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0\* ,. @ . "5<\*@<+ 1 " \* <"+6'(B('2"\.a@a/"6+ 15)&'?\*)&(%@]a

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+6'(B."<.&5\*%&.a"H%("7(B(7)+," I ?\*"7\* .&"%\*"5?2&(6+,,2"<.&(&"\*<"B.<N+,,2"<.9)&."&.4)+,"  
+6'(B('2"(&"%\*"%.6.&&+<(,2"@B(%@"6\*%&.%'a"C.,2(%@"&\*,.,2")5\*% "%\*%:B.<N+,"6\* 1 1 )%(6+'(\*%  
6+%",.+7"\*"+9+,&."6\*%6,)&(\*%"+&"\*" I ?.'?.<"6\*%&.%'" I +&"&\*)@?"\* "<"@B.%a"

f \_\_\_\_\_ "H99(< 1 +'(B."6\*%&.%'" 1 )&'N."\*% @\*(%@"'?'<\*)@?\*)''?'."+6'(B('2a"0\*%&.%'" 1 +2"  
N." I ('?7<+ I %"N2"+%2"5+<'2"+'+%2"( 1 .a"C.6\*%@%(d(%@"'?. "72%+ 1 (6"%+')<."\*9"&.4)+,"+6'(B('2/"

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\_0\* .<6(\*%`"(&"'?. "(15<\*5.<")&. " \*9"5<.&&<." '\* "6\* 15., "+%\*'?.<"(%7(B(7)+, " '\*"(%'(+'. " \*<"6\*%'(%). "

&.4)+, "+6'(B('2"+@+(%&""?'+"(%7(B(7)+,A&" I(,,"a"0\*%&. %""N'+(% .7""?'<\*)@?'6\* .<6(\*%("&"\*""B+, (7a"

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N,+6Y 1+(,a"H"5.<&\*%A&" I \*<7&" \*<"6\*%7)6""+<." &)99(6(. %"" '\* "6\*%&'(')'. "6\* .<6(\*% "(9"'?.2" I<\*%@9),,2"

(15+(<+%\*'?.<"(%7(B(7)+,A&"9<. .7\* 1 " \*9" I(, "+%7"+N,( '2""6?\*\*\*&. " I ?.' ?.<"\*<"%""\*""\* ".%@+@. "(%&.4)+, "

+6'(B('2a"34+ 15, .&" \*9"6\* .<6(\*% "(%6,)7. ""?'<.+'. %(@""\*"\_\*)'`&\* 1 . \*% . "N+&.7"\*% "&.4)+, "\*<(.%'+'(\*%/"

@.%7.<(7.% '( '2""\*<"@.%7.<" .45<.&&(\*% "+%7""?'<.+'. %(@""\*"?+< 1 " \*% .&.9"(9"'?. " \*'?.<"5+<'2"7\* .&"%\*" "

.%@+@. "(%""?."&.4)+, "+6'(B('2a" c ?.% "&\* 1 . \*% . "(%7(6+' .&/"B.<N+,2" \*<"5?2&(6+,2"/"?'+"?' .2"7\*"%\*'"





6\*%9(7.%'+('2a">?.&."(%7(B(7)+,&"<."5<\*?(N('7"9<\*1"N<.+Y(%@"6\*%9(7.%'+('2")%.,.&&'?'<."(&"+" (1 1(%.%'"'"?'<."\*9"?+<1 "'\*"&.,9"\*<"\*?'<.&a"H%"(%7(B(7)+," I ?\*"&..Y&"6\*%9(7.%'+,"+&&(&'+%6." 1+2"7\* &\*N2"&5.+Y(%@" I ('?'5<\*9.&&(\*%+,&" I ?\*" ?+B."+" ,.@+,,2"5<\*'.6'.7"6\*%9(7.%'+('2a">?. "6\*%9(7.%'+," <.&\*)<6.&" +B+(,+N,." '\*" (%7(B(7)+,&" \*%" 6+15)&" +<." ,(&'7" N.,\* I a" 8\*.'/" ?\* I .B.</" '?+' "'?&." 6\*%9(7.%'+,"<.&\*)<6.&"<."X)(<.7"N2"&'+'." ,+I "'\*%\*(92"6?(,7"5<\*'.6'(B."&.<B(6.&'+%7g\*,<,"\*6+,"+ I ".%9\* <6. 1 .%'"\*9"+%2"<.5\* <" I ?(6?("%B\*,B.&"&)&5.6'.7"+N)&."\*9"+ 1 (%\* <")%7.<"'?. "+@."\*9"!Pa"

**;%G+%/#/&3.&B31>"7%1#",.\$"#@&**

H"5.<&\*%" 1+2"7.&(<." '\*"<.5\* <"G<\*?(N('7"0\*%7)6"'\*"'?'."0\*,,.@."N)" '\*" 1+(%'+(%6\*%9(7.%'+('2i" (9"&\*/"'?'."0(B("C(@?'&"D">(',\$E"0\*\*<7(%+'\* <" I (,,".B+,)' .&)&6?"<.X).&'&a" c ?<."+6\* 15,+(%+%'" <.X).&'&" '?+' "'?'." 6\* 15,+(%+% 'A&" % + 1 ." \* <" \*?'<."(7.%'(9(+N,." (%9\* < 1 + ('\*% "%\*"'N." & ? + <.7" I ('?' '?' . <.&5\*%7.%'"\* <" ? + "%\*9\* < 1 + ,"+6'(\*%N." "+Y.%/'"?'."0(B("C(@?'&"D">(',\$E"0\*\*<7(%+'\* <")

="/6\$3/+./& ;%G+ ".%7& :@& !9%&B\$%.@& I6#&

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H" \_>(1 .,2" c +<%(%"`" (&" + 6+15)&: I(7. " %\*'9(6+'(\*% " \*9" +& .<(\*)&" \*<" 6\*%'(%))(@" '?<.+ " '\*" '?." U66(7. %'+," 6\* 1 1 )%('2a">?. ">(1 .,2" c +<%(%"7\* .&"%\*" (%6,)7. "(7. %'(92(%@"(%9\* < 1+'(\*%" +N\*) ""'?. " 6\* 1 5,+(%+% 'a"\$9"+<. 5\* <"\*9" 1 (&6\*%7)6"7(&6,\*& .&+"6\*%'(%))(@"'?<.+ "(%B\*,B(%@"\*% . "\*9"?' .&5.6(9(.7" \_0, .<2"6<(1 .&`""\*"'?. "U66(7. %'+," 6\* 1 1 )%('2/"?' . "0\* ,. @. "1+2"(&&). "+6+15)& I(7. "(1 .,2" I +<%(%" \ I?(6?"6+% "'+Y. ""?. "9\* < 1 "\*9"+% . 1 +(,"\*"6+15)&]"\*5\*'. 6""?. "?. +, '?\* < &+9. '2"\*9"?' . "6\* 1 1 )%('2a"

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H, "?(@?. <" .7)6+'(\*% "(%&'(')'(\*%&"?'+"<. 6.(B. "9.7. <+, "9)%7(%@"(%6,)7(%@"'?' . "0\* ,. @. /"+<. "\*N,(@+' .7" '\*" (&&). "5)N,(6,2"+% "H%)+, "J.6)<'2"C.5\* <"'\\_HJC`]" I?(6?"(7. %'(9(.&"'?. "%) 1N. <"9"5+<(6), +< <.5\* <' .7"6<(1 .&"\*%6+15)&"\* <'6+15)&5\*5. <'2/"\* <+7b+6. ""\*"6+15)&a">?. "HJC"7\* .&"%\*" (%6,)7. " (7. %'(92(%@"(%9\* < 1+'(\*%" +N\*) ""'?. "6\* 1 5,+(%+% ""\* < &5\*%7. % 'a"

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H, "?(@?. <" .7)6+'(\*% "(%&'(')'(\*%&"?'+"?+B. "6+15)&5\* ,(6. "9\* <6. &"\* <" &.6)<'2"7.5+<' 1 .% '&" 1 )&" 1+(%'+(%"+ "7+(,2"6<(1 ., \*@"?'+" (%6,)7. &" .%'<(.&"9\* <+, "6<(1 .&"?'+"\*66)<" I('?(%"N\*?' "?' . "0, .<2" @. \*@<+5?2"+%7"?' . "6+15)& &+9. '2"9\* <6. A&"<. @), +<"5+<\*, "<\*)' .a">?. "6<(1 ., \*@"7\* .&"%\*" (%6,)7. " (7. %'(92(%@"(%9\* < 1+'(\*%" +N\*) ""'?. "6\* 1 5,+(%+% ""\* < &5\*%7. % 'a"

### **G\$?8.&' ,E!O?&'8, :!**

>?. "0\* ,. @. "&"<\*%@,2".%6\*)<+@. &"+, "(%7(B(7)+, &"\*"&. .Y"+&&(&' +%6. "9\* < 1 "+ 1 .7(6+, "5\* < B(7. <"+%7g\* < ,+I".%9\* <6. 1 .%'"(1 1 .7(+'. ,2"+9'. <+%"(%6(7. %""\*9&.4)+, "B(\*, .%6.a">?(&"('?. "N. &"\*5'(\*%""\* . %&)<. " 5<. & .<B+'(\*%\*"9". B(7.%6. "+%7""\*N. @(%"+"(1 .,2"(%B.&'(@+'(

+ "<(&Y"\*9"?+<1 "'\*"'?. "6\* 15,+(%+% '/'<.&5\*%7.% '/'\*<"\*"'?. "N<\*+7.<"6+ 15)&"6\* 1 1 )%('2"+%7" I (,,"+Y." &' .5&"\*"+77<.&&"?\*&.<(&Y&a">?.&.&' .5&" 1+2"(%6,)7."(%' .<(1 "&)55\*<'(B."\*<"5<\*'.6'(B." 1 .+&)<.&"\* 5<\*B(7."9\*<"'?. "&+9.'2"\*9"'?. "(%7(B(7)+,"+%7"'?. "6+ 15)&"6\* 1 1 )%('2a""

C.5\*<'&"\*9"B(\*,+('\*%&"\*9"'?(&"G\*,(62" 1+2"N." 1+7." '\*"'?. "0(B,"C(@?'&"D">(',\$E"0\*\*<7(%+'\*<a"H" 9\*<1+,"6\* 15,+(%'" 1+2"N."9(,7"+'+%2"'(1 ."N2")&(%@"'?. "9\*<1 "5<\*B(7.7"+' "[I I I a\\*42a.7\)g&.4](#))+, : <.&5.6':('.,:(4a"H"9\*<1+,"6\* 15,+(%'" 1+2"N."&)N 1 ('.7"N2"7<\*55(%@"('"\*99"+"'?. "0(B,"C(@?'&"D">(',\$

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>?. "0(B,"C(@?'&"D">(',\$E"0\*\*<7(%+'\*<" I(,"<.6.(B. ""?. "+%\*%2 1 \*)&"<.5\*<" +%7" I(,"7. '.<1 (%. "+%2"

>?. "Z)<.+) "9\*<"G<(B+'."G\* &'.6\*%7+<2"37)6+('(%"+66.5'&"+,, "25.&"\*9"6\* 1 5,+('%&<.,+' .7"'\*  
'?." 0\*,,. @. " +%7" 1+2"<.9.<" +%2" 6\* 1 5,+('%(" (<.6.(B.&" (%6,)7(%@" 6\* 1 5,+('%&<.,+' .7"'\*  
(%&'(')'(%+, " 5\*(6.&' \* "< 5<\*6.7)<.&' \* "<N\*?'/" \*"'?'." 0\*,,. @./" +%"+66<.7('@" +@.%62/" \* "<  
+%\*?'<"+55<\*5<(+'. "%('2"9\* "<.&\*,)'(%\*a"  
Z)<.+) "9\*<"G<(B+'."G\* &'.6\*%7+<2"37)6+('(%"  
#FSF"0+5(',"U+Y&" ;<(B./"J)('."=RR"  
J+6<+ 1 .% '\*"/"OH"[FPSS"  
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0\* 1 5,+('%+%&' +%7"'?(<7:5+<2" I ('% .&&.&' +<." .%6\* )<+@.7"'\* "<.5\* "<"G<\*?(N(' .7"0\*%7)6"' +&"&\*%"+&  
5\* &&(N,." (% \* "<7.<' \* " 1+4(1(d." '?'." 0\*,,. @.A&" +N(,'2" \* " "<.5\*%7" 5<\* 1 5',2" +%7" .99.6'(B.,2a">?. "  
0\*,,. @."7\* .&"%\*"/"?'\* I.B.<"/,(1('"'?'." (1."9<+1."9\* "<."5\* "<('@"\$9"'?'<.&5\*%7.% "'(&"%\*" + 1.1N.<  
\*9"'?'."U66(7.% '+, "6\* 1 1)%( '2"'?'."0\*,,. @." I(,,"&' (&., "Y"'\*"+Y." &' .5&"%".%7"'?'."?<+&& 1 .% '/"5<.B.% "  
( '&' <.6)<<.%6./" +%7" +77<.&&" ('&' .99.6'&/" N) "' ('&' +N(,'2" \* " '+Y." 7(&6(5,(%+<2" +6'(%\*"+@+('%&' "'?'." <  
<.&5\*%7.% "' 1+2/"\*9"6\* )<.&./"N,.(1 (' .7a"H%("6(7.% '7\* .&"%\*"?' +B." \* " \* "66)<"%\*"6+1 5)&" \* "N." <.5\* "<.7"  
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>?. "0\*,,. @."&'<\*%@,2".%6\* )<+@.&"?'<.5\* "<('@"\*9"G<\*?(N(' .7"0\*%7)6"' )%7.<"?'(&"G\*,(62a"\$'("(&"%'?'." N.&"%'<.&" \* "9"'?(&"6\* 1 1)%( '2"'?' +&" 1 +%2"6\* 1 5,+('%+%&' +&"5\* &&(N,."6? \* \* &." \* " "<.5\* "<" \* "6\*,,. @." \*99(6(+,&" +%7"?' + "5\* "<(6(5+&'&' (% "'?'."@<(.B+%6." 5<\*6.&&" +<."9\* "<'?<(@?"' (%&' +<(%@" (%9\* "<1+'(%\*a">" @) +<7" +@+('%&'7(&6\* )<+@(%@"<.5\* "<('@"\*5\* "<6(5+&'(%\*"/"+&' )7.% " I ? \* " "<.5\* "<'&"G<\*?(N(' .7"0\*%7)6"' \* "< 5+&'(6(5+&'&' (% "'?'."@<(.B+%6." 5<\*6.&&" ('?'<+&" +6\* 1 5,+('%+%&'<.&5\*%7.% ' / " \* "<+"?'<7:5+<2" I ('% .&&/" I(,,"%\*" \* "N."&)Nb.6"' \* "7(&6(5,(%+<2" +6'(%\* "N2"'?'." 0\*,,. @."9\* "<5.<&\*%+, "6\*%&) 1 5'(%\* "9"+,6\*?' \* , \* "< 7<)&" \* "< \* " ? "<B(\*,+('%&" \* "9"'?'."6\*%7)6"5\* ,(62"\%\*" (%6,)7(%@"?'(&"G\*,(62)" + " \* "< % . +<?"'." (1." \* "9"'?'." (%6(7.% ' / " 5<\*B(7.7"'?' + " +%2"&)6? "B(\*,+('%&"7(7%\*" + " +%7"7\*%\*" \* "5,+6."?'."?' . + '?' \* "< "&+9.'2" \* "9"+%2" \* '?'<."5.<&\*%+" "<(&Y+%7"7\*%\*" \* ")(%B\*,B."5,+@+<(& 1 / "6? . + '(%" / " \* "< +6+7.1 (6"7(&' \* \* &'2a">?"0\*,,. @." 1+2/"?' \* I.B.<"/(%('+'." +% .7)6+('(%+, "7(&6)&&(%\* \* "<5)<&)." \* " ? "<."7)6+('(%+, "<.1.7(&' I ('?'?'." &')7.% "'<.@+<7(%@" +,6\*?' \* , \* "< \* " ? "<7<)&a"Z.(%" (% \* "4(6+' .7" \* "<(1 5+<.7"N2"7<)&" \* "< +,6\*?' \* , (&"%\*" 7.9.%&." \* " +%2"B(\*,+('%\* "9"'?(&"G\*,(62"+%7"7\* .&"%\*"7(1 (%&' \* \* .A&"<.5\*%&(&(,'2" \* " \* "N'+(%6\*%&.% 'a"

>?. "0\*,,. @."&'<\*%@,2".%6\* )<+@.&"6\* 1 5,+('%+%&' \* "5)<&)."6<(1 (%+, " +6'(%\* "9\* "<('6(7.% ' &" \* "9"&.4)+, "?+&+&& 1 .% ' / " &.4)+, " B(\*, .%6./" +%7" (% '(1+'." 5+&'%<.B(\*, .%6." '?' + " 1+2" +, &\* " N." 6<(1.&")%7.< 0+, (9\* "<%(+," +I a">?. "0\*,,. @." I(,," +&&(&' + "6\* 1 5,+('%+%&' (% "1 +Y(%@" + "6<(1 (%+, "<.5\* "<" +%7"6\*%5.<+'." I ('?' + I ."9\* "<6.1 .% ' +@.%6(&'9"+6\* 1 5,+('%+%&'7.6(7.&" \* "5)<&)."?'."6<(1 (%+, "5<\*6.&&" \* " ? " ? ".4".% " 5.<1 (' .7" N2" , +I a">?. "0\*,,. @.A&" G\*,(62)"7.9(% (' \* %& / " +%7" N)<7.% \* "9" 5<\*%9" 1+2" 7(99.<"9<\* 1" 0+, (9\* "<%(+&6<(1 (%+, " +I a"H"6\* 1 5,+('%+%&' 1+2"&..Y<.&6\* )<.&.)%7.<"?'(&"G\*,(62"+%7g\* "<5)<&)."6<(1 (%+, " +6'(%\*a"8.'?'<., +I ."9\* "<6.1 .% ' A&"7.'<1 (%+&'(%\* " I ? .?'<." \* "< % \* " \* "5<\* & .6)." +& "<.5\*%7.% ' / " % \* "<?"'." \* )'6\* 1 .% "9"+%2"6<(1 (%+, "5<\* & .6)'(%\* / " +&."7.'<1 (%+&'(B." \* "9" I ? .?'<." + "B(\*,+('%\* "9"'?(&"G\*,(62)"?+& \*66)<<.7a"

G<\*6..7(%&")%7.<"?&"G\*,(62" 1+2"N."6+<<(.7\*)"'5<(\*<"\*/&(1),'+%.\*)&,2" I('?'/\*<"9\*,,\* I(%@"6(B(," \*<"6<(1(%+, "5<\*6..7(%@&"\*99"6+15)&a">?. "0\*,,.@. " 1+2"\*%\*"7.,+2"6\*%7)6'(%@"('&"\* I"(%B.&'(@+'(%% )%,,&&"&5.6(9(6+,2"<.X).&'.7"N2"'?.",+I".%9\*%<6. 1.%'"\".a@a"/mHG ; ]a"\$%""?. ".B.%""\*9"&)6?"+"&5.6(9(6 <.X).&"/" '?. "0\*,,.@. " I(,,"7.9.<" ('&"(%B.&'(@+'(%%\*"\*,2"7)<(%@" '?. " ('1. "'?+'",+I".%9\*%<6. 1.%'" (& @+'?<(%@" .B(7.%6./" I?(6?'&?\*) ,7"%\*" .46..7"' .%"7+2&" +N&.%'" .4'.%)+'(%@"6(<6) 1&'+%6.&a">?. " 0\*,,.@. " I(,,"%B.<'?. ,&&"6\* 1 1)(6+'." I('?' '?. "6\* 15,+(%+%'" +%7"<.&5\*%7.%"" \ (9"+55<\*5<(+'. ]" <.@+<7(%@">(',"\$E"<(@?'&/"5<\*6.7)<+, \*5'(%%&/" +%7"'?. "(15,. 1.%'+(%%\*"9"&)55\*%<'(B. " 1.&)<.&"\*"+&&<."&+9.'2"+%7" I.,,: "N.(%@"a">?. "0\*,,.@. " I(,,"5<\* 15',2"<.&) 1."9+6':@+'?<(%@" +&"&\*%\*" +&" ('&" (%9\*%<1.7"'?+'",+I".%9\*%<6. 1.%'"?+&"6\* 15.,'.7"('&"(%('+(,%B.&'(@+'(%%a"

>?. "0\*,,.@. " +Y.&'?'?. "+66)<+62"\*9"(%9\*%<1+'(%%B.<2"&.<("&.&,2"/"+&" +<.5\*%<"\*9"G<\*?(N(' .7"0\*%7)6'" 1+2"?+B."&B.<."6\*%&.X).%6.&a"H"@\*\*7:9+('?'6\* 15,+(%+"?'+'<.&),'&'(%+"9(9(7(%@"\*9%\*"\*)<.&5\*%&(N., " (&"%\*" 6\*%&(7.<.7"+'9+,&."\*%<'9+N<(6+' .7"<.5\*%<"\*9"G<\*?(N(' .7"0\*%7)6'a" G+<'(.&" +%7" I('%.&&.&"+<." .45.6'.7""\*5<\*B(7." "<)'9),(%9\*%<1+'(%%""\*"?."\$B.&'(@+'\*%<"O.+<(%@"U99(6.</" +%7"H55.+,&"U99(6.<a" J?\*) ,7"+%2"5+<'2"/"\*<+" I(%.&&/"5<\*B(7."Y%\* I(%@"2"9+,&."(%9\*%<1+'(%%"+&"5+<"\*9"'?(&"5<\*6.&&""?(&" 1+2"N."6\*%&(7.<.7"+B(\*,+'(%%\*"9"0\*,,.@. "5\*,(6.&+"%7" I(,,"N."<.9.<<.7""\*"?." +55<\*5<(+'. "\*99(6."9\*%< 9)<'?.<"?+%7,(%@"\$'" (&" +B(\*,+'(%%\*"9"'?. "0\*7."\*9"J')7.%""0\*%7)6'"\* 1+Y." +%"(%' .%('\*%+,2"9+,&." <.5\*%<"\*9"+%2"5\*,(62"B(\*,+'(%%"/+%7"(" 1+2"+,&\*B(\*,+'."&'+".6<(1(%+,&'&')'.&+"%7"6(B,"7.9+1+'(%%"+, I&a"

W%7.<"0+, (9\*%<(+, +I"/+%("7(B(7)+, " 1)&' 1+Y." + " 1+%7+\*%<2"<.5\*%<"\*9"&)&5.6'.7"6?(,7"+N)&." +%7" % .@. .6"/"(6,%)7(%@"&.4)+, +&&+), " I? .%""?+"%7(B(7)+, "%""?<(<5<\*9.&&(\*%+, "6+5+6(2"\*<" I('?'(%""?." &6\*5."\*9""?<(<. 15,\*2 1.%'/'?+&"Y%\* I., 7@."\*9/"\*%<"N&.<B.&"/" + 1 (%%<")%7.<"?." +@."\*9"!P" I ?\* 1 ""?." (%7(B(7)+, Y%\* I &"\*%<.+&\*%+N,2"&)&5.6'&"?+&"N. .%""?."&)<B(B\*%<"\*9"6?(,7"+N)&." \*%<%.@., .6'a" H., " 0\*,,.@. " 15,\*2. .&"+<."<.X)<.<.7""\*( 1 1.7(+'. ,2"<.5\*%<" +%2"&)&5.6'.7"6?(,7"+N)&." +%7"% .@. .6""\* "'?."0(B("C(@?'&"D">(',"\$E"0\*\*<7(%+"\*%<+"%7"'?." ; (<.6'\*%<"\*9"0+15)&"J+9.'2a">?. "&\*)<6."\*9"+N)&." 7\*.&'%\*"%. .7"'\*N."Y%\* I"(%""%<7.<"\*9(. , "+<.5\*%<'a">?. "0\*,,.@. " I(,,"<.5\*%<" +, "&)&5.6'.7"6?(,7"+N)&." +%7"% .@. .6"/"(6,%)7(%@"&.4)+, +&&+), "/"\*",+I".%9\*%<6. 1.%'" +%7g\*%<'?. "m\*&"H%@.,.&"0\*%)'2" ; .5+<' 1 .%""\*9"0?(,7"+%7"L+1 (,2"J.<B(6.&a"\$'"(&"%"""?<.&5\*%&(N(,'2"\*9"+%2". 15,\*2. /&')7.%'/"\*%< B\*,)%' .<"\*%<(%B.&'(@+'."&)&5.6'.7"6?(,7"+N)&."a">?(&("&"?'<\*,. "\*9"0?(,7"G<\*'.6'(B."J.<B(6.&+"%7"+, I".%9\*%<6. 1.%'a"

\$%" +77'(%%""\*%\*"92(%@"?." 0(B("C(@?'&"D">(',"\$E"0\*\*<7(%+"\*%<+"%7" ; (<.6'\*%<"\*9"0+15)&"J+9.'2/" +%2"(%7(B(7)+, " 1+2" 1+Y." + "7(<.6""<.5\*%<" +&"9\*,,\* I&V"

f \$9"+6?(,7"("&"(1 1.7(+'. "7+%@.</"6+,,"[! !a"

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- f 0?+%@."(%\*%:6+15)&"?\*)&(%@" I?%.9.+&(N,./"\*<+<<+%@"\*7(&&\*,B."+?"\*)&(%@"6\*%'<+6'" +%7"5<\*<+'(%@"+<.9)%7"(%"+66\*7+6." I('?'6+15)&"?\*)&(%@"5\*,(6(.&i"
- f m(1('@"+"(%7(B(7)+,"\*<"\*%<+%(d+'(\*%A&"+66.&&"\*"6.<+'(% 0\*,,.@"9+6,(('.&"\*<'+6'(B('.&" 5.%7(%@"<.&\*,)')(\*%"\*9"?. 1+''.<i"
- f - \*,)%'+<2",.+B."\*9"+N&.%6.i"
- f G<\*B(7(%@"+"%".&6\*<'""\*"%&)<.&+9." 1\*B. 1.%"N. ' I..%6,+&&.&"+%7"+6'(B('.&i"
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R3.%1/"6&%, 0"1,#"31/D" j )+, (9(.7" 5<\*B(7.<&" 6+% 5<\*B(7." + " 9\* <. %&(6" .4+ 1 (%+'(\*%a">?. "9\* <. %&(6" 1 .7(6+, ".4+ 1 "?"&" I \*"@\*+, &V"9(<&'/" "7(+@%\*&. "+%7" '<.'+'?' .9) ,, ".4' .% "'\*9"+%2" (%b)<2"\*<5?2&(6+, ".99.6" "\(%6,) 7(%@ 5<.B. %'(\*% " \*9" &.4)+, ,2" '<+%& 1 ('.7" (, % .&&. &"+%7" 5<.@%+%62]" +%7" &.6\*%7/" '\* 5<\*5 .<2" 6\* , .6" +%7" 5<. &.<B. " .B(7.%6.a" >? .< (&"+, (1 ('.7" I(%7\* I " \*9" '(1. " \ I ('?("% [K" ?\*)<&]" 9\* , \* I (%@+"% "(%6(7.% "'\*9"&.4)+, "+&&+), ""\*5<. &.<B. "5?2&(6+, "+%7"\*' ? .<"9\* <1 &"\*9".B(7.%6."/"+, '?\*)@?" (' 1+2"N. " 5\* &&(N. . "'\* " \*N'+(% " .B(7.%6. "9<\* 1 " '\* I ., &/" &?.. ' &/" 6,\*' ? .&/" +%7" '\*' ? .<(' .1 &"9\* < , \*%@ .< 5.<(\*7&"\*9" '(1 .a\$'("&N. &' "'\* "@+' ? .< .B(7.%6. "5<(\*<"\* I +&? (%@+"5.<&\*%A&"N\*72"\*<6?+%@(%@6,\*' ?(%@a \$9"6,\*' ? .&" ?+B. "N. .% "6?+%@. 7/" ? . "6,\*' ? .& I \* <%+" "' ? . "(1 . "9" ? . "(%6(7.% "'&?\*) , 7"N. "N<\*)@? "'\* " ? . " .4+ 1 (%+'(\*% ("+"6. .+%/"&+% ('<2"6\*%' +(% .<&)6?'+&"+5+5.<"N+@\*" < I +&55.7" (% "+"6. .+%&? . . 'a" ; \*%\* "' )& . "+5,+&'(6"N+@V"5,+&'(6"6\*%' +(% .<&"7\*%\*"N<.+ ' ? . "+%7" 1+2" <. %7. < .B(7.%6. )& . , &&a" H"6?+%@. " \*9 6,\*' ? (%@&?\*) , 7"+, &\*N. "N<\*)@? "'\* " ? . " ? \* &5(+, /"+&" ? . "6,\*' ? .& I \* <%+" "' ? . "(1 . "9" ? . "(%6(7.% "' I (, , , (Y. , 2"N. "Y. 5" +& .B(7.%6.a" >+Y(%@"' ? . "&' .5&"\* "@+' ? .< .B(7.%6. "(1 1 .7(+'. , 2"7\* .&"\*% "6\* 1 1 ("+"% (%7(B(7)+, "'\* " +%2" 5+<'(6) , +<"6\*)<& . "9"+6'(\*%a">?. "7.6(&(\*% " '\*& . .Y" '(1 ., 2" 1 .7(6+, "+' .% '(\*% "+%7" @+' ? .<+%2" .B(7.%6. "

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f 6\* 1 1 )%(6+'."% .6.&&+<2"7. '+(&"\*9"?'." <.5\*%'0+15)&" J+9. '2"\*' .%' .<'?'." <.5\*%'(%'"?'." 0\*,,.@.A&'7+(,2"6<(1 .," \*@(9"<.X)(<.7"N2"?'." 0,.<2"H6'i"

f 5<\*B(7. " '?'." 6\* 15,(+%+%'" I('?' +%" .45,(+%+'(%%" \*9" '?'." 5<\*6.7)<+," \*5'(%&/' (%6,)7(%@ ; (&6(5,(%+<2"C.&\*,)')(%%" +%7"H7+5'+N,."C.&\*,)')(%%i"

f 7(&6)&&" '?'." 6\* 15,(+%+% 'A&" 5<.9.<.%6. " 9\*%' 1 +%%.<" \*9' <.&\*,)')(%%" +%7" +%2" N+<<(<.&" '\* 5<\*6..7(%@i"

f 7(&6)&&"'?'." 5<\*6. &&"9\*%'<9(,%@+"9\*%'<1 +,"6\* 15,(+'i"

f +&&. &&"9\*%'<+%2"5+'.' <%"\*9"6\*%7)6'"N2"?'." <.&5\*%7. %'i"+%7"

f 7. ' .<1 (%. "+@. "\*9"?'." 6\* 15,(+%+% 'i"+%7)"9"?'." 6\* 15,(+%+% "(&+" 1 (%\*%'<+" I +&+" 1 (%\*%'<+" '?'." '(1. " \*9" '?'." +,.,@.7" G<\*?(N('7" 0\*%7)6'/" 1+Y. " '?'." +55<\*5<(+'.' %\*'(9(6+'(%&" '\*" &+'.' +@.%6(. &a"

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H%2" J)55\*%'(B. " Q. +&)<.&"5)" (%"5,+6. " I(,"N. "Y.5"5<(B+'.'/" .46.5"'\*"'?'." .4'. %'" '?'+"7\*(%@" &\* (15+(<&"?'." +N(,'2"\*9"?'." (%&'(')')(%%"\*5<\*B(7. "'?'." &)"55\*%'(B. " 1 .+&)<.&a"L\*%'<.4+15,./'"\*".99.6')+'.' + '?'\*)&(%@"6?+%@./" &'+99" +' "C.&(7. %'(+," 37)6+'(%%" +%7" O\*)&(%@" J.<B(6.&" I(,"N. " (%9\*%'<1 .7"\*9"?'." %..7"'\*"+&&(&" I('?'+"?\*)&(%@"6?+%@." +&"7(<.6'.7"N2"?'." 0(B("C(@?'&"D">('," \$E"0\*\*<7(%+'\*%'<N)" I(,"%\*"N. "5<\*B(7.7" I('?'+"%2"\*9"?'."7. '+(&"\*9"+%2"6\* 15,(+'a" c ?.%"?'." 0(B("C(@?'&"D">('," \$E" 0\*\*<7(%+'\*%'<7.6(7.&"\*'"(%('+'.' "+%)"(B.&'(@+'(%%/"(15\*&. "(%'<(1"5<\*'.6'(B. " 1 .+&)<.&/'\*%'<"+Y. "+%2" \*'?'<+'6'(%%" '?'+'(15+6'&+"<.&5\*%7. %'/'?'." 0(B("C(@?'&"D">('," \$E"0\*\*<7(%+'\*%'< I(," +,&\*'. %&)<." '?+'\*"'?'." <.&5\*%7. %'"(&"\*'(9(.7"+%7"<.6.(B.&" I<('.' %"(9\*%'<1 +'(%%"\*%"+B+(, +N,." <.&\*)<6.&+%7"\*5'(%&a"

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f 0,\*&."?<.5\*<" I('??."\*5'(%%"\* "<.:\*5.%"('+"+%\*?'<.(1."(9"?."6\*15,+(%+%'"<.X).&'&  
<.&\*,)')(%%"\* "<(9"?."0\*,,@."&)N&.X).%,'2'7.'.<1(%.&"?<."(&+"%..7"\*9)<'?<.(%B.&'(@+'.'  
'?."+,,.@.7"1 (&6\*%7)6'a"

**R3.0, \$B30 <\$, #1/Pk = "/0"//, \$/k, 17&I <<%, \$/k3>k = "/0"//, \$/k**

H"9\* <1+, "6\*15,+(% "9\* <5)<5\* &. &"9"? (&"G\*, (62"(&+"7\*6) 1 . % "9(, .7"N2"+"6\*15,+(%+%'"\* <&(@.7"N2"  
'?."0(B, "C(@?'&"D">(', . "\$E"0\*\*<7(%+"\* <+, . @(%@>(', . "\$E"J.4)+, "O+<+&&1.%" "+%7"<.X). &'(%@"?'+"  
'?."0\*,,@."(%B.&'(@+'.'?."+,,.@+'(%a"H"9\* <1+, "6\*15,+(% "1+2"N. "9(, .7"+"%2"(1."N2")&(%@"?."9\* <1" 5<\*B(7.7" + " ?'5&Vgg I I I a\*42a.7)g&.4)+, :.&5.6':('.:4a" H"9\* <1" 1+2" N. " &)N1(' .7" N2"  
7<\*55(%@" ("\*99" + " ' ?."0(B, "C(@?'&"D">(', . "\$E"U99(6."/N2" . 1+(/" \* <"N2" 1+(, a" W5\*%" <.6.(5"\*9" +"  
6\*15,+(%/"'?'."0(B, "C(@?'&"D">(', . "\$E"0\*\*<7(%+"\* < I(, "6\*%' +6"'?'."6\*15,+(%+%'" '\*6\*%7)6'" +"  
(%'+Y."(%' .<B. I a" c ?.%"+ "6\*15,+(%+%'"&)N1 (&+"9\* <1+, "6\*15,+(%/"'?'."0(B, "C(@?'&"D">(', . "\$E"  
0\*\*<7(%+"\* < I(, "9(<&"5<\*15',2'7.'.<1(%."I?'.'?<V"

- f '?. "6\*%7)6'+, .@.7" I \*), 7/"(9"5<\*B.7/"6\*%&'(')'. ">(', . "\$E"J.4)+, "O+<+&&1.%" 'i"
- f '?. "6\*%7)6'+, .@.7"\*66)<<.7"(%"'?'."0\*,,@.A&".7)6+'(% "5<\*@<+1 " \* <+6'(B('2i"
- f '?. "6\*%7)6'+, .@.7"\*66)<<.7"(%"'?'."W'(.7"J'+'.&i"
- f '?. "6\*%7)6'+, .@.7"\*66)<<.7"\*% " \* <+9'.<"H)@)&'! =/"#R#Ri"+%7"
- f '?. "6\*15,+(%+%'" (&"5+<(6(5+'(%@" (% " \* <+' . 15'(%@" " \* 5+<(6(5+' . (% "'?'."0\*,,@.A&".7)6+'(% "5<\*@<+1 " \* <+6'(B('2"+"'"?'."(1."?'."6\*15,+(%'" (&"9(, .7a"

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\$9"?."9\* <1+, "6\*15,+(% "&+ (&9(.&+, , "9"? .& . . . 1 . % '&'(" I(, "N. "(%B.&'(@+' .7"+%7"<.&\*, B.7"+&+" ">(', . "\$E"J.4)+, "O+<+&&1.%" '1+' .<"?'<\*)@?'?'."5<\*6.7)<.&"\*'), (%.7"(% "H55.%7(4)Ha"\$9"('"+55. +<&"N+&.7")5\*%"(%('+, <.B. I " \* <")5\*%"(%9\* <1+'(%@"@+'?'<.7"7)<(%@"+% "(%B.&'(@+'(% " \* ?'+""+9\* <1+, "6\*15,+(% "7\* .&" \* "'&+ (&92"+%7g\* <"%\*", %@.<"&+ (&9(.&+, , "'? .& . . . 1 . % '&'?'."0\*,,@." I(, "7(&1 (&"?'."9\* <1+, "6\*15,+(% "9\* <5)<5\* &.&"9"?.">(', . "\$E"J.4)+, "O+<+&&1.%" '5<\*6.&&a">?."

**R3.0, \$B30 <\$, "1#/k)"F1%7& : @&B"C"\$& ; "F9#/#S &! "#\$%&' ( &B33.7"1, #3.&**

\$%" 6+&.&" I? .<." (" +55.+<&"N+&.7" \*%"+%" (%('(+,"<.5\*<" '?+' "'?." .,. 1.%'&"&'+'.7"+N\*B." I\*),7"N." &+'(&9(.7/"N)'"'?. "6\* 15,+(%+% "'7\* .&"%\*" " I (&?"\*"9(,."+"9\*< 1+,"6\* 15,+(%/'/"'?. "0(B("C(@?'&"D">(',."\$E" 0\*\*<7(%+'\*<" 1+2/"(%"'?. (<"7(&6<.'(\*%/"7.6(7."\*"&(@%+"6\* 15,+(% "'\*9">(',."\$E"J.4)+,"O+<+&& 1.% "'+%7" (%('+'."+%("B.&'(@+'(\*%"+%7"<.&\*,) '(\*%"5<\*6.&&")%7.<"'?. "5<\*6.&&"\*'),(% .7"N.,\* I a"\$9"?'(&"\*66)<&/'"?. " 0(B("C(@?'&"D"D">(',."\$E"0\*\*<7(%+'\*<" I(,,"%\*"N."+"6\* 15,+(%+% "'\*<'\*?'< I(&."+"5+<'2"\*\*\*"?. " 1+''.<a

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>?."0(B("C(@?'&"D">(',\$E"0\*\*<7(%+'\*<" I(,"6\*%&(7.<" I ?+'&' .5&" 1+2"N."5\*%&&(N,."\*%"+55<\*5<(+'.  
I ?.'%"+<.&5\*%7.%'"(&)"%Y%\* I %"\*<"'?. "6\* 15,(+%+%'"<.X) .&'&"+%\*%2 1('2"/+%7" I ?+'\*"?.<" 1 .+&)<.&  
\*%<. 1 .7(&" 1 (@?' "N."6\*%&(7.<.7" '\*"+77<.&&" +%2" .99.6'&"\*9"?' .<.5\*%<.7"N. ?+B(\*%<"\*%'"?'."6+ 15)&  
6\* 1 1)%( '2a">?."0(B("C(@?'&"D">(',\$E"0\*\*<7(%+'\*<" I(," 1+Y."+"7.'.<1(%+'(\*%<."@+<7(%@"?'."  
+55<\*5<(+'. " 1+%%.<"\*9"<.&\*,) '(\*%)"%7.<"'?. "5\* ,(62a">?."0\* ,,.@." I(,"&..Y"<.&\*,) '(\*%)"6\*%&&(&'."% I ('?"  
'?. "6\* 15,(+%+% 'A&"<.X) .&'/'(9"('(&"5\*%&&(N,." '\*7\*%&\*/N&.7")5\*%'"?'."9+6'&"+%7"6(<6) 1&'+%6.&' I ?(,"  
+,&\*%5<\*'.6'(%@"?'."?' .+,'?'+"%7"&+9.'2"\*9"?'."6\* 15,(+%+%'" +%7"?'."0\* ,,.@."6\* 1 1)%( '2a"

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<.X) .&'&"+%\*%2 1('2" \*%<7.6,(% .&" '\* 5+<(6(5+".' (% "+%)"(B.&'(@+'(\*%a">?." 0\* ,,.@." I(,"/ ?\* I .B.</"  
5)<&)." \*'?.<" &' .5&" '\* , (1(' ' ?' . 99.6'&"\*9"?' . 5\*% .%'+, " G<\*?(N(' .7" 0\*%7)6"'+%7" 5<.B."%'" (&  
<.6)<<. %6 .a"\$%"+,,"6+&.&'?' .9(%+, "7.6(&(\*%\*" I ?.'?' .</"? \* I /"+%7" '\* I ?+' .4' .%'"?' . 0\* ,,.@." I(,"  
6\*%7)6"'+%)"(B.&'(@+'(\*%"+%7" I ?.'?' .<"\*?' .<(%' .<(1"<. 1 .7(+, "\*%<5<\*'.6'(B." 1 .+&)<.&' I(,"N."'+Y.%"  
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G\* ,(62a"

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c ?.<."?'."0(B("C(@?'&"D">(',\$E"0\*\*<7(%+'\*<7.'.<1(% .&"'?'+"6\* 15,(+%+% 'A&"<.X) .&'&]6+%N."  
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6\*%7)6"/' 5<.B."%'" ('&'<.6)<<. %6 ."/"+%7" <. 1 .72" ('& . 99.6'&"\*%'"?' . 6\* 15,(+%+%'" +%7" ?' . 0\* ,,.@."  
6\* 1 1)%( '2a">?\*&."&' .5&" 1+2"(%6),7."(%6<.+&.7" 1 \*%('\*<(%@"&)5.<B(&(\*%/"\*%<.6)<('2"+" , \*6+'(\*%&  
\*%<"+6'(B('.&" I ?.<."?' .+ ,. @.7" 1 (&6\*%7)6"\*66)<<.7i"5<\*B(7(%@"+77('(\*%+, " <+(%@"+7" .7)6+'(\*%  
1+' .<(+,&"9\*%<\*&')7.%'&"+%7" . 15,\*2..&i" \*%<6\*%7)6'(%@"6,(1+' .&)<B.2&"<."@+<7(%@"&.4)+, "B(\*, .%6 .a"  
>?." 0\* ,,.@." I(,"+,&\*%"+Y."(1 1 .7(+'. " &' .5&" '\* 5<\*B(7."9\*%<'?' .&+9.'2"\*9"?' . 6\* 15,(+%+%'" I ?(,"  
Y..5(%@"?' . 6\* 15,(+%+% 'A&"(7.'('2"6\*%9(7.%'+, "+&"+55<\*5<(+'. a">? .&."&' .5&" 1+2"(%6),7."6?+%@(%@"  
,(B(%@"+<<+@. 1 .% '&'\*%<6\*)<&."&6? .7) ,.&'"+&&(@% 1 .% '&'/\*%<' .&'&a">? . 6\* 15,(+%+%'" I(,"N."%\*(9(.7"  
'?'+'?' .&' .5&"\*?' . 0\* ,,.@." I(,"'+Y." '\*%<.&5\*%7" '\*"'?' . 6\* 15,(+%+%'" I(,"N.",(1(' .7"N2"?' .<.X) .&'9\*%<  
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+%7"5)<&).7)"%7.<"'?(&"G\* ,(62"9"+%2"% . I "%<"+77('(\*%+, "(%9\*%<1+'(\*%N.6\* 1 .&"+B(+,N,./"+%7g\*%<(9"  
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+ "B(\*,+'(\*%"\*9"+"&.5+<+'."5\*,(62/" I ?.'?'<"J')7.%'" 0\*7."\*9" 0\*%7)6'/"L+6), '2" O+%7N\*\*Y/"\*<"J'+99"  
O+%7N\*\*Y/"'?'." 0\*,,.@."

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6+)&."&?'\* I"%+%7"7\*6) 1. %'.7a" \_ ^\*\*7"0+)&."` I(,"N."7.'. <1 (%.7"N2"'?'."0(B("C(@?'&"D">(',\$E"  
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+7B(&\*<N.6+)&."\*9"7.+?'/"(,%.&&/'\* "<\*'?'<.<.46)&+N,."6(<6) 1 &'+%6.&i"6\*%6)<<."%'+I".%9\* <6. 1. %"  
+6'(B('2i"\*<""?'."%. .7"9\* <"+%@)+@."+&&(&'&+%6."\* <"+66\* 1 1 \*7+'(\*%\*"9"7(&+N(,'.&a"H,'?\*)@?'<.+&\*%+N,."  
+'.' 15'&" I(,"N." 1+7."\*\*&6?.7),."5<\*6. .7(%@&'6\*%&(&'%.%" I('?'+"%+7B(&\* <A&"+B(+,N(,'2"/"?'."5<\*6.&&"  
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<.&\*,) '(\*%5<\*6.&&"\25(6+,2"&."9\* <?'(%N)&(&'&7+2&]"/N)"'?"."0\*,,.@." 1+2".4'.%7"+%2"7"(1.9<+ 1."  
(%"?'&"5\*,(62"9\* "<@\*\*7"6+)&.a"H%" .4'.%&(\*% 1+2"N.<.X)<7"9\* <@\*\*7"6+)&."\*"%.%&)<."9\* <".4+ 15,./"  
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\*%"+66\*)%""\*9"?'." )%+B(+,N(,'2" \*9"?'."5+<'(&"\* < I('%.&&.&i"\* <9\* <""\*?'<.,.@('1+'.'<.+&\*%&/'&)&6?'+&"  
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\* <".&5\*%7.%"/" )%&&V" !]"?'." 5<(\* <""\* < &")N&.X).%"&.4)+,?"(&"\* <2"N.' I. .%"'?'." 6\* 15,+(%+% "'"+%7"  
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N..%'"9,(6'.7"N2"'?'<.&5\*%7.%"/" I.<.(%9,(6'.7"N2"+%\*"?'<('7(B(7)+,i"\* <#]"'?"."4(&'%.6."\*9"+'7+'(%@"  
<.,+'(\*%&?(5" \* < 5<(\* <""\* < &")N&.X).%" 6\*%&.&.&)+, "&.4)+, "<.,+'(\*%&" N.' I. .%"'?'." 6\* 15,+(%+% "'"+%7"  
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+N\*)"' + 7+'(%@"<.,+'(\*%&?(5" \* < 5<(\* <""\* < &")N&.X).%" 6\*%&.&.&)+, "&.4)+, "<.,+'(\*%&" N.' I. .%"'?'."  
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\*?'<6\*%&.&.&)+, "&.4)+, "<.,+'(\*%&" I('?'\*%." +\*?'<.<(&"B.< &")99(6.(%"/"N2"(&'.9"/" \*'&'+N,(&"?'+'  
'?'."6\*%7)6'"(%X).&'(\*% I +&"6\*%&.&.&)+,a"G<(\* <""\* +, \* I @%"'?'." 6\*%&(7.<+'(\*%\*"9"+%2".B(7.%6."\*9"  
5+&"&.4)+,?"(&"\* <2"/"?'."(%B.&'(@+'\* <"+%7g\* <?'<+<(%@"\*99(6.<" I(,"5<\*B(7.'" I (<'.'%.45,+%+'(\*%\*"'"?'."  
5+<'(&"+&"\* I ?2"'?'."6\*%&(7.<+'(\*%\*"9"?'." .B(7.%6."(&"6\*%&(&'%.%" I ('?'?'&"5\*,(62a"

>?. "%B.&'(@+'(\*%"+%7"+7b)7(6+'(\*%\*"9"+,.,@.7" 1 (&6\*%7)6'" )%7.<"'?'(&"5\*,(62"(&"%\*"'+%"+7B.<&+<(+,"  
5<\*6.&&"N.' I. .%"'?'."6\* 15,+(%+% "/"?'<.&5\*%7.%"/"+%7"?'." I('%.&&."/N)"'<+?'<+"'+) 1+:(%9\* < 1.7"  
5<\*6.&&"9\* <""?'."0\*,,.@."'"\*6\* 15,2" I('?'(&"\*N,(@+'(\*%&)"%7.<.4(&'(%@" ,+ I a">?"6\* 15,+(%+% "'7\*.&"  
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+,.,@+'(\*%\*" <"+,.,@+'(\*%&"\*9" 1 (&6\*%7)6'a">?"7.6(&(\*%\*"5<\*6. .7" I('?'+"%)"(%B.&'(@+'(\*%)"(&"%\*"'+  
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>?."\$%B.&'(@+'\*%< I(, "5<.5+<."+"\$%B.&'(@+'(\*%C.5\*%<") 1 1+<(d(%@"?'."9+6'+%7".B(7.%6."@+'?<.7" (%""?'."6\*%)&."\*9"?'."G<.,(1(%+<2"\$%B.&'(@+'(\*%a">?"\$%B.&'(@+'\*%< I(, "%\*%""&'+'."9+6'+, "9(%7(%&%"< ),'(1+'."9(%7(%&+"&'\*% I?'.'?'<""?'<.&5\*%7.%""?+&/"\*%<"+&%"\*%"/B(\*,+'."7\*%."\*%< 1 \*%."\*9"?'."O\*.,@.A&" 5\*,(6.&'(%""?'."\$%B.&'(@+'(\*%C.5\*%<'a">?"\$%B.&'(@+'\*%< I(, "+'+6?"+&"+55.%7(6.&'\*"'?'."\$%B.&'(@+'(\*% C.5\*%<'+"+, "\$%'.<B(. I" J) 1 1+<('1+2"7\*6) 1.%'+<2".B(7.%6."@+'?<.7" (%""?'." G<.,(1(%+<2" \$%B.&'(@+'(\*%/"(%6,)7(%@"+2" I<'.'%<.&5\*%&.&'\*"'?'."B(7.%6."&)N 1('7"N2"?'."5+<('1+2"<.&a" c?."%""?."



O.+<(%@U99(6.<" I(,"6\*%7)6'"+"(B."?.+<(%@/"+" I?(6?"'?.2" I(,"5.<1("'%7(<.6'"6<\*%&&:.4+1(%+'(\*%  
\*9"'?. "5+<('.&"+%7" I('%.&&.&a"L\*5)<5\*%&. &"\*9"'?(&"G\*,(62/"'?. " ' .<1 "\$%7(<.6'" 0<\*%&&:34+1(%+'(\*%  
1 .+%&"'?. "O.+<(%@U99(6.<" I(,"+,,\* I "'?. "5+<('.&"+%7g\*%<'?. (<+7B(&\*%&"\*%&)"N 1 ('5<\*5\*%&.7"X) .&'(\*%&  
9\*%<'?. "5+<('.&"+%7" I('%.&&.&/"&" I ., "+&"9\*,,\* I : )5"X) .&'(\*%&"N+&.7"\*%'" .&'(1 \*%2"5<\*B(7.7"7)<(%@  
'?. "?.+<(%@a">?. "O.+<(%@U99(6.<" I(,"+&Y"'?. "5+<('.&"+%7" I('%.&&.&"'?. "5<\*5\*%&.7"X) .&'(\*%&"'?'+'?' .  
O.+<(%@U99(6.<"7.' .<1 (%.&"+<. "6\*%&&(&' .%" I ('?'?'(&"G\*,(62"+%7"+<. "5<\*N+'(B."\*9"9+6'&"<., .B+% "'\*%  
'?. "+7b)7(6+'(\*%\*"9"'?. "1+''.<a">?. "O.+<(%@U99(6.<"1+2"<.9)&. "'\*"+,,\* I "X) .&'(\*%&"'?'+'+'<." )%7),2"  
?+<+&&(%@"\*%<'?'+'&. .Y"(%9\*%<1+'(\*%\*"?'+'("%"\*%"<., .B+%")%7.<"'?'(&"G\*,(62a"  
"

>?. "O.+<(%@U99(6.<("&"<.&5\*%&(N,. "9\*%<"1+(%'+(%@"+"%\*"<7.<,2"/9+(</"+"%7"<.&5.6'9), "?.+<(%@"+"%7"?'&  
N<\*+7"+)'?\*<('2"'\*%<.&5\*%7"'\*7(&<)5'(B."\*%<'?'+'&&(%@"N. ?+B(\*%&/"(%6,)7(%@"+7b\*)<(%@"'?. "?.+<(%@"  
\*%<.46,)7(%@"'?. " \*99.%7(%@"5.<&\*%a" G+<('.&"1+2"1+Y."<.X) .&'&" '\*"'?. "

>?. "O. +<(%@" U99(6.<" I(,,"7.'.<1(%."(9"'?. "5<\*99.<.7" I('%.&&\.&]" ?+&"<.,.B+%'"(%9\*<1+'(\*%" +%7"(9" '?.<." (&" & )99(6(.%" b)&'(9(6+'(\*%" 9\*<" 5.<1('(%@" +" I('%.&&" I?\*" I+&" %\*'" (%'.<B(. I .7" N2" '?. "\$%B.&'(@+'\*<a" >?. " O. +<(%@" U99(6.<" 1+2" +,&\* "<.X)(<." '?. "\$%B.&'(@+'\*<" '\*" (%'.<B(. I " '?. "% . I ,2" 5<\*99.<.7" I('%.&&a" c ?.%" I('%.&&.&" +<." +55<\*B.7" '\*N. "5<.&.%/'"?'."<.&5\*%7.%'" +%7"6\* 15,+(%+%'" I(,,"N. "5<\*B(7.7" I('?"+" ,(&"\*9" I('%.&&.&" +%7" +2"<.,.B+%'"7\*6) 1 .%'&"<.,+' .7" '\*"'?. " I('%.&&.&A" +55. +<+%6. "+"'?'."?." +<(%@"%\*" ,+' .<"?'+%'"?'<.. "

5.<1(''.7" "\*" 6<\*&&:.4+1(%." '?'." I('%.&&.&" \*<" +%2" 5+<'2" 7)<(%@" '?'." ?.+<(%@/" %\*<" I(, " '?'." 2" N."  
5.<1(''.7" "\*" \*99.< I('%.&&.&/" 7\*6) 1 .%'&/" \*<" +6,\*&(%@" &'+' . 1 .%'a"\$9"+%2" 5+<'2" 6?\* \*&.&" %\*'" \*"+55.+<"  
+' "'?'." ?.+<(%@/" '?'." 0\*,,@." 1+2" 1\*B." 9\* <I +<7" I('?' '?'." ?.+<(%@" +%7"



>?. " 0(B(," C(@?'&" D" >(',." \$E" 0\*\*<7(%+'\*<" I(," 5<\*B(7." '?'." 6\* 15,+(%+% "'+%7"'?'." <.&5\*%7.% "' I('?" %\*'(6." \*9"+%2"7.,+2&"+%7"@B." '?'." 1 "+%". I"(1.'+N,." 9\*<6\* 15,.'(\*% "\*9"'?'." (%B.&'(@+'(\*%a"

>?. (%B.&'(@+'(\*% I(," (%6,)7." +%(%'<B(. I \&] I('?" '?'." 6\* 15,+(%+% '/' '?'." <.&5\*%7.% "' +%7g\* <"+%2" \*'?'<5.<&\*% I ?\*" 1+2"?'+B." (%9\*<1+'(\*%<.@+<7(%@" '?'." (%6(7.% '/' .+6?"\*9" I ?\* 1 "(% . %6\*)<+@.7" '\*" 6\*\*5.<+'." I('?"+%2"(%B.&'(@+'(\*%a">?. "%B.&'(@+'\*< I(," 5<.5+<." +&) 1 1+<2"\*9".+6?"(%'<B(. I /&?+<." '?'&) 1 1+<2" I('?" '?'." (%'<B(. I . /"+%7"5<\*B(7." '?'." (%'<B(. I . . I('?"+"\*55\*<')%('2"'\*6\* <<.6"'\* < 6\* 1 1 .% "'\*%"+%2"&'+' . 1 .%'&" 1+7."(%"'?'&) 1 1+<2a"\$9%\*" <.&5\*%&."(&"<.6.(B.7"9<\* 1 "'?'."(%'<B(. I . . I('?'(%"'?<.. \S]N)&(%.&&"7+2&"<.9,.6'(%@"+%2"+77('(\*%&"\* <6?+%@.&" I ?(6?"?'."(%'<B(. I . . "N.,(.B.& +<."% .6.&&+<2/"?'."(%'<B(. I "&) 1 1+<2"&?+,,"N."7.. 1 .7"'\*N." )%7(&5)' .7a"\$%"+,,"(%&' +%6.&" I ?<."?'." %B.&'(@+'\* <" (%6,)7.&"+% "(%'<B(. I "&) 1 1+<2"+&"+% ".4?(N(' '\*"+<.5\*</' '?'." %B.&'(@+'\* < I(," +,&\* (%6,)7." +%2" <.&5\*%&.a" >?. "%B.&'(@+'\* <" 1+2" +,&\* @+'?'<"+%2" <..B+% "' 7\*6) 1 .%'&" +%7" 6\*%7)6" 9\* ,,\* I :)5"\* < <.N)"'+, "(%'<B(. I &/' +&"% .6.&&+<2a""

>?. " 0(B(," C(@?'&" D" >(',." \$E" 0\*\*<7(%+'\* <"

9<\* 1 " '?. " \$%B.&'(@+'\*%a" U%6." '?. " \$%B.&'(@+'\*<" (& &+'(&9(.7" '?+" '?. " <.5\*<" (& 6\* 15,.!./" '?. " \$%B.&'(@+'\*<" I(,,"&)N 1('"'?. "<.5\*<'""\*"'?. "0(B("C(@?'&"D">(',"\$E"0\*\*<7(%+'\*<a">?. "0(B("C(@?'&"D">(',"\$E"0\*\*<7(%+'\*<" I(,,"<.B(. I" '?. " <.5\*<'"+%7"+&&.&&" I?. '?.<" '?. " <.5\*<" 7. 1 \*%&'<+'.&/"N2"+ 5<.5\*%7.<+%6." \*9"'?. ".B(7.%6./"'?'+'V"!]"'?. ".B(7.%6. "&)55\*<'&"'?. "\$%B.&'(@+'\*<A&"9+6')+,"9(%7(%@&i"+%7" \#]" '?. " \$%B.&'(@+'\*<A&" 9+6')+," 9(%7(%@&" &)55\*<' " '?. " \$%B.&'(@+'\*<A&" ),'(1+'." 9(%7(%@" \*9" <.&5\*%&(N,( '2"\*<"%\*%:<.&5\*%&(N,( '2a"

>?. " 0(B("C(@?'&" D">(',"\$E"0\*\*<7(%+'\*<" 1+2"<.X)(<." '?+" '?. " \$%B.&'(@+'\*<" 6\*%7)6"+77('(\*%+," (%B.&'(@+'\*%/" 6\*%&(&'."% I('?' '?. " 5<\*6.7)<.&\*%),'(%."7"+N\*B.a"U%6." '?. " 0(B("C(@?'&"D">(',"\$E"0\*\*<7(%+'\*<" ?+&" 6\*%9<1.7" '?+" '?. " L(%+," C.5\*<" (& 6\* 15,.!./" '?. " 0(B



**K??\$,@'>!C)!K@+?&+67\$!G\$:87- &'8,!J.8%\$@ - .\$.!**

H7+5'+N,."<.&\*,)'(\*%" (&+" B\*,)%'+<2/"<. 1 .7(.&:

f G+<'(6(5+% '&" (%" +7+5'+N,." <.&\*,)')(\*%" 5<\*6.&&.&" 1)&' " N." 5<\*'.6'.7" 9<\*1 " &.6\*%7+<2"  
B(6'(1(d+('\*%" +%7" \*'?.<" 5\*'.%'(+," ?+<1&/" (%6,)7(%@" '?." 5<.&&<." '\*" 5<\*6..7" '?<\*)@?'  
+7+5'+N,." <.&\*,)')(\*%"(%&' .+7"\*0"9\* <1+, "<.&\*,)')(\*%a"

**I7,<#,:\$%& ;%/3\$+#"31&A<#"31/&**

" H% ( %7(<.6'/" 9+6,(+' .7" 6\*B.<&+'(\*% ( %7(B(7)+,," I('?' '?' . 6\* 15,+(%+% '/' '?' . <.&5\*%7.%/' + %7g\* <' \*?' .< 5+<'(6(5+% '&' '\* 7(&6)&&' .45.<(.%6." + %7" 5.<&5.6'(B." + %7" .45,\*<.(%'.<.&'&' I ?(,." I \* <Y(%@'"\* I + <7&" 1 ..'(%@" .45<.&&.7"% .7&a" >?(&' % .@\*('+' .7"5\*6.&&"7\* .&"%\*" <.X)(.<."7(<.6'"(%'.<+6'(\*%N.' I ..%" "' .5+<'(.&"\* <'?' .5+<'(.&' + %7" \*?' .<."5+<'(6(5+% '&'N)" <+'?' .</'(%7.5.%7.%',2" I ('?' + "6\* \* <7(%+ '\* <a"

" H" 9+6,(+' .7" (%'.<+6'(\*%N.' I ..%" "'? .<.&5\*%7.%'" + %7" 0\* ,. .@."9+6), '2"+%7g\* <'&' +99"7.&(@% .7"'\*5\* <\*B(7." +66\*)%'+N,( '2/'&'< )6' )<.7"& )55\* <'/' + %7"?' . " 7.B., \*5 1 .%" \*9" + , .+<%(%" 5,+%a" >?' . 9\*6)&" \*9" + " 0UH" (&' \*' N+,+%6." & )55\* <'/' + %7" +66\*)%'+N,( '2"9\* <+'( %7(B(7)+, " I ?\*?' +&" +6Y\* I . 7@.7"?' .<(\*N,(@+'(\*% "'<.5+<'? + <1 " + %7" I (, (%@% .&&' \*' .% @+@." (%' + %' .7)6+ (\*%+, 5 <\*6.&&a" >?' . " 0UH" 1 \*7., " 7\* .&" %\*" <.X)(.<." 5+<'(6(5+ (\*%9\* <1 "'? . "6\* 15,+ (%+% '/'N)" +&" I ('?' \*?' .<"25.&"\*9"+7+5'+N, .<.&\*, )'(\*%/'( " 1 )&" N."B\*, )%'+<2"9\* <'?' . "6\* 15,+ (%+% "' + %7"?' .<.&5\*%7.%' a"

Q .+& )<.&"?' + " 1 +2"N." +@< . 7"'\* +&" +<.& ), "'\*9"?' . "+7+5'+N, .<.&\*, )'(\*% "5\*6.&&" 1 +2"( %6, )7"V"

f H,6\*?'\*, ".7)6+ (\*% "6,+&&.&"9\* <'?' .<.&5\*%7.%' i"

f C.@), +< 1 ..'(%@&" I ('?' + %' +55\* <5+ (' . "0\* ,. .@." (%7(B(7)+, /' )% ('/' \* <'<.&\*) <6. i"

f G.< 1 + % .%" .4' .%& (\*% "9\* + %\* :6\*% '+6"7 (<.6'(B. i"

f C.&' <(6' (\*% "9\* <1 "5+<'(6(5+ (\*% "(%&5.6(9(6'6), N&" + %7g\* <' \* <@+ % (d+ ' (\*% &i"

f <.&5\*%7.%'" <.&' <(6' (\*% "9\* <1 "5+<'(6(5+ (\*% "(%5+<'(6), +< " .B.%' &i"

f <.&5\*%7.%'" 6\* 15, . '(\*% "9\* + %' .7)6+ (\*%+, 5, + %' I ('?' <.@), +< 1 ..'(%@&" I ('?' '?' . "+7+5'+N, . i" <.&\*, )'(\*% "6\* \* <7(%+ '\* <' \* <' \*?' .< +55\* <5+ (' . "0\* ,. .@.'"&' +99" \* <'9+6), '2" 1 . 1 N. <i" + %7g\* <"

f 0\* )%& ., (%@&.&& (\*% &"9\* <'?' .<.&5\*%7.%' a"

\$%7(B(7)+, &" I ?\* " I (&" \*' "5+<'(6(5+ ." (%' + %' +7+5'+N, .<.&\*, )'(\*% "5\*6.&&" 1 )&" ?+B." & )66.&&9), ,2" 6\* 15, . ' .7" 5<.5+<' \* <2" 1 ..'(%@&" I ('?' '?' . "+7+5'+N, .<.&\*, )'(\*% "6\* \* <7(%+ '\* <' a" \$%7(B(7)+, &" 1 +2"N." +66\* 15+ (% .7"N2" + %' +7B(&.<+" + %2" 1 ..'(%@&"<., +'.7"'\*"'?' . "+7+5'+N, .<.&\*, )'(\*% "5\*6.&&a"

**I7, <# , : \$%& ; %/3\$ + # 31 & IF. % % 0 % 1 # / &**

H%2" +@< . 1 .% '&' <.+6? .7" (%' + %' +7+5'+N, .<.&\*, )'(\*% " 1 )&" N." 7\*6) 1 .%' .7" N2" '?' . "+7+5'+N, .<.&\*, )'(\*% "6\* \* <7(%+ '\* <' + %7" +55\* <\*B.7" N2" '?' . " 0(B(, " C(@?'&' D" >(' ., " \$E" 0\* \* <7(%+ '\* <' \*' .%& )<." 6\*%& (&' .%62" I ('?' '?' . "0\* ,. .@.A&" >(' ., " \$E" \*N, (@+' (\*% &a" H% " +@< . 1 .% " I (, " %\* " N." 6\*%& (7.<.7" B+, (7" 9" '?' . " 0(B(, " C(@?'&' D" >(' ., " \$E" 0\* \* <7(%+ '\* <' 7\* .&" %\* "' +55\* <\*B." ('a" \$9" '?' . " 0(B(, " C(@?'&' D" >(' ., " \$E" 0\* \* <7(%+ '\* <' \* <' 7.&(@% . " +55\* <\*B.&" + %' +@< . 1 .% " +9' .<' '?' . " 5+<'(.&" ?+B." B\*, )%'+<(,2" <.+6? .7"

% .6.&&+<2" '\*9+6(,'+'.'?'<.&\*,)'(\*%/''?' 0\*,,.@." 1+2"N."<.X)(<.7" '\*5<\*7)6."<.6\*<7&"6<+'.7" 7)<(%@"'?'(&"5<\*6.&&"(%<.&5\*%&." '\*"+'b)7(6(+,&)N5\* .%+"\*("<"+"L3CGH".7)6+'(\*%+,"<.6\*<7"<.X) .&'a"\$9" +7+5'+N,.'<.&\*,)'(\*% ("&" '\*55.7" 5<(\*<" '\*6\* 15,.'(\*%/&'+' . 1.%&" 1+7." N2" +5+<'2" (%"+7+5'+N,.' <.&\*,)'(\*% 1+2"%\*"N.")&.7"(%"+7(&6(5,(%+<2"<.&\*,)'(\*%5<\*6.&&"<.,+'.7" '\*"'?'+' 1+'.'<a"

**I7,<#,:\$%&;% 0%7"/&3.&'1#%.C%1#31/&3.&#9%&B3\$\$F%&B3 0 0+1"#@&**

\$%" +77('(\*% " '\*" (%'.<B.%'(\*%&" +55,(.7" '\*" '?."<.&5\*%7.%'/' +7" <.@+<7,.&&" \*9" I?.'?'<" '?'." 0\*,,.@." 5)<&).&+" ;(&6(5,(%+<2" C.&\*,)'(\*%\*" \*"' +Y.&" \*'?'<" 9\* <1+, "7(&6(5,(%+<2" +6'(\*%/' '?'." 0(B," C(@?'&" D" >('," "\$E" 0\*\*<7(%+ '\*<" 1+2" 9(%7("?'.,59), "\*<" % .6.&&+<2" '\*"<.X) .&" \*"<".X)(<."?'<.&5\*%7.%' '\*<" \*'?'<.&" '\*")%7.<' +Y."&5.6(9(6'&' .5&" 7.&(@% .7" '\*" .,(1(%+' . "'?'." 1 (&6\*%7)6'/' 5<.B.%'" ('&"<.6)<<.%6./'+%7g\* < .1.72" ('&" .99.6'&a" 34+ 15, .&" (%6,) 7./" N) "' +<." %\*"' , (1 ('.7" '\*/' '?'." 9\*,, \* I (%@V"

f C.X) .&'(%@"\* "<.X)(<(%@"+" 0\*,,.@." .% ('2" '\*5<\*B(7." "'<+(%@" 9\* "<'&'&'+99" \* "< 1 . 1 N .<&i"

f C.X) .&'(%@"\* "<.X)(<(%@"'?'<.&5\*%7.%' "' \*"<.6.(B." "'<+(%@" @i"

f 0 \*% '(%) (%@" +2" \*9" '?' .5<\*'.6'(B." +7"&) 55\* <'(B." 1 .+&)<.&" 5<.B(\*)&,2" .&' +N, (&' .7i"

f \$7.% '(92(%@"'?' .% . .7" 9\* <"+%2" +77('(\*%+, "\*<" \*% @\*(%@" 1 .+&)<.&/'&) 55\* <'&" +7" <. 1 .7( .&i" \*"<"

f C.B(&(%@" 0\*,,.@." 5\* ,(6(&/' 5<+6'(6.&/' \*"<'& .<B(6.&a"

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