

## PATENT ASSIGNMENT COVER SHEET

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Stylesheet Version v1.2

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ANAND RAMAN	02/20/2012
JASON M MORGAN	03/06/2012
BARBARA J SAVAGE	02/06/2012
DAVID G MEADOWS	02/15/2012
WAYNE W HAZEN	03/12/2012
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	FREEPORT-MCMORAN CORPORATION
<b>Street Address:</b>	333 NORTH CENTRAL AVENUE
<b>City:</b>	PHOENIX
<b>State/Country:</b>	ARIZONA
<b>Postal Code:</b>	85004
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15240383
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(602)382-6070
<i>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.</i>	
<b>Phone:</b>	602-382-6314
<b>Email:</b>	chauff@swlaw.com, matanacio@swlaw.com
<b>Correspondent Name:</b>	SNELL & WILMER L.L.P.
<b>Address Line 1:</b>	400 EAST VAN BUREN STREET
<b>Address Line 2:</b>	CHARLES F. HAUFF, JR.
<b>Address Line 4:</b>	PHOENIX, ARIZONA 85004-2202
<b>ATTORNEY DOCKET NUMBER:</b>	97112.08038
<b>NAME OF SUBMITTER:</b>	CHARLES F. HAUFF, JR.
<b>SIGNATURE:</b>	/Charles F. Hauff, Jr./
<b>DATE SIGNED:</b>	08/24/2016
<b>Total Attachments: 6</b>	

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## ASSIGNMENT

### *UTILITY PATENT*

WHEREAS, the undersigned inventor(s) (hereinafter singly and collectively, "ASSIGNOR"), of the address(es) indicated below, have invented subject matter disclosed in the patent application entitled "SYSTEM AND METHOD FOR PARALLEL SOLUTION EXTRACTION OF ONE OR MORE METAL VALUES FROM METAL-BEARING MATERIALS" that was filed on December 20, 2011, and assigned U.S. Serial No. 13/331,699.

AND WHEREAS, FREEPORT-MCMORAN CORPORATION (hereinafter "ASSIGNEE"), a corporation organized and existing under and by virtue of the laws of the State of New York having its principal place of business at and a mailing address of 333 North Central Avenue, Phoenix, Arizona 85004, is desirous of acquiring any and all rights owned by ASSIGNOR in said patent application;

AND WHEREAS, a "patent application," as referred to herein, shall mean any provisional, non-provisional, continuation, continuation in part, divisional, reissue, reexamination, foreign, PCT or other patent application or like document;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR by these presents does sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right to the invention, as described in the aforesaid application, including patent, copyright and any other intellectual property rights, any provisional, non-provisional, continuation, continuation in part, divisional, reissue, reexamination, foreign, PCT or other patent application or like document, or any other application which claims priority to said application, in the United States and all foreign countries, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States adheres, and hereby authorizes and requests the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for the sole use and benefit of ASSIGNEE, its successors, assigns and legal representatives,

AND HEREBY AGREES to transfer to ASSIGNEE, its successors, assigns and legal representatives, without further remuneration, a like interest in and to any improvements and derivative works, and applications based thereon, growing out of or relating to the invention; and to provide all reasonable assistance and execute any papers, if accurate, desired by ASSIGNEE, its successors, assigns and legal representatives, to preserve, acquire and/or perfect ASSIGNEE's full protection and title in and to the invention and any improvements and to file any of the aforementioned applications.

AGREEING FURTHERMORE, upon the request of ASSIGNEE, and without further remuneration, to execute any and all papers desired by ASSIGNEE for the filing and granting of any patent applications based on the invention or Application, or improvements therein, and the perfecting of title thereto in ASSIGNEE.

EXECUTED as of the date(s) written below by ASSIGNOR:

First Joint Inventor: Anand Raman

Signature: *AR*

Date: 8/20, 2012

Residence address: 333 N CENTRAL PHOENIX AZ 85004

STATE OF \_\_\_\_\_ )

) ss.

COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2012, before me, a notary public in and for said county, appeared Anand Raman, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

\_\_\_\_\_  
Notary Public

My commission expires:  
\_\_\_\_\_

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97112.9000  
14394378.1

Second Joint Inventor: Jason M. Morgan

Signature: *Jason M. Morgan* Date: 3/6/2012

Residence address: 121 Ironwood Road, Morenci, AZ 85540, U.S.A.

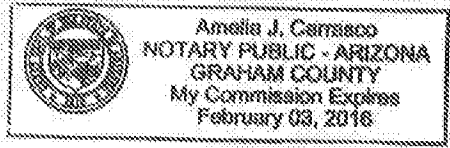
STATE OF AZ. )  
 ) ss.  
COUNTY OF Graham )

On this 6th day of March, 2012, before me, a notary public in and for said county, appeared **Jason M. Morgan**, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

*Amelia J. Carrasco*  
Notary Public

My commission expires:

Feb 3 2016



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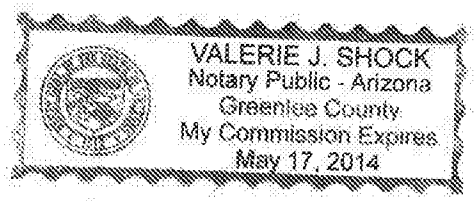
Third/Joint Inventor: Barbara J. Savage  
Signature: *Barbara J. Savage* Date: 06 FEB 12  
Residence address: P.O. Box 5126, Silver City, NM 88062, U.S.A.

STATE OF AZ )  
 ) ss.  
COUNTY OF Greenlee

On this 6<sup>th</sup> day of Feb, 2012, before me, a notary public in and for said county, appeared **Barbara J. Savage**, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

*Valerie J. Shock*  
Notary Public

My commission expires:  
May 17, 2014



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Fourth/Joint Inventor: David G. Meadows

Signature: David G. Meadows Date: 15 Feb 2012

Residence address: 3411 North 16<sup>th</sup> Street, #2069, Phoenix, AZ 85016, U.S.A.

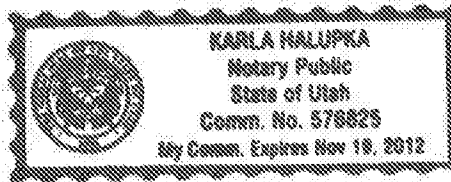
STATE OF Utah )  
 ) ss.  
COUNTY OF Salt Lake )

On this 15 day of February, 2012, before me, a notary public in and for said county, appeared David G. Meadows, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Karla Halupka  
Notary Public

My commission expires:

Nov. 19, 2012



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Fifth/Joint Inventor: Wayne W. Hazen

Signature: Wayne W. Hazen Date: 12 MAR 2012

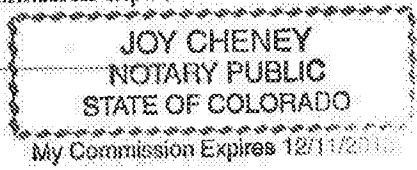
Residence address: 11155 Linda Vista Drive, Lakewood, CO 80215, U.S.A.

STATE OF Colorado  
COUNTY OF Jefferson ss.

On this 12 day of March, 2012, before me, a notary public in and for said county, appeared Wayne W. Hazen, who is known to me to be the same person whose name is subscribed to the foregoing instrument, and he acknowledges that he signed, sealed and delivered the said instrument as a free and voluntary act for the uses and purposes therein set forth.

Joy Cheney  
Notary Public

My commission expires:



SNELL & WILMER LLP.  
One Arizona Center  
400 East Van Buren  
Phoenix, Arizona 85004  
Phone: (602) 382-6314  
Fax: (602) 382-6070

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