



9\$! ,.(7-!/B3!'3-*!.\$./3@!/?!*4/!*!*! :2;M\$!?!;2!/B3(2!/B23*/.C^!! 15+88.!*23!' ; ;.3'\$!>3?(73>!*!.
'*6.,(/.!/B*!'!4E!.,9./*7/(*!@32(/!6B;.3!.;'3!.;2; ;.3!(./!;1437.;2A!(7/(@(>*/3A!*7>!:'*43!,7>.,3!
?(7*74(*!'9,2>37!;7!(7>())(>,*!.!,7/(!/B3\$!43*.3!.:3*E(7-!42/(4*!'\$C'!!P@:;2/*7/'\$A! 6B('3!/B3\$!
4;7./(/,/3!'3-*!'B*2*..@37A!/B3\$!*23!4';*E3>!(7!*!>*7-32; ;.!*2(!;?!'3-/(@*4\$A!3.:34(*!'\$(?!?'3>!
*-*7./!'!*\$!\$!32.;7!6B;!(.!.(@:'\$!2\$(7-!/?!*..32!/B3(2!(-B/./!;!233!.:334BC'!!DB, A!3)37!/B; ;.-B!
/B;.3!6B;!?'3!15+88.!>;!7;/!.33E!/?!*6(7!/B3!'*6.,(/!(7!*!'3-/(@*/3!.37.3A!/B3\$!.33E!/?!*23...23!
>3?37>*7/!.!6(/B!/B3!' ; ; @ (7-!?'3*2!;?!'3-*!'9(''.A!;2!6;2.3A!,7/(!/B3\$!4;743>3C^!!

T3732*!'\$A!/B3!>3?(7/(;7!;?!15+88.!4;7/*(7./!6;!:.*2/.C=!!U(2./A!/B3\$!B*)3!*!'3-*!'4*(@!;2!/B23*/.!
;?!'3-*!'4/(;7!6B(4B!(7!/B3@.3')3.!*23!*9,.()3!;2!(7?2(7-3!(@:2; :32'\$!;7!*!:32.;7L.l2(-B/!/;!.:3*E!
;7!*!/?;:(4!;?!:9'(4!(7/323./!*7>A!.34;7>A!/B3!4;7>,4/!..,22; ;7>(7-!/B3!(7/(*/(;7!;2!/B3!/B23*!/?!
'3-*!'4/(;7!*9, .3./B3!'3-*!.\$./3@!/?;2!/B3!-*7!;?!/B3!?'(32C^!>!!&7!(./!?'*43A!/B(.!>3?(7/(;7!.33@.!
.(@:'3A!9,/!/B323!B*!.!9337!.(7(?4*7/!>39*/3!*!/?!*6B3/B32!/B(.!>3?(7/(;7!(.!'!?'!374;@:*..(7-!;2!
4'3*2!37; ;.-BC'!'8*2/(4, '*2'\$A!/B*!.!9337!.,--3./3>!*@;7-./!.4B; '*2./B*/!/B3!; ;2; ;.3!;?!/B3!15+88!
.B; ; '>!93!>(234/'\$!3M*@ (73>!6(/B(7!/B3!4;7/3M/!;?!?233!.:334BA!>3@*7>(7-!/B*/!/B3!>(234/!*(@!;?!
/B3!15+88!93!/?!*1.;!.,:23..!?'233!.:334B!*7>7;/!.;@3!;/B32!/?;2@!;?!(7/(@(>*/(;7C^!!+>>/(;7*!'\$A!

93(7-!?'3>!(7! ;7'\$! ;73!\$3*2L.!/@30!;!DB(! 6*.!@(22;23>!(7!?(7>(7-!9\$!/B3!DB;@. ;7!R3,/32.!
U; ,7>*/(;7A! 6B;! ?; ,7>! /B*! 15+88.! B*>! 9337! /B23*/373>! *-*(7./! *'@; ./! B*'?! ;?! *'! @3>(*!
;2-*7(0*/(;7./!B3\$!; ;'3>C!<!!

>*@*-3.A!*@37>(7-!;2!6(/B>2*6(7-!4*(@.!:2!: '3*>(7-.A!*7>!3M: ';/*/(;/7!;?!*::3*!.!:2;43>,23.C"<!+>>(/;7*"\$A! 15+88.! ?23K,37/'\$! 3@:';\$! V@,'/(:'3! '*6.,(/.A! @,'/(:'3! /*2-3/.A! /*2-3/(7-! *7!(7>)(>,*A! 3M43..())3!>*@*-3.! *7>!4*(@.!?;2! @;2*!>*@*-3W! 6B(4B!?,2/B32!4;@:'(4*/3! /B3@A! >3@*7>(7-!3)37!@;23! '3-*! ?33.! ?2; @! /B3(2!*'23*>\$! ; ?/37!,7.; :B(/(4*/3>!>3?37>*7/.C"=!!

!!

N;7.(>32(7-! /B3! :2; ?('3! ;?! 15+88! '*6.,(/.!*7>! /B3! :2; ?('3! ;?! /B3! /\$:(4*!>3?37>*7/.A! 15+88! '*6.,(/.!*23!*!.(-?/(4*7!/ /B23*! /; !?233G.: 334B!*7>!>3@;42*4\$C#>!! 15+88.!7; /!; 7'\$! '*! ; 6! ?; 2! /B3! ., : :23..(;/7! ;?! : 334B!9, /A!9\$!*..; 4*(;/; 7A! /B3! :2; '(?32*/(;/7! ;?! B, @*7!2(-B/.!) ; /*/(; 7.C#!!! P7! /B3! 6; 2./!4*.3.A! /B3\$!4*7!4*, .3!.; !@, 4B!>3. :*(2!*7>! ?3*2! /B*! /B3\$! '3*>! /; !/B3!>3*B! ;?! /B; .3! /2\$(7-! /; ! :3*E! ; :C#!! H.(7-! *92, : /! *7- , *-3A! /B3! 1, :23@3! N; , 2! /; ?!] 3 6! ^ ; 2E!>3.42(93.! 15+88.! * .A! V.B; 2! ;?! *! -, 7! /; !/B3! B3*>A! *! -23* /32! /B23*! /; !; U(2. /! + @37>@37! /3M: 23..(; 7!4*7!.4*243'\$!93!(@*-(73>CW##!!! P7!., @*@(;/; 7A! 15+88.!7; /!; 7'\$! *! /4E! ? , 7>*@37/*! '2(-B/.A! 9, /! *! /B3(2!4; 23! /B3\$! , 7>32@ (73! /B3! .\$/3@! /B*! /!(. >3.(-73>! /; !:2; /34! /B; .3! . * @3!2(-B/.0! /B, .A! /B3\$! *23!*!>; , 9'3G3>-3>! /B23* /C#>!! +. /B3! IHL.'!3-(.'* /, 23! B* .! / * /3>A! V_>3@; 42*4\$!23K, (23. !/B*! /4/(037.! *23! *9'3! /; !: *2/(4: * /3! *4/()3'\$! (7! : , 9'(4!>39* /3! 6(/B; , /! , 7>, 3!(7/32?323743!C!C!C!4/(037.! @ , . /!93! *9'3! /; !*443..!23' *9'3!(7?; 2@* /; 7A! 6B(4B!37*9'3. /B3@! /; !?; 2@! /B3(2! ; 67! ; (7; 7.! *7>!3M324(.3! /B3(2! ; 67! Y, >-3@37! /!(7! *! ; , 9'(4! . : *43! C!C!C! ?233'\$CW#9!! DB, .A! /!(. 142/(4*! /B*! /@34B*7(. @. !93! ; , /!(7! : '*43! /; !* >>23..! 15+88.! (7! *7!3??34/()3! 6*\$! /B*! />; 3.!7; /! , 7>, '\$!9, 2>37! /B3!>3?37>*7/.! ; 2A!(7!23)32.3A! ;)32'\$!63*E37!>3?*@* /; 7! *6C#! +7/(G15+88!'3-(.'* /; 7! /B*! /:23)37/ .A! :37*(03.A! ; 2! :2;)>3.! *4/(; 7! *-(7. /! 15+88.! B* .! 9337! : (; 73323>! (7! N*7*>*A! *! 63'! *! .!(7! *! '(@/3>!4* : *4/\$! (7! + , . /2*'(C#>!! # , /A! /B3! HC1C!B* .! :32B* .! @* >3! /B3! @ ; . /! /23@37>; , .!3??; 2!(7! :2; '(?32*/(7-! +7/(G15+88!'3-(.'* /; 7A! :2;)>(7-! *7!3M43''37! ?2* @3 6; 2E! ?; 2! , 7>32. / *7>(7-! /B3! I , 2; :3*7! H7(; 7L. !<IH= ; 7G- ; (7-! '3-(.'* /)3! @ ;)3. /; ; 6*2>. /B3! HC1C! .! +7/(G15+88! .\$/3@C#<! ! DB(.! 4; @ @37! 6('! >(.34! /B3! >3)3' ; : @37! ; ?! +7/(G15+88! '3-(.'* /; 7! (7! /B3! IH! 6(/B(7! /B3! *2-32!4; 7/3M! ; ?! /B3! HC1C! .! @ ; >3' C#>!! U, 2/B32A! /B(.! *2/(4'3! 6('! *7*'\$03!B; 6!3??34/()3! /B3.3!4B*7-3. !B*)3!9337! *! />.4; , 2*-(7-! 15+88.! *7>A! *! /B3! IH! B* .! @ ;)3>! /; !? (7*! (0(7-! *! , 7(; 7G6 (>3!)32. (; 7! ; ?! +7/(G15+88!'3-(.'* /; 7A! /B(.!4; @ @37! /6('!4; @ : *23!B; 6! /B3! HC1C!A! 6B323! /B(.! '3-(.'* /; 7! :2(@*2('\$! ; 2(-7* /3>A!4*7! '3*27! ?2; @! /B3! IHL.! * >) *743@37/.C\$>!!! J B37! 4; @ : *2(7-! /B3! HC1C! .! * > @ (/3>'\$! : * /4B 6 ; 2E [9, /!3M/23@3'\$! :2; G>3?37>*7/ [+7/(G15+88! . / * /, /3.!

2 "b'D+345"=2*"5"2<,4"B/"

2 "U*#3')@; DD'I5=#=43'ABAA'53\$'ABAVS"=2*"5"2<,4"Q"

30"6#9<2"4,"\$5"=2*"5"2<,4"\"c/"

31")@; DD=9'; . , "#56'6%' : #&%+ "5+<' I%36432#='6%'7 "%M5"=2*"5"2<,4"\"W/"

32" I%&&4=4%3'> #0+%&#='D%0464+50'; F"##ŭ"=2*"5"2<,4"\"g/"

33" 7%"\$3'8P'O5""3#5"BgA'N/] /6/@3"WQg5"WBV"MN/] /6)S"1,/"\gg@R/"

34"\"L\$P''

35" D""%#=50'(%""5' : 4"#+648#%('6, #'G2""*#53'D5"045ŭ"=2*"5"2<,4"\"g/"

3 "L\$P''

3 " . , #'H=#%')@; DD='6%')40#3+#'N%2"3504=6=5"=2*"5"2<,4"\"@C" : #(#3\$43F' : #(#3\$#"'=9' I , 500#3F43F'O504+4%2='@5M=246='43')%26, #5=6' ; =45I_ 84/, P, J 8 6/, G%4/, G14/, 1% * /M 7 'D' ; '@A@AR' ; ,S+-TTS4D9 ' / : :TW_6aU I XQEC' I ""*%#56#'#F50' ; ++%2365?4046<' /#=#2"'+#') , ##69' ; 364E)@ ; DD'@#F4=0564%35" _ 84/, P, J 8 6/, G%4/, G14/, 1% * /M # : , /"V5'@A@YR5" ; ,S+-TTS4D9 ' / : :T.BZ] UdBVV"

3 " . , #'H=#%')@; DD='6%')40#3+#'N%2"3504=6=5"=2*"5"2<,4"\"@/"

3 "L\$P''

40" D""%#=50'(%""5' : 4"#+648#%('6, #'G2""*#53'D5"045ŭ"=2*"5"2<,4"\"gC" e\D` J 4D[4D,+<25" ; 3'L3E : *#6, '@%%X'56' I%3F"'#=#&53' /5=X43K='! #S#"50' ; 364E)@ ; DD'@#F4=0564%35"E&*%3 *2A 3%4.F' %f/, M64S,/"\g5"\"@A@R5" ; ,S+-TTS4D9 ' / : :TBC I eUWZ1 1C" #S%&4D" e4++42[D<: `5" : %3K6'@#6' . , #&')@ ; DD'\ %2' ; ""23\$9' . , #' I5=#'(%""! #S#"50' ; 364E)@ ; DD'@#F4=0564%35" 8/F/1 /, > /, G15/,

!

/;!/B3! IHL.!3??;2/.!?!;2!,7(?;2@!+7/(G15+88!*6.!*42;...!9;2>32.A!/B3!./237-/B.!;?!9;/B!3@32-3C\$!!
832B*:.!@32-(7-!/B3!;2;G>3?37>*7!/; ,/'; ;E!6(B!(7/327*/(;7*'!3??;2/.!4; , '>!/2, '\$!(932*/3!/B3!-' ;9*!
: ,9'(4L.!; ; 632!;?!/B3!;23..C\$!!

!
>>B DB9B! 7)%(89 : 7 '''' : &;(0.-%(\$)4! 7)!EF- + () - %(\$)!\$G!H&F-0I0!''#\$8J&G&) / -)%! < \$ / & .! \$G!
: &;(0.-%(\$)K!>%I0!2\$)%&)%K!>)%&# @ # & % - %(\$)K! -) / ! 2 \$) 0 & L C &) ' & 0!

!

DB3!HC1C!(.!7;!. /2*7-32!;/!/B3! , .3! ;?!/B3!'3-*!.\$./3@!93(7-! , .3>!?;2!(7/(@(>*/(;7A!*.!15+88!
'*6. , (/!B*)3!./23/4B3>9*4E!(7!HC1C!B(/;2\$!?!;2!;)32!Sbb!\$3*2.A!(' , ./2*/(7-!/B3(2!;23)*'3743!(7!/B3!
'3-*!.\$./3@C\$#!!Z3.:(/3!/B(!';7-!B(/;2\$A!/B3!?!;2@*!'!234;-7/(;7!;?!15+88.!*7>!6B*!/B3\$!
>3?(7/(;7*'!\$!4;7./(/;3!(.!/'!*7!;7-;(7-!>39*/3!*@;7-./!) *2(; , .!./*/3!'3-(.'*/;2.C\$#! JB('3!(/(!!
/2,3!/B*!/;/B3!2!4; , 7/2(3.A! , 4B!*!.N*7*>A!B*)3!37'(/3>!+7/(G15+88!*6.!93?;23!/B3!HC1C!A!/B3!HC1C!
@ ;>3!*2- , *9'\$!B*!.! ; @3! ;?!/B3!2(4B3./!4* .3!'*6(C\$9!!+>>/(;7*'!\$A!(/!B*!.! ; @3! , 7(K,3!?*4/;2./B*!/!
@ (22;2!/B3! IHL.!4,2237/!.(/ , */(;7A! . :34(?4*'!\$/B*!/B3!+7/(G15+88!*6.!(7!9;/B!4; , 7/2(3.!23K, (23!
/B*!/B3!(7>3:37>37/!./*/3.A! ;2!(7!/B3! IHL.!4* .3!4; , 7/2(3.A!2*/(?\$!*!)32.(;7!;?!/B3!'3-(.'*/(;7!
(7>())> , *!'\$(7/;!/B3(2!.3:*2*/3!4;>3.!2*/B32!/B*7!37'(/(7-!;73! , 7(?;2@!4;>3!?!;2!*!6B;'3!4; , 7/2\$!
;2!23-(;7C\$! N,2237/'\$A!/B; , -B!/B323!*23!/B(2/\$G

!

c!

>3?(7(/(;7!;?!/B3!V3M324(.3!;?!/B3!2(-B/!;?!?233!. :334BW!6*.!B3'>!;/;!93!V7;/!?, '\$!4;3M/37.())3!6(/B!
/B3!4;7./(/,/(;7*!C!C!C!2(-B/W!9, /!*!2(-B!/B*!/6*.!@;23!?*4/G(7/37.())3C:'!"

!

P7!. , @*%/ (; 7A!4 ; @@ , 7(4*/ (; 7.!*23!*!@*//32! ; ?! : , 9'(4!4 ; 74327!6B37!/B3\$!4*7!V93!?!*(2'\$!4 ; 7.(>323 >!
 * .!23'*/(7-! / ; !*7\$!@*//32! ; ?! : ; ' / (4*!A! . ; 4(*'! ; 2! ; /B32!4 ; 74327! / ; !/B3!4 ; @@ , 7(/ \$W! ; 2! 6B37! (/!V (.! *!
 . , 9Y34! / ; ?! - 3732*! (7/323 . /! *7 > ! ; ?!) * ' , 3! *7 > !4 ; 74327! / ; !/B3! : , 9' (4CW : #! !8 *2 / (4 , ' *2 '\$A!4 ; , 2 / .!4 ; 7.(>32!
 V4 ; 7/37/A! ? ; 2@A! *7 > !4 ; 7/3M/W! ; ?! /B3!4 ; @@ , 7(4* / (; 7C : \$! !P / (. ! (@ : ; 2 / *7 / ! ; !93! @ (7 > ? , ' ! ; ?! /B3! ? *4 / !B* /!
 D3M* .!V' ; ; E . _ ! / ; !/B3!37 / (23!4 ; @@ , 7(4* / (; 7! * . !63'!' * . ! /B3!4 ; 7/3M / ! ; ?! /B3!4 ; @@ , 7(4* / (; 7! (7! 6B(4B!
 /B3! * ' '3 - 3 > '\$! > 3? * @ * / ; 2\$! . / * / 3 @ 37 / (. ! @ * > 3CW : 9! !1 (@ (' *2 '\$A! 6B3 / B32! *! @ * //32! ; ?! : , 9'(4!4 ; 74327! (. !
 > 3/32 @ (73 > !9\$! /B3!37 / (23!4 ; 7/3M / ! *7 > ! . , 22 ; , 7 > (7 - !4(24 , @ . / *743 . ! ; ?! /B3!4 ; @@ , 7(4* / (; 7C : ' ! !DB , .A!
 @ * //32 . ! ; ?! : , 9'(4!4 ; 74327! *23!B (- B '\$! ? *4 / G (7/37 . () 3! / ; ! > 34 (> 3C : ' !

!

DN8 + ! * ' . ; ! > 3? (73 . ! @ * //32 . ! ; ?! : , 9'(4!4 ; 74327! (7!23 . : 34 / ! ; !6B ; @ / B3! . : 334B! 6 * . ! *9 ; , /A!4 ; 7.(>32(7 - !
 . : 334B! *9 ; , /V : , 9'(4! ? (- , 23 . W! ; 2!V' (@ / 3 > ! ; , 9'(4! ? (- , 23 . W! / ; !93! @ * //32 . ! ; ?! : , 9'(4!4 ; 74327C : < ! ! J B ('3!
 /B3!DN8 + ! > ; 3 . !7 ; /! : 2 ;) (> 3! * ! > 3? (7 / (; 7! ? ; 2! /B3! / 32 @ !V : , 9'(4! ? (- , 23AW! (/ !B* . !9337!234 ; @@ 37 > 3 > !9\$!
 4 ; , 2 / . ! / ; ! , 7 > 32 . / *7 > ! /B3! / 32 @ !V : , 9'(4! ? (- , 23W! (7!23' * / (; 7! / ; !U(2 . ! / + @ 37 > @ 37 / !4 * . 3 . C : ' ! !H7 > 32! /B3!
 DN8 + ! /B323! *23! / 6 ; !4 * . . 3 . ! ; ?! V : , 9'(4! ? (- , 23 . W! ! < " = ! - 3732 * 'G : , 2 : ; . 3! : , 9'(4! ? (- , 23 . A! 6B ; ! *23!
 (7 > () > , * ' . !6B ; !V *4B(3)3! . , 4B! : 32) * . () 3! ? * @ 3! ; 2!7 ; / ; 2(3 / \$! /B* / ! /B3\$`!934 ; @ 3 _ !C!C!C! : , 9'(4! ? (- , 23 _ . `!
 ? ; 2! * ' ! ! ; , 2 : ; . 3 . ! *7 > ! (7! * ' '4 ; 7/3M / . WQ! *7 > ! < S = ! ' (@ / 3 > G : , 2 : ; . 3! : , 9'(4! ? (- , 23 . A! 6B ; ! *23! : 32 . ; 7 . !6B ; !
 V/B2 , . / ! /B3 @ . 3') 3 . ! / ; ! /B3! ? ; 23?2 ; 7! / ; ?! : *2 / (4 , ' *2! : , 9'(4!4 ; 7/2 ;) 32 . (3 . ! (7! ; 2 > 32! / ; ! (7? ' , 3743! /B3!
 23 . ; ' , / (; 7! ; ?! /B3! (. . , 3 . ! (7 ;) ') 3 > W! ; 2! /B ; . 3! 6B ; !) ; ' , 7 / *2 ('\$!V(7Y34 / ! /B3 @ . 3') 3 . `!C!C!C! (7 / ; ! * ! : *2 / (4 , ' *2!
 : , 9'(4!4 ; 7/2 ;) 32 . \$!C!C!C! * . . , @ _ (7 - `! . : 34 (*'! : 2 ; @ (73743W! /B2 ; 6(7 - ! /B3 @ . 3') 3 . ! (7 / ; ! /B3!V) ; 2/3M! ; ?!
 _ * ' ! : , 9'(4! (. . , 3CW < > ! !Z3/32 @ (7(7 - ! (?! * ! : 32 . ; 7! (. ! * ! - 3732 * 'G : , 2 : ; . 3! : , 9'(4! ? (- , 23! ; 2! (@ / 3 > G : , 2 : ; . 3!
 ? (- , 23! (. ! * ! @ * //32! ; ?! * 6! > 34 (> 3 > !9\$! /B3!4 ; , 2/C < ' !!

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D ; ! > 34 (> 3! 6B3 / B32! * ! : 32 . ; 7! (. ! * ! ' (@ / 3 > G : , 2 : ; . 3! : , 9'(4! ? (- , 23A!D3M* . !4 ; , 2 / . ! * : : '\$! * ! /B233G : *2 / ! / 3 . / %!
 < " = ! /B3!4 ; 7/2 ;) 32 . \$! * ! / (. . , 3! @ , . / !93! : , 9'(4! (7!9 ; /B! (/ . ! > 39 * / 3! *7 > ! (@ : *4! ; ?! / (. !23 . ; ' , / (; 7Q! < S = ! /B3!
 : ' * (7 / (?! @ , . / !B*) 3! @ ; 23! /B* 7! * ! / 2 () (*'! ; 2! / *7 - 37 / (*'! 2 ; '3! (7! /B3!4 ; 7/2 ;) 32 . \$Q! *7 > ! < X = ! /B3! * ' '3 - 3 > !
 > 3? * @ * / (; 7! @ , . / !93! - 32 @ *73! / ; !/B3! : ' * (7 / (?! . ! : *2 / (4 : * / (; 7! (7! /B3!4 ; 7/2 ;) 32 . \$C < " !N ; 7Y , 74 / () 3 '\$A!
 23 - *2 > (7 - ! - 3732 *'

(7/323./!(7!/B3@C<#! #2;*>37(7-!/B3.3!4*/3- ;2(3.A!4; ,2/.!B*)3!(>37/(?3>!*!V42/(4*!4;7.(>32*/(;7W!
!.!6B3/B32!/B3!:'(7/(?!VB*>!/*E37!*??(2@*/())3!./3:./!/*//2*4/!:32.;7*!*///37/(;7!;2!B*>!./2()3>!/*!
4B(3)3!!@3*.,23!;?!:,9'(4!

4;@@,7(4*/(;7!(.l4;7./(/,/(;7*"!\$:2;/34/3>!(.l4;7.(>323>!(7!/B3!.34;7>!. /3:;!;?!/B3!DN8+!*7*'\$.(.0!
U;2!3M*@:'3A! 6B3/B32!/B3!4'*(@*7!/B*!.!3./*9'(.B3>! *! :2(@*!?*4(3!4*.3! /;!>3?3*! *! @;/(;7! ?;2!
>(. @(. .*'c='!!+'/B; , -B!/B3!DN8+!234; -7(03.!/B*!/B3!3M324(.3!;!4;7./(/,/(;7*!2(-B/!(.!. ;@3/(@3.!
23'*/3>!/;!:*2/(4(:*/(;7!(7!- ;)327@37/A!

!

:2;'(?32*/(7-!(7!/B3!*9.3743!;?!*!,7(?3>!. \$./3@C'!!;!!1:34(?4*''\$A!*./B3!H7(/3>! i (7->;@!B*.'!3?!/B3!IH!(/B*.'!934;@3!*!23K,37/!*2-3!/;?!?;2,@!.B;:::(7-!:*2/(3.A!B(-B'(-B/(7-!7;!/;7'\$/B3!V42;..G9;2>32W!(..,3!6(/B(7!/B3!IH!9,/!6(/B(7!I,2;:3!*!'*2-3C'!<!!

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"S!

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1(743!/B3!-3732*!?!;4, .!;?!/B3! IHL.!:2; ; . *!B* .!9337!; , /'(73>A!(/!(.!(@ : ; 2/*7!/; !, 7>32./ *7>!Y, .! /!
* .!/B323!(. !>39*/3!23- *2>(7-!B; 6!(/!(/!(7/32:23/3>A!/B323!(. !*'. ; !>39*/3!- ; (7-!; 7!B; 6!(@ : *4/? , '!(/!
6('!93!*-*(7./!15 + 88.C^{!99}!!U(2./A!(/!(. !3. .37/(*!;! : ; (7/!; , /!/B*!/7; !@*//32!B; 6!3??34/()3!(/!(. !* .!*

"a!

N;'34/()3'\$A!*'!;!/?/B3.3!:2;.!;?/B3!:2;.;.*!.:3*E!/;6*2>./B3!IHL.!4;@@(/@37/V;/B3!:2;/34/(;7!
;?!?,7>*@37/*'!2(-B/.*7>!233!..334B0!:<!!#\$.33E(7-!/;!/4E'3!15+88.!(7!.,4B!*!92;*>!6*\$!/B3!
IH!43@37/.!/B3!IH.! :;'/(/4*'! :;./(/;7! ./2;7-'\$(7! ?*);2! ;?! 3..37/(*'! >3@;42*/(4! :2(74(:'3.A!
37.,2(7-!/B*!/ :;9'(4!>39*/3!*7>! :2;-23..!4*7!93!@*>3!(7! I,2; :3! 6/B; ,/! ?3*20! :=! #\$.33E(7-!/;! :

4*/3- ;2(0*/(/;7!!/B*/!(.!. ,9./*7/(**'\$!7*22; 632!/B*7!(7/(/*'\$!37/32/*(73>C!<!!DB3!73 6!>3?(7/(;7!'(@(/.!
V42; ..G9;2>32W!4*/3- ;2(0*/(/;7!/;!(/, */(/;7.!6B323!:*2/(3.!*23!.(@:'\$!>;@4('3>!(7!>(??3237!/!@3@932!
./*/3.C!<!!DB(.!23)(.;7!>())32-3.!?2; @!/B3!@;23!7, *743>! *7>!92; *>32!V42; ..G9;2>32W!>3?(7/(;7!
6B(4B!; ;.(/3>!/B*/!*!4*.3!6*!.!V42; ..G9;2>32W!(?!(/!6*!.!*4/, *'\$!.(-7(?4*7!/!*42; ..!9;2>32.C!<!!+ .!
7;/3>!9\$/B3!N; *'(/;7! + -*(7./!15+881!(7! I ,2; :3!<N+1 I=!, 7>32!/B(.!>3?(7/(;7%V;?!C!C!C!adb!
I ,2; :3*7! 15+88! 4*.3.!C! C! C! ;7'\$! "b I! 6 ; , '>! K, *(? \$! *!.! e42; ..

!

:2;)(.;7.!(7!/B3! INL.! :2; ;.3>!>(234/())3A!9,/!2*/B32!9,('>.! ;7!/B3@! /;!37.,23!2;9, ./!
:2;/34/(;7.!*23!(7!:'*43!*-(7./!15+88.!(7!I,2;:3C!#!

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J B('3!/B3.3!4;74327.!*23!3)(>3743! ;?!*!>33:!?2(4/(;7!93/6337!*4/())(.!.*7>!/B3!'3-(.'*/,23!/B(!
?2(4/(;7! @(-B/! 93! .(@:'\$! *7! (7B32(! 4B*'37-3! ;?! *7! (7/327*/(;7*!' *6! 6(B/! ' ;?/\$! *(@.C!#!
&2-*7(0*/(;7.!(E3!/B3!IH!*7>!/B3!H] !B*)3! ;7-!?*43>!>33:!. \$./3@4!(..,3.!4;74327(7-!@*7*-(7-!
(7/327*/(;7*!' - ;)327*743A!9;/B!(7!/B3!37*4/@37/!*7>!/B3!'3-(.'*/())3!.(>3! ;?!/B3!(..,3C!P@: ;2/*7/'\$A!
/B323!*23!4;7/3M/, *!'K,3./(;7.A!Y,2(.>(4/(;7*!'K,3./(;7.A!*7>!K,3./(;7.!*9; ,/!B3!/2,3!3??(4*4\$! ;?!/B3!
'3-*!'\$. /3@!(7!. ,4B!>())32.3! .:*43.C!#!DB(.!3M*4/! :2;9'3@!B*!.!9337!7;/3>! (7!/B32!@ ;23!* : *237/'\$!
(7/327*/(;7*!' /; : (4.! ,4B!* !/B3!4\$932. : *43C!#! ^3/A!B(!'3-(.'*/(;7!*7>! :2;9'3@!(.! ,7(K,3!934* ,.3!
;?/37!/B3! 4B*'37-3! ;?! (7/327*/(;7*!' *6!23) ;')3.! *2; ,7>!/B3! ., : :23. (;7! ;?! 2(-B/! 9\$! -' ;9*!
: ; 632B; ,.3.! ,4B!* !NB(7*A!*7>! (7!/B(!4*.'3!/B3!' *6!(7!K,3./(;7!(.!.33E(7-!/B3! ; : ; .(/3!23. ,/C!#!
D; -3/B32A!/B3! .:*43! ;?! (7/327*/(;7*!' *6!B*!.!9337!7;/3>! /; !93!(7!*! :32(>! ;?!? ,M!*7>!>3)3' ; : @37/A!
. ; !. ,4B!4;7?'(4/(!./; !93!3M:34/3>C!#!

!

P7!/B3! :32. : 34/()3! ;?!(7/327*/(;7*!' *6!*7>!*?/32! ; ,/(7(7-!/B3.3!4B*'37-3. /; !/A!/B3! :2; ; .*'!./('!
B*!.!(-7(?4*7/! ., : ; 2/!?2; @!4; ,7/2(3.!/B*/! 6*7/!*!9*!*743>! * : :2; *4B!., 4B!*!.!V+ ,./2(*! n ,7-*2\$A!
1' ;)37(*A! T32@*7\$A! 8; *7>A! P/*\$A! N2; /*(*A! 5(B, *7(*A!] 3/B32*7>.A! 5 ,M3@9; ,2-A! 1' ;) *E(*A!
I./; 7(*A!# , '-*2(*!7>!T23343CW!#!D; -3/B32A! 6B('3! :32B* .!7; /!* !./2; 7-! ;2!* !.3??34/()3!* !*4/())(.!
B*>!B; : 3>A!(/(!.!7; !>; ,9!/B*/!/B3! :2; ; ; .*'!(.'*/!'3*.'! !./3:!(7/; !*!?, /,23!/B*/!37. ,23.!2(-B/! !? ;2!
*'C!#!<!!!

!

>OB 2\$+@-#-(P&!7) -.?0(04!ED!P0B!D9B!

!

P/!(.'* : *237!/B*/!B3!IH!*7>!/B3!HC1C!B*)3!/6 ; !.3: *2*/3!* : :2; *4B3.!6B37!(/!4; @3./; !+7/(G15+88!
6(B/! /B3! IHA! 6B('3! -3732*' '\$! ?; ' ; 6(7-! /B3! HC1CL.! ?; ;./3: .! (7! ., : ; 2/(7-! :2; G>3?37>*7/!
'3-(.'*/(;7A!B*!.!*!@ ;23!, 7(?; 2@!>(234/())3!(7!4; @: *2(. ;7!/ ;/B3!HC1C!#!1 : 34(?4*' '\$A/B(!.!'* : *237/!
7; /! ;7'\$! ?2; @!/B3!>(??3237/! ?; 2@. ! ;?! - ;)327*743A!9, /!*' . ;! ?2; @!/B3!HC1C!>34'(7*/(;7!/ ;!423*/3!*!
'3>32*'(03>!)32.(;7! ;?! +7/(G15+88C!#!>>!! DB3! '*4E! ;?! ?3>32*!' !./*/ ,/3! (7! 4; 7Y, 74/(;7! 6(B/! /B3!

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;2! 4;2: ;2*/3! ./2,4/,23! (.!

"h!

(/! ?33' !@ ;23!/B*7!* : *237!/B*! 6(/B! ?3 6!3M43 :/(;7.! :2;G>3?37>*7! +7/(G15 +88!./*/ ,/3.!*23! :2;G >3@ ;42*/(4!./*/ ,/3.C"!#!!!

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P7!4;7.(>32*/(;7! ;?/!(.!*..32(/;7A!/B3! IHL.! ,7(?;2@(/\$A!(7/327*/(;7*! ; ,/ ; ;EA!*7>!. , : ;2/()373..! ;?!>3?37>*7/..!*7>!/B3! 3>,4*/(;7! ;?/!B3! '3-*! ?(3'>A! (7!4; @9(7*/(;7! 6(/B! /B3! HC1C! . :34(?4*''\$! >3?(73>A! ?*4!(7/37.()3A!*7>!4* .3!*6!/3./3>!DN8+!4; , '>! ?;2@!/B3! :*/B6*\$! ?;26*2>C"!\$!! ^3/A!* .!/B3! HC1C!.33@ .!23' ,4/*7!/! ;!*> ;:/!3)37! ?3>32*! .?*3- , *2>.! ?;2!15 +88.A!/B3! H1!*> ; :/(7-! *7!(7/327*! ; ,/ ; ;E!.33@ .!-2(@C"!9!!+ .!/B3!'3-(.'*/(;7! :2; -23..3.!(7!/B3! IH! /; 6*2> .!2*/(?4*/(;7A!B; 63)32A!(/! 6('! 934; @3! * : *237!/ B; 6! /B3! IH! 6(.B3.! /; ! - ; ! ?;26*2>A! * .! 3(/B32! :2;G>3?37>*7! ;2! :2;G 437. ;2.B(:C"! :!!

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OB 2\$)'.C0(\$)!

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N; ''34/()3'\$A!(/!(. !374; ,2*-(7-!/B*!/B3! IH!*7>!@*7\$! ;/B32!4; ,7/2(3.!*23!.33E(7-!/! :2;/34!/?233! . :334B!/B2; , -B!*4/()3! '3-(.'*/(;7C"! :!!P7! ; ,2!3)32G4; 7734/3>! 6;2'>A! 37B*74(7-! .*?3G- , *2>.! ?;2! Y; ,27*'(./ .A!(7)3./(-*/;2.A!*7>!(7>())(> ,*! .!/B*!/B*)3!9337!)(4/(@03>!9\$!15 +88.!37. ,23.!*!?' ; 6! ;?! (7?;2@*/(;7! 6B323!(/! ;/B326(.3!@(-B!/93!.('3743>C"!<!!DB3! IH!3. :34(*''\$!.B; 6 .!B; 6!(7/327*/(;7*! 4; ; :32*/(;7!4; , '>!93!/B3! E3\$(7! ?;26*2>(7-!2(-B/! .*7>A! (7!4; 7Y, 74/(;7A! *'' ; 6(7-!B, @*7/(*2(*7! 42(@3.! /; !93! ?233'\$! . : ;E37! , : ;7C"! =!!U, 2/B32@ ;23A! >3. : (/3! . ; @36B*!/ >())(>3>A! /B3! HC1CL.! :2;G >3?37>*7! +7/(G15 +88! '*6 .! B*)3! *'23*>\$! 9337! , .3>! /; ! -23*!/ 3??34/C"">!! F ;)(7-! ?;26*2>A! *! . \$7/B3.(. ! ;?/!B3! :2;