

!
(;'-34!B.>!Y#.W!IB.H!I'!/!)&D!#)"PR<D#!X/ZBP>,-.!b+.>PB,-.W0!bP#A!B!a+B,-:/\$/P-A/.D!D#!B!
G-&D!D#!P!`BA/F!!

!
J-B#R/!"'/.WH!e-((#!*B(BH!B.>!(;'-34H!%'BP-.W!OP#>+&D,!#.!%#&-B(!T />-B0!%<#.,#P/>!"#.D/.D!B.>!
OP#>+&D!^-. \,F!3%3A=>'*;?<@<=4!BD!gNQ%7!

!
7 . * 8B&+B) * . 9 * \$ //'

(;'-34H!NA-D!*B,+H!B.>!g-.WC-.W!c'B.WH!jQA<P#=-.W!D'!/G/,-W.!#)!`/./PBD=!/X/DP-/=B(!%R,D/A,!Z-D'!
GR.BA-&!X/&#AA/.>BD-#.,Fk!

!
(;'-34H!X#Z/.B!`B.H!B.>!1R+.W'//!^//H!j]'/'!'P#Z>,#+P&-W!T//D,!P#Z>)+.>-.W0!I'/'!] #P\ :G#.BD-#.!
Q.D/P<(BR!B.>!QD,!QA<(-&BD-#.,!)#P!M,/P!@.WBW/A/.DFk!

!
(;'-34dH!%'/.W,'/.'W!J-B#H!B.>!"'P-,D#<' /P!V(-=#(BH!N!`-)D!D#!`-=/0!I' /!QA<B&D!#)!"'BP-DB_(/!`-)D!"BP>,F!!

25F T B . BW - . W ! N > # < D - # . ! #) ! N P D -) - & - B (! Q . D / ((- W / . & / ! - . ! D ' / ! O P / , / . & / ! #) ! e + A B . ! Q . D / ((- W / . & / ! N ! b - / (> ! % D + > R F !
" # .) / P / . & / ! # . ! N P D -) - & - B (! Q . D / ((- W / . & / ! T B & ' - . / ! ^ / B P . - . W ! ! B . > ! * + , - . / , ! N . B (R D - & , ! O ' - (B > / (< ' - B ! !
O / . . , R (= B . - B ! ! 4529 !

!

22F j Y # + ! X + . H ! Q ! G # . B D / 0 ! % ' B P / > ! % # & - B (! X / , < # . , - _ - (- D R ! D ' P # + W ' ! B ! G - , D B . & / ! I P B & \ / P ! T # _ - (/ ! N < < (- & B D - # . k h ! Z - D ' ! ^ + & R ! Y B . !
B . > ! N () # . , # ! O / > P B i B : T B P D - . / i h ! - + ' .) * ' /) % + ' % & ' . + * 3 " (\$ + ' % O I 2 () 3 2 % " ' 4 % 5) / 6 ' + , + 7 1 % 8 - & 0 5 9 h ! O ' # / . - \$ h ! N P - i # . B h !
452 ; !

!

24F j Y # + ! X + . H ! Q ! G # . B D / 0 ! % ' B P / > ! % # & - B (! X / , < # . , - _ - (- D R ! D ' P # + W ' ! B ! G - , D B . & / ! I P B & \ / P ! T # _ - (/ ! N < < (- & B D - # . k h ! Z - D ' ! ^ + & R ! Y B . !
B . > ! N () # . , # ! O / > P B i B : T B P D - . / i h ! D ' / ! L ! O / \$ ' /) % + . % : 6 \$, " ' (6 * + , I % & ' \$ (\$ " (\$ <) % - + ' .) * ' /) % 8 O : & 9 h ! Q . > - B . B < # (- , h ! Q h h ! 452 ; !

!

28F j ^ / B P . - . W ! P # A ! O P # C / & D ! b B - (+ P / ! - . ! 1 - & \ , D B P D / P k h ! Z - D ' ! Y - . W > B ! ^ + h ! ^ - . ! e B # h ! B . > ! Y # . W ! I B . h ! 8 ; ! & ' () * ' " (\$ + ' " , %
- + ' .) * ' /) % + ' % & ' . + * 3 " (\$ + ' % O I 2 () 3 2 ! 3 Q " Q % 7 h ! % / # + (h ! 1 # P / B ! 452 K !

!

2UF j N . ! @ \$ B A - . B D - # . ! #) ! % # & - B (! " # A < B P - , # . ! I P - W W / P / > ! _ R ! e - W ' / P ! G # . B D - # . ! [- , - _ - (- D R ! # = / P ! % # & - B (! T / > - B ! O (B D) # P A , k h !
Z - D ' ! Y - . W > B ! ^ + ! B . > ! Y # . W ! I B . h ! = > % & ' () * ' " (\$ + ' " , % - + ' .) * ' /) % + ' % & ' . + * 3 " (\$ + ' % O I 2 () 3 2 % 8 & - & 0 9 h ! G + _ (- . h ! Q P / (B . > ! h ! 452 6 !
!

2LF j I ' / ! [B (+ / ! #) ! ^ - = / ! " ' B D ! # . ! V . (- . / ! O + P & ' B , / k h ! Z - D ' ! Y # + Z / - !] B . W ! B . > ! Y # . W ! I B . h ! = >

;F j T #P/I 'B. !G#+_(!Y#+P!QA<B&D!N. !@A<-P-&B(!%D+>R!#)! T BD& ' :#)) /P!# . ! " ' BP-DB_(/"P#Z>)+. >-. W!
O(BD)#PA, Hk!Z-D' !c' / . !bB. W!h!% ' / . W, ' / . W! J -B##!B. >!Y# . W! IB . H!% ' B. W 'B-!M. -=/P, -DR!#)!b- . B. &/!B. >!
@&# . #A-&, !%+AA/P!%/A- . BPH!4542!
!

9F j T #P/I 'B. !G#+_(!Y#+P!QA<B&D!N. !@A<-P-&B(!%D+>R!#)! T BD& ' :#)) /P!# . ! " ' BP-DB_(/"P#Z>)+. >-. W!
O(BD)#PA, Hk!Z-D' !c' / . !bB. W!h!% ' / . W, ' / . W! J -B##!B. >!Y# . W! IB . H! hBD-# . B(!M. -=/P, -DR!#)!%- . WB<#P!/G/<D!
#)!Q%!n !N. B(RD-&, !%/A- . BPH!4542!
!

25F j T #P/I 'B. !G#+_(!Y#+P!QA<B&D!N. !@A<-P-&B(!%D+>R!#)! T BD& ' :#)) /P!# . ! " ' BP-DB_(/"P#Z>)+. >-. W!
O(BD)#PA, Hk!Z-D' !c' / . !bB. W!h!% ' / . W, ' / . W! J -B##!B. >!Y# . W! IB . H!OV T %H!4542!3<P/, / . D/>!_R!&#:B+D' #P7!
!

22F j Q. =-D- . W!bP-/ . >, !D#!g#- . !OP#, #&-B(!^/ . >-. Wm!N. !@A<-P-&B(!%\$BA- . BD-# . !#)!D' /!X/) /PPB(!OP#WPBA!# . !
! =B!k!Z-D' !g-B' +!] B. W!B. >!e -((#(!*B(BH!Qh bVX T %!N. . +B(! T //D- . WH!4545!
!

24F j N! ` -)D!D#! ` -=/O! I ' /!QA<B&D!#)! " ' BP-DB_(/"-D)! " BP>, Hk!Z-D' !% ' / . W, ' / . W! J -B##!Qh bVX T %!N. . +B(!
T //D- . WH! [-PD+B(H!4545!
!

28F j I ' /!QA<B&D!#)!%+_, &P-<D-# . !X/ &-<P#&-DR!# . ! " ' BP-DB_(/"# . D/ . D! ` / . /PBD-# . !B. >!BP- . W!@!@=>/ . &/!)P#A!
I Z-DD/Pk!Z-D' !Y- . W>B!^+!B. >!Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . WH!%/BDD(/H!] B, ' - . WD# . H!4529!
!

2UF j e #Z!D#!% ' BP!/OP#, #&-B(!* / ' B=-#P!Z-D' #+D! * /- . W! " # . , >/P/>!B! *PBWWBPmk!Z-D' !^+&R!YB . !B . >!N()# . , #!
O/>PBiB: T BPD- . /iH!Qh bVX T %!N. . +B(! T //D- . WH!%/BDD(/H!] B, ' - . WD# . H!4529!
!

2LF j T B. BW- . W!N>#<D-# . !#)!NPD-)-&-B(!Q. D/((-W/ . &/!- . !D' /!OP/ . / . &/!#)!e +AB . !Q. D/((-W/ . &/O!N!b- /(>!%D+>R!k!
Z-D' !T #&' / . !YB. W!B. >!B . W!] B. WH!Qh bVX T %!N. . +B(! T //D- . WH!%/BDD(/H!] B, ' - . WD# . H!4529!
!

26F j I ' /!QA<B&D!#)!V . (- /!O(BD)#PA, !# . !%#&-B(!Q. D/WPBD-# . O!@=>/ . &/!)P#A!B!^BPW/:%&B(! [#(+ . D/ /P!
h /DZ#P \ Hk!Z-D' !Y-)B . !Y+!B. >!Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . WH!%/BDD(/H!] B, ' - . WD# . H!4529!
3<P/, / . D/>!_R!&#:B+D' #P7!
!

2KF j e #Z!D#!% ' BP!/OP#, #&-B(!* / ' B=-#P!Z-D' #+D! * /- . W! " # . , >/P/>!B! *PBWWBPmk!Z-D' !^+&R!YB . !B . >!N()# . , #!
O/>PBiB: T BPD- . /iH!OV T %H!] B, ' - . WD# . H!G " H!4529!
!

2;F j @. WBW- . W! " ' BP-DB_(/"# . D/ . D! ` / . /PBD-# . !- . !V . (- /!%#&-B(!h /DZ#P \ , O!@=>/ . &/!)P#A! I Z-DD/Pk!Z-D' !Y- . W>B!^+!B. >!
Y# . W! IB . H!M. -=/P, -DR!#)!Q((-#- , !BD! " ' -&BW##!452;!
!

29F j] 'R!% ' #+(>!Q!G# . BD/m!@\$BA- . - . W!X/<+DBD-# . H!O/ /P!@)) /&D!B. >!O#<+(BP-DR!@)) /&D!# . ! " ' BP-DB_(/"-D)! ` -=- . W!#=/P!%#&-B(!
T />-B!O(BD)#PA, kH!Z-D' !Y- . W>B!^+!B. >!Y# . W! IB . H!Q. >-B . B!M. -=/P, -DRH!452K!
!

45F j] 'R!% ' #+(>!Q!G# . BD/m!@\$BA- . - . W!X/<+DBD-# . H!O/ /P!@)) /&D!B. >!O#<+(BP-DR!@)) /&D!# . ! " ' BP-DB_(/"-D)! ` -=- . W!#=/P!%#&-B(!
T />-B!O(BD)#PA, kH!Z-D' !Y- . W>B!^+!B. >!Y# . W! IB . H!D' /!M. -=/P, -DR!#)! T /A<' - , H!452K!
!

42F !jM, /P: ` / . /PBD/>!" ' BP-DB_(/"# . D/ . D! ` / . /PBD-# . !- . !V . (- /!%#&-B(!T />-B!O!@=>/ . &/!)P#A!B!b- /(>@\$</P-A/ . DkH!Z-D' !Y- . W>B!^+!B. >!
Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . WH!hB, ' =-((/H! I / . . / , , /H!4526!
!

44F j M, /P, o!X/, -(- / . &/!D#! 1 -& \, DBPD/P!%&BAkH!Z-D' !Y- . W>B!^+!B. >!Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . WH!hB, ' =-((/H!
I / . . / , , /H!4526!
!

48F j *+(>- . W!X/<+DBD-# . !D' P#W' ! " ' BP-DB_(/"-D)! ` -=- . W!- . !V . (- /!%#&-B(!h /DZ#P \ - . W!@ . =-P# . A/ . DkH!Z-D' !Y- . W>B!^+!B. >!
Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . W!O' -(B>/(<' -BH!O/ . . , R(=B . -BH!452L!
!

4UF j ^#RB(OR!OP#WPBA!D' /!G-(/AAB!#)!% ' <<<- . W!b/ /kH!Z-D' !Y-: " ' + . !e #!B. >!Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . W!
O' -(B>/(<' -BH!O/ . . , R(=B . -BH!452L!
!

4LF j I ' /! [B(+!/#)!^=- /! " ' BD!# . !V . (- /!O+P& ' B, /kH!Z-D' !Y#+Z/!] B. W!B. >!Y# . W! IB . H!Qh bVX T %!N. . +B(! T //D- . W!
O' -(B>/(<' -BH!O/ . . , R(=B . -BH!452L!
!

46F j G/, -W. !#)!@)) /&D=- /!X/ZBP>!%&' / A/!# . ! " P#Z>)+. >-. W!O(BD)#PAkH!Z-D' !% ' / . W, ' / . W! J -B#!B. >!Y# . W! IB . H!%B . !
bPB . &- , &##! " B(-)#P . -BH!452U!
!

4KF jN.!@A<-P-&B(!@\$BA-.BD-#. !#)D' /!%+P=-=B_-(-DR!#)h/Z!%/((/P,!-.!B.!V.(-./!TBP\ /D<(B&/kH!Z-D'!T-.W!bB.!B.>!
Y#.W!IB.H!QhbVXT%!N..+B(!T//D-.W!T-.. /B<#(-,H!

G-, ,/PDBD-# .!" #AA-DD//! T /A_/P!#) ! J -B#R/!" ' / . W!345297!
O 'FGF!X/&P+-D- . W! " #AA-DD//!34529!!45457!
"B, /!" #A</D-D-# . !g+>W/!)#P! T %Q%!OP#WPBA!3452 ;!!45297!
"B, /!" #A</D-D-# . !g+>W/!)#P! I /((/R!G-P/&!3452 ;7!

!