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"#\$%&'()*+,-./:0 1 2 3 4 5 \$! 3 - 6 & & 7! 8 7) 9 (% #:) 7 7! & ; ! ") < 6 % \$ = !
3 6 ; %) . < ! > (' (/) < 9 \$! ; ' & 9 ! > , .) \$ 6 9 # . % ! % & ! ? # (7) . <

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"#\$%&'()*+,-.! ! ! ! ! ! ! ! ! ! /!

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"0.-12#-! ! ! ! ! ! ! ! ! ! ! ! ! ! 3!

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4%-1&*5#-6&%!! ! ! ! ! ! ! ! ! ! ! ! ! ! 7! !

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86-)12-51)!9):6) ' ! ! ! ! ! ! ! ! ! ! ! ! ! ! ;!

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<2#\$+1&5%*! ! ! ! ! ! ! ! ! ! ! ! ! ! =>!

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"#\$%&'()*+,-.:/:;<=>?@

! @AB-\$B!+-!-\$C'B!\$!4+##\$/ '!'-!%\$+B'!\$!*D+#,;-D+B!9%.E'*-!F.A#,!(.-!D\$4'!* .5'!'-.!G%A++.(!
F+-D.A-!-D'!BA99.%-!.G!5\$(7!9'.9#'!;G.%!FD.5!H!\$5!4'%7!/%\$-GA#!134'%7.(!'!+(!-D'!0!\$(!\$(,!
3(4+%.(5'(-\$#!6.#+*7!\$(,!3,A*\$\$.(!,'9\$%-5'(-B!\$-!)**+, '(-\$#!" .##'/'!D\$B!1''(!+(-'/%\$#!-!57!
\$*\$, '5+*!, '4'#.95'(-!,A%+(/!57!+5'!\$-!)J7I!KD\$(C!7.A!-!57!\$,4+B.%!G.%!-D+B!9%.E'*-;!
6%.G'BB.%!LD\$4(\$!MD\$5\$BA(,%;!G.%!\$##!D'%/A+,\$(*'!\$(,!\$(!+(*%'+1#!\$5.A(-!.G!9\$+>(*',A%+(/
BA*D!\$!-A5A#-A.AB!+5'I!6%.G'BB.%!N+*D\$%,!O.%\$!.G!-D'!M.*+.#./7!, '9\$%-5'(-!\$(,!6%.G'BB.%!
KD\$#!\$!P.(QR#'Q!.G!-D'!)**+, '(-\$#!6.#+*+*B!, '9\$%-5'(-!\$(,!F'(-!\$1.4'!\$(,!1'7.(,!-!.BA99.%-!5'
+(!-D+B!F.%C!\$(,!9%.4+',!B.!5A*D!4\$A\$1#!'+(B+/D-!\$(,!G'' ,1\$*CI!KD\$(C!7.A!\$B!F'##!-!.6%.G'BB.%!
N.(\$#,!M.#S%Q\$(,!\$(,!6%.G'BB.%!T\$O.(-!K'%7!G.%!*D\$##'(/+(/!FD\$-H!-D.A/D-H!C('F!\$1.A-!FD\$-!
',A*\$\$.(!BD.A#,!1'I!MD.A-.A-!-!57!036!9''%*.55A(+7;!.(!'FD+*D!D\$B!/+4'(!5'!B.5'!.G!57!
#.B'B-!G%+'(,B!FD.!D\$4'!1''(!B.!('.A%\$/+(/!-D%.A/D.A-!-D+B!9%.*'BB!'4'(!B!-D'7!F.%C',!-!
G+(+BD!-D'+%!F(!U\$5\$Q+(/V!B'(+.%!-D'B'B!\$\$(,!-!'4'%7.(!'FD.!5\$C'B!A9!57!F.(,%GA#!BA99.%-!
B7B-'5!I!KD\$(C!7.A!-!.O+D+#\$!"D\$(,%\$;!@A,+D!6+(*D!\$(,!D\$%#7('!M\$5+'(-!.G!-D'!)J7!
W%++(/!"'(-'%!G.%!-\$C+(/!-D'!+5'!'-.!9%..G%'\$,!-D+B!-'J-!B.!-D.%A/D#7X!HY,!#-C'!-!'J-'(,!\$!DA/'!
-D\$(C!7.A!-!.!\$##!-D'!9'.9#!!FD.!H!+(-'%4+'F',!.%!'(/\$/' ,!+(!,+\$#. /A'!F+-D!\$1.A-!-D+B!9%.E'*-;!H!
*.A#, (Y-!D\$4'!,.('!'!+!F+-D.A-!7.A!\$##!\$(,!7.A#!BA99.%-!5'\$(B!-D'!F.%#,!-!.!5'IH!\$#B.!F\$(!-!.!

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"0.-12#-!

H(!<=>?;!-D'!T.B!8 (/ '# 'B!O (+G+', IM*D. .#! [+B-%+*-!UT8 OM [V!4. -', !G. %!-D'!9\$BBS/ '! .G!\$!

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4%-1&*5#-6&%!

!!!!!!! M*D. .#!, +B*+9#+('!(\$, !B*D. .#!BSG'-7!D\$4'!1 '* . 5 '!D. -! . 9+*B!+(!%' * ' (-!7' \$%B!UL% . F (!<=<=<c!
d\$%9' %!<=<=<c!M-' % (!\$(, !N. / ' %B!<=>ec!M\$ 5 \$D\$!<=>fc!d+%B*DG+' #, !<=>fc!P%' / . %7;!MC+1\$;!2!
O' , %+\$-\$!<=>:c!) C+#F\$;!&D\$#+G\$;!2 !L%+B* . ' !<=>:c! [+#1 '%-+;!d\$(B' (;!@\$*CB. (;!\$(, !&' 59!<=>:c!
d'+Q' /!<=>`c!M*D'9-;!W\$##;!2 !L%+B 5 \$(!<=>`VI!L'-F'' (!g-. A/D! . (!*%+5 'h!9. #+*+'B!9' % 5 '\$+(/!
'4' %7!# '4'#!. G! , '*+B+. (a 5 \$C+(/!-. !S!%+B' !+(!5 \$BB!BD. . +(/B!\$-!B*D. . #B;!B*D. . #! , +B-%+*-B!\$*% . BB!-D'!
* . A(-%7!D\$4' !-A%(' , !- . !D\$%BD' %! , +B*+9#+(' ;!BA%4' +##\$(* ' !\$(, !9. #+*+(/! . G!-D'+%!B-A, ' (-B!u i +-\$#!
<=>:VI!T. B!8 (/ ' #'B!O (+G' , !M*D. .#! [+B-%+*-!UT 8 OM [V!+B!(. !'J* '9-+. (I!KD% . A/D! 5 '-D. , B! . G!
'J*#AB+. (\$%7! , +B*+9#+(' !#C' !BAB9' (B+. (!\$(, !'J9A#B+. (;!T 8 OM [!B-A, ' (-B j 'B9' *+\$##7!B-A, ' (-B! . G!
* . #. % j \$% ' !9ABD' , !. A-! . G!B*D. . #!\$(, !. G-' (!A(EAB-#7!*%+5+(\$#+Q' , !17!B*D. . #!B-\$GG!U" 8 [N3!<=>:c!
N. 1 '%-!2!) C+#F\$!<=>fVI!KD'!. 4' %!9. #+*+(/! . G!7. A-D!\$-!B*D. . #!D\$B!\$!B-%. (/!('/\$+4' !+ 5 9\$*-! . (!
B-A, ' (-BY! 5 ' (-\$#!D' \$%-D;!\$*\$, ' 5 +*!9' %G. % 5 \$(* ' !\$(, !. 4' %##!B*D. . #!BSG'-7!U3- . F! '-!\$#!<=<=<VI!!
8 , , +. (\$##7;!-D' % '\$% ' !* . ##\$- '%\$#!* . (B'^A' (*'B! . G!B*D. . #! , +B*+9#+(' !-D\$-!*\$(!5 \$(+G' B-!G. %!B-A, ' (-B!
FD. !\$% '(. (a*+Q' (B j G. %!-D' B' !B-A, ' (-B;!9%B. (!+B!(. -!-D'!' (, !. G!-D+B!- . J+*!9+9' #+(' !B!

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!!!!!!! KD'!GA(,\$5'(-\$#9%+(*+9#!-D\$-!A(,%#+ 'B!-D+B!'B'\$%*D!+B!-D'!1'#+ 'G!-D\$-!\$##!B-A, '(-B!#'\$(!

1'B-!FD'(!-D'7!G' '#!-D'+%!B*D. .#!+B!B\$G';!\$(,!FD'%'!-D'7!G' '#!-D\$-!-D'!9%. *'BB'B!G. %!'B. #4+(/!

.(G#+-\$%'!-\$\$(B9\$%'(-!\$(,!DA5\$('I!KD+B!'B'\$%*D!+(4'B-+/\$-',!T8OM[YB!9. #+*+'B!\$1.A-!

%'B-. %\$-+4'!EAB-+*';!B9' *+G+*\$##7!-D'!<=>?IM*D. .#!" #5\$-!L+##!.G!N+/D-B;!(!.%, '%!-./!/\$+(!\$!1'--'#!

B'(B'!.G!D.F!'B-. %\$-+4'!EAB-+*'+B!1'+'(/!AB',!-!.!G.B-'!B*D. .#!B\$G'-7!\$(,!B-A, '(-!F'##a1'+'(/!+(!

T8!9A1#+*!B*D. .#BI!H(!.%, '%!-!.!EAB-+G7!-D'!G.*AB!. (!-D'!N@!B-+9A#\$+. .(!+(!-D'!<=>?!L+##;!--D+B!B-A,7!

'4\$#A\$-',!%'B-. %\$-+4'!EAB-+*!'!B!1.-D!\$!B-A, '(-!BA99.-%-!B7B-'5!\$(,!\$(!\$#-'%(\$-+4'!-.'!J*#AB+. (\$%7!

,+B*+9#+('!H-!'J\$5+(' ,!-D'!+59# '5'(-\$-+. (!\$(,!, '-\$+#B!.G!T8OM[YB!'B-. %\$-+4'!EAB-+*''!

9%./%\$55+(/!-D%.A/D!\$!B7(-D'B+B!.G!+(-'%4+'FB!\$(,!B*D.#\$%BD+9!\$1.A-!D'!-.9+*!I!H!B.A/D-!-.!

,-'%5+('!D.F!T8OM[!*\$(!+59%.4'!+B!'B-. %\$-+4'!EAB-+*''!9.#+*+'B!\$(,!9%\$*-*'B!-.!5\$C'!-D'5!

5. %!'!% 'B9.(B+4'!-!.!-D'!(' ',B!.G!-D'!* .55A(++'B!+-!B'%4'B;!(!.%, '%!-!.!*%'\$-'!\$!B'-.!G!9.#+*7!

% '* .55'(,\$+.(B!' /\$%,+(/!-D+B!+BBA'!I!O#+5\$- '#7;!--D+B!B-A,7!\$/A'B!-D\$-!-D'!,+B-%+*-'!5AB-!

B-%'(/-D'(!+B!* .55+-5'(-!-.!'B-. %\$-+4'!9%\$*-*'B!-D%.A/D!-D'!9.

!

8, , +. (\$##7; !+(-'4+'FB!F+-D!'J9'%-B;!B7B-'5a+59\$*-', !7.A(/19'.9#';!, +B-%+*-!9.#+*75\$C'%B;!\$(, !
 B-A, '(-!N@!9%\$*-++.('%B!F'%!\$(\$#7Q', !G.%!* . 5 5 . (!-D' 5 'B!-.!* . (('*-!-D' .%7!\$(, !.-D'%!B*D.#\$%BY!
 \$(\$#7B+B!.G!'B-.%\$-+4'!EAB-+*'!9%./%\$ 5 B!+(!, +B-%+*-B!\$*% .BB!-D'!* .A(-%7!-.-!-D'!B9' *+G+*!#\$(, B*\$9'!.G!
 -D'!T.B!8 (/ '# 'B!9A1#+*!B*D. .#!B7B-' 5I!_+(\$##7;!-D+B!B-A, 7!9%'B' (-B!\$(!\$/A 5 '(-!G.%!-D'!\$, \$9-\$+.(!
 .G!\$!* . 5 9%'D'(B+4'!B'-.!G!'* . 5 5 '(, \$+.(B!' / \$%, +(/('F!, +%*+-. (B!T8 OM [!BD.A#, !9A%BA'!+(!
 .%, '%!- .!+59%.4'!A9. (!-D'!<=>? !M*D. .#!"#+5\$- '!L+##! .G!N+/D-B!\$(, !+B!BA1B'^A' (-!+59#' 5 '(-\$+.(!
 .G!'B-.%\$-+4'!9%\$*-+*'BI!!

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86-)12-51)!9):6) ' !

KD '!#+- '%\$-A%'!%'4+'F!+(*#A, ', !+(!-D+B!B-A, 7!B'%4'B!-.!9%.4+, '!+(G.% 5 \$+.(!\$(, !G%\$ 5 +(/!G.%!
 -D'!\$(\$#7B+B!.G!G+(, +(/B!\$(, !9.#+*7!'* . 5 5 '(, \$+.(B!-D\$-!*\$(!1'!G.A(, !+(!A9*. 5 +(/!9\$/ 'BI!H-!
 9%'B' (-B!B*D.#\$%BD+9!. (!'J*#AB+. (\$%7!, +B*+9#+'; !-D'!B*D. .#a-.a9%+B.(

!

. ('!BAB9' (B+. (!\$\$'!-F+*'!\$B!#C '#7!- .!1'!+(4. #4' ,!+(!-D'!*%+ 5+(\$#!EAB-+*'!B7B-' 5!-D\$(!-D. B'!FD. !
% '*'+4' ,!(. !D\$%BD!, +B*+9#+(' !UN\$ 5 '7!<=>kVI!KD' !%\$*+\$#Q' ,!9%\$*-+*'!.G!' J*#AB+. (\$%7!B*D. . #!
, +B*+9#+(' !+B!B. !, '-%+ 5 ' (-\$#!- .!B-A, ' (-B!-D\$-!+-!D\$B!* . 5 '!- .!1'!* . (B+, '% ' ,!\$!9A1#+'!D '\$#-D!*%+B+BZ!
(' \$%#7!D\$#G!\$!* ' (-A%7YB!F .% -D! .G!' B '\$%*D!BD. FB!-D\$-!* . 5 5 . (#7!9%\$*-+*' ,!B*D. . #!, +B*+9#+(' !#+'!
BAB9' (B+. (;!' J9A#B+. (;!\$(, !%'G'%%\$#B!- .!#\$F!' (G. %* ' 5 ' (-!\$%'!(-. !. (#7!+(' GG' *-+4'!\$-!C' '9+(/!
B*D. . #B!B\$G'!\$(, !. % , '%#7;!1A-!\$#B. !' J\$*%'1\$-!'!+(-'%/ (' %\$-+ . (\$#!-%\$A 5 \$;!\$(, !D '\$#-D!\$(, !' * . (. 5 +*!
, +B9\$%++'B!G\$*' , !17!L#\$*C!G\$ 5 #+'B; !H(, +/ ' (. AB; !T\$+ (. ;!\$(, !-D' %!(. (aFD+- '!* . 5 5 A(++'B!U3- . F!
'-!\$#!<=<=VI!KD' !] \$+ . (\$#!3 , A*\$+ . (!8BB . *+\$+ . (!, 'G+('B!-D'!B*D. . #a- . a9%+B. (!9+9'#+('!\$B!

-D'!9. #+*'B!\$(, !9%\$*-+*'B!-D\$-!\$%'! , +% '*-#7!\$(, !+(, +% '*-#7!9ABD+(/!B-A, ' (-B! .G!* .# .%! .A-! .G!!
B*D. . #!\$(, !. (!\$!9\$-DF\$7!- .!9%+B. (;!+(*#A, +(/;!1A-!(. -!#+ 5 +-' ,!- .Z!D\$%BD!B*D. . #!, +B*+9#+(' !
9. #+*'B!-D\$-! .4 '%AB'!BAB9' (B+. (!\$(, !' J9A#B+. (;!+(*%' \$B' , !9. #+*+(/!\$(, !BA%4' +##\$(*'!-D\$-!
*%' \$-'!9%+B. (a#+'C'!' (4+% . (5 ' (-B!+(!B*D. . #B;! .4'%%'#+\$(*'!. (!!'G'%%\$#B!- .!#\$F!' (G. %* ' 5 ' (-!
\$(, !-D' !EA4' (+#'!EAB-+*'!B7B-' 5 ;!\$(, !\$(!\$#+' (\$+(/!\$(, !9A(+ +4'!D+/DaB-\$C'B!- 'B+(/a, % +4' (!
\$*\$, ' 5 +*!' (4+% . (5 ' (-!U] 3 8 !<=>kVI!

_ .%!-D'!9A%9. B'B! .G!-D+B!B-A 5 0 375 -7!- .!9%6!41. 1. 2 (B) -(, ;Tm/TT41Tf() T j ETQq0 . 240 0 0 . 241 8 . 1417

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KD '!% 'B- .%\$-+4 ' !EAB-+* '! 5 .4' 5 ' (-!(!] .%-D! 8 5 '%+*\$!*\$(!1 '!B' ' (!\$B!B- ' 5 5 + (/!G% . 5 !G .A%!
5 \$+(!B .A%* 'BZ!(+ , + / ' (. AB!9%\$*-+* 'B! .G!EAB-+* ;! .-D' !G\$+D! * . 5 5 A(+ + 'B ;!-D' !9%B . (! \$1 .# + + . (!
5 .4' 5 ' (- ;!\$ (, !-D' ! \$#- '% (\$-+4 '! , +B9A- '!% 'B .#A+ . (! 5 .4' 5 ' (- ;!\$ (, !F\$B!G+B-!AB' , !+(!-D' !O (+ ' ,!
M-\$- 'B!F+D+(!-D' !*%+ 5 +(\$#!\$ (, !EA4' (+#!EAB-+* ' !B7B- ' 5 B!UT' A (/!>eeeVI!KD' !G .A (, \$+ . (! .G!FD\$-!B!
(. F!C (. F (!B!% 'B- .%\$-+4 ' !EAB-+* ' !D\$B!1 ' ' (!\$ (, !* . (- (A' B!- . !1 ' !9%\$*-+* ' , !+ (!4\$%+ . AB!F\$7B!17!
+ (, + / ' (. AB! (\$+ . (B!\$*% . BB!-D' ! / # . 1 ' !G .% !* ' (-A%+ 'BIH (, + / ' (. AB!B*D . # \$% ! " \$% . # ! 8 I! d \$ (, !F%+ - 'B!-D\$-!
+ (! 5 \$ (7! (\$+ . (B!+ (, + / ' (. AB!- . !] . %-D! 8 5 '%+*\$;!g+G!\$ (! \$*-! . G!4+ . # ' (* ' ! . % ! , +BD . ('B-7! , +B%A9- ' , !-D' !
* . 5 5 A(+7 ;!-D' !* . 5 5 A(+7 ! \$B! \$!FD . # ' !B . A/D-! \$!F\$7!- . !% 'B- . % ! ! \$# \$ (* ' h!U<=> <VI!T+C' !- . , \$7!B!
g% 'B- . %\$-+4 ' !EAB-+* ;h!] \$-+4 ' !9' \$* ' 5 \$C+ (/! .G- ' (!1%+ (/B!- . / '-D' %!5 A#+9# ' !9\$%-+ 'B!- . !F . %C!- . F\$% , B!
\$! * . 5 9% 'D' (B+4 ' !B . #A+ . (!UO+%BC7!<=== `VI!

KD '! \$*-A\$#!- ' % 5 !g% 'B- .%\$-+4 ' !EAB-+* 'h!D\$B!1 ' ' (!9% 'B' (-!(! \$* \$, ' 5 +* ! , +B* . A%B' !B+ (* ' ! \$-!# ' \$B-!
-D' !>f? =YB!+ (!3 (/#\$ (, ;!H% '#\$ (, ! \$ (, !-D' !O (+- ' , !M-\$- 'B! .G! 8 5 '%+*\$!UP\$, ' !<=> fVI) (' ! .G!-D' ! . # , 'B-!
'J9#+*+! , 'G+(+ + . (B! .G!% 'B- .%\$-+4 ' !EAB-+* ' !U+(!-D' !F\$7!+!F\$B!* . (* '9-A\$#Q' , ! , A%+ (/!-D\$-!+ 5 'V!*\$ (!
1' !G .A (, !+ (! _# .7 , !N!O '*D' 5 YB!>e>k!g8 (!H (^A+%7! " . (* '% (+ (/!@AB-+* ;h!FD+*D! , 'G+ ('B!-D' !- ' % 5 ! \$B! !
gEAB-+* ' ! \$, 5 + (+B- ' % ' , !17!-D' !EA , +*+\$#! 5 \$*D+ ('%7!FD+*D! 'B- . % 'B! 5 \$ (!- . !D+B!9% . 9' %!%+ /D-B!h!T\$- ' % !
. (;!+(!-D' !>eb=B ;!\$9B7*D . # . /+B-! (\$ 5 ' , !8#1 '%-!3 /#\$BD!A9#+G- ' , !-D' !- ' % 5 ! , A' !- . !D+B!1 '#+ 'G!+ (!+B!
% 'D\$1#+-\$-+4 ' !4\$#A' ! \$ (, !-D' ! (' ' , !D' !B\$F!G . % !D+B!+ (*\$*% '\$- ' , !*#+' (-B!- . !1 ' ! \$* * . A (- \$1# ' !G . % !-D' +%!
1'D\$4+ . % !UT . % % ' (! (I, IVI!3 /#\$BD!+B! *% ' , + - , !F+D!+ (B9+%+ (/! 8 5 '%+*\$ (!*%+ 5 + (. # . /+B-!d . F\$% , !m'D% ;!
C (. F (!- . !B . 5 ' ! \$B!-D' ! / % \$ (, G\$-D' % ! .G!% 'B- .%\$-+4 ' !EAB-+* ;!- . ! \$, 4 . *\$- ' !G . % !-D' !AB' ! .G!N@!- . !% '9\$+%!-D' !
D\$% 5 ! .G!%+ 5 ' !17! ' (/ \$ / + (/!BA%4+4 . %B ;! . GG' (, '%B ;!\$ (, !* . 5 5 A(+7! 5 ' 5 1 '%B!UT . % % ' (! (I, IVI!KD' !
-D' . %7! 5 .B-!B- % . (/#7!\$BB . *+\$- ' , !F+D! 'B- .%\$-+4 ' !EAB-+* ' !9%\$*-+* 'B! \$ (, !9%+ (*+9# 'B!+B!L%\$-DF\$+ - 'YB!
>efe!g% '+ (- / %\$-+4 ' !BD\$ 5 + (/!-D' . %7h!UW+#B . (;!) # \$ /D' % ' ;!\$ (, !&+ 5 1% ##! (I, IVI!KD' !-D' . %7! . G!
%'+ (- / %\$-+4 ' !BD\$ 5 + (/! '^A+% 'B! * . 5 5 A(+7! \$*C (. F# ' , / ' 5 ' (-!\$ (, !* . (, ' 5 (\$- . (! .G!-D' !D\$% 5 !-D\$-!

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F\$B!, . ('!H!-D'(!F.%CB!17!G.%/+4(!/!-D'!.GG' (, '%!G.%!-D'+%!*+-. (B!\$(, !%'+(-'/%\$+(!/!-D' 5!1\$*C!
 +(-.!-D'!* . 5 5 A(+7!.(*!-D'7!D\$4'!5\$, '!\$5' (, B!\$(, !%'9\$+%', !-D'!D\$% 5!F+D!-D'!4+*+5!\$(, !
 B.*+!-7!KD+B!-D' .%7!' 5 9D\$B+Q'B!-D\$-!BD\$ 5+(!/!.G!.GG' (, '%B!-.!-D'!* . 5 5 A(+7!5 AB!1'!
 %'+(-'/%\$+4';!(.-!B+ / 5 \$+Q+(!/!) -D'!-D' .%+ 'B!%'\$- ', !-!-., \$7YB!'B-.%\$+4'!EAB+*'!9%\$*+*'B!
 +(*#A, '9%.*', A%\$#!EAB+*'!-D' .%7;! , 'G+\$(*!-D' .%7;'! J*DS\$ (/!-D' .%7!\$(, !B.*+\$#!, +B.%/\$(+Q\$+-. (!
 -D' .%7!UW+#B. (;!)#\$/D'%';!\$(, !&+5 1%'##!(I, IVI!

H(!.%, '%!-!.\$%/A'!G.%!-D'!\$, \$9-\$+-. (!.G!5 .%!'!* . 5 9%'D' (B+4'!+5 9# '5' (-\$+-. (!.G!'B-.%\$+4'!
 EAB+*'!9%\$*+*'B!(!T8 OM [;!+!+B!+5 9.-%\$(-!-.!A(, '%B-\$ (, !D.F!T8 OM [!, 'G+('B!'B-.%\$+4'!EAB+*'!
 G.%!-D'!, +B-%*-YB!9A%9.B'BI!KD'!M*D. .#!"#+5 \$-!L+##!.G!N+/D-B!B-\$- 'B!-D\$-!

!!

6%\$*+*'B!-D\$-!'B.#4'!B*D. .#!, +B*+9#+(\$%7!+(*+, ' (-B!17!D\$4+(!/9%'B. (('#!-%\$+(' , !+(!
 %'B-.%\$+4'!\$99%.\$*D'B!\$(, !##!9\$%-+ 'B!+(4.#4', !* . 5 '!-./'-D'%;!+, ' (-G7!-D'!D\$% 5!-D\$-!F\$B!
 \$AB', ;!\$(, !, '-%'5+(' !FD. !F\$B!'B9. (B+1#'!KD'!/%.A9;!/ '('%\$##7!-D%.A/D!\$!+*#'
 . (G'%' (+(!/9%.*'BB;!-D' (!, '4'#.9B!\$!BD\$%', !9%.*'BB!G.%!'9\$+%(/!D\$% 5!\$(, !\$, , %'BB+(!
 %..-!*\$AB'!-!9%'4' (-GA-A%'!D\$% 5!UP\$*+!<=>?;!?!VI!

!

[+B-%*+!#+- '%\$-A%'!GA-D'%'! J9#\$(B!N@!\$B!g\$!9D+#.B.9D7!\$(, !\$(!\$99%.\$*D!-!., +B*+9#+('!-D\$-!5 .4' B!
 \$F\$7!G%. 5!9A(+BD 5' (-!.F\$, !%'B-.%+(!/!'B' (B'!.G!D\$% 5.(7!\$(, !F'##a1'+(!/!G.%!##!-D.B'!\$GG*'-', !
 17!\$!DA%-GA#!\$*-h!17!9%.4+, +(!/!G\$ 5+#'B;B*D. .#B;!\$(, !* . 5 5 A(++'B!g\$!F\$7!-!' (BA%'
 \$** .A(-\$1#+-7!FD+#'!\$!-D'!B\$ 5'!+5'!1%'\$C+(!/!-D'!*7*#'?!.G!'-%+1A+-. (!\$(, !4+.#(' *'h!UT8 OM [\$!
 (I, IVI!!

K. , \$7;!-D'!9%\$*+*'!.G!'B-.%\$+4'!EAB+*'!+B!-79+*\$##7!1\$B', !. (!-D'!-D%'!5\$+(!9%+(*+9# 'B!
 .G!'9\$+%(/!D\$% 5;!(4.#4+(!/!B-\$C'D.#, '%B;!\$(, !-%\$(BG.% 5+(!/* . 5 5 A(+7!'#\$+-. (BD+9B!UP. (QR# 'Q!
 <=>bVI!)-D'!+5 9.-%\$(-!9%+(*+9# 'B!.G!'B-.%\$+4'!EAB+*'!+(*#A, '! .GG' (, '%!\$** .A(-\$1#+-7!G.%!

F%. (/ , .+(!/;! 'B9'*-!G.%!##!9\$%-+9\$(-B;!\$(, !* (-'+(!/!4+*+5 B!UW+#B. (!'-I!\$#!<=>: VI!N' B-.%\$+4'!
 EAB+*'!+B!1\$B', !. (!-D'!9%+(*+9# '!-D\$-!9'.9#!'\$%'!'B##+' (-;!\$(, !-D\$-!D\$% 5!*\$(!1'!\$, , %'BB', !\$(, !

!

9%'4'(-',!-D%.A/D!,+\$#. /A'!\$(, !-D'!G.% 5\$-+. (!.G!D'\$#-D7!'#\$-+. (BD+9BI!K\$#C+(/!*+*# 'B!\$(, !
5',+\$- ',!,+B*ABB+. (B!1'-F'' (!%'# '4\$(-!9\$%+'B!\$%'!-F. !* . 5 5 . (!G.% 5 B! . G!'B-. %\$-+4'!EAB-+* '!
-. , \$7!-D\$-!\$%'!AB', !- . !G. B-'% !-D'!\$** . A(-\$1+#+-7! . G!9'%9'-%\$- . %B!\$(, !-D'!D'\$#+(/! . G!4+*-+5 B!\$(, !

!

9% 'B*D. .#!U3-. F!' -I!\$#!<=<=VI!H 5 9# ' 5 ' (- (/!% 'B- .%\$-+4 'EAB-+* '!9%\$*-+* 'B!\$B!\$(!\$#- '%(\$-+4 '! ,+B9A- '!
 % 'B.#A-+ . (!5 '-D. , !+B!1 '+ (/!- .A- ' ,!\$B!\$!F\$7!-D\$-!B*D. .#B!*\$(!' (,!\$!9\$-- '%(!.G! ,+B9%.9.-%+. (\$- '#7!
 ,+B*+9#+(+ (/!L#\$*C!\$(,!T\$-+ (.!B-A , ' (-B!\$(,!g*%'\$- '!\$(!' (4+% . (5 ' (-!-D\$-!G.B- '%B!BA** 'BB!G. %!\$##!
 D+#, %' (h!UW . . , !<=> ` ;!>VI! 8G- '%!-D' !\$%'GA#!+ 5 9# ' 5 ' (-\$-+ . (!.G!FD.# 'aB*D. .#; !5 A#+a+ '%!
 % 'B- .%\$-+4 'EAB-+* '!9%\$*-+* 'B;!-D' !%+BC!G. %!BAB9' (B+ . (B! ,% .9!G. %!\$##!%\$*+\$#!/% .A9B;!F+-D!-D' !#\$%/ 'B-!
 , '*#+('!+(! ,+B*+9#+(\$7!\$*+ . (!G. %!L#\$*C!B-A , ' (-B!UP . (QR#'Q!<=>bVI!N@!+(!B*D. .#B!*\$(!' (.-! . (#7!
 % ' ,A* ' !BAB9' (B+ . (B!\$(,!%\$*+\$#! ,+B9\$%+ 'B!+(! ,+B*+9#+(' ;!1A-!+-\$#B. !# '\$,B!- .!* . (B+B- ' (-!/% . F-D!+(!
 \$\$, ' 5 +*!BA** 'BB!UP . (QR#'Q!<=>bc!T . B' (!' -I!\$#!<=> `VI!6# ' \$B' !% 'G' %!- .!' 'GG)%*6H!'' !G. %!\$! , '-\$+#' ,!
 ' J9#\$(\$-+ . (!.G!-79+*\$#!% 'B- .%\$-+4 ' !9%\$*-+* 'B;!\$(,!' 'GG)%*6H!U!G. %!\$(!' # \$1 . %\$-+ . (! . (!FD.# ' a
 B*D. .#n 5 A#+a+ '%!N@!

KD+B!B-A, 7!\$+ 5 B!- .!+ , ' (-+G7!-\$*-+*B!G. %!' #+ 5 +(\$-+ (/! ,+B*%'9\$(*+'B!+(!B*D. .#! ,+B*+9#+('!\$(,!

!

% '9%'B' (-', !+(!'G'%%\$#B!G. %!P+G-', !\$(, !K\$#' (-', !3, A*\$-\$+. (!UP 8K3V!9%. /%\$ 5 B; !\$(, !-'\$*D+(/!B-\$GG!
+(!B*D. . #B!F+D!9%' , . 5+(\$(-#7!L#\$*C!B-A, ' (-B!D\$, !#. F '%!\$--' (, \$(*!'\$(, !#. F '%!'GG+*\$*7!-D\$(!
-'\$*D'%B!\$-!B*D. . #B!F+D!9%' , . 5+(\$(-#7!FD+-'!B-A, ' (-B;!1A-!-D\$-!-D'%!'F\$B!g\$!D+/D'%!# '4'#!.G!
BAB9' (B+. (B!\$(, !' J9A#B+. (B!.G! 8G%+*\$(!8 5 '%+*\$(!B-A, ' (-B!* . 5 9\$%' , !F+D!FD+-'!B-A, ' (-Bh!
UN. 1 '%-!\$(, !) C#F\$!<=>f;!`VIH(!-D'!<=>a<=>>!B*D. . #!7'\$%;!L#\$*C!B-A, ' (-B!F '%!'BAB9' (, ', !\$(, !
' J9'##', !\$-!5 A*D!D+/D'%!%\$- 'B!-D\$(!FD+-'!B-A, ' (-BZ!, 'B9+-'!1'+(/!. (#7!>= o !.G!-D'!9.9A#\$+-. (;!
L#\$*C!B-A, ' (-B!'9%'B' (-', !<k o !.G!BAB9' (B+. (B!+(!-D'!, +B-%+*-\$ (, !<` o !.G!%'G'%%\$#B!G. %!' J9A#B+. (;!
FD# '!FD+-'!B-A, ' (-B!F '%!'e o !.G!-D'!9.9A#\$+-. (!1A-!. (#7!b o !.G!BAB9' (B+. (B!\$(, !` o !.G!%'G'%%\$#B!
G. %!' J9A#B+. (!UN. 1 '%-!\$(, !) C#F\$!<=>fVI! 8 , , +.+. (\$##7;!B-A, ' (-B!F+D!, +B\$1#++-'B!\$** .A(-', !G. %!
eIk o !.G!-D'!, +B-%+*-' (%.## 5 '(-!1A-!5 \$, '!A9!<`Ik o !.G!-D'!, +B-%+*-YB!BAB9' (B+. (B!, A%+(/!-D'!B\$ 5 '!
+5 '!9'#+. , !UT+5 !<=><>VI!KD'!) "N!+(4'B-+/\$+-. (!9%. 5 9-', !T8 OM [!%'G. % 5 B!\$-!1. -D!-D'!, +B-%+*-'!
\$(, !

!

B-A, ' (-B!FD.!F '% '!3 (/#+BD!# '\$%(' %B;!e<I? o!.G!FD. 5 !+, ' (-+G+ ',!-D'+%!9%+ 5 \$%7!#\$(/A\$/ '!\$B!
M9\$(+BDI!KD'!, +B-%+*-!B'%4 'B!5 .B-#7!B-A, ' (-B!.G!* .#. %!U: ?I` o!T\$-+(.; !>=Ib o!FD+-';!fI<o!L#\$*C;!
`I<o!8B+\$(!<I>o!_+#9+(.; !# 'BB!-D\$(>o!8 5 '%+*\$(!H(,+\$(!.%!8#BC\$(!] \$-4';!] \$-4'!d\$F\$+\$(!
.%!6\$*+G+*!HB#\$ (, '%;!F+-D!>o!.G!B-A, ' (-B!A(%'9. %-', V; !\$(,!' 59#.7',!.4'%!kk;===!9'.9#!+(!-D'!

<=>ea

!

B-A, ' (-B!\$% '!*. 5 5 . (!B+/(B!.G!+BBA 'B!+(!-D'!+5 9#' 5 ' (-\$+. (!.G!B*D. .#!N@!9%\$*-+* 'B!U ['(4'!
M*D. .#aL\$B',!N'B-.%\$-+4 '!6%\$*-+*'B!6\$%-('%BD+9!(I,VI!d . F '4'!FD' (!9#\$((' ,;!+5 9#' 5 ' (-',!\$(,!

!

% 'B-.%\$+4'!9%. * 'BB'B;\$ (, !FD\$-!* .A#, !1'!, . ('!-!+5 9%.4 '!T8 OM [YB!% 'B-.%\$+4' !EAB-+* '!9.#+*7! 8B!

-D'!9%.E'*-!9% ./%'BB', ;!+(-'%4+' F' 'B!F'%'!\$#B. !SBC', !S1.A-!-D'!4\$#+,+7!.G!*'%-\$+(!, ' \$B!G.%!

9.-'(-+\$#!9.#+*7!'*. 5 5 '(, \$+.(B;!5 \$(7!.G!FD+*D!\$%'!9%'B'(-', !1'#.F!+(!'B9.(B'!-!-D'+%!

G', 1\$*CI!H(-'%4+' F' 'B!F'%'!\$BC', !-!%'\$, !\$(, !B+/(!H(G.% 5', !" .(B'(!_ .% 5B!-!!(.-+G7!-D' 5!.G!

-D'!B*.9'!.G!-D'!9%.E'*-!\$(, !-D'+%!/D-B!' /\$%, +(/!-D'!+(-'%4+' F!9%. * 'BBI! [A'!-!)") i H [a>e;!\$##!

+(-'%4+' FB!F'%'!* .(, A*-' , !.4'!m. . 5; !_ \$* 'K+5'; !. %!-'#9D.('I!M. 5'!+(-'%4+' F' 'B!\$%'!+, '(-+G+', !

.(#7!\$B!gT8 OM [!' 5 9#.7' 'h! .% !gK' \$*D'%;h!F+-D!#+-#'-! .!(.!GA%-D'!+(G.% 5 \$+.(!S1.A-!-D'+%!

+, '(-+7!+(!.%, '%!-!9%'B'%4'!-D'+%!\$(.(7 5+-7; !S!9'%'!-D'+%!' ^A'B-BI!)-D'%B!BA// 'B-', !-D\$-!-D'+%!

(\$ 5';!9%.G'BB+. (\$#!-+#+B;\$ (, !#+G'!'J9'%' (*'B!1'!+(*#A, ', !+(!-D+B!9%.E'*-!-!9%.4+, '!* .(-'J-!G!

-D'+%!'J9'%-+B'!' /\$%, +(/!-D'B'!-.9+*B 8 6 8cmB, !2 (-) 0 . 2cmB 5 8 3 9 8c 8 6 8cmBT 5 0 0 ~~5~~. 2 (-) 0-2-0 . 2 (-* 2-0

!

1'('G+B!.G!*.(,A*+(/!'B'\$%*D!+(!'9%'B.(!'F'%!\$4\$+#\$1#'-!.!B'%4'!'D'!BA**'BB!.G!-D+B!9%.E'*-I!T8!

0(+G+',!+B!\$!DA/'!\$(,!*.59#'J!+(B+-A+.(;'!F+-D!\$!9#'-D.%%!.G!+(.*.(B+B-'(*+'B!\$(,!+-B!.F(!

#+5+-\$+.(BI!W+-D!\$, ,++.(#\$!+5';!5\$(7!5.-%!'-9+*B!G%.5!*.(-'J-;!--!'D'.%7;!--!'G+(,+(/B!\$(,!

%'* .55'(\$,-.(B!* .A#,!D\$4'!1''(!*.4%' ,!5A*D!5.-%!'+(!, '9-DI!!!

KD+B!9%.E'*-!F\$B!(.-!GA(, ,I!8B!BA*D;+(-'%4+'F''B!F''%!(.-!* .59'(B\$-',!5.('-\$%+#7I!

8#-D.A/D!\$##!+(-'%4+'F!BA1E'*-B!F''%!(+G.%5',!.G!-D+B!#5+-\$+.(!\$(,!B-+##!\$/%' ,!--!9\$%-+9\$-';!

-D'!+59.-%\$(*'!.G!D.(.%(+/!9'.9#'BY!+5'!\$(,!*.(-%+1A+.(B!*\$((.-!1'!A(,%B-\$',!I!O\$(7!.G!-D'B'!

+(-'%4+'F''B!-.C!+5'!.A-!.G!-D'+%!(+*%' ,+1#7!1AB7!B*D',A#B!-.!BD\$%'!-D'+%!(C.F#',/!'!+(!B'%4+*!'!

.G!-D+B!9%.E'*-I!8, ,++.(##7!-D'!-.9+*B!.G!B*D..#!,+B*+9#(+;!--D'!B*D..#a-.a9%B.(a-.a,'9.-%-\$+.(!

9+9'#(+;!\$(,!--D'!G.%5B!.G!D\$%5!-D\$-!B-A,(-B!*\$(!'J9'%+'(*'!\$-!B*D..#!.G-'(!#',!--!,+GG+*A#-!

,+B*ABB+. (BI!KD'B'!+(-'%4+'F''B!\$##!, 'B'%4',!--!1'!* .59'(B\$-',!G.%!-D'+%!'5.-+.(#\$!\$1.%;!--5';!

\$(,!'J9'%-+B'I['B9+-'!'-D'B'!*D\$##(/'B!\$(,!#5+-\$+.(B;!--D+B!B-A,7!B-+##!\$*D+'4',!--B!/. \$#!.G!

%'\$+(/!\$! .59%'D'(B+4'!* .##'*+.(!.G!* .55A(+7!\$(,!,+B-%+*-!'59#.7''!4.+*'B!+(!.%, '%!--!

\$(BF'%!--B!B-\$-',!%'B'\$%*D!^A'B+.(I!

!

\$(,!'B-.%\$-+4'!EAB-+*!'G\$*#+-\$-.%BI!H(-'%4+'FB!F'%!'*-'%' ,!.(!-D'!BA1E'*-!B!C(.F#',/!'!.G!-D'!
 -.9+*B!,+B*ABB',!\$1.4';!\$(,!\$##!+(-'%4+'FB!+(*#A,',!,+B*ABB+. (B!.G!D.F!T8 OM [YB!%B-.%\$-+4'!\$(,!
 ,+B*+9#+((\$%7!9%\$*-+*'B!* .A#,!1'!'!+59%.4',!IKD'!G.##.F+(/!* .55.(!-D'5'B!\$.B'!,A%+(/!-D'B'!
 ,+B*ABB+. (BZ!!



!

KD'B'!* .55.(\$#++'B!'G#'*-!FD\$-!. ('!* .55A(+7!5'51'!%\$(,!\$*-+4+B-!*\$##',!g\$!,+B*. (('*!
 1'-F''(!-D'!4+B+. (!-D\$-!-D'!,+B-%+*!-D\$B!G.%!rN@s!+59#'5'(-\$+. (!4BI!-D'!4+B+. (!-D\$-!-D'!* .55A(+7!
 D\$B!G.%!+59#'5'(-\$+. (Ih!" .##'*-+4'#7;!-D'B'!,+B*ABB+. (B!D+/D#+/D-',!-D'!B-\$-!'!.G!%B-.%\$-+4'!
 9%\$

!

KD'!B\$ 5 '!'\$*D'%'!(.-',!-D\$-!,A%+(/!\$!+5 '!'FD' (D'%!B*D. .#F\$B!F+D.A-!\$(7!C+(,!.G!'B-.%\$-+4'!
 #'\$, '%!G.%!EAB-!. ('!B' 5 'B-'%;!+!'%##7!DA%-!-D'!B-A, ' (-B!\$(, !-D'!*#+5 \$-'!.G!-D'!B*D. .#!UK'\$*D'%'!>!
 <=>VI!WD' (!B*D. .#B!, .!(.-!D\$4'!-D'+%! . F(!+(aD.AB'!'B-.%\$-+4'!EAB-+*'!\$, 4+B.%;!-D'+%!B-A, ' (-B!
 \$(, !-D'+%!*\$5 9AB!#+5 \$-'!BAGG'%B j !'4' (!+G!-D'!#. *\$#!, +B-%*-!* . \$*D!+B!\$1#!- . !5 \$C'!\$(!\$99'\$%\$(*'!
 . (!-D\$-!*\$5 9AB!'\$*D!'B' 5 'B-'%I!!

! H(!\$, ,++.(!-!(!' , +(/!5 .%'!A(+G.% 5 +7!(!5 . , 'B!.G!9%\$*-+*'!\$5 . (/!B*D. .#B!\$(, !5 .%'! .G!!
 \$!* . (-+A.AB!'B-.%\$-+4'!9%'B' (*'!. (!*\$5 9AB!. (!\$, \$7a-.a, \$7!1\$B+B;!\$(.-D'%' , A*\$-.%!(.-', !-D'!
 +5 9.-%\$(*'!.G!* . (-+A+7!-D%. A/D.A-!-D'!'7' \$%BZ!

KD'B'!4\$#A'B!\$(, !9%\$*-+*'B!D\$4'!-!B-\$%-!G%. 5 !C+(, '%/\$%-'(!1'*\$AB'!FD' (!7.A!*D\$(/'!A9!
 -D'!, +B*+9#+('!B7B-' 5 !7.A! / ! / %\$, 'B!. ('!-D%. A/D!f!\$(, !7.A!C(. F!+!B!. ('!F\$7;!\$(, !-D'(!
 7.A!* . 5 '!'!+(-!D+/D!B*D. .#!\$(, !-D'(!##! .G!\$!BA, , ' (!7.A!%'!, .+(/!'B-.%\$-+4'!9%\$*-+*'B!
 -D'%'!B!B. 5 '!', +B* . (('*-B!-D'%' t !-D'%'!B!\$!B+/ (+G+*\$(-!\$5 .A(-!.G!G.A(, \$+ . (\$#!F.%C!-D\$-!
 D\$B!-!-\$C'!9#\$*\$' !+G!7.A!C(. F!+G!'B-.%\$-+4'!9%\$*-+*'B!\$%'!-!1'!BA**'BBGA#!Um+ 5 5 '%!<=>VI!
 !

8B!\$, +B-%*-!F+D!\$!'#\$-+4' #7!D+/D!B-A, ' (-!5 .1#+-7!%\$-';!T 8!0 (+G+', !5 AB-!* . (B+, '%!D. F!-D'!
 5 .4' 5 '(-!.G!B-A, ' (-B!1'-F'' (!, +GG'%' (-!B*D. .#B!\$(, !, +GG'%' (-!9%\$-B!.G!-D'! [+B-%*-!\$GG'*-B!-D'!
 +5 9\$*-!.G!-D'+%!B-.%\$-+4'!EAB-+*'!9%. /%\$5 5 +(/;!\$(, !\$, EAB-!-D'+%!9.#+*+'B!\$** .%, +(/#7!U [\$A(-'%!2!
 _A##'%'!<=>>VI!

!

KD'!/%. F+(/!5 .4' 5 '(-!G.%!'B-.%\$-+4'!EAB-+*'!'(B*D. .#B!+B!EAB-!. ('! .G!5 \$(7!(' ' , '!,
 %'G.% 5 B!+(!T 8 OM [I! " D\$(/+(/!, +B*+9#+('!9%\$*-+*'B!\$#. ('!F+##!(.-!5 ++/\$-'!-D'!'GG'*-B!.G!, '*\$, 'B!
 .G!+(B+-A+ . (\$#!%\$*+B 5 !1 .-D!+(!.A%!', A*\$+ . (!B7B-' 5 !\$(, !.A-B+, '! .G!B*D. .#B;!\$(, !+!5 \$7!(.-!1'!
 '(.A/D!-!-\$\$(BG.% 5 !'4' %7!-'\$*D'%;!\$, 5 +(+B-%\$- .%;!\$(, !B-A, ' (-!+(-D'!, +B-%*-!-I!N'B-.%\$-+4'!EAB-+*'!
 B*D.#\$!\$(, !G.% 5 '%!-'\$*D'%'!d+#\$7!TAB-+*C!F%+-'B!-D\$-;!g-D'!*A%%' (-!, +B*.A%B'!. (!'B-.%\$-+4'!
 9%\$*-+*'B!, . 'B!(-!\$##. F!G.%!'%+*+\$#!^A'B+. (B!* . (*'%(/!9. F'!\$(, !B.*+\$#!%'9. , A*+ . (!+(-D'!

!

. (-'J-!.G!-D'!'B-.%\$-+4'!.(G%'(*';h!\$(, !-D+B'B'(-+5'(-!F\$B!'G#'*-',!,A%+(/!+(-'%4+'FB!F+-D!

9'.9# '!G\$5 +#\$%F+-D!T8 OM [YB!'B-.%\$-+4'!9\$*+*'B!UTAB+*C!<=>:;!?=eVI!!

H!B-\$%-', !- !(. -+*'!\$!5 \$E. %!/\$9!+(!-D'!+59# '5' (-\$-+. (!.G!'B-.%\$-+4'!EAB+*'!\$-!-D'! !
! rT8 OM [s!B*D. .#!B+-'B t !+!#*\$*C', !\$** .A(-\$1++-7!+(!-D'!B'(B'!-D\$-!'B-.%\$-+4'!EAB+*'!+B!!
! \$1.A-!\$, ,% 'BB+(/!-D'!% . -!*\$AB'B! .G!D\$%5 ;!(. -!-D'!B759- .5B! .G!-D'!D\$%5 ;!%/D-u!M. !-D'!!
! B*D. .#!F\$B!+(-'%B-', !+(!FD\$-!-D'7!*\$##!* .(G#+*-'B.#A+-.(!9' '%!-.!9' '%;!-'\$*D'!\$(, !9' '%!!
! 1A-!(.-!B7B-'5!\$(, !B-A, '(-B t !B. !-D'7!F.(Y-!\$, ,% 'BB!\$(7!.G!-D'!5 .% '!!
! B7B-'5+*!D\$%5 B!-D\$-!F'%'!-D'%'h!U8*-+4+B-!>!<=>VI!
!

8#-D.A/D!'B-.%\$-+4'!9\$*+*'B!\$%'!5 '\$(-!-.!G.B-'%'!gB7B-'5+*!D\$(/'B!+(!D.F!' ,A*\$-.%B!-D+(C!

\$1.A-!-D'!'#'.G!B*D. .#!, +B*+9#+('h!\$(, !.-D'!'B-%A*-A'B!.G!9.F'%;!B.5'!'BA1E'*-B!G'#!-D\$-!

T8 OM [YB!'B-.%\$-+4'!9\$*+*'B;!#C'!-%\$, ++. (\$#!, +B*+9#+(\$7!5'-D., B;G.*AB!-. .!5A*D!. (!B-A, '(-!

\$*-+. (B!\$(, !(-!'(.A/D!. (!A(*.4'%'(/!\$(, !\$, ,% 'BB+(/!-D'!'*+*A5B-\$(*'B!1'7.(, !-D'!+(, +4+, A\$#!

-D\$-!5\$7!1'!-D'!'*\$B'!'1'D+(, !*'%'\$-(!1'D\$4+. %B!UT.B'(!-I!\$#!<=>`;!:VZ!!

KD'%'!B!B7B-'5+*!'*\$B.(B!FD7!-D'B'!'-'(, '(+*'B;!-D'B'!D\$1+-B!*\$(!1'!G.A(, !+(!*'%'\$-(!
('+/D1.%D. ., B!\$B!.99.B', !-!.-D'%'BI!KD'%'!B!'*\$B.(B!FD7!-D'%'!B!5.%'!7.A-D'1'+(/!
\$%%'B-', !+(!B.5'!'*.55A(++'B!\$B!.99.B', !-!.-D'%'B;!-D'%'!B!'*\$B.(B!FD7!F'!G+(, !5.%'!
4+.#'(*'!+(!B.5'!'*.55A(++'B!\$B!.99.B', !-!.-D'%'B t !LA-!+-!B!\$F\$7B!1''(G\$+#', !-!1'!
*.(B+, '%' , t !/'--+(/!\$(.4'%'\$##!A(, '%B-\$(+ /!\$B!-.!\$##!-D'!'4'(-B!-D\$-!#, !A9!-!-D'B'!
+(*+, '(-B;!(-!EAB-!1\$B', !.GG!-D'!+(, +4+, A\$#!\$#. (';!1A-!#C'!FD\$-!, . 'B!7.A%!* .55A(+7!#. .C!
#C'u!WD\$-!B!7.A%!'(4+%.(5'(-!\$-!D.5'!#. .C!#C'uIII! [.!7.A!D\$4'!5'(-\$#!D'#\$-D'B'%4+*'B!
1'+(/!9%.4+, ' , uIII!HB!7.A%!* .55A(+7!9\$%-!.G!\$!/\$(/!+(EA(*-+. (uIII!H!-D+(C!\$!#. -!.G!-D'!
9'.9# '!-D\$-!\$%'!*\$%%7+(/!.A-!-D'!'B-.%\$-+4'!EAB+*'!9\$*+*'B!+(!-D'B'!B*D. .#B!\$%'(1-!, .+(/!

!

M. 5 '!+(-'%4+'F' 'B!1%.A/D-!A9)!*.(*'% (B!\$1 .A-!-D'!^A\$#+G+*\$-\$+. (B!\$(,!-%\$+(+(/!.G!
 %'B-.%\$-+4'!EAB-+*!'G\$*+#+-\$-.%BI!) ('!+(-'%4+'F'!'!%'G'%%',!-.-!-D'!,+B-%+*-YB!N@!+5 9# '5' (-\$-+. (!B!
 B+ 5 9#7!*D' *C+(/!.GG!1 .J' B!.(!*\$!D' *C#B-!17!\$BBA 5+(/!-D\$-!\$B!#. (/!\$B!-D'!-F .!, \$7!-%\$+(+(/!\$(,!
 F.%CBD.9B!\$%'!9%.4+, ',!-.'!\$*D!B*D. .#;!N'9.-%-',!. ('\$*-+4+B-Z!g-D'!, 'G+*+B!r.G!-D'!, +B-%+*-YB!
 9%./%\$ 5 !+(*#A, ',s!-D'+%!+, '\$!.G!-%\$+(+(/!F\$B!7 .A!-%\$+(!G.%!-F.!, \$7B;!\$(,!(. F!7 .Al%!'!\$B.-%-!.G!
 EAB-+*!'#\$, '% t I!/'--+(/!\$!*'%+G+*\$-\$-',. 'B(1-!5 '\$(!BD+- j !\ .A!C(. F!-F.!, \$7!-%\$+(+(/;! ,. 'B!+-!
 ^A\$#+G7!7 .A!-.!1'!'!\$B.-%-!.G!EAB-+*!'* .A(B'#.%uh!U 8 *-+4+B-!>!<=<>VI! 8 (-D'!\$*-+4+B-!\$(,!G.% 5 '%#7!
 +(*\$*%'\$-\$-',!7.A(/!\$,A#-!'*D.',!-D+B!,+B-%AB-;\$B!F'##!\$B!\$!G!AB-%\$-+. (!.4'!%-D'!. 5 +BB. (!.G!
 G\$*+#+-\$-.%B!FD.!5 \$7!1'!5 .%'!BA+-',!G.%!-D'!E. 1Z!!

-D'%'!\$%'!-%\$+(,!%'B-.%\$-+4'!EAB-+*!'9%\$*-+*+. ('%B!FD.!7.A!C(. F;!1'#+ '4'!+(!-D'!rN@s!!
 ! 5 ., '#;!FD.!D\$4'!-D'!'B.A%*'B;!D\$4'!-D'!5 '\$(B!-.!B'!'!+!*\$%'+',!.A-!+(!-D'!F\$7!-D\$-!+!F\$B!!
 ! '(4+B+. (' ,IH(B-'\$,!.G!-D' 5 ;!-D'!B*

!

F+-D!-D'!8 (-+aN'*+,+4+B5!" . \$#++. (I!d'!B9.C'!-!-D'!+59.-%-\$(*!.G!B*D. .#B!* .##\$1. %\$-+(!F+-D!
5 ' 5 1 '%B!.G!-D'!* . 5 5 A(+7!-D\$-!-D'7!B'%4'Z!

M*D. .#B!(' ' ,!- !# . .C!+(- !-D'!\$#-'%(\$-+4'B!-D\$-!'J+B-!+(!-D'!* . 5 5 A(+7!KD'7!(' ' ,!- !# . .C!
+(-.!(. (a9%.G+!..%/\$(+Q\$+. (B!-D\$-!*A%%'(-#7!, .!\$#-'%(\$-+4'!F.%C!\$.A(, !D. F!-., 'a'B*\$#\$-'
-D'!B+-A\$+. (!.%!D. F!-.'!\$##7!\$, ,%'BB!-D'!' \$#!9%.1# ' 5 t !!B*D. .#B!(' ' ,!- !%' \$##7!9\$%-('!
F+-D!9.9A#\$+. (B;!-D'% '\$% ' !B. 5 '!..%/\$(+Q\$+. (B!#+C'!8N" !r8 (-+aN'*+,+4+B5!" . \$#++. (s!

!

9%\$*+* 'B!-D%.A/D.A-!-D',+B-%+*-,!(C' '9+(/!F+D! [%I!&\$% ' (!O\$99YB!G%\$ 5 ' F .%C! .G! [A\$#!

" \$9\$*+7aLA+#,+(/!FD+*D!9 .B+B!-D\$-!9\$%' (-!\$(,!* . 5 5 A(+7!+'B!gD\$4' !B!7B-' 5 +*!\$(, !BAB-\$+(' ,!

'GG'*-! .(!# '\$%(+(/! .A-* . 5 'B!G .%!*D+#, '% (!\$(,! .(!FD.#'!B*D. .#!+5 9%.4' 5' (-B!!UO\$99! 2 !&A--('!<=>?;!bVI!KD+B!B-A, 7!\$, 4. *\$-'B!G .%!1A+#,+(/!B-%. (/ '%!9\$%-('%BD+9B!1' -F'' (!T 8!9A1#+*!B*D. .#B;!

' 5 9#.7' 'B!\$-!* . 5 5 A(+7!1\$B', !.% /\$(+Q\$+. (B;!\$(,!-D'!-%AB-',!* . 5 5 A(+7!# '\$, '%B!-.!G.B-'%!\$!

5 .% '!*A#-A%##7!% '# 4\$(-!\$(,!# .*\$+-. (aB9'*+G+*!'B-. %\$-+4'!9%\$*+* 'I!KD'!-D+%, !99%. \$*D!-. !5 \$C+(/!

'GG'*-+4'!AB'!.G!'B-. %\$-+4'!EAB+*!'!+(!B*D. .#B!-D\$-!+B!%'* . 5 5 '(, ,!+B!-.!, '4'#.9!B-A, '(-!

#'\$, '%BD+9!17!9%.4+,+(/!-%\$+(+(/!G.%!B-A, '(-!N@!9%\$*+*+. ('%B;!A(, '%!-D'!BA9'%4+B+. (!\$(,!/A+, \$('*!'

.G!-D'!'B-. %\$-+4'!EAB+*!'!\$, 4+B.%I! 8 , ,+-. (\$##7;!+!+B!%'* . 5 5 '(, ,!-D\$-!'B-. %\$-+4'!9%\$*+* 'B!1'!'

B+/(+G+*\$(-#7!' J9\$(, ,!+(-D'!'A%+*A#A 5 !.G!T 8 OM [YB!3\$%#7!" D+#, D. . ,!3, A*\$+-. (!"' (-'%B!

U3 " 3 "BV!+(!.% , '%!-. !B'-\$!B-%. (/!G.A(, \$+-. (!G.%!-D'!'* . (+A\$+-. (!G!'B-. %\$-+4'!4\$#A' B!\$(, !

9%\$*+* 'B!-D%.A/D.A-!\$!*D+#, YB!+5 '!(+!B*D. .#!I3\$*D'!G!-D' B'!'! * . 5 5 '(, \$+-. (B!\$%'! J9#\$+(' ,!+(!

5 .% '!, '9-D!+(!-D'!G.##. F+(/!9\$/ 'B!

!

! N'B-. %\$-+4'!EAB+*!'! '\$, +('BB!UN@NV!+B!g-D'!5 '\$BA%'! .G!1'#+ 'GB!\$#+/ (' ,!F+D!G.A(, \$+-. (\$#!

N@!9%+(*+9# 'B!\$(,!4\$#A' B!* . (*'% (+(/!D\$% 5 ;!(' ' ,B;! . 1#+/\$+-. (B;!\$(,!' (/ \$/' 5' (-h!UP%' '%!<=>f; !+++VI!

N'B' \$%*D!+(, +*\$-'B!-D\$-!+ 5 9# ' 5' (+(/!\$(, !BAB-\$+(+(/!N@!+(!B*D. .#B!*\$(!1'!B'4'%' #7!D+(, '% , !17!\$!

#\$*C! .G!g1A7a+(h!#\$*C! .G!F+##+(/('BB!-. !+ 5 9# ' 5' (-!'B-. %\$-+4'!9%\$*+* 'B;! .%!\$! 5 +B\$#+/ (5' (-!

1' -F'' (!-D'!4\$#A' B'!.G!B*D. .#B!-\$GG!\$(,!-D'!9%+(*+9# 'B! .G!'B-. %\$-+4'!EAB+*!'!UP%' '%!<=>fc!T+1' % 5 \$(!

2 !&\$-Q!<=>:c!O\$7F .% 5 !-'!\$#!<=>kc!NA1+ .!<=>fVI!H(B-' \$, !.G!B-\$ (, a\$#. (' !N@!9%\$*+* 'B!U#C' !

\$##+(/!+(!, +B-%+-!N@!* . . ,+(\$-. %B!G .%B9' *+G+*!'(+* , ' (*' B! .G!D\$% 5 !.%. ('a.GG!-%\$+(+ /BV!T 8 OM [!

BD.A#,!* . 5 5 +!-. !FD.#' aB*D. .#!5 . , #B! .G!N@!+ 5 9# ' 5' (-\$+-. (!-D\$-!\$, , '%BB!B*D. .#!*# 5 \$-'!\$(, !

!

AB'!\$!* . (+ (AA 5 ! . G!9%\$*-+* 'B!- . !9%' 4' (-!\$(, !%' B9 . (, !- . !D\$% 5 B; !1 . -D!+(, +4+ , A\$#!\$(, !B7B- ' 5 +*!

UP% ' ' %!<=>fc!O* " #ABC'7!' -!\$#I!<==fVI!!

!!

!

!! ['B9+- '!-D'!G\$*-!-D\$-!-D'!T 8!0 (+G+ , !M*D . .#!L . \$% , !4 . - ' , !- . !%' 5 . 4' !B*D . . #!9 . #+* ' !G% . 5 ! \$##!

T 8 OM [!B*D . . #B; ! . (#7!b?!B*D . . #B; ! \$##!B '* . (, \$%7!B*D . . #B; ! \$%' !1 '+ (/GA(, ' , !- . !D+% ' !*# + 5 \$- ' !

* . \$*D' B!\$(, !%' B- . %\$-+4' !EAB+* ' ! \$, 4+B . %B!UOA%%\$7!<=>VI!WD' (!%' 5 . 4+ (/!9 . #+* ' !G% . 5 !1 '+ (/!

B-\$+ . (' , ! . (!B*D . . #!*\$ 5 9AB' B; !B-% . (/!BA99 . %-B! 5 AB-!1 ' !+ (!9#\$* ' !- . !' (BA% ' !B-A , ' (-!B\$G' -7I! 8B! . (' !

G . % 5 ' % #7!+ (*\$* ' %\$- ' , !7 . A-D!\$*-+4+B-!B-\$- ' , ; !gF' !-\$#C!\$1 . A-! , +B 5 \$(-#+ (/I!W' !-\$#C!\$1 . A-!-' \$%+ (/!

, . F (I!LA-!F' !D\$4' !- . ! \$#B . !-\$#C!\$1 . A-!1A# , + (/!\$(, !*% '\$+ (/!\$(, !9A-- (/!B . 5 ' -D+ (/!+ (!+B!9#\$* ' ; !

7 . A!C (. F; !*% '\$+ (/!\$#- '% (\$-+4' Bh!U6+ (' , \$!<=>VI!H-!+B! *%A*+\$#!-D\$-!-D' ! , +B-%+*-' !' J9\$(, B!-D' +%!(' F!

!

] /A'%'>eebVI!6\$%-+*9\$(-B!+(!B-A,7!.G!-D'!['(4'%!6A1#*!M*D. .#! [+B-%+*YB!'B-.%\$-+4'!EAB-+*']

+59#'5'(-\$+.(!\$(,!9%\$*-+*B!\$##!\$/%'',!-D\$-!\$-!#'\$B-!.(!;!GA##a+5'!*..%,\$(-.%!G!'B-.%\$-+4'!

9%\$*-+*B!F\$B!('*'BB\$%7!+(!B*D. .#B!-D\$-!\$(/',!(+B+Q'!G%. 5!%.A/D#7!?==!-.!>====!B-A, '(-B!U8(7.(!

<=>kVI!KD+B!9'%B. (YB!'B9. (B+1##++'B!gABA\$##7!+(*#A, ',!1A+#,+(/!%'#\$-+. (BD+9B!F+-D!B-A, '(-B!

-D%.A/D.A-!-D'!B*D. .#;!G\$*+##-\$(+(/!G.%5\$#!*. (G'% '(*'B!..%5', +\$+-. (B;!G.##. F+(/!A9!. (!%'9\$+%

\$/%' '5'(-B;!\$(,!9%.4+,+(/!-%\$(+(/!..%!*.\$*D+(/!-.!B-\$Gh!U8(7.(!<=>k;!`VI!6A-!B+59#7;!%B-.%\$-+4'!

EAB-+*']\$(,!-D'!'1'D\$4+.%\$#!BA99.-%-B!F.%C!1'B-!FD'(!-D'7!\$%'!G\$*+##-\$(,!17!\$!-%AB-',!5'51'%'!.G!

-D'!*..55A(+7!+(!FD+*D!-D'!B*D. .#;!+B!B+-A\$-',!UW+#B. (!'-I!\$#!<=>:c!] /A'%'>eebVI!!!

!! WD'(!T8OM[!N@!*..%,\$(-.B!\$%'!'B9. (B+1#!G.%!5\$(7!B*D. .#B;!\$(,!-D'%'G. '%!D\$4'!#BB!

\$9\$-7!-.!D\$4'!B-'\$,7!\$(,!%#+\$1#!'9%'B'(*'!.(!+(\$+4,A\$#!*\$59AB'B;-D'7!D\$4'!#BB!.G!-D'!

(*'BB\$%7!9%'a'J+B-+(/!-%AB-;!%B9'*-;!%C(.F#',/!'!.G!-D'!B-A, '(-B!..%!'\$*D'%B!+(4.#4',!-..!

!

\$(, !EAB+* 'I!N@\$,4+B .%B! 5 AB-!/. !G\$%1'7. (, !EAB-\$, ,%'BB+(/!+(*+, ' (* 'B!\$B!-D'7!* . 5 '!A9!KD'7!

BD .A#, !%'B'%4'!'+5 '!'-'\$*D!7 .A-D!-D'!, '-\$+#B! .G!%'B- .%\$-+4'!9%\$*-+* 'B!\$(, !D .F!- .!G\$*#+-\$- '!'-D .B'!

9%\$*-+* 'B!\$(, !4\$#A 'B!-D' 5 B'#4' BZ!!

W'!F '% '!G+%B-!1' /+((+ (/!F+-D!* . 5 5 A(+7!1A+#, +(/!*+*# 'B!\$(, !D\$4+(/!-D' 5 !rB-A, ' (-Bs!, .!!
! -D\$-!+(!B 5 \$##!/% .A9B;!B .!5 7!-F .!B*D .#B!B!-D\$-!/%\$, A\$- ', ;!-D'7!F '% '\$1#!'- .!, .!B 5 \$##!/% .A9!
! * . 5 5 A(+7!1A+#, +(/!*+*# 'B!F+-D!-D'!D .9'!' .!1'!'\$1#!'- .!D\$4'!'-D' 5 !/ .!+(-. !\$, 4+B .%7!\$(, !!
! * .aG\$*#+-\$- '!'* . 5 5 A(+7!1A+#, +(/!*+*# 'B!F+-D!-D'!\$, 4+B .%!.%!FD . '4'%'!B!-D'!'#, '%!-'\$*D'%'!
! +(!-D'!B9\$*'!'UK '\$*D' %!>!<=<>VI!
!

8 ,4+B .%7!9'%' . ,B;!1%' \$CG\$B-n9%' aB*D . .#;!#A(*D!9'%' . ,;\$\$(, !G-\$%'B*D . .#!+5 '!BD .A#, !1'!'* . (B+, '%', !

G .%!'-D+B!B .%-'! .G!* . 5 5 A(+7!1A+#, +(/;!-\$+((/!\$(, !*\$9\$*+-7a1A+#, +(/!F+-D!B-A, ' (-BI!HG!\$-!\$(7!9 .+(-!

+(!+5 '!, A%+(/!-D'!, \$7!B . 5 '-D+(/!+B!- .!. **A%F+-D!\$!7 .A(/!9'%'B . (! . (!*\$5 9AB;!FD' -D'%'!+!1'!'!+(!-D'!

#B\$B% . . 5 !. %!. A-! . (!-D'!7\$%, ;!-D'!'B- .%\$-+4'!EAB+ '\$, 4+B .%BD .A#, !\$*-!\$B! . ('!.G!-D'!G+%B-!

+(-'4'(-. (B!, '9' (, +(/! . (!-D'!-79'!.G!+(*+, ' (-I_ .%!' J\$ 5 9#';!+G!-D'!'!+(*+, ' (-!+(4 .#4' B!9D7B+*\$#!

!

% 'B-.%\$-+4 '!9% . * 'BB!\$%'!' '*'+4+(/!-D'!'\$99%.9%+\$- '!F%\$9a\$%.A(,!BA99 .%-BI! 8 , ,++ . (\$##7;!B*D . .#B!\$(,!
-D'! ,+B-%+*-! 5 AB-!BA99 .%-!\$, 4+B .%B!+(!* . 5 5 A(+7! .A-% '\$*D!+(++\$-+4 'B!- .!GA%-D '%!B-' (/ -D' (!-D'!+ 'B!
1 '-F' ' (!* . 5 5 A(+7!5 ' 5 1 '%B;!* . 5 5 A(+7a1\$B' ,!.%/\$(+Q\$-+ . (B;!B' %4+* '!9% .4+ , '%B;!\$(,!-D'!B*D . .#!
* . 5 5 A(+7Z!

KD' !N@!% . . 5 !+B!4 '%7!*# .B'!- .!. A%!6\$%' (-B!'' (-'%!\$(,!H!F .%C!4 '%7!*# .B'#7!F+D! .A%!!
! 9\$%' (-B!\$(,!. A%!9\$%' (-B!'9!\$B!F'##!\$B! .A%!* . 5 5 A(+7!#+\$B . (I!H! ,+ ,!9% .G'BB+ . (\$#!
! , '4'# .9 5' (-!F+D! .A%!* . 5 5 A(+7!9\$%-('%B!G .%!-D' 5 !- .!A(, '%B-\$(,!FD\$-!+B!N@!\$(,!FD\$-!
! \$%'!B . 5 '!9%\$*+* 'B;!B . 5 '!% 'B- .%\$-+4 '!B-%\$- /+ 'B!-D\$-!7 .A!*\$(\$!+5 9# ' 5' (-!\$B!\$!B' %4+* '!!
! 9% .4+ , '%!G .%! .A%!C+ ,B!\$(,!G\$ 5 ##+ 'B!FD' (!7 .A!(' ' ,!-D' 5 !UK '\$*D' %!>!<=<>VI!
!

!

8B!-D'!G+(,+ (/B!\$1 .4 '!D\$4'!BD . F (;!1A7a+(!\$(,!' J-' (B+4'!C(. F# , /!'! .G!'!B- .%\$-+4 '!EAB+* '!
9%\$*+* 'B!17!\$, 5 +(B-%\$- .%B!+B!\$!C'7!* . 5 9 . ((-!+(!!\$!BA**'BBGA#B*D . .#aF+ , '!% 'B- .%\$-+4 '!
* . 5 5 A(+7I!L '*\$AB'!g-D'!\$, .9+ . (! .G!\$!'B- .%\$-+4 '!EAB+* '!99% . \$*D!- .!, +B*+9#+('! .%+ '(-' ,!F+D+(!
+(,+4+ ,A\$#!B*D . .#!* . 5 5 A(+7+'B!* .A9# , !F+D!B- . (/!B*D . .#!# '\$, '%BD+9!*\$(!% , A* '!%\$*+*\$!
 ,+B9% .9 .%-+ . (\$#+-7!+(!B*D . .#! , +B*+9#+(' ;h!\$(,!-D'!' '\$#+-7!-D\$-!' J+B+(/!B*D . .#!\$, 5 +(B-%\$- .%B!BD .A# ,!
(.-!1'!*D\$%/ ' ,!F+D!1 '\$%+(/!-D'!GA##!F' +/D-! .G!\$, ,++ . (\$#!N@a%'#\$- , !% 'B9 . (B+1+#++'B;!+!+B!
% '* . 5 5' (, ' ,!-D\$-!' '\$*D!' . 5 5 A(+7! .G!M*D . .#!+(!-D'! , +B-%+*-!UB 5 \$##!/% .A9B! .G!\$1 .A-!B'4' (!
B*D . .#B!# .*\$- , !F+D+(!-D'!B\$ 5' !(' +/D1 .%D . . , !.%!\$%' \$V!D+% ' !\$(' F!# '\$, '%BD+9!9 .B++ . (!+(!*D\$%/ '!

!

!

#1 5 \$- '! \$ 5 . (/!B-\$GG j D'#9+(/!-.!B7(-D'B+Q'!'B-.%\$-+4'!EAB-+ '!F+-D!.-D'!\$##'\$,7!'B-\$1#BD',!

1'D\$4+.%\$#!\$(,!B.*+.a'5.-+.(#\$!BA99.-!9%\$*-+*'B!#C'!6LHM;!D.#,+(/!*D'*Ca+(B!F+-D!-'\$*D'%B;!

G\$*#+-\$-+(/!*+*# 'B!F+-D!-'\$*D'%B!\$(,!B-\$GG;!\$(,!5 \$C+(/!BA%'!-D\$-!'B-.%\$-+4'!9%\$*-+*'B!\$%'!D'#,!

*.(B+B-'(-!\$5.(/!B*D..#!'59#.7''B!\$(,!-D'!\$,5+(+B-%\$-.%BI!O#+5\$- '#7;!-D+B!9.B++.(!F.A#,!1'!

+(!*D\$%/ '!G!\$##!-D+(/B!N@!\$-!-D'+%! ".55A(+7!.G!M*D..#B;!#+'4+(/!9%'BBA%'!GG!\$##'\$,7!

.4'%F.%C',!B*D..#!\$,5+(+B-%\$-.%B;!\$(,!F.A#,!9%.4+, '\$(!\$, ,++.(#\$!\$** .A(-\$1+#+-7!5 '*D\$(+B5!

FD+*D!5\$(\$/'B!1.-D!.4'%B1.-5D5#%'\$A(+ '#1+.A#(\$) 0 . 2 (. 2 (\$) 0 . 2 (#) 0 % 2 (B) -0 . 2 !17!9(#) 0 . 2 (, 7!)] T

!

+(!-D'+%!* . 5 5A(+7!5 \$7!G' '#!5 . %'!* . (('*-' ,!- .!-D'!1 'B-!+(- '%B-B! .G!B-A, ' (-B!G% . 5 !-D'+%!'\$;\$!(,!
4+* '!4' %B\$I!

T8 OM [!BD .A# ,!\$## . F!B*D . . #B!-D'!\$A- . (. 5 7!- .!' (- '%!+(- .!'* . (-%\$*-B!F+-D!F+##+ (/!" L) B!
\$(,! .-D' %!* . 5 5A(+7!' (-++ 'B!+(!. % , '%!- . !BA99 . %!- %AB-' ,!* . 5 5A(+7!# '\$, '%B!+(!-D' +%!F . %C!\$B!
7 .A-D!U\$(, n . %!9\$%' (-V!\$, 4 . *\$- 'B;! 5 ' (- . %B;!\$(,!* . 5 5A(+7!+(- '%4' (-+ . (\$#B-Bn9 '\$* ' 5 \$C' %BI!H-!+B!
%* . 5 5 ' (, ' , !-D\$-!-D' !5 . , '#!G . %!+(*% '\$B' , !\$A- . (. 5 7! . G!B*D . . #B!1 ' !1\$B' , ! . (!T8 OM [YB!6+ # . -!
M*D . . #B;!FD+*D!*A%%' (-#7!D\$4' !5 . %' !\$A- . (. 5 7! . 4' %!-D' +%!1A , / - ; !*\$5 9AB!9 . #+*+ 'B;!\$(, !D+%+ (/!
9%\$*+* 'B!U6' %'Q!<=>VI!) ('!' J\$5 9# ' ! . G!6+ # . -M*D . . #B!BA**' BBGA#7!9\$%- ('%+ (/!F+-D! " L) B!- . !
+5 9# ' 5 ' (-!\$(, !9%\$*+* '!'B- . %\$-+4' !EAB+* ' !+B!3B- ' 1\$(!K . %% 'B!d+/D!M*D . . #;!FD+*D!9\$%- ('%B!F+-D!
-D' ! " \$#G . %(\$! " . (G' %' (*' !G . %!3 ^A\$#+-7!\$(, !@AB+* ' !- . !\$, 5 +(+B- '%!\$, , ++ . (\$#!'B- . %\$-+4' !EAB+* ' !
-%\$+(/B! . (!-D' !5 A#+aB*D . . #!*\$5 9AB!\$(, !'4' (!G\$*+#+-\$- '!'B- . %\$-+4' !+*%*# 'B!U6' %'Q!<=>VI!
3J -' %(\$#! . 9' %\$- . %B! . G!T8 OM [!B*D . . #B!#C' !-D' !6\$%- ('%BD+9!G . %!T8 !M*D . . #B!D\$4' ! \$B . !9% . 4' , !-D\$-!
+(*% '\$B' , !\$A- . (. 5 7!\$(, !G# ' J+1#+-7!*\$(!\$## . F!G . %! 'GG' *-+4' !9\$%- ('%BD+9B!F+-D! " L) B;!FD+*D!D\$B!
G . B- '% ' , ! \$!g 5 . %' !\$A-D' (-+*!+5 9# ' 5 ' (-\$-+ . (! . G! 'B- . %\$-+4' !EAB+* 'h!\$-!-D . B' !B*D . . #!B+ 'B!U6' %'Q!
<=>VI!6' %'Q!\$(, !-D' %!T8 OM [!' 5 9# . 7' 'B! (. - !-D\$-!B*D . . #B!A(, '%!-D' !5 \$(\$/ ' 5 ' (-! . G!-D' !
6\$%- ('%BD+9!#C' !N . . B'4' #-!d+/D!M*D . . #!\$(, !O' (, 'Q!d+/D!M*D . . #;!g% 'B- . %\$-+4' !EAB+* ' !# . . CB!
/ % '\$- ; !1' *\$AB' !-D . B' !B*D . . #B!D\$4' !5 . %' !\$A- . (. 5 7!\$(, !G# ' J+1#+-7h!U6' %'Q!<=>c!K' \$*D' %!>!<=>VI!
KD' B' ! . %/ \$(+Q\$-+ . (B!\$(, !+ (, +4+ , A\$#B!BD . A# , !F . %C!F+-D!N@!8 , 5 +(+B- %\$- . %B;!B-A , ' (-!9%\$*-++ . ('%B;!
N@\$, 4+B . %B!\$(, ! . -D' %!BA99 . %!B-\$GG!- . !B' %4' !B!9\$%' (-!#+\$B . (B!\$(, !% '9% 'B' (-\$-+4' 'B-A , ' (-!\$##+ 'B;!
\$(, !D' #9!G\$*+#+-\$- '!' %-\$+(!N@!+*%*# 'B!FD' (!(' ' , !I!P+4' (!-D\$-!'4' %7!B*D . . #!\$(, !* . 5 5A(+7!+B!
 , +GG' %' (-; -D' %' !5 AB-!1' !G# ' J+1#+-7!+(!D . F!-D+B!9\$%- ('%BD+9!F . A# , !# . . C!1\$B' , ! . (!-D' !(' ' , B! . G!-D' !
\$% '\$YB!B-A , ' (-B!\$(, !9\$%' (-BI!!

!

8B!9\$%'(-n*. 5 5 A(+7!#+\$+B. (B;!5 ' 5 1 '%B!.G!"L)B!\$(,!*. 5 5 A(+7!#'\$, '%B!BD.A#,!\$BB+B-!+(!
9\$%'(-!'(/\$/ ' 5 '(-!\$(,! ,A*\$+.(!\$.A(,!N@!-.!D'#9!B-A, '(-B!*. (-+(A!'!B-.%\$+4'!* . 5 5 A(+*\$+.(!
\$-!D. 5 'Z!\$!9%+(*+9\$#!'(/\$/ ' ,!+(!'B-.%\$+4'!9%\$*-+*'B!+(!L\$#+5 .% '!(.- ' ,!+(!\$!B-A,7!.G!-D'!9%./%\$5!
-D\$-!g+-!+B!D\$% ,!-.!1A+#,!% '#\$+.(BD+9B!F+-D!9\$%'(-B;!1A-!'B-.%\$+4'!9%\$*-+*'B!*\$(!D'#9!_A%-D'% 5 .% ' ;!

!

6#\$(;!9\$%-('%+(/!F+D!#. *\$#!* . 5 5 A(+7!1\$B' ,!.%/\$(+Q\$-+. (B!- .!+ 5 9%. 4' !B*D. .#!*#+ 5 \$-'!*. A#, !/ .!\$!

!

9' '%B!D\$4'!\$!D\$(,!+(!-%\$+(+(!-'\$*D'%B!\$(,!.-D'!\$A-D. %+7!G+/A% 'B!-D'7! 5 \$7!1'!5 .% '!'-%AB+(/! .G!
 -D'!B*D. .#YB!'B-. %\$+4'!9%. *'BB!U3#\$5 !<=<>c!L\$%1 .B\$!<=<>VI!KD'!AB'!.G!B-A, '(-!9%\$*-++ . ('%B!
 9%.4+,+(/!N@!'J9'%'B'!\$(,!\$,4+B+(/!-!-'\$*D'%B!*\$(\$!\$#B. !B+/ (+G+*\$(-#7!1' ('G+!-D'!9%\$*-+*'!+B'#G!
 17!+(GAB+(/!B-A, '(-BY!#4' ,!'J9'%'+' (*'B!\$(,!B9' *+G+*!'(' ,B!+(-. !-D'!-%\$+(+(/;!'(BA%+(/!-D\$-!-D'!
 -%\$+(+(/!*A%+*A#A5 !+B!(.-!\$!g. ('!B+Q'!G+B!\$##h!\$(,!+B!+(,+4, AS#Q' ,!-!-D'!B-A, '(-B!\$(,!
 *. 5 5 A(++'B!'\$*D!B*D. .#B'%4'BI!

KD+B!5 . , '#!5 \$7!F. %C!1' B-\$5 . (/!D+/D!B*D. .#%'B!1A-!* .A#, !\$#B. !+(*#A, '!5 +, ,#B'D. .#%'B!
 \$(,!'4' (!B-A, '(-B!-\$!(!'# '5' (-\$7!# '4'#; !F+D!\$, EAB- , !# '4' #B! .G!B-\$GG!+(4. #4' 5' (-!, '9' (,+(/! .(!
 -D'!9%\$*+*9\$(-BY!\$/ ' !U3#\$5 !<=<>VI!M*D. .#B!BD. A#, !\$BC!-'\$*D'%B; !B-\$GG!\$, 5+(+B-%\$- .%B; \$(,!
 B-A, '(-B!-!(. 5+(\$-'B-A, '(-B!G. %!-D' B'!9. B++ .(BI!KD' B'!(. 5+(\$+ .(B!5 \$7!1' !!\$!* .5 1+(\$+ .(!G!
 +, '(-G7+(/!B-A, '(-B!FD. !D\$4'!, +B9#\$7' ,!1'D\$4+. %\$#!9%. 1# '5 B! .%!FD. !F. A#, !1' ('G+!G%. 5!-D'!
 *A%+*A#A5 !;\$#. (/!F+D!B-A, '(-B!FD. !\$%!5 .% '!'BA**'BGA#!\$*\$, '5+*\$##7!\$(,n. %!B. *+##7!UO .#+(\$!
 <=>bc!3#\$5 !<=<>VI) ('!T8 OM [!' 59#. 7'!'(-. ,!-D\$-!B*D. .#B!BD. A#, !-7!-!%'*A+!-D'!B-A, '(-B!
 FD. !\$%'B-%A//#+(/! .%!FD. !\$%'!5 .B-!4A#('%\$1# '!.!/' --(/!9ABD' ,!A-! .G!B*D. .#!+(-. !-D'!B*D. .#%a- .a
 9%+B. (a- .a, '9. %-\$+. (19+9'#+('!-!1'!9%\$*-++ . ('%BZ!g-D'!9' .9# '!-D\$-!7. A!(' ,!-!# '\$, !%B- .%\$+4'!
 EAB+*'!\$%'!-D'!9' .9# '!-D\$-!\$%'!-D\$-!\$%'!*\$-A\$##7!+(!-D'!-%' (*D' B!F+D!\$(!A(,'%B-\$(,+(/! .G!FD'%'!
 -D' B'!C+, B!\$%'!* .5+(/!G%. 5h!UT8 OM [!3 59#. 7'!'<=<>VI

M-A, '(-B! .G-' (!D\$4'!\$!1'--'%A(,'%B-\$(,+(/! .G!-D'!D\$%, BD+9B!-D'+%19' '%B!5 \$7!1'!
 'J9'%'+' (*+(/; !5 \$7!D\$4'!BD\$%, !#4' ,!'J9'%'+' (*'B!F+D!-D'+%19' '%B; \$(,!D\$4'!C(.F#', /'!.G!-D'!
 .4' %\$##!#\$(,B*\$9'!.G!-D'+%!* .5 5 A(+7! .A-B+, '!.G!B*D. .#F\$##B!-D\$(-'\$*D'%B! .%!B-\$GG!L '*\$AB'!.G!
 -D+B!C(.F#', /'; !B-A, '(-!9%\$*-++ . ('%B!F###1'!-%\$+(,!17!-D'+%!B*D. .#YB!N@!8 ,4+B. %!-!1'!\$, 4. *\$-'B!
 G. %!-D'+%19' '%B; !B9' *+##7!FD' (!5' ,+\$+. (11'-F' '(B-A, '(-B!\$(,!T8 OM [!' 59#. 7'!'B!+B!(' ,', !
 1A-!\$#B. !9' '%a- .a9' '%U3#\$5 !<=<>VI!KD'7!\$%'!\$#B. !F'##!9. B++ .(,!-!D\$4'!-D'!+59. %-\$(-!

!

\$B!\$!4.#A(-\$%7!.99.%-A(+7!-.!B'%4'!-D'!B*D..#!*.55A(+7!F+D!#+-#!'+(*'(-+4'!1'7.(,!G%'!'
 +(-'(B+4'!G\$*#+-\$-+.(!-%\$+(+(/!\$(\$,!\$!*D\$(*'!-.!5\$C'!\$!9.B++4'!+59\$*-.(!-D'+%19'%'B;!B-A,'(-B!B\$7!
 9%\$*--+.('%B!\$%'!5. '%!#C'#7!-.!1'!'/'(A+('#7!*\$%+(/!\$(\$,!9\$BB+.(\$-'!\$1.A-!%B-.%\$-+4'!EAB-+*'
 U%\$-D'!-D\$(!9\$%+*+9\$+(/!G.%!5.('7!.%!\$**.#\$, 'BV!U3#\$5!<=>VI!T80M[!'59#.7' 'B!'9.-%-',!-D\$-!
 -D'!AB'!.G!B-A,'(-!N@!9%\$*--+.('%B!\$#B.!+59%.4',!A-*.5'B!G.%!-D'!+(,+4+,A\$#9%\$*--+.('%B;!
 B\$7+(/!-D\$-!G!rN@!\$-!B*D..#Bs!+B!,.('9%.9'#7;!7.A!F.A#,!D\$4'!B-A,'(-B!%A((+(/!-D'B'
 .55A(+7!+*#B!FD+*D!*\$(!/+4'!-D'5!\$(!\$%%\$7!.G!BC+##B!#C'!#'\$,%BD+9;!/%.F-D!5+(,B'-;
 '59\$-D7!U<=>VI!

H59#'5'(-+(/!-D'!AB'!.G!B-A,'(-!%B-.%\$-+4'!EAB-+*!'9%\$*--+.('%B!+B!'*.55'(',',!B!\$!F\$7!
 -.!\$,,%'BB!B.5'!.G!-D'!*.(*%'(B!9%'B'(-',!+(!-D'!G+(,+(/B!B'*-.(!.G!-D+B!B-A,7!8(!'J\$5+(\$+.(!
 .G!\$!*D\$%-!'B*D..#!+(!O6M!FD+*D!-%\$+(,'!B-A,'(-B!+(!%B-.%\$-+4'!EAB-+*!'!G\$*#+-\$-+.(!G.A(,!-D\$-!
 B-A,'(-YB!#\$,%BD+9!9.B++.(!+(!-D'!G\$*#+-\$-+.(!.G!N@gBA99.-%-',!\$(!+(*%'\$B+(/#7!*.'D'B+4'!
 .(+(AA5!.G!9%\$+*#B!\$-!D'!9%+5\$%7;B'*.(,\$%7;!(,!'-%+\$%7!+'%B;h!C'9-!D'!9%\$*+*!'!/%.A(,',!
 +(!*.55A(+7!\$(,!#.*\$#!*A#-A%';!G.B-'%',!5. '%!-AB-!1'-F'!'(B*D..#!\$(,!G\$5+#+B;\$(,!9%.4+',!
 \$(!\$,,++.(\$#!5 '*D\$(+B5!-.!D.#,!-'\$*D'%B!\$(,!\$,5+(+B-%\$+.(!\$**.A(-\$1#!G.%!-D'!BA**'BBGA#!
 +59#'5'(-\$-+.(!.G!N@!\$-!-D'!B*D..#!UP.(QR#'Q!'-!\$#!<=>f;!kVI!

!!

8!#\$%/'!9\$%-!.G!'B-.%\$-+4'!EAB-+*!'!\$-!B*D..#B!5AB-!1'!9%. \$*-+4'Z!'B-\$1#BD+(/!'J9'*\$-\$+.(B;!4\$#A'B;!

\$(,!D'\$#-D7!5'-D.,B!.G!*.'55A(+*\$-+.(B!G%.5!\$(!'\$%#7!\$/!'-!9%'4'(-!+(*+',(-B!.G!D\$5!\$(,!-..!

!

% '* . 5 5 ' (, ' , !-D\$-!N@!+(!B*D . . #B!B-\$%-!\$-!\$! 5 A*D!7 . A (/ '%!\$ / !UP% / / . %7!2!34\$(B!<=<=<c!W' 11 '%!

'-!\$#I!<=<=<c!3#\$5 !<=<>c!m+ 5 5 '%!<=<>VI!KD+B!9% '* , ' (-!G . %!' ^A+-7a1\$B' , !% 'B- . %\$-+4 '!4\$#A 'B!\$(, !

* . 5 5 A(+*\$-\$+ . (!BD . A# , !B-\$%-!\$B! '\$%#7!\$B!9 . BB+1# '\$(, !B!BA*D;!T 8 OM [!BD . A# , !% '^A+% ' !\$##! '\$%#7!

D+#, D . . , !' , A\$-\$+ . (!* ' (- '%!U3 " 3 " V!- '\$*D' %B; !\$, 5 + (+B-%\$- . %B; !\$(, !BA99 . %-!B-\$GG!- . !\$-- ' (, !1+a

5 . (-D#7!-%\$+(/ B! . (!% 'B- . %\$-+4 '!9%\$*-+* 'B!F+-D!\$!G . *AB! . (!K+ '%!>!* . 5 5 A(+7a1A+# , + (/ !\$(, !B . *+\$#a

' 5 . -+ . (\$#!D' \$%-DI!KD' ! , +B-%+*-!BD . A# , !\$#B . !% '^A+% ' !-D\$-!-D' !-' ('-B! . G!% 'B- . %\$-+4 '!EAB-+* ' !1' !

\$, , , n+(- / %\$- ' , !+(- . !3 " 3 " !*A%+%*A#A 5 ; !\$(, !* . A# , !A-+#+Q' !\$(!\$, \$9-\$-+ . (! . G!-D' ! '\$%#7!*D+#, D . . , !



!

-D'!GA(,+(/!-D\$-!+B!-'*D(+*\$##7!\$4\$+#\$1#'-!-!D' 5I!T8 OM [!5 AB-!'a'J\$5+(+'!+B!1A, / '-!\$(,!

GA(,+(/!G.% 5 A#\$B!F+D!\$!\$*+\$#a^A+7!#' (B!-.!G+(, !\$% '\$B!FD'%'!+('GG+*+' (*+'B!*\$(!1'!' 5 .4',!\$(,!

5 .%'!5 . ('7!*\$(!1'!, 'B+/(\$-', !G.%!'B-.%\$+4'!EAB+*!'-'*\$D'%B!\$(, !%'B-.%\$+4'!EAB+*!'!9%.G'BB+. (\$#!

, '4'#.95' (-!8, ,+,+ . (\$##7;!-D'!, +B-%+*!BD.A#, !* . (B+, '%!5 \$C+(/!AB'!.G!B. 5'!.G!-D'!1###. (B!.G!

,.##\$B!1'+(/!9%.4+, ',!-.!+!17!-D'!L+, ' (\$!, 5+(+B-%\$+ . (!-D+B!BA 5 5 '%!-.!GA(, !-D'!

% '* . 5 5 '(, \$+ . (B!B'-.!A-!+(!-D'!9\$/ 'B!\$1 .4';!\$B!F'##!\$B!F.%C!F+D!-D'! \ .A-D!@AB+*!'W.%C!P%.A9!

U \ @WPV!.G!T.B!8 (/ '#B!" .A(-7!-.!5 \$C'!/ . . ,!AB'!.G!-D'!\$4\$+#\$1#!GA(, B !, 'B+/(\$-', !17!-D'#!

9#\$(!G.%!'B-.%\$+4'!EAB+*!'!\$(, !7.A-D!, '4'#.95' (-!U \ @WP!<=<=<=VI!

!

F&%(5.6&#!

! KD+B!B-A, 7!E.+ (B!\$/% . F+(/!*\$(. (!.G!'B'*\$D!\$(, !B*D.#\$%BD+9!' /\$%, +(/!-D'!AB'!.G!

'B-.%\$+4'!EAB+*!'!+(!&a><!B*D. .#B!17!'J\$5+(+(/!T8!O (+G+', !M*D. .#! [+B-%+*!-YB!AB'!.G!N@!\$(, !

\$--' 59+(/!-.!\$(BF '%!-D'!^A'B+. (!.G!D. F!-D'!, +B-%+*!-\$\$(+ 59%.4'!+B!'B-.%\$+4'!9%\$*+*'B!KD'%'!

D\$4'!1'' (!B+5 #\$\$!'4\$#A\$+. (B!* . (, A*-' , !.G!.-D'%, +B-%+*!B!\$*% .BB!-D'!* .A(-%7!UB''!T.B' (!-!I!\$#!

<=>`c!P. (QR#'Q!<=>bc!-D'! ['(4'!M*D. .#aL\$B', !N'B-.%\$+4'!6%\$*+*'B!6\$%- ('BD+9!'9. %!-<=>:c!

" 8 [N3!<=>:c!\$(, !_% . (+AB'!-!\$#!<=>e;!\$5 . (/!.-D'%BTX!KD+B!9%.E' *!+B!-D'!5 .B-!' *' (-!^A\$#+\$-4'!

+(4'B+/\$+. (!.G!-D+B!, +B-%+*!-YB!N@!9. #+*7!WD#'-D+B!B-A, 7!9%.4+, 'B!\$B(\$9BD.-!.G!D. F!'B-.%\$+4'!

EAB+*!'!B!+59# '5' (-', !+(!T8 OM [;!\$B!F'##!\$B!*'-%\$+(!* . 5 5 A(+7!5 ' 5 1'BY!\$(, !, +B-%+*!-

' 59#.7'BY!.9+(. (B!. (!-D'!T8!O (+G+', YB!'B-.%\$+4'!9%\$*+*'B; !-D'%'!+B!5 A*D!F.%C!#G!-! !1'!

, . ('!-.!+59%.4'!-D'!'J9'%'+' (*'!.G!7.A-D!\$!-B*D. .#IH(!., '%!-.!GA##7!B''!-D'!9.B+4'!+59\$*-B!.G!

'B-.%\$+4'!9%\$*+*'B!-.!GA+ . . (;T8 OM [!+B'#G! 5 AB-!(4'B-!(\$!-D.% .A/D!'J\$5+(\$+ . (!.G!+B!

, +B*+9#+'!\$(, !%'B-.%\$+4'!9. #+*+'B!\$(, !5 .%'!B9' *+G+*\$##7;!F.%C!-!+ , ' (-+G7!D. F!-D'!, +B-%+*!-\$\$(!

_____!

!&! :D###+1*3%!&) - #!(*'D##!+, - !)+!\$[1?##*(0##[1%'(&#!@#.0(C* - ##*'!Y0)&X!Q, . *'%L!.44), '()*#3!')!D##M)%!B*C#0##!
 F)1*2!72!40)*20->'\$\$-?@A-.%!4., '!)+!F.0(+), *(.E!&0)%1, #!)+!D##!' .#E#! I (?%()*!)+! [1?##*(0##[1%'(&#!

!

!

L'7.(,!,+B*+9#+(;'!% 'B-.%\$-+4'!EAB-+*!'\$#B.!+B!\$!A(+^A'!\$(,!9%. 5+B+(/!\$99%. \$*D!-.!+ 5 9%.4+(/!-D'!

5'(-\$#!D'\$#-D!\$(,!B*D..#!'J9'%+(*'!.G!B-A, '(-B;!-'\$*D'%B;!\$(,!.-D'%B!FD.!\$%'!(/\$/',!F+-D!-D'!

T.B!8(/' #'B!O(+G+',!M*D..#![+B-%+*-!I!WD+#'!-D'!'B-.%\$-+4'!EAB-+*!'B-+9A#\$+.(!+(!-D'!<=>?!M*D..#!

"#+ 5 \$- '!L###!.G!N+/D-B!F\$B!F%+--'(!F+-D!/% '\$-!+(-'(-+. (B;!-D'!+ 5 9# '5'(-\$-+. (!\$(, !9%\$*-+* '!.G!N@!+(!

T 8 OM [!D\$B!1'' (!#\$/ '#7!A9!-.!+(!,+4+,A\$#!B*D..#!\$, 5+(+B-%\$-.%B!FD+*D!D\$B!#',!-!.!,+B9\$%\$-!

+ 5 9\$*-B!. (B-A, '(B!\$(,!\$!#\$*C!.G!-D'!('* 'BB\$%7!* .D'B+4+-7!.G!'B-.%\$-+4'!4\$#A'B!1'-F'' (!B*D..#B!

KD.B'!\$, 5+(+B-%\$-.%B!FD..!D\$4'!' 5 1%\$*',!%'B-.%\$-+4'!EAB-+*!'!\$(,!# '\$(',!+(-.!-D'!* . 5 5 A(+7a

1\$B',!%'B-.%\$-+4'!9%\$*-+* 'B!D\$4'!'B''(!/% '\$-!BA**'BB'B!F+-D!-D'+!%'B-.%\$-+4'!EAB-+*!'9%./%\$ 5 B;!

FD+#'!. -D'#!# 'BB!'(-DAB+\$B-+*!B*D..#!# '\$, '%B! 5 \$7!'B''!# 'BB!.G!\$(!+ 5 9\$*-I!W+-D!-D'!M*D..#!L. \$, YB!

% '* '(-!, '*+B+. (!-.!9A##!9..#+* '!.A-!.G!B*D..#B;!-D'!* .## '*+4'!-%\$A 5 \$!.G!-D'!#\$B-!>?!5 .(-DB;!\$(,!

T 8 OM [!MA9'%+(-'(', '(-!L'A-('%!F.%C+(/!-.!%' .9' (!*\$ 5 9AB'B!\$B!B.. (!\$B!9..BB+1#';!-D'![+B-%+*-!

5 AB-!\$*-!^A+*C#7!-.' (BA%'!-D\$-!+-B!,+B*+9#+(%\$7!\$(,!1'D\$4+.%\$#!9..#+*+'B!#C'!-D'!<=>?!M*D..#!

"#+ 5 \$- '!L###!.G!N+/D-B!\$%'!1'+(/!9%.9'%#7!+ 5 9# '5'(-',!B.!-D\$-!B-A, '(B!\$(,!B-\$G!G' '#!B\$G'!\$(,!

F'##. 5 '!.(!*\$ 5 9ABI!

! [redacted] !

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"GG)%*6H!"I!9).-&12-6:!)J5.-6#)!E12#-6#).!

!

N'B-.%\$-+4'!EAB-+*!'!*\$(!-\$C'!5\$(7!G.%5B;! 'B9'*\$##7!+(!-D'!* . (-'J-!.G!B*D. . #BI!H-!+B!+59.%-\$(-!- .!

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~f!

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"GG)%*6H!<

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!
!

"GG)%*6H!FI!4%-)1:6) ' !E21-6#6G2%-..!

<p>-</p> <p>"'##?#!a(- - #,!</p>	<p>"#*(,)!B3?(%),!) *! G31&.'()*!6)0(&2!! !</p>	<p>! b++(&#!)+!W.2),!G,(&! Q.,&#!'(! ! !</p>	<p>G31&.'()*!4)0(&2!#/4#, '! F)8.1'D),#3!'D#!JK;<!'&D)0!F0(- . '#!Y(00)!+@(CD'%! V), - #,!MBN" I!'&D)0!Y) . ,3! - # - 7#,!9 I(%',(&'!_= V), - #,!6,##(3#*!)+!'D#!MB!Y) . ,3!)+!G31&.'()*!5! V), - #,!MBN" I!'#.&D#,!! V), - #,!MBN" I!&!)1*%#0),! !</p>
<p>: . *2.!b,'(Z! V,.*X0(*>![5 I 5!</p>	<p>MBN" I!"&D)0! Y) . ,3!W# - 7#,>! I(%',(&'!_!! 9")1'D!MB>!O.'!%>! Q.,3#*.>!:),,.*&#! F.,%)*>!P.,7),!F('2! M) - ('.>!O(0 - (*C') *! . *3!" . *!6#3,)=!</p>	<p>M)%!B*C#0#%!N*(+(#3! "&D)0! I(%',(&'!</p>	<p>V), - #,!: #.&D#,! I #?#0)4 - #*!'4#&(.0(%>! I(, #&'),!) +! "&D)0!F10'1,#!.*3!@#%'),.'(?#!F) - - 1*(#%>!.*3! "#*(,)! I(, #&'),!) +!'D#!6., '*#,%D(4!+),!M)%!B*C#0#%! "&D)0%5!! M#C.0!A*'#,*!H('D!6170(&!F)1*%#0!31,(*C!'D#!) ,C.*(Z.'()* *E%!! D#. ?2!(*?)0?# - #*!'(*!D#!.3)4'()*!)+!'D#! !JK;<!'&D)0!F0(- . '#!Y(00)!+@(CD'%5!! V), - #,!MBN" I!'#.&D#,!! V), - #,!MBN" I!%'13#*!'!</p>
<p>Q.7,(#00.! Y.,7)%>![5 I 5!</p>	<p>6)0(&2! I(, #&'),!</p>	<p>: D#!FD(03, #*E%! 6., '*#,%D(4!</p>	<p>V), - #,!6)0(&2! I(, #&'),!+),!'D#!MB!"&D)0!Y) . ,3! I(%',(&'!c!</p>

!

			<p>G/4#, '(!, #%)', . '(?#U1%'(&#!(- 40# - #'.'()*)!(*!1, 7. *! 4170(&! %&D))0%! V), - #, !B%%(%' . *'!6,) + #%%), !)+!G31&.'()*. 0!M#. 3#, %D(4! .*3!! "&D))0!A - 4,) ?# - #'>]: #/ . %!"'. '#!N*(?#, %('2! V), - #, !4170(&!%&D))0!# . &D#, !. *3!&) - - 1*('2!), C. *(Z#, !</p>
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\#*!
W#*3)Z.!

W. *. C#, !)+!6)0(&2!
. *3!F) - - 1*('2!
b, C. *(Z(*C!

B*'(8@#&(3(?(% - !
F). 0(')*!9B@F=!

!

F) - - ('##! - # - 7#, !+), !F. 0(+), *(. E%!"'. '#!B3?(%) , 2!
F) - - ('##!!
)*![1?#*(0#![1%'(&#!. *3! I #0(*) 1#*&2!6, #?#*')*!
9"BF[[6 I=!
F) - - 1*('2!@#4, ##*#*.' (?#!+), !'D#!M)%!B*C#0##!
F) 1*2![1?#*(0#!
[1%'(&#!F)), 3(*. '(*C!F) 1* &(0!9[[FF=!!
F) *%10'. *'!+), !'D#!e) 1'D![1%'(&#!@#(- . C(*#3!60. **(*C!
: #. - !!
.*3!e) 1'D![1%'(&#! O), X!Q,) 14!!
9MB!F) 1*2!Y). , 3!)+!" 14#, ?(%), %fO5!P. 2H)) 3!Y1, *%!
A*%'('1'#=!

!

A%..&!S#*3(C!!	Y5"5!C,.31.'#!(*! G*?(,)* - #*'.0! "&(#*&#%!	N*(?#,%('2!)+! F.0(+),*(. !Y#,X#0#2!	V), - #,!MBN" I !%'13#*!'!
[.&X!Y#, - .*!	Y5B5!%'13#*!'(*! W#&D.*(&.0! G*C(*##,(*C!	F.0(+),*(.!''. '#! 6)02'##&D*(&!N*(?#,%('2! 6) -)*!.!	V), - #,!MBN" I !%'13#*!'!
: #.&D#,;!;	@#%'),.(?#![1%'(&#! : #.&D#,!	M)%!B*C#0#%!N*(+(#3! "&D))0! I (%',(&!	@#%'),.(?#!U1%'(&#!#/4#,'! V), - #,!MBN" I !%'17U#&'! - .'#!'#. &D#,>!! +), - #,!MBN" I !%'13#*!'>!MBN" I !4.,#*!'!
MBN" I !! G - 40)2##!;! !	!	!	!
MBN" I ! G - 40)2##!J! !	!	!	!
F) - - 1*('2! B&'(?(%'!;!;	!	!	P)03%!#/'##*(?#!X*)H0#3C#!)+!,#%'),.(?#!4,.'(&#%>!! &) - - 1*('287.%#3!#31&.'()*)>!. *3!MBN" I E%1%#!) +!! ,#%'),.(?#!U1%'(&#!!

!

!

!

!

"GG)%*6H!NI!M#)%216&.!&K!F<R!F& , , 5%6-C!8)2*)1.@6G!E21-6#6G2-6&%!6%!N6.-16#-!!
9).-&12-6:!)E12#-6#).""!!

!

M*('\$%+.!>Z!KF.!/%.A9B!.%!/\$(/B!G%. 5!,+GG'% '(-('+/D1.%D..,BnB*D..#B!\$%'!(/\$/',!+(!*.(G#+*!

!

! "GG)%*6H!LI!Q&-)!&%!E&-)%-62(!F<R!E21-%)1.!

KD'T.B!8(/'#'B!H(-'%4'(-.(!". \$#++. (!+B!* . 59%+B',!.G!>`!9'\$*' 5\$C+(/!\$(, !4+. #' (*'!

9%'4'(-. (!* . 5 5 A(+7a1\$B',!.%/\$(+Q\$+. (B!%!/%. A9B!U\$!>b-D!./\$(+Q\$+. (!, . 'B!F.%C!. A-B+, '! .G!

-D'!, +B-%+*V!F.%C+(/!\$*% .BB!T8!" .A(-7!-. !g*%'\$-'!9'\$*'!\$(, !%' ,A*!'!4+. #' (*'!h!O\$(7!.G!-D'B'!

/%. A9B!'4'(!D\$4'!\$!G. *AB!. (!5', +\$+(/!7 .A-D!* .(G#+*-. !%\$#%'\$, 7!9%. 4+, '!5'(-.%+(/!\$(, !7 .A-D!

BA99. %!B'%4+*'B!-. !7 .A-D!+(!T8!" .A(-7!) ('!%!. -F. !'4'(!9\$%-('!F+-D!B*D. .#B!\$#%'\$, 7I!KD+B!

B-A, 7!G.A(, !-D\$-!-D'%'!\$%'!T.B!8(/'#'B!H(-'%4'(-. (!". \$#++. (!.%/\$(+Q\$+. (B!1\$B', !+(!'4'%7!T. *\$#!

[+B-%+*!+(!T8 OM [I!KD'B'!. %/\$(+Q\$+. (B!5+/D-!1'!\$!/. . . ,!9\$*!'!- !B-\$-!FD'(!%'\$*D+(/!.A!-! .!

* . 5 5 A(++'B!G. !# '\$, '%BD+9!9\$%-('%BI!)%/\$(+Q\$+. (B!#+C'!L%. -D'!B!M. (B!M'#4'!B!ULMMV;\ .A-D!

@AB-+*'!' . \$#++. (!U \@ "V;!T8!\ .A-D!09%+B+(/;!M.A-D!"'(-%\$#! \ .A-D!3 5 9 . F'%' ,!KD%A!8*+ . (!

UM" \ 3 8 V;!-D'!8 (-aN'+, +4+B 5!" . \$#++. (!\$(, !5 \$(7!.-D'!B!\$*% .BB!T8!" .A(-7!\$#B. !'(/\$/'!+(!

EAB-+*'a. %+'(-', !F.%C!F+-D!7 .A-D!+(*#A, +(/!5'(-.%BD+9!\$(, !%'B-. %\$-+4'!9\$*+*'B!\$(, !* .A#, !

9.-'(-\$##7!9%. 4+, '!-D'+%! 'J9'%-+B'!\$(, !BA99. %!-!-D'!, +B-%+*!U+G!-D'7!\$%'!F+##+(/V;!\$(, !+G!

BAGG+*+'(-#7!* . 59'(B\$-' ,!17!T8 OM [!UO'(. .Q\$!<=>c!6'%'Q!<=>c!6+(' , \$!<=>VI!!

8B!5'(-. (' , !+(!-D'!' '* . 5 5 '(, \$+. (B!\$1.4';!B. 5 '!B*D. .#B!\$#%'\$, 7!9\$%-('%F+-D!'J-'(\$#!

./\$(+Q\$+. (B!-. !-\$+(!-D'+%!B*D. .#B!B-\$G!. !!'4'(!G\$*+#+-\$-'!%'B-. %\$-+4'!EAB-+*'!9\$*+*'B!U6'%'Q!

!
!
!

"GG)%*6H!BI>D=/!M#@&&(!F(6, 2-)!<6((!&k!96+@-!S06(!-H-T!

KD'%!'\$%'!'+/D-!5\$E.%!%/D-B!A-#+' , !+(!-D`!<=>?!M*D. .#!"# 5\$-!L+##!.G!N+/D-B;!\$B!#B- , !1'#. F!
UP\$%*+\$!<=>?!?akVI!

>I O(#'BB!BAB9'(B+.(!B!%'^A+% ', !A(, '%!*\$- / .%7!>!U\$#B. !
C(. F(!B!3, I!" . , 'lq` fe>bU*VV;!(. !B-A, '(-!BD\$##!1'!BAB9'(, , !A(-+#!\$B*D. .#!
, '5 . (B-%\$- 'B!-D\$-!+!D\$B!' JD\$AB- , !\$##!\$#-%(\$+4'B!- !BAB9'(B+. (;!\$B!.A-#+' , !+(!-D`!
[+B*+9#+' (!O\$-%+JI!8##B-A, '(-B!BD\$##!D\$4'!-D`!%/D-!- !+(!\$(, !.A-! .G!B*D. .#!\$#-%(\$+4'B!- !
BAB9'(B+. (BI!

<I !L' /+((+(/!_###!<=>?;!(!B-A, '(-!BD\$##!1'!BAB9'(, , !. !%!
'J9'##' , !G. %!\$!gF+##GA#!, 'G+\$(*'h!U` fe==UCV!.GG'(B'II!

?I !L7!<=<=;!\$B!\$(!\$#-%(\$+4'!-!-%\$, ++. (\$#B*D. .#!, +B*+9#+' (;!\$##!B*D. .#B!
BD\$##!, '4'#. 9!\$(, !+59# 5'(-!%B- .%\$+4'!EAB+*!', 'G+(, !BZ!6%\$*+* 'B!-D\$-!% 'B. #4'!B*D. .#!
, +B*+9#+'(\$7!+(*, '(-B!17!D\$4+(/!U9'%B. (('#!-%\$+(, !+(!%B- .%\$+4'!\$99%. \$*D' BV!\$(, !\$##!
9\$%+ 'B!+(4. #4' , !* . 5'!- / '-D`%;!+, '(-G7!-D`!D\$5!-D\$-!F\$B!*\$AB' , ;!\$(, !, '-%5+('FD. !
F\$B!'B9. (B+1#!I!KD'!/%.A9;!/' (%\$##7!-D%.A/D!\$!*+*#*!*. (G'%('+(/!9%.*'BB;!-D`(!
, '4'#. 9B!BD\$%' , !9%.*'BB!G. !%!'9\$%+(/!D\$5!\$(, !\$, , %'BB+(/!% .-!*\$AB' B!- .!9%'4'(-!GA-A%'!
D\$5!IN' B- .%\$+4'!@AB+*!'F+##!1'!AB' , !B!\$(!+(-'4'(+. (!* . (B+B- '(-F+D!-D`!MW6LHM!
9. #+*7!G. %!\$##!B*D. .#!, +B*+9#+'(\$7!+(*, '(-B!A(#'BB!\$!%* . 55' (, \$+ . (!G. %!'J9A#B+. (!B!
'^A+% ', !B!A(, '%!'#\$G. %(\$+!3, A*\$+ . (!" . , 'IM' *+ . (! fe>bi!L' /+((+(/!<=>B!\$(, !'4'7!
7'\$!-D`%'G- '%;!-D`!, +B-%+*!BD\$##!9%.4+, '!'-%\$+(+(/!- !B*D. .#B+-'B!+, '(-G+ , !17!-D`!
MA9'#+(- (, '(-!1\$B' , !. (!BAB9'(B+. (!, \$-\$!+(!%B- .%\$+4'!EAB+*!'B!, 'G+(, !1.4'!F+D+(!k=
, \$7B! .GZ!

SI _+(, +(/!-D\$-!\$(7!B*D. .#D\$B!5 .%'!-D\$(!>b o !.G!\$9\$%+*A#\$!BA1/%.A9!.%!>=o !.G!
.4'%\$##B-A, '(-B;!BAB9'(, , ;! .%!>=o !.G!\$9\$%+*A#\$!BA1/%.A9!.%!>=o !.G!.4'%\$##!
B-A, '(-B;!\$%%'B- , !. %!/+4'(!*+-\$+. (B;G%. 5!-D`!9%+. %!B*D. .#7'\$!IMA*D!G+(, +(/!BD\$##!
1'!5\$, '!'\$*D!) *-. 1'%'!1\$B' , !. (!, \$-\$!* .##' *-, !G%. 5!-D`!9%+. %!7'\$!%I!

II MA*D!-%\$+(+(!BD\$##!'(BA%'!-D\$-!\$(7!B-A, '(-!FD. !%'^A' B-B!-D+B!\$B!\$(!\$#-%(\$+4'!- !
1'!A-+##Q' , !+(!-D`!B*D. .#BD\$##!D\$4'!-D`!%/D-!- !D\$4'!%B- .%\$+4'!EAB+*!'A-+##Q' , !- !
\$, , %'BB!-D`!D\$5!- !-D`!B*D. .#!* . 55A(+7!\$\$(, !%'+(- /%\$- '!-D`!B-A, '(-!II!

^I !34'7!B-A, '(-!\$(, !9\$%'(-!BD\$##!D\$4'!%+/D-!- !. 1-\$+(!-D`!G. ##. F+(/!\$/% /\$- '!, \$-\$!
. (!, +B*+9#+'(!+(!-D`![+B-%+*-. (!!\$5 . (-D#7!1\$B+B!AB+(/!F' 1B+-'9A1#B+D+(/!17!B'4+*!'\$%'\$!
*('-%BZ!

SI H(!\$(, !) A-a. GaB*D. .#BAB9'(B+. (;!+(4. #A(-\$%7!-%\$(BG'%;! .99. %-A(+7!-%\$(BG'%;!
'J9A#B+. (;!*+-\$+. (;!9. #+*!'* . 59#\$(+(-B;!\$%%'B-B!\$(, !B*D. .#1\$B' , !%\$%'B-!, \$-\$!G. %!-D`!
B*D. .#B+-'!%!-D`![+B-%+*!G. %!-D`%'!5 . (-DB!- !!\$7'\$!\$9%' * , +(/!-D`!'^A' B-B!\$\$(, !-D`!
(A51'%'! .G!+(B-%A*+ . (\$#!, \$7B!\$(, !\$5 .A(-! .G!84'%'\$/ '[\$+7!8--' (, \$(*!'GA(, +(/!
. B-!- !BAB9'(B+. (;!-%\$(BG'%;!'J9A#B+. (!\$(, !%\$%'B-!

II MA*D!, \$-\$!BD\$##!1'!, +B\$//%' /\$- , !17!\$##!BA1/%.A9B;!+(*#A, +(/!\$%*' ;!'-D(+*+7;3TT!
B-\$-AB;!, +B\$1#+-7!\$(, !/' (, '%!U+(*#A, '!# /\$#!, 'G+(+ . (!G!/' (, '%V; !17!B. *+ . a
'* . (5+*B-\$-AB!\$(, !17! .GG'(B';!1A-!BD\$##!1'!9%.4+, ' , !+(!F\$7!- !5\$+(-\$+(!-D`!
9%+4\$*7! .G!+(, +4+, A#\$B-A, '(-BI!

SI 8##B-A, '(-B!BD\$##!D\$4'!-D`!%/D-!- !M*D. .#aW+, '!6. B+4'!L'D\$4+. %!H(-'4'(+. (B!
\$(, !MA99. %-B!UMW6LHM!-D\$-!' , A*!'BAB9'(B+. (B;!+(*%'\$B'!\$--' (, \$(*;' ;+59%.4'!
- 'B-B* . %'B!\$(, !D\$B!1A7!+(!\$(, !BA99. %-!G%. 5!\$##!B*D. .#9'%B. (('#I!

!

1I 8##!B-A, ' (-B!\$(, !9\$%' (-B!D\$4 '!-D' !%/D-!-. !G+#' !G. % 5 \$#!* . 59#\$+(-B!+G!MW6LHM!+B!(-. -!
+59#' 5 ' (-', !+(!k=!, \$7B!.G!B-A, ' (-YB!' ^A 'B-!. (!*\$ 59ABI!8!G+(, +(/!.G!-D' !G\$#A% '!

!

. (-\$(!%+- '%+\$!-. !9% .9'%#7!, +B+(/A+BD!\$, 5+(+B-%\$-+4'!'B9. (B'B!-. !B-A, '(-!
* . (,A*-!9A%BA\$(-!-. !B*D. .#!, +B-%+*-!9. #+*+'B!\$(, !B-\$- '!#\$F;!G% . 5!*%+ 5+(\$#!
'B9. (B'BI!!

\$I K.!' (BA%'!-D\$-!B-A, '(-B!\$(,!9\$%' (-!A(, '%B-\$ (, !\$(, !D\$4'!(. -+* '! .G!-D'+%! 'J+B+(/!
%+ /D-!9A%BA\$(-!-. !BAB9' (B+. (!9. #+*7!UL OTa?f>e;!9/I!>`V!\$(, !B-\$- '!\$(, !G' , '%\$#!#\$F;!
- . !99'\$#!-D'+%!BAB9' (B+. (B;!FD' (!BAB9' (B+. (! (. -+G+*\$-+. (B!\$%'!+BBA' , !- .!
9\$%' (-Bn/A\$%, +\$(B;!-D+B!(. -+G+*\$-+. (!F+##!+ (*#A, '!*#' \$%!+(G. % 5 \$-+. (! (!-D'!B- '9B!\$(,!
+ 5 '#+('!- . !+(+-\$- '! \$!BAB9' (B+. (!99'\$#!!!

fI

!8##!B-A, '(-B!D\$4'!-D' !%/D-!- . !D. #+B-+*;!D'\$#-D7!
B*D. .#!' (4+% . (5' (-B!-D\$-!BA99. %-!B-A, '(-B!+(!##!\$B9' *-B! .G!-D'+%!D'\$#-D!\$(, !F' ##a1'+(/I!
KD'!MA9' %+(-' (, '(-!BD\$##!F. %C!F+-D!* . 5 5 A(+7;!1AB+('BB;!\$(, !9D+#\$(-D% . 9+*!9\$%- ('%B!- .!
'(BA%'!B*D. .#B!D\$4'!\$***'BB!- . !GA##!B'%4+* '!* . 5 5 A(+7!B*D. .#BI!

!

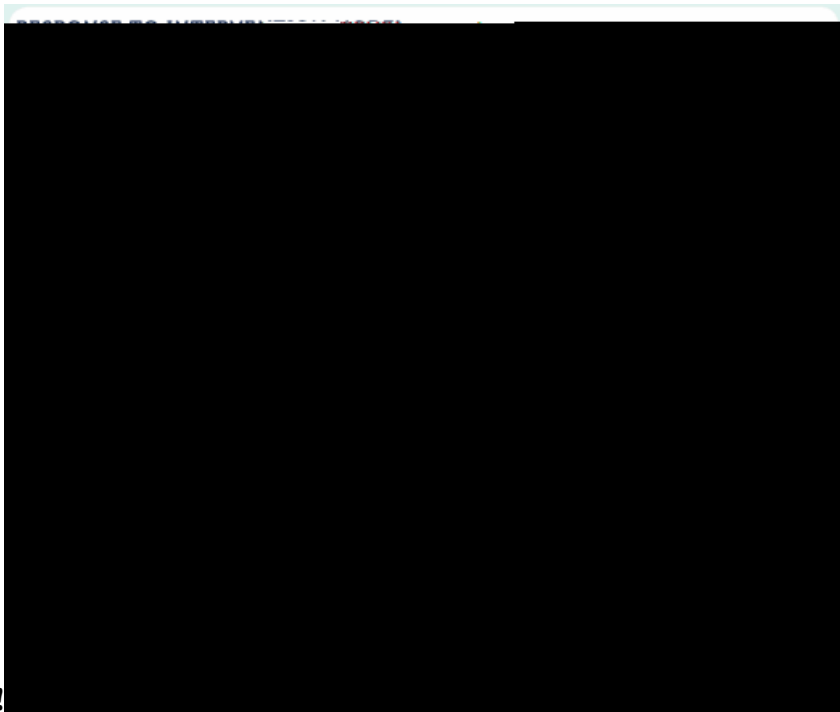
!

!

"GG)%*6H!UI! ? 5(-6VW6)1!9).-&12-6:)!E12#-6#).!S9).G&%.)!-&!4%-)1:)%-6&%T!!

!

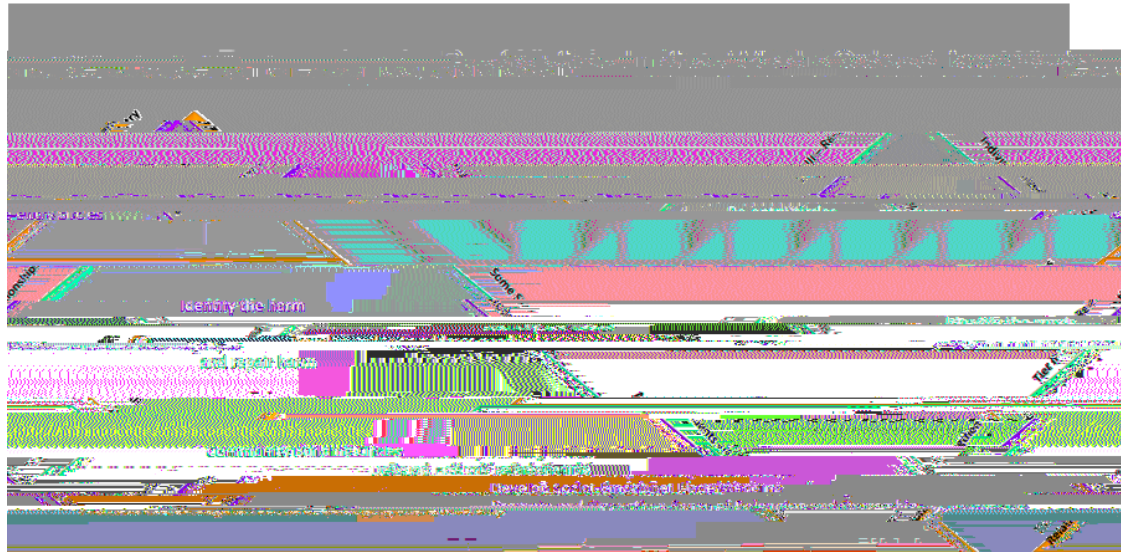
OA#+a+'%!'B-.%\$-+4'!9%\$*-*'B!\$%'!AB',!-!.!+59# '5'(-!FD.#'aB*D..#!'B-.%\$-+4'!EAB+*'!4\$#A'B;!\$B!
.99.B',!-!.!-D\$(!B+(/#!'+%'!B-.%\$-+4'!EAB+*'!FD+*D!G.*AB'B!B.#'#7!.(!g%'\$*+.(\$%7h!N@!9%\$*-*'B!
AB',!. (#7!G.%!(, +4+, A\$#!+(B-\$(*'B!.G!D\$%5!UB''!899'(+, J!8!G.%!5.%'!(G.%5\$+.(!.(!'B-.%\$-+4'!
9%\$*-*'BVI!K+'%!>!-D%.A/D!?!\$%'!, 'B*%+1', !1 '#. FIM. 5 '!9%'G'!-.!B' '-D+B!FD.#'aB*D..#!NKHnN@!
5., '#!\$B!*.(*'(-%+!*+*%# 'B;!FD# '!.-D'%B!4+'F!+-\$B!\$!-%+\$(/#!!.%!97%\$5+, !+%'!I!!



!!!!!!!!!!!!!!!!!!!!

"#!

!



"\$!

_____!

!"O#77#,!#5!.0!JKJK!
!"FBI@G!JK;h5!

!

<60(6&+12G@C''%k

8 A/AB+(' ;! " \$-D'%+('!dI;!@.D(!3(/1'%/;!P'.GG%'7!3I!P%+5 5;!3 5 5 \$!T'';!3#\$+('!T+(!W\$(/;!&\$%' (!
"D%+B-+\$ (B. (;!\$(, !8 (, % '\$!8I!@.B'9DI!g" \$(!N'B-. %\$-+4 '!6%\$*-+*'B!H59%.4 '!M*D. .#! "#5\$-'!\$(, !
"A%1!MAB9' (B+. (BuZ!8 (!34\$#A\$-+. (!.G!-D'!H59\$*-!.G!N'B-. %\$-+4 '!6%\$*-+*'B!(! \$!O+, aM+Q', !0%1\$(!
M*D. .#! [+B-%+*-,h! ['* ' 5 1 '%!<.:;!<=>fI!

!

8**'BB',!M'9-'51'?!?=>!<=<=I!D--9Zm#B*D..#%'9.-%-I*.5n\$Ba#\$aA(+G+',aBD+G-Ba<b5a\$F\$7aG.-%a+-Ba
9.#+*'a1A./'-a+-aBD.A#,a\$#B.a5\$C'aBA%'a+-Ba%'B-.%\$-+4'aEAB-+*'a9%./%\$5a+BaB.A(,nI!

!

"8[N3I!d.F!"\$(!\.A!T.4'!-D'!&+,B!1A-!d\$-'!-D'!6\$%'(-Bu!8!BD\$,.F!'9.-%-!.(!-D'!A(GA#G+##',!!
!9%.5+B'B!.G!T8OM[!B*D..#!,+B*+9#+'!'G.%5!+(!M.A-D!T8I!<=>:I!!

!

"\$5\$;!6\$A#!PI!

I!

I!6%.zA'B-!TT";!<=>eI!

k>!

!

!!!!!!! U<=>:VZ!<b?

!

T'A(/;!O\$7I!gKD'!) %+/+(B!.G!N'B-.%\$-+4'!@AB-+';h!>eeel!

T+1'%5\$(;!8C+4\$I;!2!O+*D\$'#!&\$-QI!

W\$BD+(/-.(!["Z!O%1\$(!H(B+-A-'I!

!

B^A\$,!*%Z!M*D. .#!, +B*+9#+(' ;!-%A\$(*7;!\$(, !\$\$%'B-Ih! ;!` ?;!
(.I! : ;!U<=> `VZ!>>>={>><<I!D--9Zm, JI, . .I. %/n>=I>=== :nB>=ek`a=> `a=>=?a>!

!

OA%%\$7;!@A#+\$!gT8 0M [!6#\$(B!K. !d+% '!" #+5 \$-'!' . \$*D' B!H(B- '\$,!) G!" . 9BI!WDS-!W+##!KDS-!T. . C!!
! T+C'uh!M. A-D'%'(! "\$#G. % (+\$!6A1#*!N\$, +. ;!_ ' 1%A\$%7!<?;!<=>I!!
! D--9BZm F F FIB*9I. %/n9%. /%\$5 Bn\$+%-#\$Cn<=<>n=<n<?nkkb<` n#\$AB, a9#\$ (Ba-. aD+% '!'
! a*#+5 \$-'a* . \$*D' Ba+(B- '\$, a. Ga* . 9nI!

!

] I8I!<=>ba<=>k!" +4#!N+/D-B! [\$-\$!" .## *+ . (Z!M*D. .#! " #+5 \$-'!\$(, !M\$G' -7I!OIMI!
!!!!!!! ['9\$%-5 '(-!G!3 ,A*\$+ . (!)GG+*'!G. %!" +4#!N+/D-BI!<=>eI!
!!!!!!! D--9BZm F F F<' ,I/ .4n\$1 .A-n. GG+*'Bn#B-n. *%n, . *BnB*D. .#a*#+5 \$-'a\$(, aB\$G' -7I9, G!
!
] I8I!L%'\$C+(/-D'!M*D. .#a-. a6%+B. (!6+9'#+(' !G. %!M-A, ' (-B!F+-D! [+B\$1#++-'BI!] \$+ . (\$#!
!!!!!!! " .A(*+#!. (! [+B\$1#+-7I!<=>bI!D--9BZm(* ,I/ .4n9A1#*\$+ . (Bn<=>bn=k>f<=>bn!

!

] . /A'%;!6' ,% .!8I!6%'4' (+(/!\$(,!9% . ,A*+(/!4+ .#(' *Z!8!*%+*+*\$!\$(\$7B+B! . G!%'B9. (B' B!- . !B*D. .#!
!! 4+ .#' (*' !kb;!(.I!<!U>eebVZ!>fea<<I!!

!

)C#F\$;!] \$-D' %(!MI;!OAD\$5 5 \$,!8I!&D\$#G\$;!\$(,!_ '#*+ \$!L%+B* . 'I!
!!L+(/#'7;!0&Z!3 5 '%\$#, !6A1#BD+(/!

T+5+-',I!<=>:I!

!

) F' (B;!3I!KD'!3* . (. 5+*B! .G!6 .#*+(/!U_ .%-D* . 5+(/!+(-D'!
!!!!!!! ' ,+-' ,!17! [\$4'!O\$%* .--!\$(,!&#\$AB!m+5 5 '%5 \$(VI!(I, I!
!!!!!!! D--9BZmG*\$A#-7IB+-'BIA*+I' ,An' / . F' (BnG+#' Bn<=<=n=kn3* . (. 5+*Ba. Ga6 . #*+(/kk<=<=I9, G!
!
6\$%-('%BD+9I! !6\$%-('%BD+9!G. %!T. B!!
! 8 (/ '#B!M*D. .#BI!<=<>I!8**'BB', !_ ' 1%A\$%7!<?;!<=>I!!
!! D--9BZm9\$%-('%BD+9#\$I. %/n%'B. A*%'Bn9 . #*+7a1%+'GBnF . %-D

!

M*D+GG;!O\$%\$! [+/ (+-7;! ,+B9\$%+-7!\$(,!, 'B+B-\$(*'Z!3GG'*+4'!'B-.%\$+4'!EAB+*'!B-%\$- /+'B!- .!9#A/!-D'!!
!! gB*D. .#a-.a9%+B. (I9+9'#+('Ih!6\$9'%!9%'B'(- ,!\$!-D'!"#.B+(/!-D'!M*D. .#! [+B*+9#+('!'P\$9Z!
!!! N'B'\$%*D!- .!6%\$*+*'!* .(G'% '(*';!W\$BD+(/-. (;! ["I!<=>?I!

!

MC+1\$;!NI;!OI!8%%', .(,. ;!] I!W+##+\$ 5 BI!gO .%'!KD\$(!8!O'-\$9D.%Z!KD'!* .(-%+1A+. (!.G!
!!!!!!! 'J*#AB+. (\$%7!, +B*+9#+('!'!B*D. .#a-.a9%+B. (I9+9'#+('Ih!
`:(.I!`!U<=>`VZ!b`kabk`I!D--9BZnm, .+I.%/n>=I>=f=n>=kkbkf`I<=>`lebfekb!

!

M-%\$(/;!d '\$-D'%'!-I!\$#!gN'B-.%\$+4'!EAB+*'!* .(G'% '(*+(/!UN@ "V!AB+(/!G\$*'a-.aG\$*'!5' '-(/B! .G!
!!!!!!! .GG' (,%'B!\$(,!4*+ 5 BZ!'GG'*-B! .(!.GG' (,%'!' *+, +4+B 5!\$(,!4*+ 5!B\$-BG\$*+ .(Ih!<=>?I!
D--9BZnm*\$ 5 91'##\$.##\$1 .%\$+ .(I.%/n1'--'a'4+, '(*'n%'B-.%\$+4'!EAB+*'!a* .(G'% '(*+(/a%' *+, +4+B 5 a
4*+ 5 aB\$-BG\$*+ .(ID-5#!

!

M-'%(;!8#'J+B!\$(,!'D%+B!N. / '%BI!

!<=>eI!

!!!!!!! D--9BZnmG+#'BI'%'*I',I/.4nGA##-'J-n3 [beffe:I9,G!

!

M#\$/-'%;!T\$A%' (I!g \ .A(/!"++Q' (!K%\$(BG.% 5 B!M*D. .#"A#-A%'!-D%.A/D!N'B-.%\$+4'!@AB+*'!h!O#4';!!
! O\$7!<:;!<=>kI!D--9BZnmF F FI 5 #+4'I*. 5n('FBn\$((a!
!!! \$%1 .%n<=>kn=bn7.A(/y*++Q' (y-%\$(BG.% 5 ByB*D. .ID-5#I!!

!

M'%', ;! [\$(+'##'!I!g_-B-'%+(/!8** .A(-\$1+#+-7!8 5 .(/!\ .A(/!8 ,A#-BIh!] I,I!8**'BB',!] .4' 5 1'%;!<=>=I!
D--9BZnmF F FIDCBIDS%4\$,I',An*'(-'%BnF+'('n9%./%\$ 5 Bn*%+5+(\$#EAB+*'n%'B'\$%*Da
9A1#+'\$+.(Bn7.A(/a\$,A#-aEAB+*'n, '4'#.9 5'(-Ba+(a7.A(/a\$,A#-aEAB+*'nG.B-'%+(/a\$** .A(-\$1+#+-7a
\$ 5 .(/a7.A(/a\$,A#-BI!

!

M'%', ;! [\$(+'##'!I!g 8** .A(+(/!G.%!i+.#'(*'Z!d .F!-!H(*%'\$B'!M\$G'-7!\$(,!L%'\$C!)A!_#+' ,!!
!!! N'#+\$(*'!.(!O\$BB!H(*\$%*'%'\$+.(Ih!8** .A(+(/!G.%!i+.#'(*';!(I,I;!?fi!

!

!

U<=>:VZ!>`bI!

!!!!!!! D--9BZnnFFFI(*E%BI/.4n9.GG+#'B>n.EE.9n/%\$(-Bn<b=f:<I9.G!

!

gK%+1\$#!P.4'%'(5'(-Bih!T.B!8(/'#'B!"+-7n".A(-7!] \$-+4'!85'%'*\$(!H(+,\$(!".55+BB+. (I!]I, I!!

!! 8**'BB',!_'1%A\$%7!.;!<=<>I!D--9BZnn#\$(\$+*I#*\$*.A(-7I/.4n%'B.A%*'Bn-%+1\$a/.4'%'(5'(-BnI!

!

! ! ! ! !

W\$#C'%;!T.%'((Ig8#1'%-!3/#\$BD!2!-D'!d+B-.%7!.G!N'B-.%\$-+4'!@AB+*!'17!N'B-.%\$-+4'!@AB+*!'2!) -D'#!

6A1#+*!d'\$#-D!899%. \$*D'B!G.%!d'\$#+(/Ih!]I, I!8**'BB',!) *- .1'%'>`;!<=<=I!

D--9ZnnFFFI#.%'((F\$#C'%'I*.5n1#./nu9€>>:I!

!

]I\$!gL#\$*C!P+%#B!O\$--'%Z!6ABD',!.A-;!.4'%9.#+*',;!\$(, !A(, '%9%.-'*-',Ih!<=>bI!8**'BB',!] .4'51'%'!>;!

<=<=I!D--9B68m280.9417597.106810.2(B)-0.2(B)0.2(+)/9€>>:

!

O+%BC7;!T\$A\$!gN'B-.%\$+4'!@AB+*!'6%\$*+*!'B!.G!]\$-+4'!85'%+*\$(!;_+%B-!]\$+.(!\$(,!)-D'%!H(,+/'(.AB!
6'.9#'.!G!]%.D!85'%+*\$Z!6\$%-!)(';h!<==`;!;!I!

!

N.1'%-;!"\$-D'%+(!'\$(,!)\$-D'\$(!M!8I!)C#F\$!g8!N'4+'F!.G!T.B!8(/'#'B!0(+G+',![\$-\$!_##.F+(/!!
!-D'!) "N!".59#+\$(*!'H(4'B+/\$+.(I!3,A*\$+-(!\$(,!0%1\$(!M.*+'-7;!==;(!.I!:=;!U<=>fVZ!!
!>a<?I!

N.5'%.;!3B5'%\$#,!\$_\$1R(I!g]'F!6#\$(!G.%!T8!M*D..#B!"##B!G.%!N'.%/\$(+Q\$+-(!\$(.A(,!".55A(++'B!
\$(,!359.F'%B!6%+(+9\$#B!-.!O\$C'!T8OM[!\$!T'BB!w".59#'J!M7B-'5IYh!O\$7!
<e;!<=>e!8**'BB',!_'1%A\$%7!;;!<=>I!D--9Zm#B*D..#%'9.%-I*.5n('Fa9#\$(aG.%a#SaB*D..#Ba*##Ba
G.%a%'.%/\$(+Q\$+.(a\$(.A(,a*.55A(++'Ba\$(,a'59.F'%Ba9%+(+9\$#Ba-.a5\$C'a#SaB,aSa#'BBa
*.59#'JaB7B-'5nI!

O.%%B.(;!L%'(\$!3I!gN'/A#\$+(/!M\$G'!M*D..#!"'.55A(++'BZ!L'+(/!N'B9.(B+4'!\$(,!N'B-.%\$+4'Ih!
<==?I!8**'BB',!M'9-'51'%!<e;!<=>I!D--9BZm,.,I.%/n>=I>>=fn=eb:f<?=?>=b=`kk>I!

051%'++;!O\$%C!\$(,!O\$%#7(!6'-'B.(!8%5.A%I!
I!M9%+(/'%!6A1#BD+(/!"'.59\$(7;!<=>=I!

6\$%(-B!)%/\$(+Q\$+-(!]'-F.%C!gN'5.4+(/!L\$%+%BZ![+B%A9+4'!6'B.(!T'--'B!2!".(G#*+!
N'B.#A+.(Ih!<=>=I!8**'BB',!O\$%*D!<=>I!D--9BZmFFFI9\$%(-('F.%Ca#S!.%/n%'5.4+(/a
1\$%+%Ba>I!

"3NNI!gN'B'\$%*D!0(+!n!T8OM[!N'B'\$%*D!6%+(+9#'BiH!]I,I!8**'BB',!M'9-'51'%!e;!<=>I!
D--9BZm\$*D+'4'I#SaB,I('n6\$/n>be`>I!

6\$4'#C\$;!M!gN'B-.%\$+4'!@AB+*!'!+(!-D'!M-\$-BZ!8(!8(\$#7B+B!.G!M-\$-A-.%7!T'/+B#\$+-(!\$(,!6.#*7Ih!
<!(.I!>?!U<=>kVZ!>a<?I!8**'BB',!]'.4'51'%!e;!<=>=I!
D--9BZmFFFI(\$%EI.%/n+5\$/Bn9,GnN'B-.%\$+4'y@AB+*'y+(y-D'yM-\$-Ba
8(y8(\$#7B+By.GyM-\$-A-.%7yT'/+B#\$+.(y\$(,y6.#+*7y<I9,G!

i\$(!]'BB;[\$(+#!W!I!\$(,!&\$%'(!d'-'-%CB!M-%.(/!
K\$7#.%!2!_!%\$(+BI!<=>bi!8**'BB',!)*)-.1'%!>`;!<=>=I!
D--9BZmFFFI*+'(*',+%*-I*.5n1..Cne:f>`bb:??efn%B-.%+(/aEAB+*'•1..Ca,'B*%+9+.(I!

i.;!KD7I!gMAB9'(B+.(B!6#A55'-!W+-D!)'F![+B*+9#+'!6.#+*7!+(!M\$(-\$!8(\$!M*D..#BiH!i.+'!G!!
!)";!['* '51'%!f;!<=>=I!!
D--9BZm4.*'.G.*I.%/n<=>kn=n('Fa\$99%.\$*Da-.a,+B*+9#+'a+(aB\$(-\$a\$(SaB*D..#B!
!a#'\$,Ba-.a1+/a,%9a+(aBAB9'(B+.(BnI!
!i+-\$#;!8#'JI! I!MI#IZ!i3NM);!<=>:I!

W\$BD1A%(![\$4+,;!\$(,![\$(+#!@I!W+##BI!gKD'!N+B'!.G!N'B-.%\$+4'!@AB+*!'!+(!"#\$+G.%(\$!M*D..#B!L%+(/B!!!
6%.5+B'!;"'.(-.4'%B7Ih! ;!O\$7!>?;!<=>f!8**'BB',!M'9-'51'%!?!<=>=I!
D--9BZm',B.A*%I.%/n<=>fn-D'a+B'a.Ga%B-.%\$+4'aEAB+*'a+(a*\$#G.%(\$aB*D..#Ba1%+(/Ba9%.5+B'a
*.(-.4'%B7nbe:?!e?!I!

!

!
W'11'%;!&\$%'(!3I;!@'((+G'!&+5!\$(,!35+#7!_ \$J.(I!gL\$#+5.%%'!'"+-7!6A1#+*!M*D..#B!N'B-.%\$-+4'!
6%\$*-+*'B!N'9.-%-Ih!<=<=I!D--9BZnnFFFI.B+1\$#+5.%.%I.%/nF9a*. (-'(-nA9#. \$,BnN6a9#\$(a\$(,a
\$99'(+Ja H]8Tai3NMH)]I9,GI!

!
W'11'%;!&\$%'(!3I;!@'((+G'!&+5!\$(,!35+#7!_ \$J.(I!gN'B-.%\$-+4'!6%\$*-+*'B!+(!L\$#+5.%%'!'"+-7!M*D..#BZ!
N'B'\$%*D!A9,\$-'B!\$(,!+59#'5'(-\$-+.(!/A+, 'Ih!<=<=I!D--9BZnnFFFI.B+1\$#+5.%.%I.%/nF9a
*.(-'(-nA9#. \$,Bn<=<=n=enN6aN'9.-%-a<=<=a H]8TI9,GI!

!
gWD'%'!W'!W.%C! j