PCR-156B/CIP PID: 19852 IID: 1838

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **September 23, 2014**, 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 **14/493853** filed **9/23/2014** entitled **Methods for gas leak detection and localization in populated areas using isotope ratio 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 September 23, 2014.

Signature: Assignor: David Steele

Lumen Ref.: PCR-156B/CIP PID: 19852 IID: 5105

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **September 23, 2014**, 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").

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 **14/493853** filed **9/23/2014** entitled **Methods for gas leak detection and localization in populated areas using isotope ratio 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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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 **September 23, 2014**.

Signature: Tan De Mary Assignor: Sze Meng Tan

Lumen Ref.: PCR-156B/CIP PID: 19852 IID: 2832

This Assignment of Invention and Patent (the "Assignment") is made and effective as of **September 23, 2014**, 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 **14/493853** filed **9/23/2014** entitled **Methods for gas leak detection and localization in populated areas using isotope ratio 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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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 September 23, 2014.

Signature:

Assignor: Michael R. Woelk

Lumen Ref.: PCR-156B/CIP PID: 19852 IID: 4606

PATENT REEL: 035908 FRAME: 0884

**RECORDED: 06/15/2015**