

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7570505

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	MEADWESTVACO CORPORATION	08/12/2015
RECEIVING PARTY DATA		
Name:	INGEVITY SOUTH CAROLINA, LLC	
Street Address:	4920 O'HEAR AVENUE, SUITE 400	
City:	NORTH CHARLESTON	
State/Country:	SOUTH CAROLINA	
Postal Code:	29405	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	17937273
CORRESPONDENCE DATA		
Fax Number:	(860)286-0115	
<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>		
Phone:	860.286.2929	
Email:	jwhitney@cantorcolburn.com, bzerhusen@cantorcolburn.com	
Correspondent Name:	CANTOR COLBURN LLP	
Address Line 1:	20 CHURCH STREET	
Address Line 2:	22ND FLOOR	
Address Line 4:	HARTFORD, CONNECTICUT 06103-3207	
ATTORNEY DOCKET NUMBER:	IGVPM0031USC7-MWV-IGV	
NAME OF SUBMITTER:	JOY WHITNEY	
SIGNATURE:	/joy whitney/	
DATE SIGNED:	10/03/2022	
Total Attachments: 19		
source=IGVPM0031USC7 - Assign - MWV to IGV#page1.tif		
source=IGVPM0031USC7 - Assign - MWV to IGV#page2.tif		
source=IGVPM0031USC7 - Assign - MWV to IGV#page3.tif		
source=IGVPM0031USC7 - Assign - MWV to IGV#page4.tif		
source=IGVPM0031USC7 - Assign - MWV to IGV#page5.tif		

source=IGVPM0031USC7 - Assign - MWV to IGV#page6.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page7.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page8.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page9.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page10.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page11.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page12.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page13.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page14.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page15.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page16.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page17.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page18.tif
source=IGVPM0031USC7 - Assign - MWV to IGV#page19.tif

#2

ASSIGNMENT
(Patents and Applications for Patent)

THIS ASSIGNMENT, is made the 12th day of August in the year 2015, between **MEADWESTVACO CORPORATION**, a Delaware corporation ("Assignor"), with an address at 501 South 5th Street, Richmond, VA 23219, U.S.A. and **INGEVITY SOUTH CAROLINA, LLC**, a Delaware limited liability company ("Assignee"), with an address at 5255 Virginia Avenue, North Charleston, South Carolina 29406, U.S.A.

For good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby sell, assign and transfer unto the Assignee, its successors and assigns, Assignor's entire right, title and interest in the inventions, Patents, and Applications for Patent listed on Schedule A, and of all counterpart patents and patent applications which have been or may be granted thereon or therefor including any continuation, division, renewal, substitute, reissue or extension therefor, any foreign equivalent thereof, or any legal equivalent thereof, together with all claims for damages by reason of past or future infringement thereof, with the exclusive right to sue for and collect said damages.

Assignor agrees promptly upon request of the Assignee, its successors or assigns, to execute and deliver, without further compensation, any power of attorney, continuation or reissue, confirmatory assignments or deeds, or other papers which may be necessary or desirable fully to secure to the Assignee, its successors and assigns, the inventions and any of them described in said applications and all patent rights therein, in any country in the world.

[signature page follows]

Schedule A

Patents and Patent Applications

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
0176-USCIP1	US	Granted	METHOD FOR REMOVAL OF CHLORAMINES FROM DRINKING WATER	10/144201	10-May-2002	6706194	16-Mar-2004
0176-USDIVCII	US	Granted	CATALYTIC ACTIVATED CARBON FOR REMOVAL OF CHLORAMINES FROM WATER	11/079977	11-Mar-2005	7361280	22-Apr-2008
0176-USORD	US	Granted	METHOD FOR REMOVAL OF CHLORAMINES FROM DRINKING WATER	10/141158	8-May-2002	6699393	2-Mar-2004
0179-DEEPP	DE	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2748109.2	8-Jul-2002	60243763	26-Sep-2012
0179-EPPCT	EP	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2748109.2	8-Jul-2002	1446569	26-Sep-2012
0179-FREPP	FR	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2748109.2	8-Jul-2002	1446569	26-Sep-2012
0179-GBEPP	GB	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2748109.2	8-Jul-2002	1446569	26-Sep-2012
0179-ITEPP	IT	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2748109.2	8-Jul-2002	1446569	26-Sep-2012
0179-JPPCT	JP	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2003-547774	8-Jul-2002	4494786	16-Apr-2010
0179-KRPCT	KR	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	10-2004-7007771	8-Jul-2002	10-0762051	19-Sep-2007

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat. Number	Grant Date
0179-MXPCT	MX	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS.	PA/a/2004/004785	8-Jul-2002	243693	9-Feb-2007
0179-USORDI	US	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	10/100362	18-Mar-2002	6540815	1-Apr-2003
0179-USREI2	US	Granted	METHOD FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	10/690298	21-Oct-2003	RE38844	25-Oct-2005
0335-AUDIV2D	AU	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2010241217	3-Nov-2010	2010241217	26-Apr-2013
0335-AUDIV2D1	AU	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2013202839	8-Apr-2013	2013202839	11-Sep-2014
0335-AUPCT2	AU	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2007230689	21-Feb-2008	2007230689	6-Jan-2011
0335-AUPCT1C	AU	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	2008242350	14-Oct-2009	2008242350	22-Aug-2013
0335-BEEDV1	BE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-BEEDV2D	BE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-BEEDV3	BE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-BEEDV3	BE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	1716207	1-Apr-2015

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
0335-BEPP2	BE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-BEPP1C	BE	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-BRDIV1	BR	Appealed	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS-WATERLESS EMULSION	P10520883-1	27-Jul-2010		
0335-BRDIV2D	BR	Pending	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	P10722132-0	24-May-2010		
0335-BRPCT	BR	Published	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	P10507841-5	18-Aug-2006		
0335-BRPCT2	BR	Published	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	P10702862-8	6-Nov-2007		
0335-BRPCT1C	BR	Pending	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	P10810452-2	16-Oct-2009		
0335-CADIV1	CA	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2702151	30-Apr-2010	2702151	21-Jan-2014
0335-CADIV2	CA	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	2707747	28-Jun-2010	2707747	10-Sep-2013
0335-CAPCT	CA	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	2556765	16-Aug-2006	2556765	26-Jul-2011
0335-CAPCT2	CA	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2609860	26-Nov-2007	2609860	6-Dec-2011
0335-CAPCT1C	CA	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	2684495	16-Oct-2009	2684495	17-Jul-2012

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
0335-CHEDV2D	CH	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-CHEDV3	CH	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-CHEPP	CH	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	1716207	1-Apr-2015
0335-CHEPPIC	CH	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-CNDIV1	CN	Published	WATER-IN-OIL BITUMEN DISPERSION OR PRODUCING PAVING COMPOUND FROM THE SAME	201010169951.3	4-May-2010		
0335-CNPCT	CN	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	200580011645.4	18-Oct-2006	ZL200580011645.4	26-May-2010
0335-CNPCT2	CN	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	200780000493.7	16-Nov-2007	200780000493.7	29-Jun-2011
0335-CZEDV1	CZ	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-CZEPP2	CZ	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-DEEDV1	DE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	602005035949.4	29-Aug-2012
0335-DEEDV2D	DE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	602007039590.9	3-Dec-2014

MWI Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
0335-DEEDV3	DE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	602007040160.7	21-Jan-2015
0335-DEEPP	DE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	602005046186.8	1-Apr-2015
0335-DEEPP2	DE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-DEEPPIC	DE	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	602008036669.3	18-Feb-2015
0335-DKEDV1	DK	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-DKEPP2	DK	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-EPDIV1	EP	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-EPDIV2	EP	Published	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	10165814	14-Jun-2010		
0335-EPDIV2D	EP	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-EPDIV3	EP	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-EPDIV4	EP	Pending	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	15151474	16-Jan-2015		
0335-EPDIVIIE	EP	Published	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	13173175	21-Jun-2013		

- 7 -

MWI-Ingevity Pat. Assignment

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
0335-EPPCT	EP	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	1716207	1-Apr-2015
0335-EPPCT2	EP	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-EPPCTIC	EP	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-ESEDV1	ES	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-ESEPP2	ES	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-FREDV1	FR	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-FREDV2D	FR	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-FREDV3	FR	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-FREPP	FR	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	1716207	1-Apr-2015
0335-FREPP2	FR	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-FREPPIC	FR	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-GBEDV1	GB	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012

MWV Case No.	Country	Status	Invt Title	App Number	File Date	Pat Number	Grant Date
0335-GBEDV2D	GB	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-GBEDV3	GB	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-GBEPP	GB	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	1716207	1-Apr-2015
0335-GBEPP2	GB	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-GBEPPIC	GB	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-IEEDV1	IE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-IEEDV2D	IE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-IEEDV3	IE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-IEEPP	IE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	5712377	15-Aug-2006	1716207	1-Apr-2015
0335-IEEPP2	IE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-IEEPPIC	IE	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015

MWV Case No.	Country	Status	Inv Title	App Number	File Date	Pat Number	Grant Date
0335-INDIV1	IN	Pending	A BITUMINOUS COMPOSITION AND METHOD FOR PRODUCING THE SAME	1992/KOL NP/2010	1-Jun-2010		
0335-INPCT2	IN	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	1112/KOL NP/2008	17-Mar-2008	252577	23-May-2012
0335-ISEDV1	IS	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-ITEDV1	IT	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-ITEPP2	IT	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-JPPCT2	JP	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2008-547792	24-Jun-2008	4748818	27-May-2011
0335-MXDIV1	MX	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	MX/a/2010/004767	29-Apr-2010	329698	27-Apr-2015
0335-MXDIV2	MX	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	MX/a/2010/007307	30-Jun-2010	325706	27-Nov-2014
0335-MXDIV20	MX	Pending	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	MX/a/2013/010591	13-Sep-2013		
0335-MXPCT2	MX	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	MX/a/2007/014853	26-Nov-2007	281443	26-Nov-2010
0335-MXPCTIIC	MX	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	MX/a/2009/011201	16-Oct-2009	321202	19-Jun-2014

MWV Case No.	Country	Status	Inventor Title	App. Number	File Date	Pat Number	Grant Date
0335-NLEDV1	NL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-NLEDV2D	NL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-NLEDV3	NL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-NLEPP	NL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	5712377	15-Aug-2006	1716207	1-Apr-2015
0335-NLEPP2	NL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-NLEPPIC	NL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-PLEDV1	PL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-PLEPP2	PL	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-SEEDV1	SE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-SEEDV2D	SE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12150100	3-Jan-2012	2441804	3-Dec-2014
0335-SEEDV3	SE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	10165295	8-Jun-2010	2251379	21-Jan-2015
0335-SEEP2	SE	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	5712377	15-Aug-2006	1716207	1-Apr-2015

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
0335-SEPP2	SE	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	7759351.5	24-Dec-2007	1915420	1-Sep-2010
0335-SEPPIC	SE	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	8744619.1	3-Feb-2010	2185650	18-Feb-2015
0335-THORDIC	TH	Published	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	801001869	11-Apr-2008		
0335-TREDV1	TR	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	9174089.4	26-Oct-2009	2141204	29-Aug-2012
0335-USCIP1	US	Granted	WATER-IN-OIL BITUMINOUS DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS	11/391146	28-Mar-2006	7297204	20-Nov-2007
0335-USCIPIC	US	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	11/852696	10-Sep-2007	7833338	16-Nov-2010
0335-USCON2C	US	Granted	BITUMINOUS COMPOSITION	13/509622	2-Dec-2011	8444760	21-May-2013
0335-USCON4	US	Published	BITUMINOUS COMPOSITION	13/866166	19-Apr-2013		
0335-USCONCIP	US	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS	11/862273	27-Sep-2007	7905949	15-Mar-2011
0335-USDIV1	US	Granted	BITUMINOUS COMPOSITION	12/905886	15-Oct-2010	7972429	5-Jul-2011
0335-USDIV2	US	Granted	BITUMINOUS COMPOSITION	13/116517	26-May-2011	8088210	3-Jan-2012
0335-USPCT2	US	Granted	WATER-IN-OIL BITUMEN DISPERSION AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	12/063189	7-Feb-2008	7951857	31-May-2011

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat. Number	Grant Date
0335-ZAPCT	ZA	Granted	METHOD FOR PRODUCING BITUMINOUS COMPOSITIONS AND WATER-IN-OIL BITUMINOUS DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2006/06788	15-Aug-2006	2006/06788	27-Dec-2007
0335-ZAPCT2	ZA	Granted	WATER-IN-OIL BITUMEN DISPERSIONS AND METHODS FOR PRODUCING PAVING COMPOSITIONS FROM THE SAME	2007/09624	8-Nov-2007	2007/09624	27-May-2009
0335-ZAPCTIIC	ZA	Granted	METHOD FOR PRODUCING BITUMEN COMPOSITIONS	2009/07053	9-Oct-2009	2009/07053	25-May-2011
20547-AUDIV1	AU	Granted	CONTROL OF VAPOR EMISSIONS FROM GASOLINE STATIONS	2011213708	16-Aug-2011	2011213708	29-Nov-2012
20547-USPCT	US	Published	CONTROL OF VAPOR EMISSIONS FROM GASOLINE STATIONS	12/282410	10-Sep-2008		
21091-CAPCT	CA	Granted	METHOD FOR PRODUCING BITUMINOUS PAVING COMPOSITIONS	2752971	18-Aug-2011	2752971	3-Jun-2014
21091-CNPCT	CN	Granted	METHOD FOR PRODUCING BITUMINOUS PAVING COMPOSITIONS	201080008542.3	19-Aug-2011	ZL201080008542.3	12-Mar-2014
21091-EPPCT	EP	Published	METHOD FOR PRODUCING BITUMINOUS PAVING COMPOSITIONS	10737136	28-Jun-2011		
21091-MXPCT	MX	Granted	METHOD FOR PRODUCING BITUMINOUS PAVING COMPOSITIONS	MX/a/2011/007428	11-Jul-2011	311625	22-Jul-2013
21091-USORD	US	Granted	METHOD FOR PRODUCING BITUMINOUS PAVING COMPOSITIONS	12/707967	18-Feb-2010	7993442	9-Aug-2011
21132-CAORD	CA	Granted	EMISSION CONTROL DEVICES FOR AIR INDUCTION SYSTEMS OF INTERNAL COMBUSTION ENGINES	2661234	2-Apr-2009	2661234	31-Jul-2012

MWV-Ingevity Pat. Assignment

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
21132-USORD	US	Granted	EMISSION CONTROL DEVICES FOR AIR INDUCTION SYSTEMS OF INTERNAL COMBUSTION ENGINES	12/403902	13-Mar-2009	8042524	25-Oct-2011
21235-CN/DIV1	CN	Published	FUEL VAPOR RECOVERY SYSTEM WITH PROPORTIONED FLOW SPLITTING	201310637591.9	3-Dec-2013		
21235-DEEPP	DE	Granted	FUEL VAPOR MANAGEMENT SYSTEM WITH PROPORTIONED FLOW SPLITTING	9737299.9	15-Apr-2011	602009011908.7	12-Dec-2012
21235-EPPCT	EP	Granted	FUEL VAPOR MANAGEMENT SYSTEM WITH PROPORTIONED FLOW SPLITTING	9737299.9	15-Apr-2011	2344413	12-Dec-2012
21235-GBEPP	GB	Granted	FUEL VAPOR MANAGEMENT SYSTEM WITH PROPORTIONED FLOW SPLITTING	9737299.9	15-Apr-2011	2344413	12-Dec-2012
21235-HK/DIV1	HK	Published	FUEL VAPOR RECOVERY SYSTEM WITH PROPORTIONED FLOW SPLITTING	14108140	8-Aug-2014		
21235-IN/PCT	IN	Pending	FUEL VAPOR MANAGEMENT SYSTEM WITH PROPORTIONED FLOW SPLITTING	1871/KOL NP/2011	5-May-2011		
21235-ITEPP	IT	Granted	FUEL VAPOR MANAGEMENT SYSTEM WITH PROPORTIONED FLOW SPLITTING	9737299.9	15-Apr-2011	2344413	12-Dec-2012
21235-SE/EPP	SE	Granted	FUEL VAPOR MANAGEMENT SYSTEM WITH PROPORTIONED FLOW SPLITTING	9737299.9	15-Apr-2011	2344413	12-Dec-2012
21628-CAPCT	CA	Granted	SHAPED ACTIVATED CARBON	2442241	6-Jun-2001	2442241	28-Aug-2007
21628-CN/PCT	CN	Granted	METHOD OF MAKING SHAPED ACTIVATED CARBON	1823132.2	6-Jun-2001	1823132.2	30-Aug-2006
21628-DEEPP	DE	Granted	SHAPED ACTIVATED CARBON	1946106	6-Jun-2001	60148629	5-Mar-2014
21628-EPPCT	EP	Granted	SHAPED ACTIVATED CARBON	1946106	6-Jun-2001	1377520	5-Mar-2014

MWV-Ingevity Pat. Assignment

MVV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
21628-FREPP	FR	Granted	SHAPED ACTIVATED CARBON	1946106	6-Jun-2001	1377520	5-Mar-2014
21628-JPPCT	JP	Granted	METHOD FOR MAKING SHAPED ACTIVATED CARBON	2002-581322	6-Jun-2001	4277065	19-Mar-2009
21628-MXPCT	MX	Granted	SHAPED ACTIVATED CARBON	PA/a/2003/009282	6-Jun-2001	244323	22-Mar-2007
21628-NLEPP	NL	Granted	SHAPED ACTIVATED CARBON	1946106	6-Jun-2001	1377520	5-Mar-2014
21628-USORD	US	Granted	SHAPED ACTIVATED CARBON	09/832005	11-Apr-2001	6472343	29-Oct-2002
21629-MXPCT	MX	Granted	METHOD OF MAKING SHAPED ACTIVATED CARBON	PA/a/2003/009275	6-Jun-2001	241728	7-Nov-2006
21629-USORD	US	Granted	METHOD OF MAKING SHAPED ACTIVATED CARBON	09/832004	11-Apr-2001	6573212	3-Jun-2003
21837-DEPCT	DE	Pending	METHOD AND SYSTEM FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	112010004183	27-Apr-2012		
21837-JPDIV1	JP	Pending	METHOD AND SYSTEM FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2015-149681	29-Jul-2015		
21837-JPPCT	JP	Pending	METHOD AND SYSTEM FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS CONTROL SYSTEMS	2012-537058	26-Apr-2012		
21837-USPCT	US	Granted	METHOD AND SYSTEM FOR REDUCING EMISSIONS FROM EVAPORATIVE EMISSIONS	13/503063	20-Apr-2012	8814987	26-Aug-2014
21975-USPCT1	US	Published	EMISSION CONTROL DEVICES FOR AIR INTAKE SYSTEMS	14/127177	18-Dec-2013		
21975-USPCT2	US	Published	EMISSION CONTROL DEVICES FOR AIR INTAKE SYSTEMS	14/127179	18-Dec-2013		
22145-USPRIP	US	Published	TRACEABLE POLYMERIC SCALE INHIBITORS AND METHODS OF USING SUCH SCALE INHIBITORS	13/646357	5-Oct-2012		

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
22161-USORD	US	Granted	ROAD SURFACE REPAIR COMPOSITIONS, PROCESSES AND APPLICATOR APPARATUSES - INVIA	13/031898	22-Feb-2011	8940360	27-Jan-2015
22325-BRPCT	BR	Pending	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS	BR112015007632-7	6-Apr-2015		
22325-CNPT	CN	Pending	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS	201380064567.9	10-Jun-2015		
22325-EPPCT	EP	Pending	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS	13784066	21-Apr-2015		
22325-JPPCT	JP	Pending	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS		9-Apr-2015		
22325-KRPCT	KR	Published	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS	10-2015-7011484	30-Apr-2015		
22325-USPCT	US	Pending	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS	14/434690	9-Apr-2015		
22325-WOORD2	WO	Published	EVAPORATIVE FUEL VAPOR EMISSION CONTROL SYSTEMS	PCTUS14033565	9-Apr-2014		
22354-WOORD1	WO	Published	COMPOUNDS AND METHOD FOR ENHANCED OIL RECOVERY USING SULFUR SURFACTANTS	PCTUS14025393	13-Mar-2014		
22430-WOORD	WO	Published	CATALYTIC ACTIVATED CARBON STRUCTURES AND METHODS OF USE AND MANUFACTURE	PCT/US14/55504	12-Sep-2014		
22473-ARORD	AR	Pending	SHALE INHIBITION FORMULATION	20140101942	14-May-2014		
22473-WOORD	WO	Published	CLAY INHIBITORS FOR DRILLING, FRACTURING, AND OTHER PROCEDURES	PCTUS14035074	23-Apr-2014		
22476-ARORD	AR	Pending	CLAY INHIBITORS FOR DRILLING, FRACTURING, AND OTHER PROCEDURES	20140102244	11-Jun-2014		
22476-WOORD	WO	Published	CLAY INHIBITORS FOR DRILLING, FRACTURING, AND OTHER PROCEDURES	PCTUS14038727	20-May-2014		

MWV-Ingevity Pat Assignment

MWV Case No.	Country	Status	Invt Title	App. Number	File Date	Pat Number	Grant Date
22532-ARORD	AR	Pending	AMINE BASED SHALE INHIBITOR	20140103217	27-Aug-2014		
22532-WOORD	WO	Published	AMINE-BASED SHALE INHIBITOR AND METHODS FOR DRILLING, FRACTURING, AND WELL TREATMENT	PCT/US14/52549	25-Aug-2014		
22548-USORD	US	Published	HIGH PERFORMANCE ADSORBENT MEDIA FOR CONCENTRATOR SYSTEMS	14/511611	10-Oct-2014		
22548-WOORD	WO	Published	HIGH PERFORMANCE ADSORBENT MEDIA FOR CONCENTRATOR SYSTEMS	PCT/US14/60089	10-Oct-2014		
22592-USPRIP	US	Pending	ALIPHATICALLY MODIFIED ROSIN RESIN AND TACKIFIED ADHESIVE	14/468482	26-Aug-2014		
22735-USORD	US	Pending	COMPOSITE POLYMER MATERIALS FOR MODIFICATION OF ADHESIVE COMPOSITIONS AND ASSOCIATED METHODS OF MANUFACTURE	14/740561	16-Jun-2015		
22735-WOORD	WO	Pending	COMPOSITE POLYMER MATERIALS FOR MODIFICATION OF ADHESIVE COMPOSITIONS AND ASSOCIATED METHODS OF MANUFACTURE	PCT/US15/35949	16-Jun-2015		
22844-USPRO	US	Pending	GASEOUS HYDROCARBON STORAGE SYSTEM, METHODS FOR MAKING AND USING THE SAME	62/190509	9-Jul-2015		
22862-USPROP	US	Pending	BIO-FLUXED PATCH MIX WITH TRIGGERED CURE MECHANISM	62/172034	5-Jun-2015		
22863-USPROP	US	Pending	HEAT-ACTIVATED ADHESIVE COMPOSITIONS	62/184232	24-Jun-2015		
9138-USORD	US	Granted	ANIONIC BITUMINOUS EMULSIONS WITH IMPROVED ADHESION	08/695641	12-Aug-1996	5776234	7-Jul-1998

MWV-Ingevity Pat. Assignment

- 17 -

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
9418-USCIP2	US	Granted	HIGH POWER DENSITY CARBONS FOR USE IN DOUBLE LAYER ENERGY STORAGE DEVICES	08/880754	23-Jun-1997	5926361	20-Jul-1999
9418-USCIP2	US	Granted	HIGH POWER DENSITY CARBONS FOR USE IN DOUBLE LAYER ENERGY STORAGE DEVICES	08/898771	23-Jul-1997	5905629	18-May-1999
962-USCIP1	US	Granted	FLUID CONCENTRATES OF MODIFIED MINERAL ACID SALTS	09/593549	10-Sep-1999	6194471	27-Feb-2001
9662-CAPCT	CA	Granted	ADSORPTIVE MONOLITH INCLUDING ACTIVATED CARBON, METHOD FOR MAKING SAID MONOLITH, AND METHOD FOR ADSORBING CHEMICAL AGENTS FROM FLUID STREAMS	2367031	14-May-1999	2367031	26-Apr-2005
9662-KRDIV1	KR	Granted	ADSORPTIVE MONOLITH INCLUDING ACTIVATED CARBON, METHOD FOR MAKING SAID MONOLITH, AND METHOD FOR ADSORBING CHEMICAL AGENTS FROM FLUID STREAMS	10-2006-7027277	26-Dec-2006	10-0821732	4-Apr-2008
9662-MXPCT	MX	Granted	ADSORPTIVE MONOLITH INCLUDING ACTIVATED CARBON, METHOD FOR MAKING SAID MONOLITH, AND METHOD FOR ADSORBING CHEMICAL AGENTS FROM FLUID STREAMS	PA/a/2001/010538	14-May-1999	266167	20-Apr-2009
9662-USCON3	US	Granted	ADSORPTIVE MONOLITH INCLUDING ACTIVATED CARBON, METHOD FOR MAKING SAID MONOLITH, AND METHOD FOR ADSORBING CHEMICAL AGENTS FROM FLUID STREAMS	09/535336	27-Mar-2000	6284705	4-Sep-2001

MWV Case No.	Country	Status	Inv. Title	App. Number	File Date	Pat Number	Grant Date
9662-USDIV2	US	Granted	ADSORPTIVE MONOLITH INCLUDING ACTIVATED CARBON, METHOD FOR MAKING SAID MONOLITH, AND METHOD FOR ADSORBING CHEMICAL AGENTS FROM FLUID STREAMS	09/267120	10-Mar-1999	6171373	9-Jan-2001
9662-USORD	US	Granted	ADSORPTIVE MONOLITH INCLUDING ACTIVATED CARBON, METHOD FOR MAKING SAID MONOLITH, AND METHOD FOR ADSORBING CHEMICAL AGENTS FROM FLUID STREAMS	08/636700	23-Apr-1996	5914294	22-Jun-1999
9938-USCIP1	US	Granted	COATED ACTIVATED CARBON FOR AUTOMOTIVE EMISSION CONTROL	10/287492	5-Nov-2002	7179382	20-Feb-2007

MWV-Ingevity Pat. Assignment

- 19 -