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) , ! , 1-73(8%)J!0(&1+1--!213-()-4!61+()J%)J-!A(5) , ! ()!9%78!-% , 1C*+K-; ! \$ 0!
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Z31)!Z*+ , C%)B!\$%&!Z1))177B! ?9(77!Z%1613B!\ 1>%)Z3*&*)B!*) , !H03%-!Z57%91A(3!70!1%3!J3* , 1S / !C(3K;!
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F;! H / ? ` ? ! f ` [! e / G ' XFGV ! a : ! e a b ` X ` ? ? ! m ` f ? a G ? 4 ! m f a m ` f \$ o !

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1)7131,!*!71&2(3*38!31-73*%)%J!(3,13!%)!<RY#!31N5%3%)J!9%78!(AA%9%*+!-!2(-7!
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6), ()1,!*) ,!, 1-73(8%)J!%7!C%70(57!)(7%91;D^{LM}!!\$0*7!9(537!*J*%)!* , , 31--1,!
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 2(-72(%))J!(A!701!01*3%)J!*A713!701!1>1)7;4D^M<!!\$01!9(537!01+, !70*7!1)A(391&1)7!
 (A!*!9%78!(3,%)*)9!123(0%6%7%)J!213-() *+!23(21378!A3(&!61%)J!+1A7!(!)!256+%9!
 -%, 1C*+K-! +%K1+8! ,%, !) (7! =9(-) -7%7571j1! *)! 1k73*(3,%) *38! 9%395&-7*)9! 70*7!
 C*33*)7-!70%-11k9127%(!);D^ME!!F7!A537013!C3(71!70*7!701!%&23(>1&1)7! , %-73%974-!
 %)9(-%-71)7! 2(-7S, 123%>*7%(!)) (7%A%9*7%(!) 23*97%91-! ,%, !) (7! -7%-A8! ,51!
 23(91--!3!N5%31&1)7-!1>1)!%A!231S, 123%>*7%(!)(7%91!C*%-!) (7!31N5%31 , ;^ML!

\$01!2*37%1-!%)!!+-%. \$/010-% ' ")K+l(D% 9 +>?0>+*713!-177+1,!*), !701! , %-73%97!
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 +%&%71 , !-!75*7%(!)-;^M!!\$018!&*8!%&&1 , %*71+8!&(>1!73*>1+!(6-73597%(!)-!657!)(!
 &(31!70*!)191-*38!7(!23(>% , 1!9+1*3!2*-J1,^MO!!\$018!&*8!31&>1!73*-0!*), !
 ,5&21 , %71&-!70*7!*221*3!7(!61!2+*91 , !A(3!73*-0!31&(>+;^M!!\$018!&*8!31&(>1!
 5)*771) , 1 , !65+K8%71&-!-590!*-!A53)%7531!*) , !&*7731--1-;^MY!!\$018!&*8!31&(>1!
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?219%*+! 231S31&(>*+!) (7%91! 31N5%31&1)7-! *22+8! 7(! 701! 0*) , +%)J! (A!
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 701! 23(21378!%-!) (7! 2*9K1 , !52!%)! *! &*)) 13!70*7! 23(>% , 1-!&%)%&5&!73*>1+!
 9+1*3*)91B!701!) (7%91!&5-7!%) , %9*71!70*7!701!23(21378!C%+!61!31&(>1 , !%A!7!%-!
) (7! &(>1 , !C%70%)!7C1)78SA(53!^EM_!0(53-;^E!!FA!701! 23(21378!%-!2*9K1 , !52B!
 (AA%9%*+!&5-7!C%*7!7C1)78SA(53!^EM_!0(53-!61A(31!2(-7%)J!7!*), !&*8!31&(>1!
 701! 23(21378!) +8!%A!%7!0*-!) (7!611)! &(>1 , !*A713!*) (7013!7C1)78SA(53!^EM_!
 0(53-!0*-!2*-1 , ;^L!!F)!* , , %7%(!)B!C3%771!)!) (7%91!(A!31&(>*+!&5-7!61!2(-71 , !
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% M<L% !k . d% ' ")K+l(D% 9 +>?0>B!E]<!"! QX!<LOMRY]<B!7! . " !^N5(7%)J!W)%71 , !?7*71-!>;!U*%&1-!) *)%1+!
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% ML% 23e!

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 F&23(>1&1)7! ' %-7;B!G(!;HhS<MS#LMM!m?V!^ / U Qk!^H; ' ;!H*+;! b *3;!<"B!E] <#_B!` H : !G(!;<EO;!

% M" % 23e%7!ESO;!

% MO% 23e% i F;E;*S6;B!7!ESL;!

% M#% 23e% i F;E;9;B!7!L;!

% MY% 23e% i F;E; , ;B!7!L;!

% MR% 23e% i F;E;1;B!7!LSM;!

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1+*6(3*71!%7-!231S,123%>*7%(!)23(91--!31N5%31&1)7-;Y"!!m(37+*),!*J311,!70*7!
 *)8!)(7%91-!C%+!C*3)!70*7!*9*&2-%71!C%+!61!9+1*31,!)(!+1--!70*)!7C1)78SA(53!
 ^EM_!0(53-!*) ,!C%70%!)!-1>1)!^#_!,*8-!A713%7!%-!2(-71,;Y0!!m(37+*),!*+-(!*J311,!
 7(!20(7(J3*20*!),!&*K1!*!C3%771)!%)>1)7(38!(A!*+!9()A%-9*71,!23(21378B!*) ,B!
 %)!* ,,%7%()B!7(!20(7(J3*20!1*90!9*&2-%71!7(!&*K1!319(3,! (A!C0*7!0*-!611)!
 ,%-2(-1,! (A!3*7013!70*)!9()A%-9*71,!A(3!-7(3*J1;Y#!F7!23(&%-1,!7(!-7(31!=*)8!
 %71&!70*7!%-!31*-() *6+8!319(J)%I*6+1!*-!61+()J%)J!7(!*!213-(!)* ,!70*7!0*-!
 *22*31)7!5-1;D^Y!!m(37+*),!* ,,%7%()*+8!*J311,!7(!%)9+5,1!%)A(3&*7%(!%)*!8!

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4 5 6 7 8 9 : 4 7 : ; < % ! . 9 % ; : = 2 : 9 !

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-*A1J5*3,-!*J*%)-7!133()1(5-!,123%>*7%()-!(A!23(21378;<1Y!!\$01!9(537!2(%))71,!7(!23(91,531-!%)!701!e() (+5+5!-7(3*J1!(3,%)*91!23(>%,%)JA(3!*,>*)91!)(7%91!(A!*)8!-1%I531!*),!2(-7S-1%I531!)(7%91!,1-93%6%)J!C0131!23(21378!0*!,!611)!7*K1)!*),!9(5+!,!61!3173%1>1,;<1R!!F7!01+!,!70(-1!(22(375)%7%1-!&*!,!701!%&2(5),&1)7!23(91--!31*-() *6+1!*),!70*7!*01*3%)J!C*-!)(7!31N5%31,!-%)91!%7! =C(5+!,*,,!+%77+1!7(!231>1)7!*)!133()1(5-!,123%>*7%());D<<1!

\$01! e*C*%q%! ' %-73%97! H(537! 9(&&1)71,!%)! ;@--011! 70*7! e() (+5+54-! -%,1C*+K!)5%-*)91!(3,%)*91! =, (1-!)(7!23(>%,!1A(3!1%7013!231S,123%>*7%()) (7%91!(3!*!231S,123%>*7%()!01*3%)J;D<<<!!F7!,%,!) (7!A%),!70%-!(&%--%)!A*7*+B! 0(C1>13B!619*5-1!(A!701!(3,%)*914-!2(-7S,123%>*7%()!)(7%91!*),!01*3%)J! 23(91,531;<<E!!\$01!9(537!(2%)1,!70*7!%7!9(5+!,!=9()-%,13!701!* ,1N5*98!(A!701! 2(-7S,123%>*7%()!)(7%91!*),!01*3%)J!23(91,531!A!701!)7131-7!*7!-7*K1!%-!-&*++! 31+*7%>1!7(!701!653,1)!70*7!23(>%,%)J!231S,123%>*7%()) (7%91!*),!!*!231S

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OR!

%)d5)97% () ; <<Y !! \$01!9(537!319(J)%I1 , !70*7!701!9%78!0* , !-%J) %A%9*)!256+%9!01*+70!
 *) , !-*A178%)7131-7-B!657!%7!35+1 , !70*7!70(-1%)7131-7-! , % , !) (! (57C1%J0%) 7131-7-!
 (A!0(&+1+--!213-(-!%)!K112%)J!2(--1--% () ! (A!701%3!213- () *+!23(21378!C0%90!
 %)9+5 , 1 , !1--1)7%*+!-590!*-!&1 , %9*7% () -! *) , !&1 , %9*+!1N5%2&1)7 ; <<R !! \$01!9(537!
 A(5) , !70*7!701!9%784-!23(21378!31& (>*+!23(7(9(+!-C131!%) * , 1N5*7!1657!(2%)1 , !
 70*7!7018!C(5+ , !) (7!9() 73*>1) ! ! , 51!23(91--!%A! * , , %7% () *+!23(91 , 531-!C131!
 * , (271 , !70*7!^<_!23(>% , 1 , ! * , >*) 91!) (7%91! (A!9+1*) 52!*97%>%7%1-B!^E_! *+ (C1 , !
 9() A%-9*7% () ! () +8! (A!23(21378!70*7!2(-1 , ! *) !%&&1 , %*7!13%-K!7(!701!256+%9B! *) , !
 ^L_!61771319*7*+ (J51 , !701!23(21378!70*7!C*-!-1%I1 , !7(!A*9+%7*7!1319+* &*7% () !68!
 %7-! (C)13 ; <E1 ! ! \$01! P()DKO!! 9(537! 70131A(31! 1)d(%)1 , ! X(-! /)J1+1-! A3(&!
 1)J*J%)J!%)!&*--!9+1*) 52!1AA(37-!%)!%7-!-K% , !3(C!*31!*C%70(57!J%>%)J!*7!+1*-7!
 7C1)78SA(53!^EM_!0(53-! * , >*) 91!) (7%91! (3!9() A%-9*7%)J!23(21378!C%70(57! *) !
 (6d197%>1+8!31*- () *6+1! 61+%1A! 70*7! 701! 23(21378! C*-! 1%7013! *6*) , () 1 , B! *) !
 %&&1 , %*7! 7031*7! 7(! 256+%9! 01*+70! (3! -*A178B! 1>% , 1)91! (A! *! 93%&1B! (3!
 9() 73*6*) , T! *) , !701!9(537!31N5%31 , !701!9%78!7(! %&23(>1!%7-!2(-7S , 123%>*7% () !
 23(21378!319(>138!23(91-- , <E<!

\$01!2*37%1-!%)! P()DKO!! 5+7%&*71+8! -177+1 , ; <EE! ! \$01! P()DKO!! -177+1&1)7!
 23(>% , 1-B!C%70!1k9127% () -B!70*7!701!9%78!C%+!) (7!-1%I1!23(21378!*-!2*37! (A!*!
 9+1*) 52! 1AA(37! %) ! -K% , ! 3(C! *) , ! %7-! -533(5) , %)J! , (C)7(C)! *31!* C%70(57!
 23(>% , %)J! *7! +1*-7! 7C1)78SA(53! ^EM_! 0(53-! * , >*) 91!) (7%91! 7(! *AA1971 , !
 213- () - ; <EL!!F!) * , , %7% () B!701!9%78!&5-7!23(>% , 1!*70%378!^L_!&%) 571!C*3%)J!
 *) , ! *) ! (22(375)%78!A(3!%) , %>% , 5*+!-7(!31& (>1!701%3!23(21378!C01)!*9+1*) 52!
 %-!%&&%)1)7 ; <EM!!FA! *) ! (C)13! *33%>1-!C0%+1!23(21378!%-!-7%+!61%)J! -9311)1 , !
 , 53%)J!*9+1*) 52!23(91--B!01!(3!-01!&5-7!61!J%>1)! *) ! (22(375)%78!7(!319+*%&!

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%71&-B!+%K1!9(5901-B!&*7731--1-B!C((,!2*+17-B!*),!31A3%J13*7(3-B!*),!*+(C-!
(AA%9%*+-!7(!&(>1!(6-73597%()-!70*7!%&21,1!2*--*J1;<E#!!G(7%91!&5-7!61!
23(&%)1)7+8!2(-71,!70*7!*,>%-1!*AA1971,%),%>% ,5*+!C0131!31&(>1,!23(21378!
&*8!61!319+*%&1,B!*),!-1%I1,!23(21378!&5-7!61!-7(31,%)!*!-19531!+(9*7%)!A(3!
)(!+1--!70*!)!)178!^R]_!,*8-!%)!&*))13!70*7!&*K1-!%7!*>*%+*6+1!A(3!319(>138!
68!%7-!(C)13!C%70%)!-1>1)78S7C(!^#E_!0(53-!*A713!%7-!-1%I531;<EY!!F)!* ,,%7%)B!*!
-219%*+!23(>%-% ()!,19+*31-!70*7!+%>%)J!1--1)7%*+-B!-590!*-!&1,%9*7% ()B!&1,%9*+!
1N5%2&1)7B!5)9()7*&%)*71,!71)7-B! -+112%)J!6*J-B! *),!6+*)K17-B! &5-7!61!
*991--%6+1!C%70%)!7C1)78SA(53!^EM_

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&5-7! *AA(3,! *! 31*-()*6+1! 7%&1! A(3! 70(-1! %)7131-71,! 7(! &*K1! 701%3!
*221*3*)91!;!;!;!D<M#! ! \$01! H(537! +1A7! 3((&! A(3! ,51! 9()-%,13*7%(! (A! 701!
=23*97%9*+%7%1-!*) ,!2195+%*3%7%1-D!(A!*!2*37%95+*3!-%75*7%(!*) ,! ,%,!) (7!%&2(-1!
!()1S-%I1SA%7-S+!) (7%A%9*7%(!31N5%31&1)7;<MY!!F7!01+ ,!70*7[!

\$01! 31*-()*6+1)1--!*) ,! 01)91! 701! 9()-7%757%(!)*! >*+%, %78! (A! *)8! 90(-1)!
&170(,!&*8!61! , 1A1) , 1 , !()!701!J3(5) ,!70*7!%7%-!%)!%7-1+A!31*-()*6+8!9137*%)!
7(!%)A(3&!70(-1!*AA1971 ,B;!;!;!;(3B!C0131!9() ,%7%(!)-! , (!) (7!31*-()*6+8!213&%7!
-590!) (7%91B!70*7!701!A(3&!90(-1)!%-!) (7! -56-7*%)7%*+8!+1--!+%K1+8!7(!63%)J!

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4DK>+030>##<0L%T+>?b!657!) (!213-() *+!) (7%91!C* -!J%>1)!, 1-2%71!701!23(21378!

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C01)! ,51! 23(91--! 31N5%31-! *! 231S,123%>*7%()! (22(375)%78!7(! 61! 01*3,;<R<!!
P ")KOL-!,1*+7!C%70!713&%)*7%()!(A!?(9%*+!?!1953%78!,%-6%+78!61)1A%7-!C%70(57!
*!01*3%)J!5),13!23(91,531-!70*7!23(>%,1,!2(-7S713&%)*7%()!319(53-1,<RE!!\$01!
P ")KOL-! H(537! 319(J)%I1, ! 70*7! 23(91,53*+!,51! 23(91--! 23(71971, ! -590!
61)1A%7-!)*, !70*7!-(&!A(3&! (A!01*3%)J!&5-7!61!23(>%,1,!61A(31!-(&1()!1!
9(5+,!61!A%)*+8!,123%>1,!(A!701&%;<RL!!F7!C3(71!0(C1>13!70*7!,51!23(91--!%!
A+1k%6+1B!)*, !701!N51-7%()!C017013!9137%!)!23(91,531-!*=31!9()-7%757%()*+8!
-5AA%9%1)7!31N5%31-!)*+8-%!(A!701!J(>13)&1)7*+!*),!23%>*71%)7131-7-!70*7!*31!
AA1971,;D<RM!!F7!1k2+%)1, [!

j\$10*7!%,1)7%A%9*7%()! (A! 701! -219%A%9!,%97*71-! (A! ,51! 23(91--! J1)13*+8!
31N5%31-!9()-%,13*7%()!(A!70311!,%-7%)97!A*97(3-[!:%3-7B!701!23%>*71%)7131-7!70*7!
C%+!61!*AA1971, !68!701! (AA%9%*+!*97%()T! -19(),B!701!3%-K!(A!*)! 133()1(5-!
,123%>*7%()!(A!-590!)7131-7!703(5J0!701!23(91,531-!5-1,B!*),!701!23(6*6+1!
>*+51B!%A!*)8B!(A!* ,,%7%()*+!(3!-56-7%7571!23(91,53*+!-A!J5*3,-T!*),!A%)*+8B!
701!V(>13)&1)74-!%)7131-7B!%)9+5,%)J!701!A5)97%()!%)>(>+1,!*),!701!A%-9*+!
) ,!* ,&%)%-73*7%>1! 653,1)-!70*7!701!* ,,%7%()*+!(3! -56-7%7571! 23(91,53*+!
31N5%31&1)!C(5+,!1)7*%;<R"!

m(-7SP ")KOL-!9*-1-!%) ,%9*71!70*7!)*! (22(375)%78!7(! 61!01*3,!&*8!61!
,1+*81,!)!+%&71,!9%395&-7*)91-;<R0!!F7!C3(71!%)! I(IFO>)%##% 8+C">70*7!701!
=H(537! 0*-! 319(J)%I1,B!()!&*)8!(99*-%()-B!70*7! C0131!*! ?7*71!&5-7!*97!
N5%9K+8B!(3!C0131!%7!C(5+,!61%&23*97%9*+!7!(23(>%,1!231,123%>*7%()!23(91--B!
2(-7,123%>*7%()! 23(91--! -*7%-A%1-! 701! 31N5%31&1)7-! (A! 701! ' 51! m3(91--!
H+*5-1;D<R#!!\$01! I(IFO>)!H(537!%) ,%9*71, !70*7!*!01*3%)J!&*8!61!,1+*81,!5)7%+!
*A713! *! ,123%>*7%()! 5),13! 701! P ")KOL-! -7*),*3,! C01)! *)! %&2(37*)7!

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^<RYE_!!\$01!?!5231&1H(537!1k2+*%)1,%)!n%)13&()>;!Z%390B!MRM!W?;?;<<LB!<EY!^<RRJ_!70*7!>Q">>")!
) ,! 8@3-+!\$!31231-1)7!*!-219%+!9*-1!(A!701!J1)13*+! P ")KOL-!%##% : 13>(3/0!)*+8-%B!%)!C0%90!2(-7S
,123%>*7%()!7(37!31&1, %1-!31!*+!701!23(91--!70*7!%-!,51B!-%&2+8!619*5-1!7018!*31!701!(!)+8!31&1,%1-!
701!?!7*71!9(5+,!61!1k21971, !7!(23(>%,1;D!
! <R<!! b *701C-!>;!`+,3%,J1B!MEM!W?;?;L<RB!LL"!^<R#0_;!
% <RE% 400!(3%7!LLESE0B!LL"SLR;!
% <RL% 23%7!LLESL;!
% <RM% 23%7!LLM;!
% <R"% 23%7!LL";;!U5,J1!e1)38! : 3%1),+8!231-*J1,!701! P ")KOL-!71-7%!)!U>+-)%##% 9 0(\$FO>/O>B!"<"
:;E,!"#B!00!^E,!H%3;!<R#"_B!C3%7%)J!70*7!701!?!5231&1!H(5374-!>=,19%-()!-19*)!61!A%3+8!-5&&*3!I1,!
*-!0(+,%J!70*7!701!31N5%31,!,1J31!!(A!23(91,53*+!-A!J5*3,-!>*3!1-!,%3197+8!C%70!701!%&2(37*)91!(A!
701!23%>*71%)7131-7!*AA1971,!*) ,!701!11, !A(3!*),!5-1A5+)1--!(A!701!2*37%95-*31-*A1J5*3,%)!701!J%>1)!
9%395&-7*)91-!)*,!)>13-1+8!C%70!701!653,1)!) ,!*)8!(7013!* ,>13-1!9()-1N51)91-!(A!*AA(3,%J)!7;D!
! <R0! V%+6137!>;!e (&*3B!"E]!W?;?!REMB!RL]!^<RR#_! : 1,;! ' 12(-7!F)-;!H(;!>;! b *+1)B!MYO!W?;?!
ELJ!B!EMJSM<!^<RYY_;!
% <R#% I(IFO>B!"E]!W?;?!*7!RLJ]!-00"!l-+!n%)13&()>;!Z%390B!MRM!W?;?;<<LB!<EY!^<RRJ_!^9(+197%)J!
9*-1-!>;!

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J(>13)&1)7!)7131-7!,1&*) ,%)J!23(&27!*97%(!%!*99(&2*)%1,!68!-56-7*)7%*+!
--53)91!70*7!*!,123%>*7%(!%!) (7!6*-1+1--!(3!5)C*33*)71 ,;<RY!

m3!S,123%>*7%(!) (7%91!&*8!*+-(!61!1k95-1,!%)!-(&1!9%395&-7*)91-;<RR!!
\$01! ?5231&1!H(537!C3(71!%)!U@0\$)0-##%%4K0#(\$!70*7!1k73*(3,%)*38!-%75*7%(!-!
9(5+ ,!d5-7%A8!2(-72(!%)J!6(70!) (7%91!*),!01*3%)J!657!70(-1!-%75*7%(!-!&5-7!
61!735+8!5)5-5*+;E1!!\$01!H(537!319(J)%I1,!%)!U@0\$)0-!70*7!23(21378!&*8!61!
-5&&*3%+8!-1%I1,!7(!9(+197!7*k1-B!7(!&117!701!)11,-!(A!C*3!1AA(37-B!7(!23(7197!
J%) -7!6*)K!A*%+531B!*),!7(!23(7197!701!256+%9!A3(&!&%-63*),1,! ,35J-!*) ,!
9()7*&%)*71,!A((,;E1<!!F7! +*713!01+ ,!%)! ' "10>+R7+103+% ##%% Q0">-+\$ T"DK)%
!0"-(\$/% ' +d! 70*7! -1%I531! (A! 23(21378! 5-1 ,!7(!A*9%+%7*71!93%&1-!%!*+-(!*)!
1k73*(3,%)*38!-%75*7%(!C0131!231S-1%I531!) (7%91!%-!) (7!31N5%31 ,;E1E

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0(&1+1--!213-()-4!23(21378!31-(37!7(!701&!A(3!J5%,*)91;^{E<M}!!\$01! ?5231&1!
H(537!319(J)%I1, !%)! '()*+,%!+-%. \$/010-##00A "#(3!70*7!7!C(5+, !61!%&2(--%6+1!
A(3!*9%78!7(!1)A(391!2*3K%)J!35+1-!%A%7!C*-!31N5%31, !7(!23(>% , 1!23!S, 123%>*7%(!
01*3%)J-!61A(3!7(C%)J!>10%9+1-;^{E<N}!!H%395%7!9(537!9*-1-!0*>1!9(-%-71)7+8!01+, !
70*7!*!01*3%)J!%-!) (7!31N5%31, !61A(3!*)!5)+*CA5+8!2*3K1, !9*3!&*8!61!7(C1, !
A3(&!*!256+9!3%J07S(ASC*8;^{E<O}!!\$01-1!-%75*7%()-!*31!0(C1>13!, %-7%)J5%-0*6+1!
A3(&!%&2(5), &1)7!(A!>10%9+1-!A(5), !(!)23%>*71!23(21378!C0131!9(&&5)%78!
9*317*K%)J!9(-%, 13*7%()-!&*8!)(7!61!%&2+%9*71, ;^{E<#}!

\$01!9*-1-!0*>1!>*3%1, !%)!*223(*90;!!?(&1!*)*+8I1!701!%--51!5), 13!701!
U@0\$)0-%##004K0#(\$!1k9127%(!)A(3!1k73*(3, %) *38!-%75*7%()-;^{E<Y}!!F)!M>0")K%##00
'>+\$+##(DKB!701!9(537!C3(71[!

\$01!70311! U@0\$)0-!31N5%31&1)7-!A(3!2(-72()1, !)(7%91!*), !01*3%)J! *31!
-%7%-A%1, ;!! : %3-7B!701!7(C%)J!%-!)191--*38!7(!23(7197!701!%)7131-7!(A!+(9*+!
J(>13)&1)7-!%)!31J5+*7%)J!701!5-1!(A!701%3!-73117-!*) , !(7013!256+9!2+*91-;!!

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a 7013-!57%+% I1!701!P ")KOL-##%% : l3>(3/0!9(-7S61) 1A%7!71-7;^{EE}1!!\$01!9(537!%)
4@))+\$%#&%P(lL"@?00!1k2+*%)1,[!

a)!701!61) 1A%7!-%, 1!(A!701!+1, J13%)!70%-!9*-1B!701!A%3-7!70%)J!7(!61!)(71,!
%-!70*7!701!23(21378!%)7131-7!%-!*!-+%J07!()1;!F7!%-!) (7!701!9*3!%7-1+A!657!701!5-1!

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213&*) 1) 7+8! , 123%>%) JD!0(&1+1--!213- () -!(A!701%3!23 (21378;^{EE0}!!F7!%-!70131A(31!
5)9+1*3!C0!70131! ! "#"\$%&'(+ , ! 0 * > ! 1 ! k 9 5 - 1 , ! 1 % 7 0 1 3 ! 2 3 1 S , 1 2 3 % > * 7 % () !) (7 % 9 1 ! (3 !
0 1 * 3 %) J ! % !) * 9 9 (3 , *) 9 1 ! C % 7 0 ! 7 0 1 ! 9 (5 3 7 4 - ! (7 0 1 3 ! 7 (C %) J ! 2 3 1 9 1 , 1) 7 - ! % A ! * ! 2 (- 7 S
, 1 2 3 % > * 7 % () ! 2 3 (2 1 3 7 8 ! 3 1 9 (> 1 3 8 ! 2 3 (9 1 - - ! 0 * , ! 6 1 1) ! 2 3 (> % , 1 , , ; , ^{EE#} ! ! \$ 0 (- !
2 3 1 9 1 , 1) 7 - ! & * 8 !) () 1 7 0 1 + 1 - - ! 6 1 ! %) - 7 3 5 9 7 % > 1 , ^{EEY} !

G%)70! H%395%7! 7(C%)J! 23191,1)7-! ,%AA131)7%*71! 617C11)! -%75*7%(-)!
d5-7%A8%)J!%&&1,%*71!*97%(!*) ,!70(-!70*7!&%J07!) (7;^{EEER}!!\$019(537%)! '10C0\$)%
#&&'() * % + , % I 1 0 \$ 3 " " 1 0 ! , % - 7 %) J 5 % - 0 1 , ! - % 7 5 * 7 % () - ! %) > (+ > %) J ! % + 1 J * + 8 ! 2 * 3 K 1 , ! 9 * 3 - !
A 3 (& ! 7 0 (- ! ! %) > (+ > %) J ! 9 * 3 - ! 7 0 * 7 ! * 3 1 ! + 1 J * + 8 ! 2 * 3 K 1 , ; , ^{EL1} ! ! \$ 0 1 ! 9 (5 3 7 ! C 3 (7 1 ! %) !
4) * B C " \$ \$ % # & % ' () * % + , % 4 " \$ % U > " \$ D (- D + ! 7 0 * 7 ! = j 7 1 0 1 ! @ 1 k 7 3 * (3 , %) * 3 8 ! - % 7 5 * 7 % () 4 !
- 7 *) , * 3 , ! d 5 - 7 % A 8 %) J ! % & & 1 , % * 7 1 ! 3 1 & (> * + ! C % 7 0 (5 7 ! 2 3 (3 !) (7 % 9 1 ! *) , ! 0 1 * 3 %) J ! % - !
9 + 1 * 3 + 8 ! - * 7 % - A % 1 , ! %) ! - (& ! 1 9 % 3 9 5 & - 7 *) 9 1 - ! ^ * ! > 1 0 % 9 + 1 ! 6 + (9 K %) J ! * ! 6 5 - 8 ! - 7 3 1 1 7 !
, 5 3 %) J ! 9 (& & 5 7 %) J ! 0 (5 3 - B ! A (3 ! 1 k * & 2 + 1 _ ! ; ! ; ! ; ! F) ! (7 0 1 3 ! 9 % 3 9 5 & - 7 *) 9 1 - ! 7 0 1 !) 1 1 , !
A (3 ! - 5 & & * 3 8 ! * 9 7 % () ! % - !) (7 ! - (! 9 + 1 * 3 ; D ^{EL<} ! ! F 7 ! - % & % + * 3 + 8 ! 1 k 2 + * %) 1 , ! %) ! P (> " \$ 3 " % # & %
' () * % + , % ' + > \$ 0 1 (@ - [!

F&2(5) , &1)7!(A!*!>10%9+1!+1A7!%)!*!256+9!2+*91!(3!*!>10%9+1!A(3!C0%90!
70131! %-!) (! + % 9 1) - 1 , ! , 3 % > 1 3 ! ; ! ; ! ; ! 2 3 1 - 5 & * 6 + 8 ! C (5 + , !) (7 ! 3 1 N 5 % 3 1 ! 2 3 1 S
, 1 2 3 % > * 7 % () !) (7 % 9 1 ! *) , ! * ! 2 3 1 S - 1 % I 5 3 1 ! 0 1 * 3 %) J ! 6 1 9 * 5 - 1 ! 7 0 1 ! 6 5 3 , 1) ! (A ! - 5 2 0 (9 1 , 5 3 1 - ! C (5 + , ! > % 7 % * 7 1 ! 7 0 1 ! + 1 J % 7 % & * 7 1

F&2(5) , &1)7-!%)! -590!9*-1-! *31!+%K1+8! d5-7%A%1 , ! 68!701!) 1 1 , ! 7 (! 3 1 - 2 () , !
& % & 1 , % * 7 1 + 8 ! 7 (! 7 0 1 ! 0 * I * 3 , ! (3 ! 2 5 6 + 9 ! - * A 1 7 8 ! 7 0 3 1 * 7 ! 9 * 5 - 1 , ! 6 8 ! 7 0 1 ! + (9 * 7 % () ! (A !
7 0 1 ! > 1 0 % 9 + 1 - B ! C 0 % 9 0 ! C (5 + , ! 6 1 ! %) 9 (& 2 * 7 % 6 + ! C % 7 0 ! * ! 3 1 N 5 % 3 1 & 1) 7 ! (A !) (7 % 9 1 ! *) , !
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H(-)1N51)7+8B!70131!&*8!) (7!61!*!()1S-%I1SA%7-S*+!, 51!23(91--!71-7!A(3!
, 1*+%!)J!C%70!0(&+1--!213-(-)-4!23(21378;!!F7!&*8!, 121), !52()!701!2*37%95+*3!
-%75*7%()!*) , !701!256+%9!)7131-7!70*7!%-!%&2+%9*71 , ;!

Fh;! ?wvv`?S`'!'W`!mf aH`??: f / b `Q a f \!

\$0131! *31! 70311! 23%)9%2*+! 7821-! (A! 23(21378! * , , 31--1, ! 68! 0(&+1--!
213-(-)-4! 23(21378! 9*-1-! [^<! *6*) , ()1, ! 23(21378^{EL}! ^E_! 23(21378! 70*7!
(6-73597-1(701315-1-!(3!2(-1-!-(&1!-(37!(A!0*I*3, !(3!7031*7!7(!256+%9!-*A178^{ELM}!
*) , ^L_!23(21378!70*7!A%7-!%)!)1%7013!(A!70(-!9*71J(3%1-!657!)()1701+1--!%-!K127!
(3!+1A7!%)!>%(+*7%()! (A! *! 31J5+*7(38! 23(0%6%7%() ;^{EL}!! ' 51! 23(91--! -0(5+ , !
)()1701+1--!61!*--1--1, !()!*9*-1S68S9*-1!6*-!%!()!701!7(7*+9%395&-7*)91- ;^{EL0}!
\$01A((C%)J!A3*&1C(3K%-!70131A(31!-5JJ1-71, !C%70!701!9*>1*7!70*7%7!-0(5+ , !
) (7!61!6+%) , +8!*22+%1 , ,^{EL#}!

. &% . F "\$3+\$03%B>+B0>)*%

\$0131!%-!*! , %-%)97%()!617C11)!23(21378!70*7!0*-!611)!*6*) , ()1, !*) , !
23(21378!70*7!0*-!611)!&131+8!+1A7!5)*771) , 1 , ;^{ELY}!!\$35+8!*6*) , ()1 , !23(21378!
%-!) (7!9(-)-7%757%()*+8!23(71971 , ;^{ELR}!!\$01!23%)9%2*+!N51-7%()!701)!C%70!31-2197!
7(!5)*771) , 1 , !23(21378%-!C017013%7!0*-!611)!*6*) , ()1 , ;^{EM}!!FA!*)8!31*-() *6+1!
, (567!1k%-7-!31J*3 , %)J!701!-7*75-!(A!*)%71&B!%7!-0(5+ , !61!731*71 , !*-!) (7!0*>%)J!

!

% ELL% 400%0t/!B! ?7%25+*71 , !U5 , J&1)7!*7!MSOB!X; / ;!H*70(9! Q (3K13!>!X; / ;! ' (C)7(C)!F) , 5-7!
' % -7; !Z5-; !F&23(>1&1)7! ' % -7; !B!G(; !HhS<MS#LMM!m?V!^ / U Q k_!^H; ' ;!H*+; ! b *3; !<"B!E] <#_B!` H` !G(;!
<EO!;

% ELM% 400%0t/!B! e ((213!>; !H%78!(A! ?1*77+1B!G(; !H<#S## f ? b B!E] <#! QX!MM<]]ERB! *7! . <E!^Q ; ' ;!
Q * -0; !a 97; !MB!E] <#_B! , , E3% -@F!\$+C! Q % +%-!>; !H%78!(A! ?1*77+1B!G(; !<YSL"] "Lb!E] <R! QX!OMMERER!^R70!
H%3; !G(>; !ER!E] <R_! f 5--1+!>; !H%78!(A! e () (+5+5B!G(; !<LS]]M# " !X` \ S f Xmb!E] <L! QX!OEER#<MB! *7!
. #S<E!^ ' ; !e *C; !G(>; !ERB!E] <L_!;

% EL" % 400! b %3*+!1!>; !H%78!(A! a *K+*) , B!G(; !<YS9>S] OYELSe ?V!B!E] <Y! QX!O<RRRERB! *7! . L!^G ; ' ;!
H*+; !G(>; !EY!E] <Y_!^ (3 , 13! , 1)8%)J!&(7%()!A(3!231+%&%) *38%)d5)97%()_!T! ?5+>*)>; !H%78!(A! Z13K1+18B!
G(; !H!<#S]0] " <! Q e / B!E] <#! QX!MREEO<MB! *7! . "SO!^G; ' ; !H*+; ! a 97; !L<B!E] <#_!^ (3 , 13!31!&(7%()!A(3!
231+%&%) *38!%)d5)97%()_!T! Q * 7713-!>; ! a 7713B!R " " ! ; ! ?522; !E , !<<#YB! <<YYSR<!^ ' ; !F , *0(!E] <L_!T! " !S
a 99528! e () (+5+5!>; !H%78!(A! e () (+5+5B!G(; !H%>; !<ES]]O0Y!U b ?B!E] <L! QX!EEY" <]]B! *7! . <SEB! . "S#!
^ ' ; ! e *C; ! b *8!E<B!E] <L_!T! H*73()>; !H%78!(A! ?7; !m1713-653J!B!G(; !Y[]RS9>SRELSSSEL` / UB!HHH . <

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611)!*6*), () 1, ;^{EM<}!! e (C1>13B!%A!23(21378!0*!611)!*6*), () 1, B!, 51!23(91--!
9()-%, 13*7%()-! *31! %) *22+%9*6+1! *), ! -0(5+, !) (7! 31-73%97! %7-! 31&(>*+B!
%&2(5), &1)7B!(3!, %-9*3, ;^{EME!}
/)! *771&27! 7(! 23(>%, 1! 231S, 123%>*7%()-) (7%91! -0(5+, !) () 1701+1--! 61!
771&271, !C01)!, 1+%)J!C%70!*22*31)7+8!*6*), () 1, !23(21378!%)!) () S53J1)7!
-%75*7%()-;!! b *)8!A*97(3-!&5-7!61!7*K1)!%)7(!9()-%, 13*7%()-!C01)!, 1713&%)%)J!
C017013!(3!) (7!23(21378!%-!*6*), () 1, ;^{EML!!} / !3%-K!(A!133(3!70131A(31!1k%-7-!70*7!
5)*771), 1, ! 23(21378! &*8!) (7! 61! 23(213+8! 9*71J(3%I1, ;^{EMM!!} ! F)) () S53J1)7!
-%75*7%()-B! 231S-1%I531!) (7%91! %-! A1*-%6+1! *), ! 9()-%-71)7! C%70! 701! 256+%94-!
, 1-%31! A(3! 31&(>*+! (A! 701! *22*31)7+8!*6*), () 1, !23(21378;^{EM"}!!

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9()73(+! (>13! -73117-;^{EMR}!! f 1&(>*+! (A! (6-73597%()-B! 0*I*3, -B! *), !7031*7-!7(!
256+%9!-*A178!*31!9%395&-7*)91-!C0131!701!256+%94-!)11, !A(3!%&&1, %*71!*97%(!
%-!J31*71-7;^E!! : (3!70*7!31*-()B!%7!-11&-!&(-7!*223(23%*71!A(3!*22+%9*7%(! (A!

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+1--!70*)!*!23%>*71! (C)13! (A!23(21378B!0*-!2(C13!7(!231-13>1!701!23(21378!

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J(>13)&1)7*+! %)7131-7! %)! *!)()S53J1)7! -%75*7%()! %-! 9((213*7%>1! *) ,!
1k21 , %7%(5-!31&(>*+!(A!701!(AA1) , %)J!23(21378B!*), !70*7!%)7131-7!%-!* , >*)91 , !
68!J%>%)J!1) (5J0!) (7%91!7(!1)9(53*J1!701!23(213784-!(C)13!7(!, (!-(!61A(31!*!
&(31!-13%(5-!23(6+1&! , 1>1+(2-;^{E#}!! \$01!71-7!%-!=31*-() *6+1)1--!5) , 13!701!
9%395&-7*)91-;D^{E#}<!

/ !9%78!0*-!*!)%&2(37*)7!256+%9!01*+70!31-2()-%6%+78!7(!K112!256+%9!*31*-*!
9+1*!) *) , ! 5)9+577131 , ;^{E#E}! ! =h 138! 5)-*)%7*38! 9() , %7%()-! 9*!) , 1>1+(2!
N5%9K+8!;!;!;!D!%A!*31*-*31!) (7!31J5+*3+8!K127!9+1*) , ^{E#L}!!h%(+*7%()!(A!*!23(21378!
-7(3*J1!23(0%6%7%()!%-!*) *+(J(5-!7(!+1*>%)J!*!>10%9+1!%)!*)!) (!2*3K%)J!I()1B!
*) , !70131!%-!-&*+!3%-K!(A!*!)133()1(5-! , 1713&%)*7%()!70*7!23(21378!%-!%+1J*+8!
-7(31 , B!619*5-1!701! , 1713&%)*7%()!%-!231778!957!*) , ! , 3%1 , ;^{E#M}!!\$01!23(91 , 53*+!
-*A1J5*3 , ! (A!*!231S , 123%>*7%()!01*3%)J!C(5+ , !70131A(31!*>137!A1C!133(3-;^{E#N}!!
: (3!23*97%9*+!2532(-1-B!701!9(-7!(A!-590!*!01*3%)J!C(5+ , !61!1+%&%)*7%()!(A!
23(21378!31&(>*+!*-*!)!1AA197%>1!256+%9!01*+70!*) , !-*A178!31&1 , 8B!619*5-1!%7!
%-!5)31*+%-%7%9!7(!61+%1>1!70*7!>%(+*7%()-!9(5+ , !61!3197%AW1 , !61A(31!7018!619*+&1!

!

) (7%91!C*-*! , 1N5*71!7%&1!A(3!*)!(C)13!7(!31&(>!5)+*CA5+8!-7(31 , !23(21378;!! ' ")>+ \$!E]]R! QX!
LYL##YRB!*7! . Y;!!\$01!9(537!%)! 8++B0>!A(5) , !70*7!-1>1)78S7C(!^#E_!0(53-!* , >*)91!) (7%91!-*7%-AW1 , !
701!P ")KOL-##%# : 13>(3/0!71-7;!! e ((213!> ;!H%78!(A! ?1*77+1B!G(;!H<#S## f ? b B!E] <#! QX!MM<]]ERB!*7!

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& (31!-13%(5-!23(6+1&-!%A!(AA1) ,%)J!23(21378!0* ,!7(!61!+1A7!%)!2+*91!21) ,%)J!
23!S31&(>*+!01*3%)J-,^{E#0!}

\$01%&2*97!52()!*0(&1+1--!213-()!C01)!0%-!(3!013!213-()*+!2(--1--%()-!
0*>1! 611)! 31&(>1,! 9*)! 0(C1>13! 61! ,1>*-7*7%)JB! 1-219%*+8! C01)! 701!
31&(>1,! 23(21378!%)9+5,1-! &1,%9*7%()-! (3! (7013!%71&-!)11,1,! A(3! ,*%+8!
-53>%>*+;^{E##!!}aC)13-!31!23(71971,!68!,51!23(91--!*J*%)-7!1>1)!+ (--!(A!5-1!(A!
701%3!23(21378;^{E#Y!!}F)!-%75*7%()-!%)>(+>%)J!71&2(3*38!,123%>*7%()-!(A!5-1B!=j7101!
,53*7%()-!(A!*)8!2(71)7%*+8!C3()JA5+!,123%>*7%()-!(A!*!23(21378!%)7131-7!%-!*)!
%&2(37*)7!A*97(3!%)! *--1--%)J!701!%&2*97! (A! (AA%9%*+! *97%()-!)!701!23%>*71!
%)7131-7!%)>(+>1 ,;D^{E#R!!}b %7%J*7%()-!&1*-531-!*31!70131A(31!%&2(37*)7!7(131 ,591!
701!%&2*97-!70*7!23(21378!31&(>*+!&*8!0*>1!52()!%7-!(C)13;!! / ,>*)91!)(7%91!
-*A1J5*3,-!*)!(C)13!68!23(>% ,%)J!C*3%)J!*) ,!*)!(22(375)%78!7(!31&(>1!0%-!
(3! 013! 23(21378! 61A(31! %7! C%+! 61! 7*K1);^{EY1!!}F)! * ,,%7%()-B! *! 7%&1+8! 2(-7S
!

% E#0% ' ,!A "#(3B! "LY! W; ?;! *7! #<R! ^-7*7%)J! C%70! 31-2197! 7(! *! 31N5%31&1)7! 70*7! >10%9+1! 7(C%)J!
01*3%)J-!61!01+ ,!C%70%)!7!+1*-7!A%>1^" _! ,*8-!A713!*>10%9+1!C*-!7(C1 ,!70*7! =*!01*3%)J!%-!%&2(--%6+1!
%A!701!9%78!%-!7(!61!*6+1!7(!1)A(391!701!2*3K%)J!35+1-!;!;!;!D;!;!\$01!H(537!%)!A "#(3!A(5) ,!%7!C(5+ ,!61!
%&2(--%6+1!A(3!X(-! /)J1+1-!7(!*)5*+8!-901 ,5+1!<B]]! (3!&(31!>10%9+1!7(C%)J!01*3%)J-!C%70%)! *!
MYSO(53^ (3!"S

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, 123 % > * 7 % () ! (22 (375) % 78 ! 7 (! 319 (> 13 ! 23 (21378 ! (3 ! (7013C % - 1 ! 61 ! 01 * 3 , ! 31 , 591 - ! 701 ! + 1) J 70 ! (A ! *) 8 ! , 123 % > * 7 % () ! *) , ! 23 (> % , 1 - ! *) ! * , , % 7 % () * + ! - * A 1 J 5 * 3 , ; ^{EY<!!} / ! 231S , 123 % > * 7 % () ! 01 * 3 %) J ! 70131A (31 ! - 0 (5 + , !) (7 ! 61 ! 31N5 % 31 , ! % A ! 31 * - () * 6 + 1 ! 231S - 1 % I 531 !) (7 % 91 ! 0 * - ! 611) ! * 771 & 271 , ! *) , ! * ! 23 (& 27 ! 2 (- 7S , 123 % > * 7 % () ! (22 (375) % 78 ! % - ! 23 (> % , 1 , ! A (3 ! 319 (> 138 ! (A ! 23 (21378 ! 70 * 7 ! 0 * - ! 611) ! 31 & (> 1 , ; ^{EYE!}

HaGHXW?FaG!

/ ! 0 (& 1 + 1 - - ! 213 - () 4 - ! 213 - () * + ! 2 (- - 1 - - % () - ! * 31 ! (A71) ! 701 ! () + 8 ! 23 (21378 ! 70 * 7 ! 01 ! (3 ! - 01 ! (C) - ; ^{EYL!} ! F7 ! (A71) ! 9 () - % - 7 - ! (A ! K112 - * K1 - B ! & 1 , % 9 %) 1B ! 213 - () * + ! % , 1) 7 % A % 9 * 7 % () B ! *) , ! % 71 & - !) 11 , 1 , ! A (3 ! , * % + 8 ! - 53 > % > * + ; ^{EYM!} ! f 1 & (> * + ! (A ! - 590 !

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6), () 1, ;^L! ! H*31! &5-7! 0(C1>13! 61! 7*K1)! C01)! , 1713&%%) J! C017013!
23(21378! 0*-! 611)! *6*), () 1, B! 619*5-1! *! 0(&1+1--! 213-() 4-! 5)*6*), () 1, !
2(--1--%(-)! *31! 1) 7%7+1, !7(!, 51! 23(91--! 23(7197%(-);^LE!

m31S, 123%>*7%(-)! (7%91!*), !01*3%) J! &*8! 6(70! 61! 1k95-1, !C01)! 53J1) 7!
256+%9!) 11, -!*3%-1;^L!! \$0(-!-%75*7%(-)! &5-7! 61! 1>*+5*71, !7(!1)-531! 70*7![^<_
23(21378! 31&(>*+! %-! , %3197+8!) 191--*38! 7(! K112! *! 256+%9! *31*! (21)! *), !
>%+*6+1A(3!(7013! 5-1-B! ^E_! >138! 23(&2!*97%(-)! %!) 11, 1, B!*), !^L_! 701! 31&(>*+!
%-! &* , 1! 5), 13!) *33(C+8! , 3*C)! -7*), *3, -! 68! *! J(>13)&1) 7*+! (AA%9%*+!
31-2(-)%6+1! A(3!, 1713&%%) J! 70*7! 701! 31&(>*+! %-!) 191--*38!*), !d5-7%A%1, ;^LM! !F)!
*, %7%(-) B! 2(-7S, 123%>*7%(-)! , 51! 23(91--! &5-7! 61! 23(>% , 1, !%) !53J1) 7!-%75*7%(-)!
%)>(>+%) J! 31&(>*+! (A! 5)*6*), () 1, !23(21378B! 619*5-1B!!

je1(C1>13! C1%J078! 701! J(>13)&1) 7*+! %) 7131-7! &*8! 61! %) !*! J%>1)! 9*-1B!
701!*&(5) 7! (A! 23(91--! 31N5%31, !9*)!) 1>13! 61! 31, 591, !7(! I13(pp

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61!9()-%,131,[!^<!701!%)7131-7-!(A!0(&1+1--!213-()-!%)!9()7%)51,!2(--1--%(!
(A!701%3!213-()-*+!23(21378!70*7!C%++!61!*AA1971,!68!%7-!31&(>*+B!^E_!701!3%-K!70*7!
)!133()1(5-!,123%>*7%(!&*8!(9953B!*),!701!>*+51!(A!* , %7%() *+!(3!-56-7%7571!
23(91,53*+!-*A1J5*3,-T!^L_!701!J(>13)&1)7*+!%)7131-7!*7!-7*K1B!%)9+5,%)J!701!