









SCT" ". - 3 N/A/! "D(#\$(/I!. \$, B; \$B, -!\$), B!M)(; )! JH2! \*(\$+, (-#!2%/!J-!" 3 &-00-0!(/!\$)-!  
2B, (;B'B39!

0- "<E. "MC9<0[CP, @<A"ECY. "<C, FE<P5, 89.9"5- "<E. "B5@@. F. ]9"E:9<58A"?5<E"C9":-<.8> . ; :<C. "E:9<58A"  
P5, 89.9"5. \F\ "\$@@:5<"UE58. ]9" I :9<58A"5["G8A- " # CH8T"C- ; "C9"\$U. >9"S. \F\ " @:P:C" J C@K. 8]9"P5, 89. "5- "  
P5@@. F. "C8PE:<. P<, 8. T\ "" ' - "\$U. > "<EC<" , 9.9"<E. "B5@@. F. ]9"E:9<58A"C9"C"P. -<8C@ "g<. `<h"5[[" .89"C- "  
5MM58<, - :<A"[58"[CP, @<A"[85> "YC8: . ; ; :9P:M@:-C8A"?CPKF85, - ; 9"S. \F\ " I :9<58A0" ' 8<" I :9<58A0"  
U5P:5@5FA0"\$ -F@:9ET<"5". -FCF. "9<, ; . -<9":-"G8A- " # CH8]9"MC9<\"

S?T" 6, %D(#N/A/! "D(#\$(/I! K+, G%&'-.! \$, B; \$B, -!\$+! . B>>+, \$!O-#-%, ; )\"

%Y. 8"<E. "MC9<9. Y. 8C@A. C890"<E. "B5@@. F. "EC9"P8. C<. ; "C"- . H"[58> "5["78C` :9"000 D: . @; H58K"  
U. > : -C890":-"HE:PE"C9":-F@. "[CP, @<A"C; Y:958 > . -<589"9. Y. 8C@ "78C` :9"000"M85^ . P<9"5- "8. @C<. ; ":99, . 9"  
C- ; "> . . <9"H:<E"9<, ; . -<9"5-P. "C"H. . K"<5"; :9P, 99"8. @C<. ; "8. C; : -F9"58"9<, ; . -<M85^ . P<9\ "4E:9"  
9<8, P<, 8. "H5, @, "C@5H"9. Y. 8C@ "M85^ . P<9"<5"F5"[58HC8; "- "C-A"F:Y. - "9. > . 9<. 8"C- ; "P8. C<."C"P5E58<"5["  
[. @5H"8. 9. C8PE. 890"HE:@. ">C-CF:-F"; . >C- ; "5- "[CP, @<A"<: > . \ ' - . ` . > M@C8":-"<E:9"8. FC8; 6"  
U<. ME. - "W:; . 8]9 I :9<58A"1ej"\$45M:P9":-" # 5; . 8- "\*"U I :9<58A0"HE:PE"[5P, 9. ; , M5- "<E. "B5@@. F. ]9"  
E:9<58A\"

1\|0- -5YC<:5-6 . B>>+, \$!7+, !K+, G=. \$B05!6, +P- ; \$#!

c\|0- -5YC<:5-6"QB/O-O!. \$B0- /\$!Q- ''+M#)(>#!

"#\$( 3 %\$-O! ; +# \$#N!

\_ 4E. E:8. "5["C- . H"9<C[["P5-Y. -58"5["E:9<58A"M85^ . P<9 H5, @; "8. V, :8. "C- " . - ; 5H> . -<"5["C< @. C9<"  
I! > : @:5- "  
\_ U, MM58< [58"H58KQ9<, ; A"M85^ . P<9 i "1"9<, ; . -<9"  
\_ SU, > > . 8T"D. @5H9E:M96 1a0222"M. 8"C-- , > "  
\_ "78C` :9"[CP, @<A"9, MM58<6 1a0222"M. 8"C-- , > "

L:Y. - "<E. "9PC@. "5["<E. 9. "P59<90"H. "8. P5> > . - ; "<EC<"<E. "B5@@. F. ", - ; . 8<CK. "[, - ; 8C:9:-F". C8>C8K. ; "  
<5"9, MM58< <E. "P, 88:P, @C8 8. P5> > . - ; C<:5-9\"

5#!5& - 76(!8+&' ) \*+ - &10\* ' (!

!\. ; , -- /#!

J . "8. P5> > . - ; "<EC<"<E. "B5@@. F. "P8. C<. d9, MM58<"H5"> , @<: > . ; :C"9P8. . -9 <5"? . : -9<C@@ . ; "HE. 8. "<E. "  
?, @@. <:-"?5C8; 9"C8. "M8. 9. -<@A":-"<E. "C@P5Y. Q9MCP. ", - ; . 8"<E. ">C:-"9<C:89"5["%@ ; "X: ?8C8A\"

4E. "9P8. . -9"H:@@9. 8Y. "<E. "9C> . "M, 8M59. "C9"<E. "C8. C9 <E85, FE5, <"PC>M, 9 >C8K. ; "[58"  
>: >CF. d; 5P, > . -< ; :9M@CA9 \_ C"[8. V, . -<@A", M; C<. ; "9.<"5[">: >CF. 90"; 5P, > . -<90"C- ; "<. `<"M85Y: ; :-F"  
:-[58>C<:5- "C?5, <"<E. "B5@@. F. ]9"E:9<58A\"

I 5H.Y.80<E.A"H:00"? . >,PE">58." i <E.A"5PP,MA C"P. -<8C0"850. :-<E."M85P.99"5["<8C-9[58>:-F"  
<E."C0P5Y.09MCP."[85>"C"H.00Q<8C[[[:PK. ;"MC99CF.HCA":-<5"C"M0CP."HE.8."> .>?.89"5["<E."  
P5>> , -:<A"PC-". `M.P<"5"9<5M"C- ;"8.F,0C80A"8.P.:Y."C- ;"9EC8. : ;.C9"C- ;"-[58>C<:5-\

( C>:-F"<E:9"MC8<"5["<E."? ,:0;:-F"H:00"? .":>M58C-<:-".9C?0:9E:-F":<"C9"C"M0CP. HE.8."> .>?.89"5["  
<E."P5>> , -:<A"H:00"? ."-P5,8CF. ;"5"<E:-K0"8.[0.P<0":-<.8CP<0"C- ;".-FCF."H:<E".CPE"5<E.8\

J E:0. <E."9MCP. EC9"? .- "PC00. ;"\$)-!%';+<- E.8.0"<E."B500.F.">:FE< P5-9; .8"-C>:-F"<E."9MCP."  
C[<.8"C"9C[[ > .>?.8"58 C ;>:-<9<8C<58"5["P50580 C- ;",9:-F"<E."-C> . "P5-9:9<. -<0A"C9 M.5M0. ]9"  
C<<. -<:5-"9";:8.P<. ;"5" P5-<. -<0";:9M0CA90"C- ;".Y. -<9"<EC<"CMM.C8"C- ;"<CK. M0CP."<E.8.\

D5005H:-F"<E.9."9C> . "0:-.90"<E."L85 ,M"C095"8.P5>> .- ;9"<EC<"<E."U<C- ;:-F B5>> <<. . -Y.9<:FC<."  
5<E.8"9MCP.9 C- ;"855>9"<E85,FE5,<"<E."B500.F."<EC">:FE<"? . -C> . ;"C- ;">C8K. ;"-:58 ;.8 <5"  
.0.YC<. C- ;"C>M0:[A"<E. . `M.8:.-P.9"5["n9<C[[ HE5"ECY."P5-<8:?,<. ;"5"<E."0:.[ "5["<E."B500.F.\

4E. 0:9<"5["8.9.C8PE"<5M:P9":-P0, ; ;"C9"C- " MM. - ;: `P5,0; M85Y; . C"P5-<:- ,:-F"95,8P."5[ P5-<. -<  
[58"<E."9P8..-9"

4C8F.<" ;C<.6 .>,(/I!RSRS!  
"#\$ ( 3 %\$-O!(/(\$%!' ;+#\$#N!I/(\$%!'O-#(I/F&B('O!== TUV<SSSW!%/ /B%' 3%(/\$- /%/ ; -!#\$%77(/I! : J L9!

1\^2 + /7-, - /; -N!H2 : FK + 3 - /X#! \*(1) -, ! "ON!6%#S!6, -#- /\$C!%/O!QB\$B, -!

' "P5-[.8.-P."?8:-F:-F"<5F.<E.8"C-":-<.8-C<:5-C0"F85 ,M"5["9PE50C89"<5"M8.9.-<d9EC8. 9PE50C89E:M"5-"  
J 5> . -<9" I:FE.8"\$ ; ,PC<:5-\

4E. "[5005H:-F"<5M:P9"P5,0; "P.-<.8"<E. .Y.-<6"  
\_ J 5> .- ]9 . ; ,PC<:5-C0 8.[58>"C[<.8"<E."B:Y:0" J C8"  
\_ J 5> .- ]9 . `M.8:.-P.9"C" I:9<58:PC00A"G0CPK"B500.F.9 C- ;" \* -:Y.89:<.9"SUM.0>C-0"G. -- .<0"  
4:005<95-0"C- ;"GC8?.8QUP5<C"B500.F.9T0"C- ;"G0CPK"C;Y5PC<.9[58"H5> .- ]9. ; ,PC<:5-9,PE"C9"  
# C8A" # PB0.5 ;"G.<E. , -0" ( C-:-. " I .0. -"G,885,FE90" ' -C"+,0:C"B55M.80"C- ;"X,PA) :FF9"U05H.\  
\_ 4E. 750:P:9"C- ;"750:<:P9"5["\$`P0,9:5-"  
\_ 48C-9 U< , ; .-<9"C<" J 5> .- ]9"B500.F.9"  
\_ I .C0<Ed J .00- .99"  
\_ "BEC-F:-F" ' <<< , ; .9 45HC8;9"U< , ; .-<9"H:<E ) :9C?:0:<.9"

' "B5-[.8.-P."B5>> <<. . "H:00"M85Y; . "C"[,00.8"; .9P8:M<:5-5["<E."B5-[.8.-P.N ;8CH",M"<E." .Y.-<]9"  
? , ;F.<N ; .Y:9."C"PC00"[58"MCM.89N"PE559."C"K.A-5<.9M.CK.8 C- ;"P8.C<."C"0:9<"5["9PE50C89"HE5"  
9E5,0 ;"?.":-Y:<. ;"5"C<<. - ;"C- ;"M8.9.-<"<E.:8"H58KN C- ;"C88C-F."[58"M,?0:PC<:5-5["C"P5-[.8.-P."  
Y50 , >.0"M8.[.8C?0A"5-0:-. "C- ;"5M.-QCPP.990"C9"MC8<"5["<E."B500.F.]9"E:9<58:.9"H.? "M8.9.-P.\

' "H58K:-F".9<:>C<."[58"C"> ,0<:Q;CA"P5-[.8.-P." :9"<EC"<:"H:00"P59<"I j 20222\

4C8F.<" ;C<.6 .>,(/I!RSRY!

c\H-3+,(%!

BE8:9<5ME.8" ' @. `C- ; .8i9"?55K9"5-"C8PE:<.P<,8.0"? ,:0;:-F0"C- ; "<5H-9 M85Y; ; .":-9:FE<9 <E85 ,FE" HE:PE"H.">:FE<P5-P.:Y."5[ <E."%0;"X:78C8A"C9"C"iH5 , - ; ; "? , :0;:-F0k"C- ; , - ; .89P58."5,8" P5>>:<> .-<5"iE.C0k"C- ; "<8C-9[58>>"E."9MCP.\

0-": )- : (3-'-##!K%5!+7!JB('O(/I S%` [58;"\*70"!3/3T0" ' @. `C- ; .8 H8:<.9"EC<"gC"? ,:0;:-F"\\":9" F:Y. -":<9"PEC8CP<.80".99.-<:C00A0"?A"<E59." .Y.-<9"HE:PE"K. .M"5-"ECMM.-:-F"<E.8.">59<5[<.-\h" SmmT" go\$PcPE"\\": ,:0;:-F"EC9"C"MC8<:P, @C8"9.<"5["\\":MC<<.8-9"5[" .Y.-<9"CPP58;:-F"<5":<9"M8.YC:0:-F" P, @<,8.\h"SmaT" g4E:9";5.9"-5<"> .C-"EC<"9MCP."P8.C<.9".Y.-<90"58"EC<:"<PC,9.9"<E.>\h"/1T" g0<" 9:>M@A"> .C-9"EC<"C"MC<<.8-5[" .Y.-<9"PC--5<"?.9.MC8C<. ; "[85>>"E."9MCP."HE.8.":<5PP,89\h"/cT" g4E."@: ["HE:PE"ECMM.-9":-"C"? ,:0;:-F"\\":9"-5<"> .8.@A"C-PE58. ; "-<E."9MCP."? ,<">C; . ,M"[85>>" <E."9MCP."<9.@[\h"/eT"

0-"A!6%\$\$- , /!@%/IB%I-N! : +M/#C!JB('O(/I#C!2+/#\$,B;\$(+ / S%` [58;"\*70"!3//T0" ' @. `C- ; .8"H8:<.9" <EC< gM.5M@. " , - ; .89<C- ; "<E.:8"9,885 , - ; :-F9"C- ; "58:.-<E.>9.@Y.9"\\":?A">CK:-F"> .-<C@" >CM9\ U,PE"C">CM"- . . ; 9"C"M5:-<5["8.[.8.-P.6"95> . "M5:-<5["\\":HE:PE":9"Y.8A"5?Y:5,9"\\":EC<:"<9" M599:??."<5"8.[.8"<5"C00"5<E.8"MC<E9"C- ; "? , :0;:-F9"<5":<5["\\":D85>>"E."M5:-<5["Y:.H"5["<E."F85,M"5[" ,9.89"QQ <E."H58K.89"58"<E.":-EC?:<C-<9 QQ <E."9.-9."5["P5>> , -:<A"C- ; "P5--.P<:5-"9"E.:FE<.-. ; " HE.-"5-."? ,:0;:-F"58"MC8<5["5-."? ,:0;:-F":9:9-F@. ; "5,<C- ; "<8.C<. ; "C9"C">C:-"? ,:0;:-F0"P5>>5-" <5"C000"<E."E.C8<5["<E.":-9<:< ,<:5-\h"

J E:0." ' @. `C- ; .8i9"Y:.H"EC< C"PC>M,9">:FE<"ECY."C #(/I'-/E.C8< >:FE<"?."<55"8.9<8:P<:Y."QQ 95P:C@" H58K"9< , ; .-<90"9P.-<:9<90"C- ; "H58K.89">:FE<"ECY." ; [[.8.-<"> .-<C@">CM9"5["PC>M,9"H:<E" ; :[[.8.-<"S58"5Y.8@CMM:-FT"P.-<.89"QQ <E.8.i9"95> . "<8,<E":-"HEC@dE5H"E."H8:<.9\

'> .>58:C@ >C8K.8":-"<E."C8.C"5["<E."MC<E @.C ; :-F":<5 <E."%0;"X:78C8A"P5>M8:9.9 <E.">59<" -5<C?@."C- ; "M.8>C-.-<"C@<.8C<:5-"<5"<E."PC>M,90"C- ; "E5@;9"<E."M85>:9."<5"?."C"M5:-<5["8.0 58:.-<C<:5-"C- ; "8.Q:-Y:F58C<:5-"[58"<E. PC>M,9\0<"EC9"<E."M5<.-<:C@"<5"8.Q58:.-<"<E."9MCP.9"C- ; " MC<E9"@.C ; :-F"<5"%0;"X:78C8A0 C- ; "<E."P5--.P<:-F"M5:-<9"?.<H. .-"4CA@580"BC-C;CA"X:78C8A"C- ; " %0;"X:78C8A\

4E."> .>58:C@ H:00"?A .-P.99:<A ?."C">C8K.8"5["C?9.-P.90"8.M8.9.-<:-F"<E59." .`P@ , ; ; "[85>>" >.>?.89E:M":-"<E."B500.F."P5>> , -:<A\

\$`>M@C896 4E." J 5> .-]9"4C?@. C<"bC@.0" ; .9:F- . ; "?A" #CAC"X:-N"\* -:Y.89:<A"5[" ( 58<E"L.58F:C" EC9"C"> .>58:C@FC8 ; .-0"H:<E"8.> .>?8C-P."9MCP.9" ; .Y5<. ; "<5["CP, @A0"C ; >:-<9<8C<5890"9< , ; .-<90" C- ; "9<C[[\

J ."8.P5>> .- ; "<EC"<E."U<C- ; :-F"B5>>:<<. ."?."PEC8F. ; "H:<E"E."<C9K"5[" .9C?@:9E:-F"C"? , ; F.<0" ; .-<:[A:-F"C" ; .9:F-"M85P.990"C- ; "9.<:-F"[58<E"C"P5>> , -:<A".-FCF.> .-<M@C-"<5":-[58>>"<E." P8.C<:5-"5["C"> .>58:C@0":-P@ , ; :-F"C"&.V , .9<["58"785M59C@9"?A"UM8:-F"121!"

q , .9<:5-9"5"?."C ; ; 8.99. ; 6" \_ J EC< ? , ; F.<"H:00"?."CYC:@C?@.r"

\_ I 5H ;5"H." ;.Y.@5M"C" ;.9:F-"M85P.99r"

\_ I 5H C- ;"HE.-" ;5"H. .-FCF."<E."P5>> , -:<A":-"<E:9"M85P.99r"

4C8F.<" ;C<."5["P5>M@.<:5-6"&.V, .9<["58"785M59C@9":-"M@CP."?A".>,(//!RSRY0"<5"P5:-P:;. "H:<E"<E."

B5-[.8.-P.N"[:-C@P5>M@.<:5- 4G )\"



"77. ' /09!

0\O-#-%,;)!\$+>( ; #!M)( ; )!#\$BO- /\$#! 3(1)\$!- /1%1-!<(%!" . - 3#C!6,%D(#! 2+B,#-#C!M+,G=#\$B05C!+,!  
7- ''+M#)(>#6"

B. -9,9"5["0>CF.90"7C:-<:-F90"UP,@M<,8."  
I:9<58A"5["U<, ; .-<" ' P<:Y:9>"\_ "c29dm29d329d78.9. -<"  
I:9<58A"5["7.88A" I 5,9."  
4E."\$-:; "B55K"B. -<.8"  
\$`C>:-C<:5-"5["G # B"b .C8?55K9"  
\$`C>:-C<:5-"5["<E. "G # B"P5@@.P<:5-"5[" ] :F:<:R. ; "0>CF.9"  
\$`C>:-C<:5-"5["<E. "G # B"A 'B3 /% -!O- ; +, O!  
U.8Y:-F"7.5M@.d J 58K:-F"7.5M@."  
4E."f0-<.8:58"L.5F8CME:.9]"5["<E. "BC>M,9]"G, :@; :-F9"

00\" ? B\$, -%;;)!" <-/\$#!

Y9!H(/(!6+>=Z>#!

4E."B5>>:<<."P5,0;".-FCF.<E."P5>>,-:<A"<E85,FE"9<CF:-F"C"YC8:.<A"5[".Y.-<9"C-;"H58K9E5M9"  
<EC">:FE<CK."<E."[58>5[6"8.[@.P<:5-"M85>M<9"[58"P5>>,-:<A">.>?.89"<5"C-9H.8"H:<E">C8K.89"