1"/%(&23(40//0"%5(6#''070(#8

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T0#7"&$:>(&23(!'&22,275(L0$&"/@02/(#8

ABCDEDGFBHC	?0''B+0,27(#8(Y#*/:(6&"07,R0"%(&23(,/%(=880-/(#2(!*"%*,27(&(6&"00"(,2(T0",&/",-%	A#	IN5NXN(	IH(	IN5NXN(	ID5GGE(
ABCDEDFFBHC	."&2%$#"/&/,#2(1%%0/(J&2&70@02/	A#	ICCX5GDM(	IH(	ICCX5GDM(	IGU5MFN(
ABCDEMEMBHC	;$&/,&'(L,%/",+*/,#2(J#30'(8#"(J&2*"0(8"#@(!0"@,//03(61WP%(,2(/:0(J&*@00(?&/0"%:035(P:,#	A#	IGM5XME(	IH(	IGM5XME(	IGM5XME(
ABCDEMNCBHC	Z1KB&%%#-,&/03(Z0&'/:(=880-/%(&23(1,"+#"20(J,-"#->%/,2(40R0'%(1@#27([0-"0&/,#2&'(4&\0(]%0"%	A#	ICGG5NGN(	IH(	ICGG5NGN(	IDH5HEC(
ABCDEMNUBHC	=880-/,R020%%(,2(/:0(M[(!"#7"&@(,2(K0%/(J&2&70@02/(!"&-/,-0(Q@$'0@02/&/,#2	A#	ICDH5XXF(	IH(	ICDH5XXF(	

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J*%,-5(L0$&"/@02/(#8

ABCDEFNCBHC	1([&23#@,003(!:&%0(D(.",&'(#8(1JHHCH(,2(6#@+,2&/,#2(9,/:(!0@+"#',0*@&+(R%<(!0@+"#',0*@&+(1'#20(&%(W,"%/B',20(.:0"&$>(,2(!&/,02/%(9,/:(J0/&%/&/,-(A#2B;@&''(60''(4*27(6&2-0"(9:#%0(.*@#"%(Z&R0(Z,7:(!LB4C(=^$"0%%,#2	Y0%	IX5UUX(	ID5UEN(	ICC5CDU(	

J*%,-5(L0$&"/@02/(#8S

!#',/,-&'(;-,02-0(&23(!*+',-(13@,2,%/"&/,#25(L0$&"/@02/(#8

ABCDEMNUBHC	=880-/,R020%%(,2(/:0(M[(!"#7"&@(,2(K0%/(J&2&70@02/(!"&-/,-0(Q@$'0@02/&/,#2	A#	ICDH5XXF(	IH(	ICDH5XXF(	ICDH5XXF(

!#',/,-&'(;-,02-0(&23(!*+',-(13@,2,%/" C<HH ICDH5XXF(

!%>-:#'#7>5(L0$&"/@02/(#8

6BCHCDDCBCH	!"0B5(!0",B5(&23(!#%/B30$'#>@02/(."&_0-/#",0%(&23(J0-:&2,%@%(#8(!%>-:#$&/:#'#7>5(!%>-:#'#7,-&'(Z0&'/:(&23([0%,',02-0(#R0"(F(Y0&"%(#8(!"#%$0-/,R0(W#''#9B*$(,2(/:0([0%0"R0%	A#	IUC5DMM(	IDE5GFC(	INN5EGU(	

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?#"'3(4,/0"&/*"0%(&23(6*'/*"0%

[BCDGEUEBHE ; .1[.14a(6Z=4=[(!"#7"&@(8#"(6:,20%0(Z0",/&70(;-:##'(.0&-:0"%(&23(13@,2,%/"&/#"%	A#	IXC5EUF(	IX5CEE(	IXF5XDU(	IXF5XDU(

?#"'3(4,/0"&/*"0%(&23(6*'/*"0%S	G<HH	ICMM5FXM(
1"/%(&23(40//0"%5(6#''070(#8S	CD<GU	IC5NUG5NFD(

K*%,20%%(123(022#R&/,#25(6#''070(#8

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L0&2BK*%,20%%(6#''070

ABCDEUNEBHC	IC5EGE5XHH(

L,R(#8(.0-:(&23(13R(;#'*/,#2%BL.1;

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6/"(8#"(6"0&/,R0(Q2%/"*-/,#2

ABCDECMXBHC	!",2-,$'03(L0%,72(#8(&2(1*7@02/03([0&',/>(."&,20"(8#"(J03,-%	A#	IDF5UGN(	ICU5DCD(	IMM5NMF(	

6/"(8#"(6"0&/,R0(Q2%/"*-/,#2S

L,R(#8(.0-:(&23(13R(;#'*/,#2%BL.1;S

=3*-&/,#2(B(c*3,/:(Z0"+(6#''070(#8

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6*"",-*'*@(&23(Q2%/"*-/,#25(L0$&"/@02/(#8

6BCDUCHNBHG	J,%%,#2(=&"/:V(W*%,27(T4PK=(9,/:(A1;1(1%%0/%(/#(K*,'3(;>%/0@,-(Q22#R&/,#2(,2(;.=J(=3*-&/,#2	A#	IC5HCX5NND(	IMXG5FCE(	IC5UHD5EXX(	IGHH5UGX(
ABCDUFDFBHC	L0R0'#$,27($"#+'0@(%#'R,27(%\,''%(*%,27(%/*302/B7020"&/03($"#+'0@%(/:&/("0R0"%0(027,200"(Y#*.*+0(R,30#%	A#	IDHH5UNU(	IFF5DXE(	IDFF5XEC(	IH(
ABCDEHUHBHC	A][.][=;(!:&%0(QQV(=^$&2%,#2(&23(=R&'*&/,#2	A#	INEU5CMX(	IDDU5FGG(	IFFC5HXC(	IXMD5MCF(

=3*-&/,#2(B(c*3,/:(Z0"+(6#''070(#8

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6*"",-*'*@(&23(Q2%/"*-/,#25(L0$&"/@02/(#8

ABCDEMMEBHC	L0%,725(L0R0'#$5(&23(!,'#/(Q@$'0@02/&/,#2(#8(12(Q2/07"&/03(L*&'(4,-02%*"0(bJ,33'0(T"&30%(&23(Q2/0"R02/,#2(;$0-,&',%/S(.0&-:0"(=3*-&/,#2(&23(J&%/0"d%(L07"00(!"#7"&@	A#	ICCU5NHC(	IF5DUE(	ICDM5FUN(	ICDM5FUN(
ABCDEMFEBHC	P:,#(Q22#R&/,#2%(T"&2/BB!BCE(!&/:9&>%(#8(!"#@,%0(b!GS	A#	ICXU5CXE(	ICM5XCM(	IDHH5HHH(	IGM5HHH(
ABCDEUUMBHC	.0-:(!"0$(!&/:9&>%(T"&2/	A#	IUHH5FDH(	ICC5EED(	IUCD5UXD(	IUCD5UXD(
ABCDEEFFBHC	6&"00"B.0-:2,-&'(&23(13*'/(=3*-&/,#2	A#	ICH5HHH(	IH(	ICH5HHH(	ICH5HHH(
ABCDNHMXBHC	;*--0%%K#*23(6#280"02-0(B(A#"/:90%/(P:,#(.0-:(!"0$	A#	IF5DUF(	INMC(	ICH5HHH(	ICH5HHH(
[BCHEGCMBCF	6.=(.0&-:0"(!"0$&"&/,#2(&23([0/02/,#2	A#	IFU5HNX(	IM5FDD(	ICHH5HHH(	ICHH5HHH(

=3*-&/,#2(B(c*3,/:(Z0"+(6#''070(#8

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6*"",-*'*@(&23(Q2%/"*-/,#25(L0$&"/@02/(#8

[BCDDXDMBHE	.0-:(!"0$(!&/:9&>%(T"&2/	A#	ICUN5MGN(	IH(	ICUN5MGN(	ICUN5MGN(
	6*"",-*'*@(&23(Q2%/"*-/,#25(L0$&"/@0		N<DD			ID5HFC5FGD(

L0&2B=3*-&/,#2

ABCDEMFEBHC	P:,#(Q22#R&/,#2%(T"&2/BB!BCE(!&/:9&>%(#8(!"#@,%0(b!GS	A#	ICXU5CXE(	ICM5XCM(	IDHH5HHH(	ICHH5HHH(
	L0&2B=3*-&/,#2S		H<UH			ICHH5HHH(

=&"'>(6:,'3:##35(!:>%,-&'5(&23(;$0-,&'(=3*-&/,#2

6BCDGGDNBHU	!"#_0-/(4=1V((40&3,27(=3*-&/#"%(,2(13R&2-,27(Q2-'*%,R0(=&"'>(=3*-&/,#2	A#	IDDE5EED(	IE5HDG(	IDGD5EXU(	IDGD5EXU(

=27,200",275(6#''070(#8

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13@,2,%/"&/,#25(6#''070(#8(=27,200",27

ABCDEMUDBHC	]230"%/&23,27(Z#9(Q2/07"&/03(6#@$*/&/,#2&'(.:,2\,275(=27,200",27(L0%,725(&23(J&/:0@&/,-%(6&2(Z0'$(;/*302/%(;#'R0(;-,02/,8,-(&23(.0-:2,-&'(!"#+'0@%(,2(6&"00"(.0-:2,-&'(=3*-&/,#2	A#	IC5GNN5DEX(	IMMH5XFC(	IC5XCX5CUF(	IUMU5MMX(
	13@,2,%/"&/,#25(6#''070(#8(=27,200",27			H<GH		IUMU5MMX(

K,#027,200",275(L0$&"/@02/(#8

6BCHXNXUBHCB?C	W,2,/0(='0@02/(12&'>%,%(#8(/:0(A09(!03,-'0(;-"09%	A#	IM5MHH(	IC5CHH(	IU5UHH(	IU5UHH(
6BCDHCUCBHF	J*'/,B8&-0/03(1$$"#&-:(/#(J#30',27(164(Q2_*">(J0-:&2,%@%	A#	IEM5XDH(	IDF5MFG(	IFM5GCG(	IFM5GCG(
6BCDMDDXBHMB?C	Qf]6[6V(K,#@0-:&2,-&'(=R&'*&/,#2(#8(/:0(A09'>(L0R0'#$03(L0-#@$"0%%,#2(;*"70">(."&2%8#"&@,2&'(g02/"&'(W&-0/0-/#@>	A#	IGE5GEM(	IG5EGE(	IMH5HHH(	IMH5HHH(
6BCDMDDXBHMB?D	Qf]6[6V(L0R0'#$@02/(#8(Z&"3(12/,+&-/0",&'(b.,Af17S(6#&/,27%(#2(P"/:#$03,-(Q2%/"*@02/%(W&+",-&/03(8"#@(.,B&''#>%	A#	IGE5HHH(	IM5HHH(	IMH5HHH(	IMH5HHH(
6BCDMDDXBHMB?G	Qf]6[6V(L0R0'#$@02/(#8(&2(Q22#R&/,R0(!#%/0",#"(!03,-'0BK&%03(;-"09(L0R,-0(8#"(J*'/,'0R0'(;0@,BL>2&@,-(;/&+,',O&/,#2	A#	IGE5GEM(	IG5EGE(	IMH5HHH(	IMH5HHH(

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K,#027,200",275(L0$&"/@02/(#8

6BCDMDDXBHMB?M	0f] 6 [6V(.&$0"03("03*-/,#2(#8(-0@02/(R#'*@0(,2(/:0($"#^,@&'(R0"/0+"&0(&3_&-02/(/#(/:0(8*%03(%07@02/(@&>(/"&2%'&/0(,2/#(&(30-"0&%03("&/0(#8(	IGM5XUH(

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209

K,#027,200",275(L0$&"/@02/(#8

ABCDEHENBHC	A0^/(T020"&/,#2(6&B!(60@02/%(8#"(."0&/,27(g0"/0+"&'BK#3>(W"&-/*"0%	A#	INN5EFD(	IGX5MUX(	ICCE5CUH(	
ABCDEGDMBHC	6:##%0(P:,#(W,"%/	A#	IGH5UDH(	IH(	IGH5UDH(	IGH5UDH(
ABCDEGDEBHC	6:##%0(P:,#(W,"%/	A#	IGUH5HHH(	IH(	IGUH5HHH(	IGUH5HHH(
ABCDEGEHBHC	6"0&/,27(&(6*'/*"0(#8(=2/"0$"020*"%:,$(8#"(=27,200",27(6#''070%	A#	IG5GFH(	IC5ECH(	IU5HHH(	ID5UHH(
ABCDEGNUBHC	1(209(/0-:2#'#7>(8#"(:,7:(>,0'3(-#2R0"%,#2(#8(+,#@&%%(-&"+#:>3"&/0%(/#(8*"&2%(8#"(+,#$"#3*-/%	A#	IGMD5FFD(	ICME5FFU(	IMXF5FXN(	ICFU5FFU(
ABCDEMHDBHC	K,#@0-:&2,-%(#8(;Q(c#,2/	A#	IDH5HHH(	IU5HHH(	IDU5HHH(	IDU5HHH(
ABCDEUDDBHC	MB$#,2/(K023,27(.0%/(#8(DH(;&@$'0%	A#	ID5HHH(	IUHH(	ID5UHH(	ID5UHH(

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K,#027,200",275(L0$&"/@02/(#8

ABCDEUDGBHC	J0-:&2,-&'(.0%/,27	A#	IM5NDH(	IC5CXH(	IU5FHH(	IU5FHH(
;BCDMDDXBHMB;C	6#''&+#"&/,R0([0%0&"-:V(Qf]6[6(8#"(.0-:2#'#7>(Q22#R&/,#2(8#"(A#R0'(6#%/B[03*-,27(&23(h*&',/>B=2:&2-,27(J*%-*'#%\0'0/&'(.:0"&$,0%	A#	IX5HHH(	IH(	IX5HHH(	IX5HHH(
;BCDMNMNBHCB;U	!WQV1Q[(B(..V((Z,7:(Y,0'3(!"#3*-/,#2(#8(W*"&2%(8"#@(K,#@&%%(Z>3"#'>%&/0%(*%,27(&(Z>+",3(=20>@0B(&23(6:0@#B-&/&'>/,-(.0-:2#'#7>	A#	IDF5EFM(	ICH5GHU(	IGF5FFF(	IDH5HHH(
;BCDUGEFBHU	?0&"(&2&'>%,%(#8(/:0(aDJ(&"/,8,-,&'(3,%-	A#	ICX5CXD(	IC5XCX(	IDH5HHH(	IDH5HHH(
	K,#027,200",275(L0$&"/@02/(#8S			CX<MU		IC5HFE5CGC(

6:0@,-&'(&23(=2R,"#2@02/&'(=27,200",275(L0$&"/@02/(#8

6BCDDCNDBHN	Q23*%/",&'(6#2%#"/,*@(8#"(!#'>b0/:>'020(/0"0$:/:&'&/0S5(!=.	A#	IGDM5GUH(	IH(	IGDM5GUH(	IFN5GHU(
6BCDUCHNBHG	J,%%,#2(=&"/:V(W*%,27(T4PK=(9,/:(A1;1(1%%0/%(/#(K*,'3(;>%/0@,-(Q22#R&/,#2(,2(;.=J(=3*-&/,#2	A#	IC5HCX5NND(	IMXG5FCE(	IC5UHD5EXX(	IGHH5UGX(

6 : 0@,-&'(&23(=2R,"#2@02/&'(=27,200",275(L0$&"/@02/(#8

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6,R,'(=27,200",275(L0$&"/@02/(#8

ABCDUFUNBHC	!WQV1Q[(B(..V(J*'/,8*2-/,#2&'(]230"9&/0"(;0&'&2/%(9,/:(4#27B.0"@(;*%/&,203([0'0&%0(W*2-/,#2&',/>	A#	ICGU5MCM(	IEM5GDC(	ICFF5NGU(	IMF5FGM(

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J0-:&2,-&'5(023*%/",&'5(&23(J&2*8&-/*",27(=27,200",275(L0$&"/@02/(#8

6BCCFFCCBCD	.*"+#@&-:,20">(6#@$*/&/,#2&'(10"#B1-#*%/,-%([0%0&"-:	A#	IFX5HFN(	IGC5NNG(	ICDF5XNH(	ICDF5XNH(
6BCCFFCCBCG	.*"+#@&-:,20">(6#@$*/&/,#2&'(10"#B1-#*%/,-%([0%0&"-:	A#	IGM5UEE(	ICG5FXF(	IMX5UUU(	IMX5UUU(
6BCCFFCCBCM	.*"+#@&-:,20">(6#@$*/&/,#2&'(10"#B1-#*%/,-%([0%0&"-:	A#	IUX5NHH(	ICE5NGH(	INU5MGH(	INU5MGH(
6BCDGCGUBHG	;@&''(.*"+,20(02%/,/*/0(6#2%#"/,*@	A#	IDE5FDE(	IX5ECE(	IGU5UMD(	IGU5UMD(
6BCDGEHMBHF	g!4BCDBHUC(J*'/,%/&70(.*"+#@&-:,20">(13R&2-03(6#@$*/&/,#2&'(.##'(L0R0'#$@02/(?CMC	A#	IUX5DFE(	ICU5CUN(	ING5MUG(	ING5MUG(
6BCDGEHMBCH	g!4BCDBHUC(J*'/,%/&70(.*"+#@&-:,20">(13R&2-03(6#@$*/&/,#2&'(.##'(L0R0'#$@02/(?CMC	A#	ICCF5EMH(	IDG5FDX(	ICMG5UEX(	ICMG5UEX(
6BCDGEHMBCC	g!4BCDBHUC(J*'/,%/&70(.*"+#@&-:,20">(13R&2-03(6#@$*/&/,#2&'(.##'(L0R0'#$@02/(?CMC	A#	ICDC5HGD(	IDM5DHE(	ICMU5DGX(	ICMU5DGX(
6BCDMCEDBHU	J,-"#%/"*-/*"&'(12&'>%,%(&23(;/"*-/*"0(!"#$0"/>([0'&/,#2%:,$%(,2(13R&2-03(J0/&'',-(J&/0",&'%	A#	ICCE5UCE(	IGH5DFG(	ICME5XHF(	ICME5XHF(

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J0-:&2,-&'5(Q23*%/",&'5(&23(J&2*8&-/*",27(=27,200",275(L0$&"/@02/(#8

6BCDMCEDBHUB;C	J,-"#%/"*-/*"&'(12&'>%,%(&23(;/"*-/*"0(!"#$0"/>([0'&/,#2%:,$%(,2(13R&2-03(J0/&'',-(J&/0",&'%	A#	INX5HEE(	IDH5DFE(	IFX5GED(	IFX5GED(
6BCDMCEGBHU	=^/02303(L*"&+,',/>(#8(J&/0",&'%(,2(10"#%$&-0(!"#$*'%,#2(&23(!#90"(;>%/0@%	A#	ICHH5FCF(	IDE5DGX(	ICDN5CUN(	ICDN5CUN(
6BCDMCEGBHUB;C	=^/02303(L*"&+,',/>(#8(J&/0",&'%(,2(10"#%$&-0(!"#$*'%,#2(&23(!#90"(;>%/0@%	A#	IEN5ECE(	ICN5UNF(	IXU5CFU(	IXU5CFU(
6BCDMCEMBHU	12&'>%,%(8#"(W*/*"0(1,"-"&8/(!"#$*'%,#2(;>%/0@%	A#	IMN5ENU(	ICD5GFU(	IEH5HNH(	IEH5HNH(
6BCDMCEMBHUB;C	12&'>%,%(8#"(W*/*"0(1,"-"&8/(!"#$*'%,#2(;>%/0@%	A#	IUG5GNH(	ICG5XNE(	IEN5DME(	IEN5DME(
6BCDMDHXBHU	10"#0'&%/,-(12&'>%,%(8#"(K#*23&">(4&>0"(Q270%/,27(Q2'0/BW&2	A#	ICDC5XXH(	IGC5EXF(	ICUG5UEF(	ICUG5UEF(

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J0-:&2,-&'5(Q23*%/",&'5(&23(J&2*8&-/*",27(=27,200",275(L0$&"/@02/(#8

6BCDMDHXBHE	10"#0'&%/,-(12&'>%,%(8#"(K#*23&">(4&>0"(Q270%/,27(Q2'0/BW&2	A#	IEC5XUN(	ICE5HXD(	INN5FGF(	INN5FGF(
6BCDMDCEBHU	12&'>%,%(&23(.0%/,27(#8(13R&2-03(J&/0",&'%(&23(;/"*-/*"0%(bXU.<HXS	A#	IFG5DCD(	IDM5DGU(	ICCN5MMN(	ICCN5MMN(
6BCDMDCEBHUB;C	12&'>%,%(&23(.0%/,27(#8(13R&2-03(J&/0",&'%(&23(;/"*-/*"0%(bXU.<HXS	A#	IED5XFF(	ICE5GUM(	INF5DUG(	INF5DUG(
6BCDMDCXBHU	13R&2-03(10"#%$&-0(;0&'%([0%0&"-:	A#	IXF5NXE(	IDG5GMM(	ICCG5CGH(	ICCG5CGH(
6BCDMDCXBHUB;C	13R&2-03(10"#%$&-0(;0&'%([0%0&"-:	A#	IUN5DCM(	ICM5XNE(	IND5HFH(	IND5HFH(

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J0-:&2,-&'5(023*%/",&'5(&23(J&2*8&-/*",27(=27,200",275(L0$&"/@02/(#8

6BCDUDEFBHU	6#@$*/&/,#2&'(02R0%/,7&/,#2(#8(.*"+,20(10"#3>2&@,-%(&23(Z0&/(."&2%80"BT'022Z.(6WL(12&'>%,%(b?P()CMS	A#	ICX5UXC(	IG5NCE(	IDD5DFN(	IDD5DFN(
6BCDUXGHBHG	L0R0'#$@02/(#8(6#@$*/03(.#@#7"&$:>(&23(L,7,/&'([&3,#7"&$:>(8#"(10"#%$&-0(J&/0",&'%(&23(W&-,',/,0%(P$0"&/,#2%	IEG5N */&/,(IEG5NCEG5N */N721 T5UBIX2-5DEX(%6#'&3LXGR7Z8				

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J0-:&2,-&'5(Q23*%/",&'5(&23(J&2*8&-/*",27(=27,200",275(L0$&"/@02/(#8

6BCDEDUEBHM	13R&2-03(10"#%$&-0(;0&'%([0%0&"-:(8#"([0,@+*"%0@02/%(Q2/0"&702->(17"00@02/(?,/:(L1[!1BPY"M	A#	ICD5DCE(	IG5CNU(	ICU5GFC(	ICU5GFC(
ABCDEHENBHC	A0^/(T020"&/,#2(6&B!(60@02/%(8#"(."0&/,27(g0"/0+"&'BK#3>(W"&-/*"0%	A#	INN5EFD(	IGX5MUX(	ICCE5CUH(	ICCE5CUH(
ABCDEGDDBHCB?C	!#"/(J&22(6&+'0(;2#9(J#2,/#",27(;>%/0@	A#	IME5HNG(	IG5GEG(	IMF5MGE(	IDM5NCX(
ABCDEGDDBHCB?D	!#"/(J&22(6&+'0(;2#9(J#2,/#",27(;>%/0@	A#	IEHC5GFG(	IGE5EDC(	IEGX5HCM(	IGCF5HHN(
ABCDEGEHBHC	6"0&/,27(&(6*'/*"0(#8(=2/"0$"020*"%:,$(8#"(=27,200",27(6#''070%	A#	IG5GFH(	IC5ECH(	IU5HHH(	ID5UHH(
ABCDEUUGBHC	;-&'&+'0(A&2#@&2*8&-/*",27(#8(.9#BL,@02%,#2&'(J&/0",&'%(+>(Z,7:(;$003(6#@$"0%%,+'0(T&%(W'#9(=^8#',&/,#2	A#	IDEE5EDC(	ICGC5FNN(	IGFX5UFX(	IGFX5UFX(

=27,200",275(6#''070(#8

2#/

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J0-:&2,-&'5(Q23*%/",&'5(&23(J&2*8&-/*",27(=27,200",275(L0$&"/@02/(#8

ABCDEFDHBHC	Q@$"#R0@02/(#8(:,7:B8"0j*02->($,$0(90'3,27($"#-0%%	A#	IDD5EMC(	IN5GUF(	IGH5HHH(	IGH5HHH(
ABCDNHCUBHC	13R&2-03(10"#%$&-0(;0&'%([0%0&"-:(8#"([0,@+*"%&+'0(.&%\(!'&2(9,/:(;,0""&(A0R&3&	A#	IDH5EHN(	IU5GUX(	IDU5FEU(	IDU5FEU(
;BCDUMGHBHCB;C	13&$/,R0(K,#B,2%$,"03(10"#%$&-0(;/"*-/*"0%(1-/*&/03(+>(;:&$0(J0@#">(1''#>%	A#	INE5CHD(	ICU5DDC(	IFC5GDG(	IFC5GDG(
	J0-:&2,-&'5(Q23*%/",&'5(&23(J&2*8&-/*			GU<UH		IG5DXU5CXG(

!#'>@0"(Q2%/,/*/0

6BCDDCNDBHN	Q23*%/",&'(6#2%#"/,*@(8#"(!#'>b0/:>'020(/0"0$:/:&'&/0S5(!=.	A#	IGDM5GUH(	IH(	IGDM5GUH(	IDDN5HMU(

=27,200",275(6#''070(#8S	XM<DX	I CC5XNE5CMC(	

T"&3*&/0(;/*3,0%

2#/

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T"&3*&/0(;/*3,0%5(6#''070(#8

6BCDUDXXBHD	J0&%*",27(.:0(@$"#R0@02/%(.:"#*7:(/:0(]%0(#8(/:0(L>%,% k (6#'$#%-#$0(&23(/:0(L>%,%@&$ k (,2(L0/0-/,27(L>%$'&%,&(#8(/:0(60"R,^	A#	I D5GHX(	I EFD(	I G5HHH(	
6BCDUENCBHD	1(!:&%0(G(;/*3>(/#(=R&'*&/0(/:0(;&80/>(&23(=88,-&->(#8(='&7#',^(,2(6#@+,2&/,#2(9,/:(=%/"&3,#'fA#"0/:,23"#20(1-0/&/0(,2(;*+_0-/%(9,/:(J#30"&/0(/#(;0R0"0(=23#@0/",#%,%B1%%#-,&/03(!&,2(!"#/#-#'(A#<(JCMBNHD	A#	I U5CMF(	I C5UMU(	I E5EFM(	I U5GUU(
ABCDUUDNBHC	1(!:&%0(G(;/*3>(/#(=R&'*&/0(/:0(=88,-&->(&23(;&80/>(#8(='&7#',^(,2(6#@+,2&/,#2(9,/:(=%/"&3,#'fA#"0/:,23"#20(1-0/&/0(8#"(/:0(J&2&70@02/(#8(Z0&R>(J02%/"*&'(K'003,27(1%%#-,&/03(9,/:(]/0",20(W,+"#,3%(,2(!"0@02#$&*%&'(?#@02	Y0%	I EF5XNG(	I DH5FED(	I FH5XGU(	I MU5MCN(
		T"&3*&/0(;/*3,0%5(6#''070(#8S	C<GH	I UH5NND(
		T"&3*&/0(;/*3,0%S	C<GH	I UH5NND(

Z0&'/:(e(Z*@&2(;0"R,-0%5(6#''070(#8

2#/

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13@,2,%/"&/,#25(Z0&'/:(&23(Z*@&2(;0"R,-0%

13@,2,%/"&/,#25(Z0&'/:(&23(Z*@&2(;0"R,-0%

ABCDEMGHBHC	IN5UGC(

Z0&'/:(e(Z*@&2(;0"R,-0%5(6#''070(#8

2#/

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		;-:##'(#8(=^0"-,%0([0:&+(;-,02-0%S	M<HH			IE5GDU(
;-:##'(#8(Q2/0"R02/,#2(e(?0''20%%						
ABCDNHMNBHC	4*-&%(6#*2/>([002/">(!"#7"&@	A#	INH5HNG(	IN5HHX(	INN5HXC(	INN5HXC(
		;-:##'(#8(Q2/0"R02/,#2(e(?0''20%%S	C<HH			INN5HXC(
;-:##'(#8(!#$*'&/,#2(Z0&'/:						
6BCHCGCGBCD	AQP;Z(."&,2,27(T"&2/(!"#_0-/V(Q23*%/",&'(Z>7,020B]2,R0"%,/>.#'03#	A#	INH5NDN(	IC5DDM(	INC5FUC(	ICN5FXX(
6BCDGCMEBHN	;-:##'%(&%(6#@@*2,/>(Z*+%(B(!,-\0//	A#	ING5HHH(	ID5HHH(	INU5HHH(	INU5HHH(
6BCDGCMNBHN	6#@@*2,/>(;-:##'%(&%(Z*+%(B([#+,2%#2	A#	ING5HHH(	ID5HHH(	INU5HHH(	INU5HHH(
6BCDUUFXBHG	!"#@03,-&(=+0,3(Q2%/,/*/0(8#"(!#$*'&/,#2(Z0&'/:(=R&'*&/,#2	A#	IGC5XFM(	IE5GNF(	IGX5DNG(	IGX5DNG(
6BCDEUDMBHDB;C	Q2-"0&%,27(1--0%%(#8(."&*@&BQ28#"@03(6&"0(+>(6!;BQ2R#'R03(Y#*/:(&23(W&@,',0%	A#	IG5EHH(	IC5CNH(	IM5NNH(	IM5NNH(

;-:##'(#8(!#$*'&/,#2(Z0&'/:

ABCDNHDDBHC	.:0(@$&-/(#8(&(T'02#:*@0"&'(4&+"*@(2_*">(#2(A0*"#@*%-*'&"(6#2/"#'(#8(;:#*'30"(T,"3'0(&23(]$$0"(=^/"0@,/>(J*%-'0%	ID5MNH(	ID5MNH(

Z0&'/:(e(Z*@&2(;0"R,-0%5(6#''070(#8

2#/

209

;-:##'(#8(;#-,&'(c*%/,-0$	U<EH	I UUM5XDC(
Z0&'/:(e(Z*@&2(;0"R,-0%5(6#''070(#8$	CX<XU	I FED5EXF(

Z*@&2([0%#*"-0%(e(6&@$*%(;&80/>

2#/

209

g!(8#"(Z[(e(6&@$*%(;&80/>

ABCDECFMBHC	]$9&"3(K#*23(J&/:(e(;-,02-0(!"#7"&@	A#	I DGX5MDE(	I CF5HNM(	I DUN5UHH(	I DUN5UHH(
[BCCHCNHBCC	]$9&"3(K#*23(!"#7"&@	A#	I MHD5FCN(	I DU5DCX(	I MDX5CGU(	I MDX5CGU(

g!(8#"(Z[(e(6&@$*%(;&80/>$	D<HH	I EXU5EGU(
Z*@&2([0%#*"-0%(e(6&@$*%(;&80/>$	D<HH	I EXU5EGU(

J03,-&'(;0"R,-0%

2#/

209

P!B6',2,-B;*"70">

ABCDEXCGBHC	J=L(;1W=V1(!"#7"&@(/#(!"#@#/0(!"0%-",$/,#2(L"*7(J,%*%0(!"0R02/,#2(=3*-&/,#2(8#"(Y#*/:	A#	I DF5EDX(	I M5GEF(	I GG5FFN(	I X5MFF(

J03,-&'(;0"R,-0%

2#/

209

P!B6',2,-B;*"70">S	H<DU	IX5MFF(
J03,-&'(;0"R,-0%S	H<DU	IX5MFF(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

209

1Z=6

[BHCHGGEBDM	1Z=6(!#,2/(#8(;0"R,-0(J&,2/02&2-0(&23(=2:&2-0@02/	A#	IFDD5MUX(	ICN5UNX(	IFMH5HGE(	IFMH5HGE(
			1Z=6S	C<HH		IFMH5HGE(

120%/:0%,#'#7>5(L0$&"/@02/(#8

6BCDMHNFBHU	[=4Q=W(1(T'#+&'([07,%/">(/#(=R&'*&/0(4#27B.0"@(=880-/,R020%%(#8 A0*"#%/,@*'&/,#2(.:0"&$>(8#"(!&,2	A#	IDH5FCX(	IE5DNU(	IDN5CFM(	IDM5MNM(
6BCDMNHCBHM	![P(b!"0-,%,#2([0/"#%$0-/,R0(P*/-#@0%S(;/*3>	A#	ID5EGU(	INFH(	IG5MDU(	IG5MDU(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

209

120%/:0%,#'#7>5(L0$&"/@02/(#8

ABCDEHXUBHC	**bA0*"#@#3*'&/,#2S(!&,2(W0''#9%:,$**	**A#**	**IDH5HHH(**	**IH(**	**IDH5HHH(**	**IDH5HHH(**
ABCDECMXBHC	**!",2-,$'03(L0%,72(#8(&2(1*7@02/03([0&',/>(."&,20"(8#"(J03,-%**	**A#**	**IDF5UGN(**	**ICU5DCD(**	**IMM5NMF(**	**IMM5NMF(**
ABCDEDENBHC	**1641J1.=(QQ(1*/#@&/03(6#72,/,R0(4#&3(1%%0%%@02/(8#"(J03,-&'(;/&88(."&,2,27(&23(=R&'*&/,#2**	**A#**	**IDG5CCH(**	**ICC5FHC(**	**IGU5HCC(**	**IGU5HCC(**
ABCDEEHHBHC	**.:0([&23#@,003(&23(6#2/"#''03(A#2,280",#",/>(.",&'(/#(=R&'*&/0(;&80/>(&23(6',2,-&'(=88,-&->(#8(/:0(;*"g0,'k(L"*7B6#&/03(K&''##2(,2(/:0(."0&/@02/(#8(;*+_0-/%(9,/:(;/02#/,-(40%,#2%(#8(/:0(W0@#"#$#$',/0&'(1"/0">(6#@$&"03(/#(/:0(J03/"#2,-(QA<!16.I(13@,"&'I(L"*7B6#&/03(K&''##2<((b.[1A;6=ALS**	**Y0%**	**ICH5UMN(**	**IG5CEM(**	**ICG5NCD(**	**IC5GNC(**

J03,-,20(&23(4,80(; -,02-0%5(6#''070(#8

2#/

209

120%/:0%,#'#7>5(L0$&"/@02/(#8

A8CDNHHH8HC	P:,#(P$,#,3(12&'>/,-%(!"#_0-/	A#	IDD5CDE(	ID5DCG(	IDM5GGF(	IX5HGD(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

209

K,#-:0@,%/">(e(6&2-0"(K,#'#7>5(L0$&"/@02/(#8

ABCDECXHBHC	**[#'0(#8(6m6[MB41;!BC(&^,%(,2(@#3*'&/,27(/:0(&-/,R,/>(#8(1"7#2&*/0DB.A[6E(,2(+"0&%/(-&2-0"(-0''%**	**A#**	**IDN5DNG(**	**ID5NDN(**	**IGH5HHH(**	**IGH5HHH(**

K,#-:0@,%/">(e(6&2-0"(K,#'#7>5(L0$& **G<HH** **ICGE5NUH(**

W&@,'>(J03,-,205(L0$&"/@02/(#8

ABCDNHHHBHC	**P:,#(P$,#,3(12&'>/,-%(!"#_0-/**	**A#**	**IDD5CDE(**	**ID5DCG(**	**IDM5GGF(**	**IX5HGD(**

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

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J03(J,-"#+,#'#7>(e(@@*2#'#7>5(L0$&"/@02/(#8

ABCDEMFEBHC	P:,#(@22#R&/,#2%(T"&2/BB!BCE(!&/:9&>%(#8(!"#@,%0(b!GS	A#	ICXU5CXE(	ICM5XCM(	IDHH5HHH(	IH(
[BCDHDFXBHF	6:##%0(P:,#(W,"%/(;-:#'&"%:,$(!"#7"&@(B(K,#,28#"@&/,-%(!"#7"&@	A#	IMD5GEE(	IH(	IMD5GEE(	IMD5GEE(
[BCDMXMNBHD	[0%/",-/,#2(#8(.,-\BK#"20(W'&R,R,"*%(@28O-/,#2(,2(/:0(A&/*"&'(Z#%/	A#	IDU5HHH(	IH(	IDU5HHH(	IDU5HHH(
	J03(J,-"#+,#'#7>(e(@@*2#'#7>5(L0$		U<FH			IFEG5EXX(

J03,-,205(L0$&"/@02/(#8

6BCDMCXGBHM	.&%\(P"30"()M((6#',%/,2(L JQJ(CHBHHXD(!a(b6[JS	A#	IbMC5HCXS	IbDH5FCFS	IbEC5FGNS	IbEC5FGNS
6BCDMEGHBHM	1(J*'/,-02/0"5(L#*+'0B+',235([&23#@,0035(!'&-0+#B-#2/"#''0335(!:&%0(G(;/*3>(/#(1%%O%%(/:0(=88,-&->(&23(;&80/>(#8(P"&'(K!;BGCM3BJ[(13303BP2(/#(."0$"#%/,2,'5(@2:&'03(b.>R&%# IS(,2(;*+_0-/%(9,/:(!*'@#2&">(1"/0",&'(Z>$0"/02%,#2	A#	IU5FXG(	IC5NFU(	IN5NNX(	IN5NNX(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

209

J03,-,205(L0$&"/@02/(#8

6BCDMNFDBHG	6#220-/I(JL;f1J4(L,%0&%0([07,%/">	A#	ID5NME(	IXDM(	IG5UNH(	IG5UEF(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

209

J03,-,205(L0$&"/@02/(#8

6BCDUNEEBHD	J&-,/02/&2(,2(!*'@#2&">(Z>$0"/02%,#2(!#%/B408/(g02/",-*'&"(1%%,%/(L0R,-0(@$'&2/&/,#2(b;P![1AP$<((!"#/#-#'(16BHUUBDHU	A#	ICD5EHE(	IG5NXD(	ICE5GXX(	
6BCDUFXXBHD	1(!:&%0(G([&23#@,0035(L#*+'0BK',235(1-/,R0B6#2/"#''03(J*'/,-02/0"(;/*3>(#8(/:0(4#27B.0"@(;&80/>(&23(=88,-&->(#8(;*+-*/&20#*%(13@,2,%/"&/,#2(#8(.&200*@&+(,2(;*+_0-/%(9,/:(P%/0#&"/:",/,%(#8(/:0(Z,$(#"(a200n(!"#/#-#'(1MHFCHUX	A#	IU5GEU(	IC5ECH(	IE5FNU(	IE5FNU(
6BCDEXMNBHDB;C	.:0(J0'&2#-#"/,20"7,-($&/:9&>(,2(7'#@0"*'&"(3,%0&%0	A#	IU5MCE(	ID5XFX(	IX5GCM(	IX5GCM(
6BCDEXMNBHG	.:0(J0'&2#-#"/,20"7,-($&/:9&>(,2(7'#@0"*'&"(3,%0&%0	A#	IDDN5NFH(	ICDC5XEX(	IGMF5EUX(	IGMF5EUX(
ABCDCUFDBHC	1([&23#@,0035(J*'/,-02/0"5(L#*+'0BK',235(!&"&''0'5(!'&-0+#B6#2/"#''03(;/*3>(#8(/:0(=880-/%(#8(cAcBDXMGCNUM(#2(6&"3,#R&%-*'&"(P*/-#@0%(,2(13*'/(;*+_0-/%(?,/:(.>$0(D(L,&+0/0%(J0'',/*%(b.:0(61Ag1;(.",&'S	Y0%	IC5DHH(	IGHH(	IC5UHH(	IC5UHH(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

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J03,-,205(L0$&"/@02/(#8

ABCDDHCCBHC	**1(J*'/,-02/0"5([&23#@,0035(1-/,ROB6#2/"#'5(!:&%0(GK(;/*3>(/#(=R&'*&/0(/:0(6&"3,#R&%-*'&"(;&80/>(#8(W0+*^#%/&/(&23(1''#$*",2#'(,2(;*+_0-/%(9,/:(T#*/(&23(6&"3,#R&%*'&"(6#@#"+,3,/,0%**	**Y0%**	**IFXM(**	**IDEE(**	**IC5DUH(**	**IC5DUH(**
ABCDGDFEBHC	**!*'@#2&">(1"/0",&'(Z>$0"/02%,#2(h*&',/>(=2:&2-0@02/([0%0&"-:(Q2,/,&/,R0(=^/02%,#2(!"#7"&@(b!(1Z(=m$5(!"#/#-#'(A*@+0"(6Z[6(HHD**	**Y0%**	**IEFG(**	**ICXN(**	**IXXH(**	**IXXH(**
ABCDGMGEBHC	**40R&2/(D5(!:&%0(D((6#2/,2*03(1--0%%([07,%/"> **	**Y0%**	**IFXM(**	**IDEE(**	**IC5DUH(**	**IC5CDU(**
ABCDGXNEBHC	**1(DMBJ#2/:5(;,27'0B602/0"5(!,'#/5(P$02B4&+0'5([&23#@,0035(6#2/"#''03(."',&'(/#(=R&'*&/0(/:0(=88,-&->(&23(;&80/>(#8(6&'-'20*",2BQ2:,+,/#"(='@,2&/,#2(#"([03*-/,#2(0<<<p=R0"#',@*%I'J>8#"/,-I(R0"%*%([03*-03(L#%0(/&-"#',@*%'=R0"#',@*%I(,2(13*'/([02&'(."&2%$'&2/([0-,$,02/%(0<(<(<p**	**Y0%**	**ICED5GMN(**	**IH(**	**ICED5GMN(**	**IEM5FGF(**

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

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J03,-,205(L0$&"/@02/(#8

ABCDGFFFBHC	q,'R0"(!.m(g		Y0%	IG5FGU(	IC5CXH(	IU5CCU(	IM5EHM(
ABCDMNHUBHC	1(UBY0&"(!"#%$0-/,R0(P+%0"R&/,#2&'([07,%/">(/#(1%%0%%(13R0"%0(=R02/%(#8(Q2/0"0%/(&23(=880-/,R020%%(,2(13*'/%(9,/:(1-/,R05(1*/#&2/,+#3>B!#%,/,R0(;>%/0@,-(4*$*%(=">/:0@&/#%*%(."0&/03(9,/:(#"(9,/:#*/(K=A4Y;.1.J(b+0',@*@&+S(br;1K4=rS		Y0%	IX5CXU(	ID5MUE(	ICH5EMC(	ICH5EMC(
ABCDMNHXBHC	];BK&%035(P+%0"R&/,#2&'5(L"*7([07,%/">(#8(P$%*@,/I(bJ&-,/02/&2S(A09( ]%0"%(,2(6',2,-&'(!"&-/,-0		Y0%	IC5HNN(	IGDG(	IC5MHH(	INHH(
ABCDMNCCBHC	[&23#@,0035(J*'/,-02/0"5(6#2/"#''03(.",&'(/#(6#@$&"0(K0%/(=23#R&%-*'&"(R0"%*%(K0%/(;*"7,-&'(.:0"&$>(,2(!&/,02/%(9,/:(6",/,-&'(4,@+(Q%-:0@,&		Y0%	ICG5HHH(	IG5FHH(	ICE5FHH(	

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

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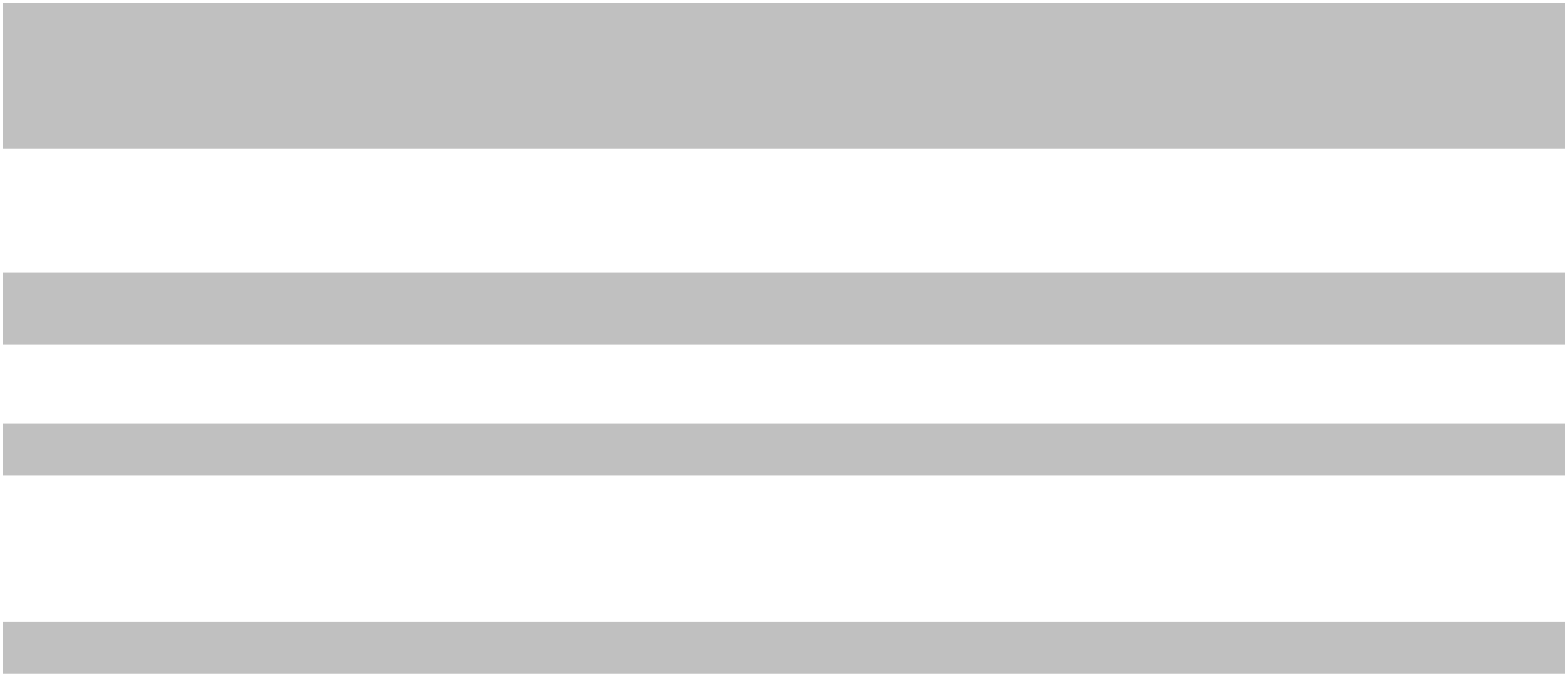
J03,-,205(L0$&"/@02/(#8

ABCDUDXNBHC	1(!"#%$0-/,R05(J*'/,-02/0"5([&23#@,0035(L#*+'0BK',235(!'&-0+#B6#2/"#''03(;/*3>(/#(=R&'*&/0(/:0(;&80/>(&23(=88,-&->(#8(!"0#$0"&/,R0(12/,/:"#@+,2(;*$$'0@02/&/,#2(Q2(!&/,02/%(]230"7#,27(Z,7:B[,%\(6&"3,&-(;*"70">(9,/:(6&"3,#$*'@#2&">(K>$&%%	Y0%	IMN5EHX(	ICM5DXD(	IEC5XFH(	IF5DXG(
ABCDUMUNBHC	1(4#27(.0"@5([&23#@,%035(L#*+'0BK',235(!'&-0+#B6#2/"#''03(;/*3>(/#(L0/0"@,20(/:0(=880-/(#8(1'+,7'*/,305(9:02(13303(/#(;/&23&"3(K'##3(T'*-#%0(4#90",27(.:0"&$,0%5(#2(J&_#"(6&"3,#R&%-*'&"(=R02/%(,2(!&/,02/%(9,/:(.>$0(D(L,&+0/0%(J0'',/*%(Z&"@#2>(P*/-#@0%(.",&'(B(T4!CCECNM	Y0%	ICD5HMN(	IG5ECM(	ICU5EEC(	ICU5EEC(
ABCDUMNGBHC	1(L#*+'0(+',235("&23#@,%035($'&-0+#B-#2/"#''03(/",&'(0R&'*&/,27(088,-&->(&23(%&80/>(#8(#"&'(2,2/03&2,+(/"0&/@02/(8#"(&/('0&%/(UD(900\%(,2($&/,02/%(9,/:(r;>%/0@,-(;-'0"#%,%(&%%#-,&/03(Q2/0"%/,/,&'(4*27(L,%0&%0r(b;;-BQ4LS	Y0%	IN5GEE(	ID5DCH(	IF5UNE(	IF5UNE(



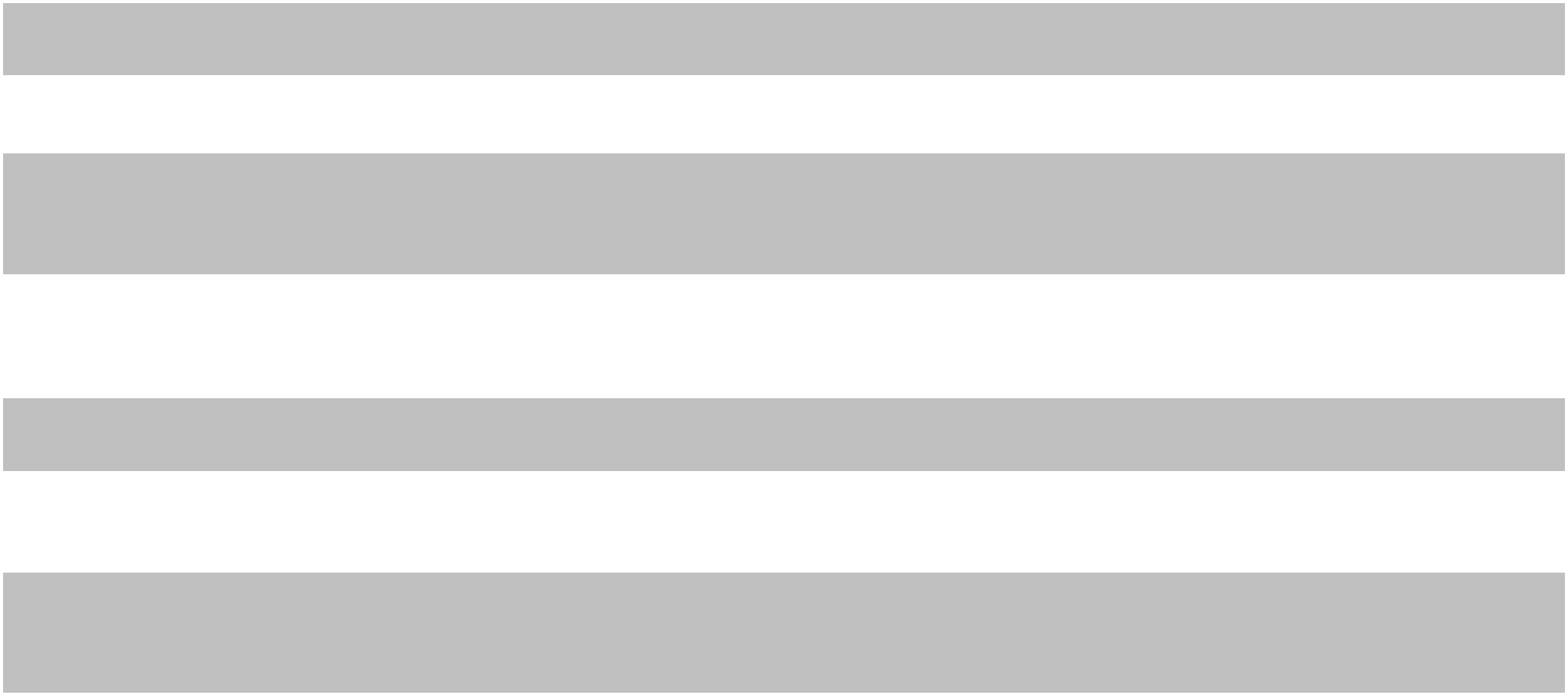
J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

209

J03,-,205(L0$&"/@02/(#8

ABCDUXDHBHC	**1([&23#@,003(.",&'(6#@$&",27(/:0(=4]gQ1k(L"*7B='*/,27(;/02/(g0"%*%(** **q,'R0"l(!.ml(;/02/(8#"(."0&/@02/(#8(;*$0"8,-,&'(W0@#"&'(&23f#"(** **!"#^,@&'(!#$',/0&'(1"/0",0%**	**Y0%**	**IU5EMH(**	**IC5EFD(**	**IN5GGC(**	**IE5FEU(**
ABCDUFDHBHC	**.:0(J0'&2#-#"/,20"7,-(!&/:9&>(,2(T'#@0"*'&"(L,%0&%0**	**A#**	**IE5CUN(**	**IG5DFM(**	**IF5MUC(**	**IF5MUC(**
ABCDECHEBHC	**1(!:&%0($`$**					**ICM5CUF(**



J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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J03,-,205(L0$&"/@02/(#8

ABCDEGCEBHC	1(J*'/,-02/0"5([&23#@,0035(L#*+'0B+',235(!'&-0+#B-#2/"#''03(;/*3>(/#(=R&'*&/0(/:0(;&80/>(&23(=88,-&->(#8(P"&'(."0$"#%/,2,'(,2(;*+_0-/%(9,/:(!*'@#2&">(Z>$0"/02%,#2(b!ZS(,2(Z0&"/(W&,'*"0(9,/:(!"0%0"R03(=_0-/,#2(W"&-/,#2(bZW$=WSn(!"#/#-#'()(.L=BZWBGHC	Y0%	ICM5MME(	IM5GGM(	ICX5NXH(	ICX5NXH(
ABCDEGCNBHC	12(P$02B4&+0'(=^/02%,#2(;/*3>(#8(P"&'(."0$"#%/,2,'(,2(;*+_0-/%(9,/:(!*'@#2&">(Z>$0"/02%,#2(b!ZS(1%%#-,&/03(9,/:(Z0&"/(W&,'*"0(9,/:(!"0%0"R03(=_0-/,#2(W"&-/,#2(bZW$=WS(B(1(4#27B.0"@(W#''#9B*$(;/*3>(/#(.L=BZWBGHCn(!"#/#-#'()(.L=BZWBGHD	Y0%	IF5FDN(	ID5FNX(	ICD5FHU(	ICD5FHU(
ABCDEGDCBHC	Z=[PV((1(J*'/,2&/,#2&'(!:&%0(G([&23#@,0035(P$02B'&+0'5(!&"&''0'(T"#*$(;/*3>(/#(=R&'*&/0(/:0(;&80/>(&23(=88,-&->(#8([0'*7#',^(,2(J02(9,/:(13R&2-03(!"#%/&/0(6&2-0"n(!"#/#-#'()V(Jg.BEHCBGDHC		ICC5DUH(		ICM5EDU(	ID5FDU(

J03,-,20(&23(4,80(; -,02-0%5(6#''070(#8

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J03,-,205(L0$&"/@02/(#8

ABCDEGUUBHC	J>#-&"3,&'(%-:0@,&(&23(."&2%8*%,#2(bJ(A.S	A#	IDD5GHX(	IE5EFD(	IDF5HHH(	IDF5HHH(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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J03,-,205(L0$&"/@02/(#8

ABCDEMECBHC 1(!:&%0(QQQ IF5FFD(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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J03,-,205(L0$&"/@02/(#8

ABCDEEHHBHC	.:0([&23#@,003(&23(6#2/"#''03(A#2,280",#",/>(.",&'(/#(=R&'*&/0(;&80/>(&23(6',2,-&'(=88,-&->(#8(/:0(;*"g0,'k(L"*7B6#&/03(K&''##2(,2(/:0(."0&/@02/(#8(;*+_0-/%(9,/:(;/02#/,-(40%,#2%(#8(/:0(W0@#"#$#$',/0&'(1"/0">(6#@$&"03(/#(/:0(J03/"#2,-(QA<!16.I(13@,"&'I(L"*7B6#&/03(K&''##2<((b.[1A;6=ALS	Y0%	ICH5UMN(	IG5CEM(	ICG5NCD(	ICH5FEF(
ABCDEENUBHC	;/*302/%(,2(/:0(!,$0',20(b;Q!S	A#	IH(	IH(	IH(	IH(
ABCDENNNBHC	12(#$02B'&+0'(0^/02%,#2(/",&'(/#(&%%0%%(/:0('#27(/0"@(%&80/>(#8(2,2/03&2,+(,2($&/,02/%(9,/:(;>%/0@,-(;-'0"#%,%(&%%#-,&/03(Q2/0"%/,/,&'(4*27(L,%0&%0(b;;-BQ4LS	Y0%	IX5HHH(	IH(	IX5HHH(	IX5HHH(
ABCDEFHFBHC	1(!:&%0(QQQ([&23#@,%035(L#*+'0BK',23(.",&'(/#(=R&'*&/0(=88,-&->(&23(;&80/>(#8(P2-0(L&,'>(=@$&7',8'#0,2(CH(@7(6#@$&"03(/#(!'&-0+#5(,2(!&/,02/%(9,/:(6:"#2,-(Z0&"/(W&,'*"0(9,/:("03*-03(=_0-/,#2(W"&-/,#2(bZW"=Wr(!"#/#-#'(A#(CDMU<CDC	Y0%	IM5XDU(	IC5MMX(	IE5DNG(	IE5DNG(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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J03,-,205(L0$&"/@02/(#8

ABCDEFEXBHCB?C	**13B$UGBHHDn(1(!:&%0(D5(J*'/,B602/0"5(P$02(4&+0'5([&23#@,003(;/*3>(/#(** **=R&'*&/0(=88,-&->(&23(;&80/>(#8(1302#R,"&'($UG(b13B$UGS(,2(-#@+,2&/,#2(** **9,/:(A,R#'*@&+(R0"%*%(A,R#'*@&+(&'#20(,2(!&/,02/%(9,/:([0-*""02/(** **Z0&3(&23(A0-\(;j*&@#*%(60''(6&"-,2#@&(bZA;66S**	**Y0%**	**IX5HNN(**	**ID5MDG(**	**ICH5UHH(**	**ICH5UHH(**

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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J03,-,205(L0$&"/@02/(#8

[BCHHHMGBCX	[>&2(?:,/0(ZQgf1QL;(!"#7"&@(!&"/(L(T"&2/%(8#"(6##"3,2&/03(ZQg(;0"R,-0%(&23(1--0%%(/#([0%0&"-:(8#"(?#@025(Q28&2/%5(6:,'3"025(&23(Y#*/:(b?Q6YS	A#	IMDH5GGH(	IME5NHG(	IMEN5HGG(	IMEN5HGG(
[BCHHGXFBCN	[>&2(?:,/0(!&"/(6(b.,/'0(QQQS(ZQg(=&"'>(Q2/0"R02/,#2(;0"R,-0%(b=Q;S(!"#7"&@	A#	IMDX5EUE(	IMG5XDD(	IMND5MNX(	IMND5MNX(
[BCHCGHGBCG	;#-,&'(J&"\0/,27(13R0"/,%,27(6.[	A#	IDM5EMU(	IH(	IDM5EMU(	IDM5EMU(
.BCDEXMNBHD	.:0(J0'&2#-#"/,20"7,-($&/:9&>(,2(7'#@0"*'&"(3,%0&%0	A#	ICDM5UNN(	IEE5EMF(	ICFC5DDE(	ICFC5DDE(
		J03,-,205(L0$&"/@02/(#8S		MN<HH		ID5FCC5CXC(

A0*"#'#7>5(L0$&"/@02/(#8

6BCDDEDNBHE	!:&%0(G5(P$02B4&+0'5(J*'/,-02/0"5(W#''#9B]$(;/*3>(/#(=R&'*&/0(/:0(4#27B	IG5MCM(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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A0*"#'#7>5(L0$&"/@02/(#8

6BCDMDHHBHM	1(!:&%0(G5(CDB?00\5(L#*+'0BK',235(!'&-0+#B6#2/"#''035([&23#@,0035(J*'/,-02/0"(;/*3>(/#(=R&'*&/0(/:0(=88,-&->(#8(P"&'(0%/"&308>'',20(DH(&23(MH(@7f3&>(&%(."0&/@02/(8#"(;*+_0-/%(9,/:(J#30"&/0(/#(;0R0"0(!&"\,2%#2u%(L,%0&%0	A#	ICE5MMF(	IM5FGU(	IDC5GXM(	IDC5GXM(
6BCDMUMCBHM	1(!:&%0(0,,+5(L#*+'0BK',235(J*'/,-02/0"(;/*3>(/#(=R&'*&/0(/:0(=88,-&->(&23(;&80/>(#8(1'/0$'&%0(,2(!&/,02/%(9,/:(J,'3(;/"#\0V([&$,3'>(0@$"#R,27(;>@$/#@%(&23(J,2#"(A0*"#'#7,-(L08,-,/%(b!",%@%S	A#	IUUX(	ICEN(	INDE(	INDE(
6BCDMEMMBHM	12(P$02B'&+0'5(4#27(.0"@(;&80/>(;/*3>(#8(;LBXHF(=[(,2(!&/,02/%(9,/:(6:#"0&(1%%#-,&/03(9,/:(Z*2/,27/#2(L,%0&%0	A#	ICU5CNC(	IM5UUC(	ICF5NDD(	ICF5NDD(
6BCDUHXNBHD	1([&23#@,0035(L#*+'0BK',235(!'&-0+#B6#2/"#''03(;/*3>(.#(=R&'*&/0(.:0(=88,-&->(123(;&80/>(P8(;70BUMN(02_0-/,#2(02(.:0(."0&/@02/(P8(;*+_0-/%(?,/:([08"&-/#">(;/&/*%(=$,'0$/,-*%(?:#(Z&R0(W&,'03(;/&23&"3(."0&/@02/	A#	IGH5UUD(	IF5CEE(	IGF5NCX(	IDN5XHD(
6BCDUCGUBHG	.PqB64HU	A#	IXC5XDN(	IDM5UMX(	ICHE5GNE(	ICHE5GNE(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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A0*"#'#7>5(L0$&"/@02/(#8

ABCDENFEBHC	1(!:&%0(G5(CD(?\5(J*'/,B6/"5(J*'/,2&/,#2&'5([&23<5(L#*+'0BK',235(L#*+'0BL*@@>5(!&"&''0'(T"#*$(;/*3>(/#(L0/</:0(=88,-&->5(;&80/>5(e(.#'<(#8(!DKHHC(P2-0(L&,'>(6#@$&"03(/#(,/%(Q23,R,3*&'(6#@$#202/%(,2(;*+_0-/%(?f(=&"'>(!&"\,2%#2d%((L,%0&%0(e(/#(&(6&',+"&/,#2(1"@(#8(!"&@,$0^#'0(=[5(!"#/#-#'(!DKHHCfHHG	Y0%	IN5EEE(	ID5GHH(	IF5FEE(	IF5FEE(
		A0*"#'#7>5(L0$&"/@02/(#8S		CX<FH		IEXF5CGN(

A0*"#%-,02-0%5(L0$&"/@02/(#8

6BCDUDFFBHD	;/*3>(#8(=&"'>(K"&,2(1'/0"&/,#2%(/:&/(!"03,-/(L0R0'#$@02/(#8(6:"#2,-(!.;L	A#	IMXX5XNM(	ICFC5CDX(	IEXH5HHD(	
6BCDUGGEBHD	1(KKKB!0"@0&+'0(A0*"#/"#$:,-(!#'>%&--:&",305(J,3,BT1T[	A#	ICDU5HHH(	IEM5GNU(	ICXF5GNU(	ICXF5GNU(
ABCDUEXDBHCB;C	12&/#@,-&'BW*2-/,#2&'(J&$$,27(#8(=2/0",-(A0*"&'(6,"-*,/%	A#	IC5HCX5FHX(	IDHF5FCM(	IC5DDX5XDD(	IC5DDX5XDD(

J03,-,20(&23(4,80(; -,02-0%5(6#''070(#8

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A0*"#%-,02-0%5(L0$&"/@02/(#8

ABCDUEXDBHCB;D	12&/#@,-&'BW*2-/,#2&'(J&$$,27(#8(=2/0",-(A0*"&'(6,"-*,/%	A#	IC5NGN5HXU(	IMUN5HGU(	ID5CFM5CDH(	ID5CFM5CDH(

P+%/0/",-%(e(T>20-#'#7

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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!03,&/",-%5(L0$&"/@02/(#8

6BCDUMCHBHD	1(;7'(K',23([&23<(J*'/,B602/"0(1-/,R0B6#2/"#''03(.",&'(/#(=R&'</:0(;&80/>5.#'0"&+,',/>5!:&"@&-#\,20/,-%(&23(=88,-&->(#8(6008/&0,3,@0(e(1R,+&-/&@(9:02(T,R02(,2(6#@+<(?f(J0/#2,3&0#'05(6#@$&"03(?fJ0"#$02*@5(,2(6:,'3"02(8"#@(G(J#2/:%(/#(40%%(/:&2(CX(Y"%(#8(170(?f(6#@$',-&/03(Q2/"&B1+3#@,2&'(Q280-/,#2%	A#	IG5DCC(	IFEG(	IM5CNM(	IM5CNM(
6BCDUMCDBHG	1(;,27'0(K',235([&3#@,%035(J*'/,B602/"05(1-/,R0(6#2/"#''035(.",&'(/#(=R&'*&/0(;&80/>5(.#'0"&+,',/>5(!:&"@&-#\,20/,-%(&23(=88,-&->(#8(6008/&0,3,@0(&23(1R,+&-/&@(6#@$&"/03(9,/:(6080$,@0(,2(6:,'3"02(8"#@(G(@#2/:%(/#(40%%(/:&2(CX(Y0&"%(#8(170(9,/:(6#@$',-&/03(]",2&">(."&-/(Q280-/,#2%(b-].Q%S	A#	IC5FHC(	IUNH(	ID5MND(	ID5MND(
6BCDUEFGBHD	1(L#*+'0(K',23(!'&-0+#(6#2/"#''03(;/*3>(#8(6JB					IC5HHH(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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!:>%(!:&"@(J0/f6&"3,#(;-,02-05(L0$&"/@02/(#8

6BCDMDGGBHM	L080-/,R0(@0'&2#-#"/,2(%,72&',27(*230"'>,27(.DLB&%%#-,&/03(0"0-/,'0(3>%8*2-/,#2	A#	ICFD5CXE(	IFX5FNE(	IDFC5CED(	IDFC5CED(
6BCDMGUXBHM	12/,#^,3&2/B!!1[&'$:&(,2/0"&-/,#2("03*-0%(&3,$#%,/>	A#	ICUC5CDG(	ICD5HFH(	ICEG5DCG(	ICEG5DCG(
6BCDUCXUBHD	[0%$CX(&(2#R0'(7020/,-(30/0"@,2&2/(#8(+'##3($"0%%*"0("07*'&/,#2(&23("02&'(8*2-/,#2	A#	INH5HHH(	IN5HHH(	INN5HHH(	INN5HHH(
6BCDUECHBHD	6#*$'03(/"&2%,/,#2%(#8(WaUHEB+,23,27(3#@&,2%(,2(@#'0-*'&"(30%,72(&23(%,72&',27	A#	IDN5HHH(	ICG5FHE(	IMH5FHE(	IMH5FHE(
ABCDUUDEBHCB1C	A*-'0&"([0-0$/#"(6:&$0"#20%(,2(;,72&',27(&23(J0/&+#',%@	A#	ICUH5HHH(	IXH5DUH(	IDGH5DUH(	IDGH5DUH(
ABCDEUMXBHC	K4J(6#2/"&-/(;#',-,/&/,#2(4CN!;HHFXEV(!"#3*-/,#2(#8(!q!BDD(6#2/"&-0$/,R0(g&--,20	A#	IGCE5XGG(	IXD5GNX(	IGFF5DCC(	IGFF5DCC(
ABCDENXUBHC	12/,BQ28'&@@&/#">(&23(12/,BP^,3&2/(=880-/%(#8(!#/&/#(12/:#->&2,2%(BB([#'0(#8(T*/(K&-/0",&	A#	ICD5CCG(	IG5EGG(	ICU5NME(	ICU5NME(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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!:>%(!:&"@(J0/f6&"3,#(;-,02-05(L0$&"/@02/(#8

;BCDUECHBHDB;D	6#*$'03(/"&2%,/,#2%(#8(WaUHEB+,23,27(3#@&,2%(,2(@#'0-*'&"(30%,72(&23(%,72&',27	A#	IG5HHH(	IC5EHU(	IM5EHU(	IM5EHU(
.BCDEENEBHD	Q2/0"$'&>(+0/9002(L,0/&">(W,+0"(&23(T*/(J,-"#+,#/&(,2(Z0$&/#-0''*'&"(6&"-,2#@&	A#	ICXN5GXX(	ICHH5DUC(	IDXN5EGF(	IDXN5EGF(
.BCDENMUBHM	[0%#*"-0(8#"([&/(T020/,-(J#30'%(#8(10"#+,-(6&$&-,/>	A#	ICNG5NGX(	IFD5FUH(	IDEE5EXX(	IDEE5EXX(
		!:>%(!:&"@(J0/f6&"3,#(;-,02-05(L0$&		CH<HH		IC5NNE5MDH(

!%>-:,&/">5(L0$&"/@02/(#8

6BHCHUGDBDG	13*'/(!%>-:,&/">([0%,302->(&23(."&,2,27(!"#7"&@	A#	IGX5UNC(	IC5MDF(	IMH5HHH(	IMH5HHH(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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!%>-:,&/">5(L0$&"/@02/(#8

6BCDGXCGBHM	=&"'>(Q2/0"R02/,#2(/#([03*-0(1'-#:#'(J,%*%0(&23(1+*%0(,2(/:0(P:,#(1"@>(A&/,#2&'(T*&"3	A#	IXU5MMN(	IMM5HHU(	ICDF5MUD(	ICDF5MUD(
6BCDMHDMBHU	A0*"#+0:&R,#"&'(J#30"&/#"%(#8(!#%/B/"&*@&/,-(L,%0&%0(."&_0-/#",0%V(!"#%$0-/,R0(J[Q(;/*3>(#8([0-02/(."&*@&(;*"R,R#"%	A#	IG5FGN(	ID5HDX(	IU5FEU(	IU5FEU(
6BCDUDFFBHD	;/*3>(#8(=&"'>(K"&,2(1'/0"&/,#2%(/:&/(!"03,-/(L0R0'#$@02/(#8(6:"#2,-(!.;L	A#	IMXX5XNM(	ICFC5CDX(	IEXH5HHD(	IEXH5HHD(
ABCDEHNGBHCB1C	6PD(Q2:&'&/,#2(02:&2-0%(/:0('&+,',/>(#8(80&"(@0@#">	A#	IDUH5HHH(	IFF5HHH(	IGMF5HHH(	
ABCDNHHHBHC	P:,#(P$,#,3(12&'>/,-%(!"#_0-/	A#	IDD5CDE(	ID5DCG(	IDM5GGF(	IX5DNU(
			!%>-:,&/">5(L0$&"/@02/(#8S	E<GM		IFNC5GDF(

!*+',-(Z'/:fZ#@0'&23(;0-*",/>5(L0$&"/@02/(#8

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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!*+',-(Z'/:fZ#@0'&23(;0-*",/>5(L0$&"/@02/(#8						
6BCHCGCGBCD	A◊P;Z(."&,2,27(T"&2/(!"#_0-/V(◊23*%/",&'(Z>7,020B]2,R0"%,/>.#'03#	A#	INH5NDN(	IC5DDM(	INC5FUC(	IUG5FEG(
	!*+',-(Z'/:fZ#@0'&23(;0-*",/>5(L0$&"		H<NU			IUG5FEG(
[&3,&/,#2(P2-#'#7>5(L0$&"/@02/(#8						
ABCDEGDCBHC	Z=[PV((1(J*'/,2&/,#2&'(!:&%0(G([&23#@,0035(P$02B'&+0'5(!&"&''0'(T"#*$(;/*3>(/#(=R&'*&/0(/:0(;&80/>(&23(=88,-&->(#8([0'*7#',^(,2(J02(9,/:(13R&2-03(!"#%/&/0(6&2-0"n(!"#/#-#'()V(Jg.BEHCBGDHC	A#	ICC5DUH(	IG5GNU(	ICM5EDU(	ICC5NHH(
	[&3,&/,#2(P2-#'#7>5(L0$&"/@02/(#8S		H<XH			ICC5NHH(
[&3,#'#7>5(L0$&"/@02/(#8						
ABCDEUXGBHC	.:0"@&'#7,-&'(12&'>%,%(#8(&(6#:#"/(#8(?#@02(]230"7#,27(J&@@#7"&$:,-(12&'>%,%	Y0%	IM5MCH(	IC5GDG(	IU5NGG(	IU5NGG(
ABCDEFEXBHCB?C	13B$UGBHHDn(1(!:&%0(D5(J*'/,B602/0"5(P$02(4&+0'5([&23#@,003(;/*3>(/#(=R&'*&/0(=88,-&->(&23(;&80/>(#8(1302#R,"&'($UG(b13B$UGS(,2(-#@+,2&/,#2(9,/:(A,R#'*@&+(R0"%*%(A,R#'*@&+(&'#20(,2(!&/,02/%(9,/:([0-*""02/(Z0&3(&23(A0-\(;j*&@#*%(60''(6&"-,2#@&(bZA;66S	Y0%	IX5HNN(	ID5MDG(	ICH5UHH(	
	[&3,#'#7>5(L0$&"/@02/(#8S		C<HH			IU5NGG(

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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[0%,3(!"7@BJ03,-,20

6BCDMEGHBHM	**1(J*'/,-02/0"5(L#*+'0B+',235([&23#@,0035(!'&-0+#B-#2/"#''035(!:&%0(G(;/*3>(/#(1%%O%%(/:0(=88,-&->(&23(;&80/>(#8(P"&'(K!;BGCM3BJ[(13303BP2(/#(."0$"#%/,2,'5(Q2:&'03(b.>R&%#**	**A#**	**IU5FXG(**	**IC5NFU(**	**IN5NNX(**	
6BCDUDFMBHG	**1(J*'/,-02/0"5(P$02B'&+0'(=^/02%,#2(bP4=S(;/*3>(/#(1%%O%%(/:0(4#27B/0"@(;&80/>(&23(=88,-&->(#8(=R#'#-*@&+**		**IG5MCX(**		**IM5MMG(**	**IXXF(**

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

2#/

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[0%,3(!"7@BJ03,-,20

ABCDGFFFBHC	**q,'R0"(!.m(g**		**Y0%**	**IG5FGU(**	**IC5CXH(**	**IU5CCU(**	**IUCD(**
ABCDUXDHBHC	**1([&23#@,003(.",&'(6#@$&",27(/:0(=4]gQ1k(L"*7B='*/,27(;/02/(g0"%*%(** **q,'R0"I(!.mI(;/02/(8#"(."0&/@02/(#8(;*$0"8,-,&'(W0@#"&'(&23f#"(** **!"#^,@&'(!#$',/0&'(1"/0",0%**		**Y0%**	**IU5EMH(**	**IC5EFD(**	**IN5GGC(**	**IGEN(**
ABCDEGUUBHC	**J>#-&"3,&'(%-:0@,&(&23(."&2%8*%,#2(bJQA.S**		**A#**	**IDD5GHX(**	**IE5EFD(**	**IDF5HHH(**	

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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[0%,3(!"7@BA0*"#'#7>

ABCDUNHHBHC	Q@&7,27(L0@02/,&(B(=R,302-0(8#"(1@>'#,3(;-&22,27(bQL=1;S(;/*3>V((1(6#R0"&70(9,/:(=R,302-0(L0R0'#$@02/(4#27,/*3,2&'(6#:#"/(;/*3> 16[QA(!"#/#-#'(NCUU	Y0%	IEFD(	IDHX(	IFHH(	IFHH(

[0%,3(!"7@BA0*"#'#7>S C<NH ICD5DUX(

[0%,3(!"7@B]"#'#7>

ABCDEDMNBHC	1(CDB?00\5([&23#@,0035(J*'/,B-02/0"5(L#*+'0BK',235(!'&-0+#B6#2/"#''035(GB1"@5(!&"&''0'BT"#*$(!:&%0(G(.",&'(/#(=R&'*&/0(/:0(=88,-&->(&23(;&80/>(#8(D(L#%0%(#8(1hmBCCDU(.&"70/,27(/:0(;ZQ!C(!&/:9&>(,2(;*+_0-/%(9,/:(Q2/0"%/,/,&'(6>%/,	Y0%	IE5NCD(	ID5HCG(	IX5NDU(	IX5NDU(

[0%,3(!"7@B]"#'#7>S C<HH IX5NDU(

;*"70">5(L0$&"/@02/(#8

6BCDUDFFBHD	;/*3>(#8(=&"'>(K"&,2(1'/0"&/,#2%(/:&/(!"03,-/(L0R0'#$@02/(#8(6:"#2,-(!.;L	A#	IMXX5XNM(	ICFC5CDX(	IEXH5HHD(	
6BCDUNEEBHD	J&-,/02/&2(,2(!*'@#2&">(Z>$0"/02%,#2(!#%/B408/(g02/",-*'&"(1%%,%/(L0R,-0(Q@$'&2/&/,#2(b;P![1APS<((!"#/#-#'(16BHUUBDHU	A#	ICD5EHE(	IG5NXD(	ICE5GXX(	ICE5GXX(

;*"70"

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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;*"70">5(L0$&"/@02/(#8

ABCDUEXDBHCB;D	**12&/#@,-&'BW*2-/,#2&'(J&$$,27(#8(=2/0",-(A0*"&'(6,"-*,/%**	**A#**	**IC5NGN5HXU(**	**IMUN5HGU(**	**ID5CFM5CDH(**	
ABCDEDENBHC	**1641J1.=(QQ(1*/#@&/03(6#72,/,R0(4#&3(1%%0%%@02/(8#"(J03,-&'(;/&88(."&,2,27(&23(=R&'*&/,#2**	**A#**	**IDG5CCH(**	**ICC5FHC(**	**IGU5HCC(**	
ABCDEGMXBHC	**Q[K()(DHDCDX5(1("&23#@,0035(@*'/,-02/0"5($:&%0(D(%/*3>(#8(L;!BNXXX(3#%,27(0@*'%,#2(,2(-#@+,2&/,#2(9,/:(+0R&-,0*@&+(R0"%*%(+0R&-,0*@&+(&'#20(,2($&/,02/%(9,/:("0-*""02/(#"($"#7"0%%,R0(7',#+'&%/#@&(8#''#9,27(,2,/,&'(/:0"&$>(%/*3>**	**Y0%**	**IE5MXE(**	**IC5FME(**	**IX5MGD(**	**IU5HUF(**

J03,-,20(&23(4,80(;-,02-0%5(6#''070(#8

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;*"70">5(L0$&"/@02/(#8

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

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K,#'#7,-&'(;-,02-0%5(L0$&"/@02/(#8

6BCDUCXGBHD	1(A#R0'([:#T(!"#/0,2(Q2/0"&-/,#2(A0/9#"\(,2(Q2R&3#$#3,&	A#	IUH5HHH(	IDU5UXD(	INU5UXD(	INU5UXD(
6BCDUMGNBHD	1(T02#@0B9,30(L"#%#$:,'&([A1,(;-"002(8#"([07*'&/#"%(#8(602/"#%#@0([03*-/,#2	A#	IUH5HHH(	IDG5NUH(	ING5NUH(	ING5NUH(
6BCDUNEUBHD	12&'>%,%(#8(@0-:&2,%@%(,2R#'R03(,2(,23*-/,#2(#8(&+,#/,-(&23(+,#/,-(%/"0%%(/#'0"&2-0(,2(Z#"/,-*'/*"0(6"#$%(.:"#*7:(A*/",/,#2(#"(.0@$0"&/*"0	A#	ICNE5CME(	ICN5EUD(	ICFG5NFX(	ICFG5NFX(
6BCDUFGDBHD	Q@@*20(=R&%,#2(,2(1j*&/,-([:&+3#R,"&'(!&/:#702%	A#	IDFH5EFX(	IH(	IDFH5EFX(	IDFH5EFX(
ABCDUECEBHCB1C	A#R0'(W0""#$/#/,-(6#@$#*23%(/#(.&"70/(J0%02-:>@&'(K"0&%/(6&2-0"(&23(6&2-0"(;/0@(60'"%	A#	IGHH5HHH(	ICMF5HHH(	IMMF5HHH(	ICNF5EHH(
ABCDUXCCBHC	A#R0'([#'0(8#"(KB3080 2%,2(G(,2(/:0([07*'&/,#2(#8(Q22&/0(4>@$:#->/0%(&23(P"&'(J*-#%&'(Q@@*20([0%$#2%0%	A#	IDFN5HEE(	ICMC5CHE(	IMGX5CND(	IMGX5CND(
ABCDUXUMBHC	L0R0'#$,27(&2(&2,@&'(@#30'(/#(,302/,8>(/:0("#'0(#8(/:0(%$0"@(-02/",#'0(,2(80"/,',/>	A#	ICUD5GDH(	IND5DNH(	IDDM5UFH(	IDDM5UFH(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

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K,#'#7,-&'(;-,02-0%5(L0$&"/@02/(#8

ABCDEFMGBHC	[=;=1[6Z(B(!T[V(='*-,3&/,27(J&,00(T020([07*'&/#">(A0/9#"\%(/#(1--0'0"&/0(."&2%'&/,#2&'(T02#@,-%	ICCC5XMC(	ICEM5CNG(	ICEM5CNG(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

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6:0@,%/">(&23(K,#-:0@,%/">5(L0$&"/@02/(#8

6BCDUEXXBHDB1C	A0*/"#2(L,88"&-/,#2(;/*3,0%(#8(!4!(L0$02302/(=20>@0%	A#	IGC5NMN(	IX5DUG(	IMH5HHH(	IMH5HHH(
6BCDUNGDBHD	6#*2/0"([07*'&/#">(J0-:&2,%@%(#8(6&"3,#/#2,-(;/0"#,3%(,2(6&"3,#B[02&'(;>23"#@0	A#	IDUH5HHH(	ICDX5NUH(	IGNX5NUH(	IGN5XNU(
6BCDEHCXBHD	L0R0'#$@02/(#8(2#R0'(&$$"#&-:0%(8#"(%/0"#0'0-/,R0(-#2%/"*-/,#2(#8(7'>-#%,3,-(',2\&70%	A#	IDCM5MHN(	ICHC5XMG(	IGCE5DUH(	IGCE5DUH(
ABCDUECEBHCB1C	A#R0'(W0""#$/#/,-(6#@$#*23%(/#(.&"70/(J0%02-:>@&'(K"0&%/(6&2-0"(&23(6&2-0"(;/0@(60'%	A#	IGHH5HHH(	ICMF5HHH(	IMMF5HHH(	IMM5FHH(
ABCDUFNCBHC	[&$,3(&23(=-#2#@,-(;>2/:0%,%(#8(A0^/(T020"&/,#2(Z0"+,-,30%(R,&(6&"+#2(L,#^,30BL,"0-/03(6BZ(K#23(W*2-/,#2&',0&/,#2	A#	IUH5HHH(	IH(	IUH5HHH(	IUH5HHH(
ABCDEHCXBHC	L0R0'#$@02/(#8(2#R0'(&$$"#&-:0%(8#"(%/0"#0'0-/,R0(-#2%/"*-/,#2(#8(7'>-#%,3,-(',2\&70%	A#	IDDX5FXM(	IFE5XFD(	IGDU5XNE(	IGDU5XNE(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

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6:0@,%/">(&23(K,#-:0@,%/">5(L0$&"/@02/(#8

ABCDEMXDBHC	**=880-/%(#8(02 8'&@@&/#">(K#90'(L,%0&%0(#2(;*%-0$/,+,',/>(.#(J,-"#->%/,2B4[**	**A#**	**ICMF5NCU(**	**IH(**	**ICMF5NCU(**	**IN5MXE(**

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

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=2R,"#2@02/&'(;-,02-0%5(L0$&"/@02/(#8

6BCDUFNEBHD	.;1V(6'0&2(?&/0"(.0-:2,-&'(1%%,%/&2-0(]2,/5(J,220%#/&(L0$&"/@02/(#8(17",-*'/*"0	Y0%	ICE5XXU(	IH(	ICE5XXU(	ICE5XXU(
6BCDEDDHBHD	4,2\,27(W,%:(/#(4#90"(."#$:,-(40R0'(g&",&+,',/>(,2(4&\0(Z*"#2(b6;J◊(DHCN$	A#	IMM5GMC(	IN5NEH(	IUD5CHC(	IUD5CHC(
ABCDUFNEBHC	.;1V(6'0&2(?&/0"(.0-:2,-&'(1%%,%/&2-0(]2,/5(J,220%#/&(L0$&"/@02/(#8(17",-*'/*"0	Y0%	ICE5XXU(	IH(	ICE5XXU(	ICE5XXU(
ABCDEHXNBHC	=2:&2-0@02/(#8(.*"/'0([0-"*,/@02/(,2(/:0(a&'&@&O##([,R0"	A#	IDUM5UGD(	IMM5UMG(	IDFF5HNU(	IDFF5HNU(
ABCDEDGGBHC	L,%/",+*/,#25(L02%,/>5(&23(L0@#7"&$:>(#8(;$#//03(.*"/'0%5(=&%/0"2(+#^(.*"/'0%5(&23([03BZ0&303(?##3$0-\0"%(,2(P&\(P$02,27%(#8(P:,#(&23(J,-:,7&2	A#	IDCC5CEH(	IDG5MED(	IDGM5EDD(	IDGM5EDD(
ABCDEDUDBHC	=%/&+',%:,27(=-#'#7,-&'(6",/0",&(&23(.:"0%:#'3%(8#"(J#2,/#",27(Z>3"#'#7,-(◊@$&-/%(#2(P'3(?#@&2(6"00\(?0/'&23(W*23%	A#	IMN5DUF(	ID5NMC(	IUH5HHH(	IUH5HHH(
ABCDEDEXBHC	."&-0(='0@02/(]$/&\0(,2(T"&%%(6&"$(P/#',/:%	A#	IEF5UHH(	IH(	IEF5UHH(	IEF5UHH(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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=2R,"#2@02/&'(;-,02-0%5(L0$&"/@02/(#8

ABCDEDEXBHCB;C	."&-0(='0@02/(]$/&\0(,2(T"&%%(6&"$(P/#',/:%	A#	IX5HHH(	IH(	IX5HHH(	IX5HHH(
ABCDEGGGBHC	h*&2/,8>,27(A*/",02/([0/02/,#2(K>(6#&%/&'(?0/'&23%(8#"(T*,3,27([0%/#"&/,#2(&23(J&2&70@02/	A#	ICHE5FGH(	IE5DHD(	ICCG5CGD(	ICCG5CGD(
ABCDEGUGBHC	J#30',27(/:0([0%$#2%0(#8(W,%:(&23(K02/:,-(Q2R0"/0+"&/0([0%$#2%0%(/#(6:&270%(,2(;/"0&@(W'#9(&23(4&23(]%0(,2(/:0(6&$0(W0&"(123(Y&3\,2f!00(L00([,R0"(K&%,2%	A#	IDC5DNN(	IG5NDG(	IDU5HHH(	IDU5HHH(
ABCDEMGFBHC	g070/&/,#2(;*"R0>,27(,2(;*$$#"/(#8(T"&%%(6&"$(;$&92,27(!#/02/,&'(,2(/:0(;&23*%\>([,R0"(K&%,2	A#	IEX5HXM(	ICC5FCU(	INF5FFF(	INF5FFF(
ABCDEMNCBHC	Z1KB&%%#-,&/03(Z0&'/:(=880-/%(&23(1,"+#"20(J,-"#->%/,2(40R0'%(1@#27([0-"0&/,#2&'(4&\0(]%0"%	A#	ICGG5NGN(	IH(	ICGG5NGN(	IDH5HEC(
ABCDEMFHBHC	4&\0(=",0(P$02(?&/0"(Q@$&,"@02/(&23(Z1K(;-*@(6",/0",&	A#	IFN5CDU(	IH(	IFN5CDU(	

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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=2R,"#2@02/&'(;-,02-0%5(L0$&"/@02/(#8

ABCDEUHXBHC	4&\0(=",0(@$&,"@02/(6",/0",&(DHCN	A#	IX5MFH(	ID5NEH(	ICC5DUH(	IU5EDU(
ABCDEEHDBHC	A&/*"0(6#2%0"R&2->(K,"3(;*"R0>%	A#	ICM5DXG(	IE5NXM(	IDC5HEN(	IDC5HEN(
ABCDEECNBHC	6&2(:0&'/:(#8(&j*&/,-(9,'3',80(,23,-&/0(/:0(j*&',/>(#8(9&/0"("0%#*"-0%`	A#	IDC5EGE(	IH(	IDC5EGE(	IDC5EGE(
ABCDEENMBHC	12&'>%0%(#8(%#,'(3,%%#'R03(#"7&2,-(-&"+#25(2,/"#7025(&23($:#%$:#"*%	A#	IF5DDD(	ID5FFN(	ICD5DCF(	ICD5DCF(
ABCDEXDGBHC	!'&2/($0"-0$/,#2(#8(,2%0-/(:0"+,R#"0%(,2-'*30%('0&8(R,+"&/,#2%(-&*%03(+>(-:09,27<	A#	IXH5UEG(	IGE5EEC(	ICCN5DDM(	ICCN5DDM(
ABCDEFGCBHC	L,%/",+*/,#25(L02%,/>5(&23(L0@#7"&$:>(#8(;$#//03(.*"/'0%5(=&%/0"2(+#^(.*"/'0%5(&23([03BZ0&303(?##3$0-\0"%(,2(P&\(P$02,27%(#8(P:,#(&23(J,-:,7&2	A#	ICNG5ECX(	ICN5GED(	ICFH5FXH(	ICFH5FXH(
ABCDEFXCBHC	.0%/,27(17"00@02/(8#"(@#9&(;/&/0	A#	ID5MMX(	INFE(	IG5DMM(	IG5DMM(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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=2R,"#2@02/&'(;-,02-0%5(L0$&"/@02/(#8

ABCDEFFUBHC	Q-:/:>#$'&2\/#2(6#@@*2,/>(=-#'#7>(&23(L,%/",+*/,#2(,2(4&\0(;/<(6'&,"0	A#	IDGM5HMG(	IMH5FUN(	IDNU5HHH(	ICGN5UHH(
ABCDNCGDBHC	6&'-,*@(Q@&7,27(#8(!'&2/(.,%%*0	A#	IUHH(	IH(	IUHH(	IUHH(
[BCDGGECBHN	4&\0(=",0(K&/:,27(K0&-:(J#2,/#",27	A#	IF5HFF(	ID5GEE(	ICC5MEU(	ICC5MEU(
[BCDGECMBHE	[0%0&"-:(;*$$#"/(17"00@02/B1-j*,%,/,#2(#8(T##3%(&23(;0"R,-0%	A#	ICH5HHH(	IC5HHH(	ICC5HHH(	ICC5HHH(
[BCDGECMBHEB1C	[0%0&"-:(;*$$#"/(17"00@02/B1-j*,%,/,#2(#8(T##3%(&23(;0"R,-0%	A#	IM5HHH(	IMHH(	IM5MHH(	IM5MHH(
.BCDEUCNBHC	J#'0-*'&"(+&%,%(#8($'&2/($&"&%,/,%@(+>(&(7&'',27(,2%0-/	A#	IDGE5XGG(	ICCN5DGD(	IGUM5HEU(	IGUM5HEU(
				=2R,"#2@02/&'(;-,02-0%5(L0$&"/@02/(	DU<EU	IC5FNN5UMG(

Q2%/"*@02/&/,#2(602/0"

ABCDENUFBHC	P-0&2%,30(K,#%-,02-0(!"#_0-/	A#	ID5DMG(	IH(	ID5DMG(	ID5DMG(
				Q2%/"*@02/&/,#2(602/0"S	C<HH	ID5DMG(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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4&\0(=",0(;#,'(&23(?&/0"([0%0&"-:(&23(=3*-&/,#2(602/0"

6BCDMDXUBHM	L0/0"@,2,27(/:0(6#2/",+*/,#2(#8(J&*@00([,R0"(W,%:0",0%(!"#3*-/,#2(/#(?0%/0"2(4&\0(=",0(;/#-\%	A#	IMX5UCC(	IX5MXF(	IUN5HHH(	IDX5UHH(
6BCDEHEXBHDB;C	4,2\,27($"#-0%%(@#30'%(&23(8,0'3(0^$0",@02/%(/#(8#"0-&%/(&'7&'(+'##@(/#^,-,/>(,2(4&\0(=",0BB=6PZ1K(DHCN	A#	IDH5DMD(	IF5ECM(	IDF5XUE(	IDF5XUE(
ABCDEHEXBHC	4,2\,27($"#-0%%(@#30'%(&23(8,0'3(0^$0",@02/%(/#(8#"0-&%/(&'7&'(+'##@(/#^,-,/>(,2(4&\0(=",0	A#	ICG5DCF(	IE5DXH(	ICF5MFF(	ICF5MFF(
ABCDEMGFBHC	g070/&/,#2(;*"R0>,27(,2(;*$$#"/(#8(T"&%%(6&"$(;$&92,27(!#/02/,&'(,2(/:0(;&23*%\>([,R0"(K&%,2	A#	IEX5HXM(	ICC5FCU(	INF5FFF(	IH(
ABCDEMFHBHC	4&\0(=",0(P$02(?&/0"(@$&,"@02/(&23(Z1K(;-*@(6",/0",&	A#	IFN5CDU(	IH(	IFN5CDU(	IFN5CDU(
ABCDEUHXBHC	4&\0(=",0(@$&,"@02/(6",/0",&(DHCN	A#	IX5MFH(	ID5NEH(	ICC5DUH(	IU5EDU(
ABCDEECFBHC	[&$,3([0%$#2%0BJ&*@00([,R0"BL&R,%	A#	IC5UHH(	IH(	IC5UHH(	IC5UHH(

!:>%,-%(&23(1%/"#2#@>5(L0$&"/@02/(#8

6BCDDDFEBHM

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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!:>%,-%(&23(1%/"#2#@>5(L0$&"/@02/(#8

6BCDUCXHBHG	W*23&@02/&'(.:0#">(&23(A*@0",-&'(J#30',27(#8(W,'&@02/&">([[1J(L0R,-0(P$0"&/,#2(&23([0',&+,',/>	A#	IEC5DNF(	IDF5CHX(	IFH5GXN(	IFH5GXN(
6BCDUMGMBHD	Z,7:(.0@$0"&/*"0(J&720/,-(J&/0",&'%	A#	IEM5GFG(	ICD5XNX(	INN5DNC(	IUC5NND(
6BCDUMFGBHD	6"#%%-*//,27([0-#@+,2&/,#2(J0/"#'#7>(8#"(=^$03,/,27(gP6(=27,200",27	A#	IEN5NFE(	IGD5DHG(	IFF5FFF(	IFF5FFF(
6BCDEHDXBHD	Q2(;,/*(Q2R0%/,7&/,#2%(&23(;/"&/07,0%(8#"(133"0%%,27(=^/",2%,-(&23(Q2/",2%,-(L07"&3&/,#2(J0-:&2,%@%(,2(!0"#R%\,/0(;#'&"(60''(J&/0",&'%(&23(L0R,-0%	A#	ICHC5EFU(	IMX5GHU(	ICUH5HHH(	ICUH5HHH(
6BCDEUUNBHCB;C	407&->(Z=.T(;$0-/"*@(#8(&(J&%%,R0(;/&"V(q0/&(!*$	A#	IX5UDF(	IM5DDC(	ICD5NUH(	ICD5NUH(
ABCDUFEFBHC	[#'0(#8(;@&''(127'0(T"&,2(K#*23&",0%(,2(63.0(;#'&"(60''(!0"8#"@&2-0	A#	IDGF5HCU(	ICCG5UGD(	IGUD5UMN(	IGUD5UMN(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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!:>%,-%(&23(1%/"#2#@>5(L0$&"/@02/(#8						
ABCDEDUGBHC	1(g,&+'0(A#2B-#2/&-/(P$/,-&'(J0/:#3(#8(J0&%*",27(63.0(.:,-\20%%(Q2B%,/*(#2(63%f63.0(6#&/03(T'&%%(!'&/0%(#2(!"#3*-/,#2(4,20	A#	IM5HEE(	IC5FGC(	IU5FFN(	IU5FFN(
ABCDEGDNBHC	6:##%0(P:,#(W,"%/	A#	IEH5GXX(	IH(	IEH5GXX(	IEH5GXX(
ABCDEGGUBHC	Q28"&"03(1+*23&2-0%(&23(/:0(6:0@,-&'(=2",-:@02/(#8(/:0(]2,R0"%0	A#	ING5NUF(	IGM5FEH(	ICHX5NCF(	ICHX5NCF(
ABCDEMFNBHC	6#2%/"*-/,27(&(!:&%0(L,&7"&@(8#"(/:0(Q2/0"%/0''&"(J03,*@(/:"#*7:(/:0(12&'>%,%(#8(P(Q(W,20B;/"*-/*"0(=^-,/&/,#2%	A#	ICC5ECE(	IU5NUH(	ICN5GEE(	ICN5GEE(
ABCDEMFFBHC	.:0(E($-(L1;ZV((1(?W6G(C<E(@,-"#2(;*"R0>(#8(/:0(P",#2(Q2/07"&'(;:&$03(W,'&@02/	A#	ICF5FNF(	IN5XFH(	IDN5XEF(	IDN5XEF(
ABCDEUHNBHC	.:0(6'*%/0"(!#$*'&/,#2(#8(]T6(DXXU	A#	ICD5GGE(	IE5CHN(	ICX5MMG(	ICX5MMG(
ABCDEUUNBHC	407&->(Z=.T(;$0-/"*@(#8(&(J&%%,R0(;/&"V(q0/&(!*$	A#	ID5XMG(	IC5MHN(	IM5DUH(	IM5DUH(

A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(#8

2#/

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!:>%,-%(&23(1%/"#2#@>5(L0$&"/@02/(#8						
ABCDEEFHBHC	J#2#',/:,-&''>(Q2/07"&/03(.:,2BW,'@f;,',-#2(.&230@(!:#/#0'0-/"#30%(8#"(Z,7:(=88,-,02->(&23(;/&+'0(!:#/#0'0-/"#-:0@,-&'(?&/0"(;$',//,27	A#	IDX5MNM(	ICG5UDU(	IMC5FFF(	IMC5FFF(
ABCDENUUBHC	.:0(A&/*"0(#8(/:0(6*""02/(P*/+*"%/(#8(/:0(K0(;/&"(ZL(EDDE	A#	ICX5CHF(	IX5FEM(	IDN5HNG(	IDN5HNG(
ABCDENUEBHC	J#30',27(/:0(3*%/(8#"@&/,#2(&23(30/0-/,27(!1Z%(&"#*23(-&"+#2B",-:(?[(+,2&",0%	A#	IN5HHH(	IH(	IN5HHH(	IN5HHH(
ABCDENEHBHC	K#9B%:#-\%(&23(c0/%(,2(/:0(W&"BQ[V(g0'#-,/>([0%#'R03	A#	IM5EXD(	ID5GCX(	IN5HHH(	IN5HHH(
ABCDENNGBHC	!'&20/(P--*""02-0(&"#*23(J,3BJ(L9&"8%(,2(/:0(a0$'0"(W,0'3	A#	IF5HFE(	IM5UHG(	ICG5UFF(	ICG5UFF(
ABCDNHGCBHC	;$0^/##'(*$7"&30(8#"(;$0m	A#	IF5DME(	IM5UNE(	ICG5XDD(	ICG5XDD(
.BCDENFCBHC	=^$'#",27(W&"BQ[(1+*23&2-0(L,&72#%/,-%(,2(A0&"+>(T&'&^,0%	A#	ICM5DXE(	IG5NCM(	ICX5HHH(	ICX5HHH(
				!:>%,-%(&23(1%/"#2#@>5(L0$&"/@02/(#	DM<EN	IG5DMH5CXN(
				A&/*"&'(;-,02-0%(e(J&/:0@&/,-%5(6#''070(	XM<XM	ICH5CFD5GCU(

A*"%,275(6#''070(#8

2#/

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A*"%,275(6#''070(#8

6BCDMHNFBHU	[=4Q=WV(1(T'#+&'([07,%/">(/#(=R&'*&/0(4#27B.0"@(=880-/,R020%%(#8 A0*"#%/,@*'&/,#2(.:0"&$>(8#"(!&,2	A#	IDH5FCX(	IE5DNU(	IDN5CFM(	ID5NCF(
ABCDEGXHBHC	A*"%,27(=3*-&/,#2(T"&2/(!"#7"&@(bA=T!S	A#	ICGD5HCG(	IEN5FXN(	IDHH5HHH(	IDHH5HHH(
ABCDEUDNBHC						IC5HHH(

! :&"@&->(e(! :&"@&-0*/,-&'(;-,02-0%(6#''070(#8

2#/

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!:&"@&->(e(!:&"@&-0*/,-&'(;-,02-0%5(6#''070(#8

2#/

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J03,-,2&'(&23(K,#'#7,-&'(6:0@,%/">5(L0$&"/@02/(#8

ABCDEGECBHC	Q2(g,R#(!:#/#&88,2,/>(4&+0',27(]%,27(6&%$0"(q0+"&8,%:(8#"(.&"70/(Q302/,8,-&/,#2	A#	IUH5HHH(	IDE5NUH(	INE5NUH(	IMF5XXN(

J03,-,2&'(&23(K,#'#7,-&'(6:0@,%/">5(L M<UU IFHH5UGU(

!:&"@&-#'#7>5(L0$&"/@02/(#8

6BCDMEUGBHD	.:0([#'0(#8(J>#->/0(!",@&">(6,',&(,2(6&"3,&-(L,%0&%0	A#	INH5HHH(	IN5HHH(	INN5HHH(	INN5HHH(
ABCDEHNGBHCB1C	6PD(Q2:&'&/,#2(02:&2-0%(/:0('&+,',/>(#8(80&"(@0@#">	A#	IDUH5HHH(	IFF5HHH(	IGMF5HHH(	
ABCDEDHUBHC	!",@&">(-,',&(3>%8*2-/,#2(&23(-&"3,#R&%-*'&"(-#@$',-&/,#2%(,2($#'>->%/,-(\,320>(3,%0&%0	A#	IDNN5GMF(	ICHC5EGU(	IGNX5FXM(	IGNX5FXM(
ABCDEDDFBHC	12/,-&2-0"(1-/,R,/,0%(#8(W0R,''0&(6#"3,8#',&(&23(,/%(1-/,R0(6#2%/,/*02/%	A#	ICCE5HHH(	ICC5EHH(	ICDN5EHH(	ICDN5EHH(
ABCDEGGCBHC	;,72&'(%:&$,27(R,&(@*'/,$'0(&''#%/0",-(%,/0%(#2(#',7#@0",-(@*%-&",2,-("0-0$/#"%	A#	IFH5HFE(	IME5GFF(	ICGE5MFU(	IXC5XFN(

! : &"@&->(e(! : &"@&-0*/,-&'(; -,02-0%5(6#''070(#8

2#/

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! : &"@&-#'#7>5(L0$&"/@02/(#8

ABCDEGECBHC	**Q2(g,R#(! : #/#&88,2,/>(4&+0',27(]%,27(6&%$0"(q0+"&8,%:(8#"(.&"70/(Q302/,8,-&/,#2**	**A#**	**IUH5HHH(**	**IDE5NUH(**	**INE5NUH(**	**IDE5XEG(**
ABCDEEEUBHC	**;/*3>(#8(1'\02#20%(%#*"-03(8"#@(Q%#-:">%,%(&'7&0(8#"(%&80/>(&23($#/02/,&'(&$$',-&/,#2%(,2(/:0(-#%@0/,-(&23($0"%#2&'(-&"0(,23*%/"> **	**A#**	**ICD5UHH(**	**IH(**	**ICD5UHH(**	**ICD5UHH(**
ABCDEXCUBHC	**L0R0'#$@02/(#8(&(A09(."0&/@02/(8#"(1*/,%@(;$0-/"*@(L,%#"30"%**	**A#**	**ICU5HHH(**	**IH(**	**ICU5HHH(**	**ICU5HHH(**
ABCDEFCFBHC	**L0R0'#$@02/(&23(-:&"&-/0",0&/,#2(#8(2,-#/,20('#&303(%#',3(',$,3(2&2#$&"/,-'0(:>3"#70'%**	**A#**	**ICH5HHH(**	**IC5HHH(**	**ICC5HHH(**	**ID5NUH(**
		! : &"@&-#'#7>5(L0$&"/@02/(#8S		**E<DH**		**INDD5UFM(**

! : &"@&->(!"&-/,-05(L0$&"/@02/(#8

ABCDEMMXBHC	**QB6#"$%V(6#@$*/&/,#2&'(;>%/0@%(/#(L0',R0"(!"#$0"(Q2_0-/&+'0(."0&/@02/%**	**A#**	**IMU5HHH(**	**IU5HHH(**	**IUH5HHH(**	**IUH5HHH(**
ABCDEMNXBHC	**;/*3>(#8(1'\02#20%(%#*"-03(8"#@(Q%#-:">%,%(&'7&0(8#"(%&80/>(&23($#/02/,&'(&$$',-&/,#2%(,2(/:0(-#%@0/,-(&23($0"%#2&'(-&"0(,23*%/"><**	**A#**	**IN5UNE(**	**ID5MDM(**	**ICH5HHH(**	**ICH5HHH(**

!:&"@&->(e(!:&"@&-0*/,-&'(;-,02-0%5(6#''070(#8

2#/

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!:&"@&->(!"&-/,-05(L0$&"/@02/(#8

ABCDEUDEBHC	=2:&2-,27(/:0(30',R0">(#8(,+*$"#802(/:"#*7:(/:0(%\,2(*%,27(,2(%,',-#(@#30',27	A#	ICH5HHH(	IH(	ICH5HHH(	ICH5HHH(
ABCDEFHEBHC	.0%/,27(1'\02#20%(,2(;*2%-"002%	A#	IN5UNE(	ID5MDM(	ICH5HHH(	ICH5HHH(
ABCDEFCFBHC	L0R0'#$@02/(&23(-:&"&-/0",0&/,#2(#8(2,-#/,20('#&303(%#',3(',$,3(2&2#$&"/,-'0(:>3"#70'%	A#	ICH5HHH(	IC5HHH(	ICC5HHH(	IX5DUH(
ABCDNHUFBHC	;/*302/(;*$$#"/	A#	IX5HHH(	IH(	IX5HHH(	IX5HHH(

!:&"@&->(!"&-/,-05(L0$&"/@02/(#8S	U<NU	IFE5DUH(
!:&"@&->(e(!:&"@&-0*/,-&'(;-,02-0%5(6#	CN<UH	IC5NGM5GNF(

!"#R#%/(B(1-&30@,-(188&,"%5(=2"#''@02/(;0"R,-0%

2#/

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40&"2,27(=2:&2-0@02/(602/0"

6BCHDNDGBDF	6&"'(L<(!0"\,2%(T"&2/	A#	IEF5CHE(	IH(	IEF5CHE(	IEF5CHE(

! "#R#%/(B(1 -&30@,-(188&,"%5(=2"#''@02/(;0"R,-0%

2#/

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40&"2,27(=2:&2-0@02/(602/0"

6BCHGFCCBDD	**].(;/*302/(;*$$#"/(;0"R,-0%**	**A#**	**IDDU5FCM(**	**ICX5HNG(**	**IDMG5FXN(**	**IM5XXH(**

40&"2,27(=2:&2-0@02/(602/0"S **C<HD** **ING5FXE(**

! "#R#%/5(=^0-*/,R0(g!(1-&30@,-(188&,"%

ABCDEGXUBHC	**DHCNBDHCF(L&%:(=@0"702->(T"&2/**	**A#**	**IDCH5HHH(**	**IH(**	**IDCH5HHH(**	**IDCH5HHH(**
ABCDENNFBHC	**s.&-\',27(."&2%80"t([07,#2&'("&2%80"(T"&2/(19&"3**	**A#**	**IG5HHH(**	**IH(**	**IG5HHH(**	**IG5HHH(**

[0%0&"-:(e(;$#2%#"03(!"#7"&@%(J6

2#/

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[0%0&"-:(e(;$#2%#"03(!"#7"&@%

ABCDEDFGBHC	.#'03#(JK16	A#	IGGH5HHH(	IH(	IGGH5HHH(

[0%0&"-:(e(;$#2%#"03(!"#7"&@%S	D<HH	ICGN5NFG(
[0%0&"-:(e(;$#2%#"03(!"#7"&@%(J6S	D<HH	ICGN5NFG(

;/*302/(188&,"%

2#/

209

;/*302/(1-/,R,/,0%(13@,2

6BCDUDXMBHG	A#"/:90%/(P:,#(Z,7:(;-:##'%(.:&/(?#"\f.0-:(!"0$	A#	ICXM5GHG(	IF5NHF(	ICFM5HCD(	ICFM5HCD(

]2,R0"%,/>(6#''070

2#/

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L0&2(B(]2,R0"%,/>(6#''070

6BCDGDUGBHN	J,',/&">(;0"R,-0(602/0"(;/*302/(;*$$#"/	A#	ID5XHH(	IXFE(	IG5EFE(	IG5EFE(
ABCDGDUGBHC	J,',/&">(;0"R,-0(602/0"(;/*302/(;*$$#"/	Y0%	IG5EFE(	IH(	IG5EFE(	IG5EFE(
ABCDENGMBHC	W61(.16(40&30"%:,$(L0R0'#$@02/	A#	ICM5ENU(	IH(	ICM5ENU(	ICM5ENU(

L0&2(B(]2,R0"%,/>(6#''070S	G<HH	IDD5HEN(
]2,R0"%,/>(6#''070S	G<HH	IDD5HEN(

].(J03,-&'(602/0"

2#/

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P!B6',2,-B6&"3,#'#7>

ABCDMNHXBHC	];BK&%034932 l S80 0 0 50 -1 80 0 5478 Tm /9 179 74966905,2,-B6)+8#&+$X

INHH(