

WHITE PAPER

Case Study: Critical Controls that Sony Should Have Implemented

Gabriel Sanchez

!"#\$%&'()*+,%!,-'-'!/%!01',0/#'2'''%&01*%&20(/)%3''4\$%
567/\$6\$1'\$)%

!"#\$%&'()*+,%!,-'-'!/%!0123/0*4%

!"#\$%&'()*+,%!,-'-'!/%!01\$-23(4546*01\$-2745*,.81%5(
!9:,6%&'(;,1\$*%9(<*%&+%0-(

(
!11-=-#-9'(>"0-(?3@A?B(

(
(
(
(
(
(
(
(

89#',".'%

%

Qp" Pqxdg odgt" 46." 4236." cp" kpekfgpv" cnoquv" rwmngf" tki jv" qwv" qh" c" ;2øu" jcemgt" oqxkg"
#&*06C%&5-9(,0#%(*5*66,:-(1%5="#-&(\$*1D8(!4&%="(1*..,04(,#6-.C(E\$-()"*&9,*06(%C(F-*1-(
G) HFI(5*0*4-9(#%(+&-*1\$(/%OJ(F,1#"&-6(K0#-&#*,05-0#(*09(+&,04(#\$-,&(6J6#-56(9%L0(#%(*
61&--1\$,04(\$*.#8(; -6".#,04(C&%5(#\$,6(+&-*1\$(#\$(-) HF(1.*,56(#%(\$*:- (6#%.-0(%:-&(?AA(
#-&+J#-6(%C(9*#*(1%0#*,0,04(/%1,*(/-1"&,#J(0" 5+-&63(6*.*&,-63(5%:,-63(*09(%#\$-&
=-&6%0*..J(,9-0#C,*+.- (,0C%&5*#,%08(M,#\$,0(9*J63(#\$(-6#%.-0(9*#*(L*6(=%6#-9(%0(#\$(-
NO#-&0-#(*.%04(L,#\$(9-5*096(C&%5(#\$(-) HF(4&%="(#\$*#(,01."9-9(0%#(&.-*6,04(!"#
%&'#()*#+8(E\$,6(=*=-&(L,..(=%,0#(%"#(6%5-(%C(#\$(-<&,#,1*(<%0#&%6(#\$*#(1%".9(\$*:- (+--0(
"#,..2-9(%(5,0,5,2-(#\$(-,5=*1#(#\$(-) HF(\$*9(%0(#\$(- /%0J(+&-*1\$(O#,..2,04(-: -0(C-L(%C(
#\$(- <&,#,1*(<%0#&%6(6"1\$(*6(5*.L*%&-(9-C-06-63(5%0,#%&,043(*"9,#(.%463(-01&J=#,%03(
1%0#&%...9("6-(%C(*95,0,6#&#*,:- (1&-9-0#,*63(*09(,01,9-0#(&-6=%06-(1%".9(\$*:- (=&%: ,9-9(
vjg"pgeguuct{"k o rng o gpvcvkqpu"tgswktgf"vq"rtgxgpv" c";2øu" jcemgt" o qxkg"htq o "vwtpkpi"kp vq"
&-*.,#J8(
(
(

!

!

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

(

M\$*#(L%" .9(6%%0(1\$*&*1#-&,2-(%0-(%C(#\$-(L%&6#(\$*1D6(,0&-1-0#(\$,6#%&J(+ -4*0(L\$-0(61&- -0L&,#-&(K: *0() % .9+ -&4(*09(*1#%&(/ -#\$ (; %4-0(Q%D-9(*+% "#(5 *D,04(*1% 5 -9J(*+% "#(*66*66,0*#,04(#\$-(. - *9-&(%C(R%&#\$(S%&- *3(S, 5 (>%04T"08(HO(U *1\$(@A?V3(#\$,6(Q%D- (+ -1* 5 -(&-*,#J(L\$-0(/ %0J(F,1#"&-6(KO#-&#*,05 -0#(*00% "01-9(#\$*#(+%#\$() % .9+ -&4(*09(; %4-0(L%" .9(9,&-1#(#\$-(1% 5 -9J(5 % : , -3(! " # \$ % & ' # () * # + 8 (E \$ - (% & , 4 , 0 * . (& - . - * 6 - (9 * # - (% C (! " # \$ % & ' # () * # + (L * 6 (# * & 4 - # - 9 (C % & (# \$ - (- 0 9 (% C (@ A ? W X (\$ % L - : - & 3 (+ - C % & - (# \$ - (5 % : , - (1 % " . 9 (+ - (& - . - * 6 - 9 (* 0 (, 0 1 , 9 - 0 # (% 1 1 " & & - 9 (# \$ * # (= " # (\$ * 1 D - & 6 (, 0 1 % 5 = . - # - (1 % 0 # & % . (% C (/ % 0 J (F , 1 # " & - 6 (K O # - & # * , 0 5 - 0 # 1 6 (0 - # L % & D 8 (! 6 ((= % & # , % 0 (% C (# \$ - (1 . * , 5 - 9 (? A A (E - & * + J # - 6 (% C (9 * # * (C . % 9 - 9 (# (# \$ - (N O # - & 0 - # 3 (/ % 0 J (F , 1 # " & - 6 (K O # - & # * , 0 5 - 0 # (L * 6 (C % & 1 - 9 (# (# * D - (, # 6 (0 - # L % & D (% C C . , 0 - (* 6 (/ % 1 , * . (/ - 1 " & , # J (O " 5 + - & 6 3 (5 % : , - 6 3 (6 * . * & , - 6 3 (* 0 9 (= - & 6 % 0 * . . J , (0 - 0 # , C , * + . - (, 0 C % & 5 * # , % 0 (L - & - (& - . - * 6 - 9 (# (# \$ - (N O # - & 0 - # 8 (! C # - & (# \$, 6 (, 0 1 , 9 - 0 # 3 (% + 6 - & : - & 6 (+ - 4 * 0 (# (% C % & 5 " . * # - (9 , C C - & - 0 # (5 - # \$ % 9 6 (% C (= & - : - 0 # , 0 4 (* 0 # \$ - & (\$ * 1 D (6 " 1 \$ (* 6 (# \$ - (/ % 0 J (+ & - * 1 \$ (G Z - # - & 3 (@ A ? W I 8 (

!

[-6=#,-(1%01-&06(% : -&(#\$-(=&%9"1#,%0(%C(! " # \$ % & ' # () * # + (5 % : , - (/ % 0 J (F , 1 # " & - 6 (K O # - & # * , 0 5 - 0 # (9 - 1 , 9 - 9 (# (% = - 0 (# \$ - (C . , 5 (, 0 (# \$ - * # - & 6 (< \$ & , 6 # 5 * 6 ([* J (@ A ? W 8 (R % : - 5 + - & (@ ? 3 (@ A ? W 3 (* 0 (- 5 * , . (* 9 9 & - 6 6 - 9 (# (/ % 0 J (F , 1 # " & - 6 (< K H (U , 1 \$ * - . (\ J 0 # % 0 3 (< \$ * , & 5 * 0 (! 5 J (F * 6 1 * . 3 (* 0 9 (% # \$ - & (-] - 1 " # , : - 6 (5 * 9 - (: c i w g " t g h g t g p e g u " v q " ö i t g c v " f c o c i g ö " c p f " c u m g f " h q t " ö o q p g v c t { " e q o r g p u c v k q p ö " v q " c x q k f " k v " * ^ & * 0 1 - 6 1 \$, T _ , 1 1 \$, - & * 3 (@ A ? W * I 8 (R % : - 5 + - & (@ W 3 (@ A ? W 3 (* (; - 9 9 , # (= % 6 (* = - * & - 9 (6 * # , 0 4 (# \$ * # (/ % 0 J (F , 1 # " & - 6 (K O # - & # * , 0 5 - 0 # (\$ * 9 (+ - - 0 (+ & - * 1 \$ - 9 (* 0 9 (# \$ * # (# \$ - , & (1 % 5 = . - # - (, 0 # - & 0 * . 3 (0 * # , % 0 T L , 9 - (0 - # L % & D (\$ * 9 (6 , 4 0 6 (# \$ * # (# \$ - (+ & - * 1 \$ (L * 6 (1 * & & , - 9 (% " # (+ J (* (4 & % " = (1 * . , 0 4 (# \$ - 5 6 - . : - 6 (# \$ - () H F 3 (E \$ - () " * & 9 , * 0 6 (% C (F - * 1 - (G ; _ / 3 (@ A ? W I 8 (E \$ - (\$ * 1 D - & 6 (1 . * , 5 (# (\$ * : - (6 # % . - 0 (* (\$ " 4 - (# & % : - (% C (6 - 0 6 , # , : - (9 * # * (C & % 5 (/ % 0 J 3 (= % 6 6 , + . J (* 6 (. * & 4 - (* 6 (? A A (# - & * + J # - 6 (% C (9 * # * 3 (L \$, 1 \$ (# \$ - J (* & - (6 . % L . J (& - . - * 6 , 0 4 (, 0 (+ * # 1 \$ - 6 8 (

(

>"94,04(C&% 5 (#\$-(9*#*(#\$*#(\$*1D-&6(\$* : -(.- *D-9(%0.,0-3(#\$-J(\$* : -(+%+*,0-9("6-&0* 5 -63(=*66L%&963(*09(6-06,#,: -(,0C%&5 *#, %0(*+% "#(/ %0Jv6(0-#L%&D(*&1\$,#-1#"&-(*09(*(\$%6#(%C(9%1" 5 -0#6(-] =%6,04(=-&6%0*.(,0C%&5 *#, %0(*+% "#(- 5 =.%J- -6(GZ-##-&3(@A?WI8([-1- 5 + -&(@3(4236."vjg"HDK"ugpv" c"eqphkfgpvkcn"öhncuj ö"cngtv"vq"pw ogtqwu"W0U0"dwukpguugu" yctpkpi"vjg o" # \$ * # (\$ * 1 D - & 6 (j c x g " t g e g p v n { " n c w p e j g f " c " f g u v t w e v k x g " ö y k r g t ö " o c n y c t g " c v v c e m 0 " Y j k n g " v j g " c n g t v "

!
9%-6(0%#(0* 5 -(#\$-(: ,1# , 5 3(0" 5 -&%" 6(,0C%& 5 *#,%0(6-1" &,#J(-]=-(6*J(#\$*#/#\$-(5 *.L* &-(
==-&6(%(1%&&-6=%09(L,#\$(#\$(- 5 *,.1,% "6(1%9-(" 6-9(,0#\$(&-1-0#(\$*1D(*##*1D(*4*,06#(/%0J(
F,1#"&-6(KO#-&#*,05 -0#(G/ 1\$L* (@A?WI8(
(
[-1- 5 +-&(` 3(@A?W3(R%&#\$(S%&-*(9-0,-9(&-6=%06,+.,#J(C%&(\$*1D,04(#\$(-1% 5 ="#-&6(C(/%0J(
F,1#"&-6(KO#-&#*,05 -0#3(J-#(#\$-J(*==-*&-9(%(&-.,6\$(#\$(-*##*1D(#\$*#(1&,,=-.9(#\$(-1% 5 ="#-&(
6J6#- 5 6(C#\$(- (P%..JL% 9(1% 5 =*0J3(L\$,1\$(L*6(6-#(%(&-.-*6-(! " # \$ % & ' # () * # + (# \$ * # (, 0 : % . : - 9 (
*(=.%#(%(*66*66,0*#-(, #6(. -*9-&3(S, 5 (>%04T"O(G/*04TP"O3(@A?WI8(P%L- : -&3(#\$(- (O0,#-9(
/#*#-6(=" +.,1(*09(4% : -&05 -0#(\$* : -(1.* , 5 -9(#\$*#(#\$(- (R%&#\$(S%&-*06(*&-(&-6=%06,+.- (C%&(#\$(- (
*##*1D8(! .#\$%"4\$(0%#(*..(#\$(- (9-#*,.6(*+% "#(#\$(- (/ %0J(+&-*1\$(\$* : -(+--0(&- : -*.-9(#\$(- (
C%..L,04(,0C%& 5 *#,%0(\$*6(1% 5 -(#(%(.4\$#(9" -(#(=" +.,1(6%"&1-6(#\$*#(6- 5 (#%(6-& : -(6*(
L* &0,04(C%*(R%&#\$(S%&-*0(*##*1D(%0(/%0J(F,1#"&-6(KO#-&#*,05 -0#8(>"0-(@a3(@A?W3(*(
Pqtvj"Mqtgcp"hqtkgk i p" o kpkvtt{ "urqmgurgtuqp"uckf"kp"uvcvg" o g fkc"vjcv"vjg" o qxkgøu"tg. -*6-(
yqwnf"dg"cp"öcev"qh" y ctö"DDE"Pg y u."4236+8(
(
E\$(- (C%..L,04(9*J3(*C#-&(#\$(- (O0,#-9(/#*#-6(9-1.*&-9(#\$*#(R%&#\$(S%&-*(L*6(&-6=%06,+.- (C%&(
#\$(- (+&-*1\$(%C([-1- 5 +-&(b3(@A?W3(#\$(- (<KH(%C(/%0J(F,1#"&-6(KO#-&#*,05 -0#(6-0#(* (5 - 5 %(%(
..(- 5 =.%J- -6(1%0C,& 5 ,04(#\$#(#\$(- ,&(,0C%& 5 *#,%0(\$*9(,09- -9(+--0(1% 5 =&% 5 ,6-98(E\$(- (
5 - 5 % (C- *#"&-9*(. -#-&(+J(S- : ,0(U*09,*3(\$- *9(%C(#\$(- (1J+-&(6-1" &,#J(C,& 5 (U*09,*0#3(
L\$,1\$(L*6(\$,&-9(+J(/%0J(%(=&%+-(#\$(- (5 *66, : -(*09(- 5 +*&&*66,04(C,. 5 (6#"9,(\$*1D,04(
G^&*01-61\$,T_,11\$, -&*3(@A?W+I8([-1- 5 +-&(?A3(@A?W3(*C#-&(9*J6(%C(&- : , -L(1%01-&0,04(#\$(- (
,01&-9,+.-(*5%"0#(%C(. -*D-9(9*##*3(*0*.J6,6(6\$,C#-9(%(#\$(- (1%0#-0#6(%C(<%T<\$*,&5 *0(! 5 J(
F*61*.Y6(- 5 *,.63(/%0J(F,1#"&-6(KO#-&#*,05 -0#3(*09(/#- : -(U%6D%3(F&-6,9-0#(%C(/%0J(
F,1#"&-6(E-.- : ,6,%0(G ; _ / 3(@A?WI8(K5 *,.6(C%& 5 (+%#\$(! 5 J(F*61*.(*09(/#- : -(U%6D%(
tgxgcngf" g o dtttcuukp i "tg o ctmu"eq o o g p v k p i "qp"Rtgukf g p v"Qdc o c ø u" h k n o " r t g h g t g p e g u" v j c v"
\$*9(+--0(-]1\$*04-9(: ,*(- 5 *,.(*#(/%0J(F,1#"&-6(KO#-&#*,05 -0#8((

!

[-1- 5 +-&(?c3(@A?W3(*C#-&(#\$(- (^_N(C%& 5 *..J(+.* 5 -9(R%&#\$(S%&-*(C%&(#\$(- (1J+-&T*##*1D(
4,06#(/%0J(F,1#"&-6(KO#-&#*,05 -0#3(#\$(- (\$*1D(+ -4*0(%(6=" &(5 %"0#,04(1*..6(C%&(#\$(- (O8/8(
4% : -&05 -0#(%(=" &6-(*#("4\$(&-6=%06-(*4*,06#(S, 5 (>%04Twpøu"tg i k o g" *Hqz"Pg y u."4236+0"
R%&#\$(S%&-*(&-6=%09-9(%(O8/8(*11"6*#,%06(% : -&((,0 : % . : - 5 -0#(,0(* (1J+-&T*##*1D(*4*,06#(
Uqp{ "Rkewvtgu"Gpvgtvckp o g p v"cu"ö i tqwpfnguu"uncpfgtö"cpf" v j c v"kv" y c p v g f" c" l q k p v"

!
,0: -6#,4*#, %0(,0#%(\$-(,01,9-0#(L, #\$(#\$-(00, #-9(/ ##-68(! 0("00* 5 -9(6=D-6=-&6%0(C(R%&#\$(
Mqtgcøu"htgk i p" o kpkuvt { "uckf"v jgtg" y qwnf"dg"ugtkquw"eqpugswgpegu"kh" Y cu jkp i vq0(&-C"6-9(
##(*4&--(#%(\$-(= &%+-(*09(1%0#,0" -(#%(*11"6-(FJ%04J*04(GS, 5 3(d(P%..*093(@A?WI8(
(
! C#-&(\$#-(1J+-&T*##*1D(/ %0J(0- *&.J(=" ..-9(#\$-(=."4(%0(&-.-*6,04(! " # \$%&'#/() *# +3(\$%L- : -&3(
F&-6,9-0#(H+* 5 *l6(9-1.*&*#, %0(\$*#(/ %0J(6\$%" .9(5 % : -(C%&L * &9(L, #\$(, #6(5 % : , -(&-.-*6-(
5*9-(/ %0J(&-1%06,9-&(#6(=%6, #, %0X(, #(\$#-0(= &1--9-9(L, #\$(/ " # \$%&'#/() *# +ø6(&-.-*6-8(
>*0"*&J(@3(@A?B3("09-&*(0-L(-] -1"#, : -(%&9-&(6,40-9(+J(F&-6,9-0#(H+* 5 *3(#\$-(E&-*6"&J(
[-=*&# 5 -0#(, 5 =%6-9(C,0*01, *. (5 -*6"&-6(*4*,06#(#-0(R%&#\$(S %&-*0(%CC,1, *.6(*09(#\$&--(
4% : -&05 -0#(*4-01, -6(GU%&-..%3(d(U, ...&3(@A?BI8(ES,6(,01,9-0#3(+ -6,9-6(#\$-(&-.-*6-(%C(
= &, : *#-(,0C%& 5 *#, %0(*09(5 % : , -63(1*"6-9(#\$-(6#"9, %ø6(0-#L%&D(#% (+-(%CC.,0-(C%&(L--D6(9" -(
#%(\$#-(C*1#(#\$*#(/ %0Jø6(#-1\$0,1, *06(L-&-(C%&1-9(#%(&-+" ,.9(#\$-(0-#L%&D(,0(%&9-&(#% (+&,04,(#(
C" ..J(%0.,0-(*4*,0(G ! +9%..*\$3(@A?BI8(
!
NO(* (L,9-T&*04,04(,0#-&: , -L3(\ JO##03(/ %0J(<KH3(&-6=%09-9(#%(\$#-(,6% .*#, %0(*09(
"01-&#*,0#J(1&-*#-9(+J(#\$-(***1D(*09(#\$-("0,e" -(= %6, #, %0(\$#-(1% 5 =*0J(C%"09(, #6-.C(,0(
L\$,1\$(\$-(6##-9(#\$*#(ö v jgtgøu"pq" rnc { dqqm"hqt(*0(,01,9-0#(6"1\$(*6(#\$,6ö(L\$,1\$(1&-*#-9(
4&-*#-&(\$* &96\$=(C%&(/ %0J(,0(\$#-, &(&-1% : -&J(*C#-&(\$#-(+&-*1\$(G ! +9%..*\$3(@A?BI8(M\$,.-(/ %0J(
jcu"tgrqtvgf"kp"cp"gc t p k p i u"tgrqtv"v jcv"v jg"jcem" y qwnf"equv"Uqp{ "&37" o knkqp"ökp"
kpxguvk i cvkqp"cpf"tg o g f kcvkqp"equvü"hqt"v jg(e" * &#-&(#% ([-1- 5 +-&(V?3(6-0, %&(4-0-&*. (
5*0*4-&(S*2"\$D,(E*D-9*(6##-9(#\$*#(/ %0J(L%" .9(.%6-(fVB(5 ,...%0(C%&(\$#-(C" ..C,61*.(J-*&(
#\$&% "4\$(U* &1\$(V?(GP%&0J*D3(@A?BI8(ES,6(\$*1D(\$*6(*.6%(. -9(#% (! 5 J(F*61*.3(0-0-(C(
J qnn{ y qqføu" o quv" r q y gthwn" o qxkg"gzgewvkxgu."uvgr=,04(9%L0(*6(\$-*9%(C(/ %0J(F,1#"&-6(,0(
#\$-(L*D-(%C(*(\$*1D,04(61*09*.(#\$*#(&-6" .#-9(,0(\$-&(= &, : *#-(*09(9* 5 *4,04(- 5 *,.6(+,-,04(
.-*D-9(G ; "6\$-3(@A?BI8(
(
E\$,6(=*=-&(L,...(=%,0#(% "#(6% 5 -(%C(\$#-(E%=(@A(<&, #, 1*.(<%0#&% .6(#\$*#(1%" .9(\$* : -(+- -0(
"#,.,2-9(#%(5 ,0, 5 ,2-(#\$-(, 5 =*1#(#\$*#(\$#-() HF(\$*9(9"&,04(#\$-(/ %0J(+&-*1\$(O#,.,2,04(- : -0(
(C-L(C%(\$#-6-(<&, #, 1.(<%0#&% .63(6"1\$(*6(5 *.L* &-(9-C-06-63(5 %0, #%,043(*"9, #(.%463(
-01&J=#, %03(1%0#&%...-9("6-(%C(*95,0,6#&*, : -(1&-9-0#, *.63(*09(,01,9-0#(&-6=%06-(1%" .9(\$* : -(
= &% : ,9-9(#\$-(0-1-66ct{ "k o rng o gpvcvkqpu"tgs wktgf"vq"rtgxgpv" c" ; 2øu"jcemgt" o qxkg"htq o "

<&,#,1*.(<%0#&% .6(#\$*#(/ %0J(/ \$%" .9(P* : -(N5 =. - 5 -0#-9! B(

!

#"&0,04(,0#%(&-*.,#J8(E\$-(<&,#,1*.(<%0#&% .6(=&% : ,9-9(1*0(%0.J(+-(6"11-66C".(L,#\$(\$\$-(
0-1-66*&J(1".#"&-(6\$,C#(&-e",&-9(C&% 5 (- : -&J(- 5 =.J--(#\$&% "4\$%"#(*0(%&4*0,2*#,%0(G/ ! R/(
N06#,#"-3(@A?BI8(F"##,04(* (1\$-1D 5 *&D(,0(*(+%) (%&(+%.# ,04(%0(6*C-4"*&963(*6(*0(
C#-&#\$%"4\$#3(L,..(%0.J(=&% : ,9-((C*.6-(6-06-(%C(6-1"&,#J(*4*,06#(*0J(C"#"&-(***1D68((

-#! . /+* ',&0!

-#!1',&,+23!1 (%&' (34!!!

E\$-(<&,#,1*.(/ -1"&,#J(<%0#&% .6(C%1"6(C,&6#(%0(=&,%&,#,2,04(6-1"&,#J(C"01#,%06(#\$*#(*&-(
-CC-1#,: -(4*,06#(#\$-(. *#-6#(! 9 : *01-9(E*4-#-9(E\$&-*#68(E\$-6-(6-1"&,#J(C"01#,%06(6#&%04.J(
- 5 =\$*6,2-õ Y j cv" Y qtmuö(G/ ! R/(N06#,#"-3(@A?B*I8(E\$-6-(1%0#&% .6(*.6%(=&,%&,#,2-(*09(
C%1"6(%0(* (6 5 *..-&(0" 5 +-&(%C(*1#,%0*+.- (1%0#&% .6(L,#\$(*(\$,4\$T=*J%CC3(*, 5 ,0i"hqt"c"õ o wuv"
f q"hktuvö" r j knquq r j { "UCPU"Kpukvwvg."4237c+0"Ewttgprvn{."v j gtg"ctg"42"Etkvkecn"Eqpvtqnu"
L,#\$(: *&,% "6(6"+T1%0#&% .6(#\$*#(*..%L(C%&(%&4*0,2*#,%06(#%(*11% 5 =.,6\$(*#6D6(,0(=\$*6-68(E\$-(
/ ! R/(N06#,#"-3(.,6#6(\$\$-(E%=(@A(<&,#,1*.(<%0#&% .6(*6(C%..%L6(G/ ! R/(N06#,#"-3(@A?B+I'((

E*+.-('?(E%=(@A(<&,#,1*.(<%0#&% .6(G/ ! R/(N06#,#"-3(@A?B+I8(

E%=(@A(<&,#,1*.(<%0#&% .6(
?8! NO: -0#%&J(%C(! "#\$%&,2-9(*09(OO*"#\$\$&,2-9([-: ,1-6((
@8! NO: -0#%&J(%C(! "#\$%&,2-9(*09(OO*"#\$\$&,2-9(/ %C#L* &-(
V8! / -1"&-(<%0C,4"&*#,%06(C%&(P* &9L* &-(*09(/ %C#L* &-(%0(U%+,,-([-: ,1-63(\ * =#%=63(M%&D6#*#,%063(*09(/ -&: -&6(
W8! <%0#0,"%"6(g".0-&*+,,#J(! 66-66 5 -0#(*09(; - 5 -9,*#,%0(
B8! U*.L* &-([-C-06-6((
a8! ! ==.,1*#,%0(/ %C#L* &-(/ -1"&,#J((
`8! M,&.- -66(! 11-66(<%0#&% .((
b8! [*#*(; -1%: -&J(<*=*+,,#J((

!

c8! / -1"&,#J(/D,..6(! 66-66 5 -0#(*09(! ==&%=&,*#-(E&* ,0,04(#%(^,..() *=6((
?A8!/ -1"&-(<%0C,4"&*#,%06(C%&(R-#L%&D([- : ,1-6(6"1\$(*6(^,&-L*..63(; %"#-&63(*09(/ L,#1\$-6(
??8!\ , 5 ,#*#,%0(*09(<%0#&% .(%C(R-#L%&D(F%?(F&%#%1% .63(*09(/ -&: ,1-6(
?@8!<%0#&% ..-9(O6-(%C(! 9 5 ,0,6#&*# , : -(F& , : ,.-4-6((
?V8!_% "09*&J([-C-06-(
?W8!U *,0#-0*01-3(U %0,#%&,043(*09(! 0*.J6,6(%C(! "9,#(\ %46(
?B8!<%0#&% ..-9(! 11-66(_ *6-9(%0#\$-(R--9(#%(S0%L((
?a8! ! 11%"0#(U %0,#%&,04(*09(<%0#&% .((
?`8! [*#*(F&%#-1#,%0((
?b8!N01,9-0#(; -6=%06-(*09(U *0*4- 5 -0#((
?c8!/ -1"&-(R-#L%&D(K04,0--&,04((
@A8!F-0-#&*#,%0(E-6#6(*09(; -9(E-* 5 [K] -&1,6-6(

(

H&4*0,2*#,%06(#\$*#(*9%=(#\$(E%=(@A(<&,#,1*.(<%0#&% .6(*&-(-C#(L,#\$(\$\$-(+-6#(*09(5 %6#(
, 5 - .J(%=#,%0#%(&=- : -0#(C"#"&-(\$*1D68(^%&#"0*#-.J3(9%2-06(%C(-*&.J(*9%=-#-&6(%C(\$\$-(<&,#,1*.(
<%0#&% .6(\$*: -(6\$*&-9(#\$-,&(-]=-&,-01-6(*09(. -66%06(. -*&0-9(L,#\$(\$\$-(<%06%&#," 5 (C%&(
<J+-&6-1"&,#J(! 1#,%0(G/ ! R/(N06#,"#-3(@A?B+I8(! 11%&9,04(#%(\$\$-(/ ! R/(N06#,"#-3(#\$-(
=*##-&0(#\$*#(\$*6(- 5 -&4-9(#\$*#(*..%L6(C%&(6"+6#*0#,*.(=&4&-66(,0(&-9"1,04(&,6D("6,04(
<&,#,1*.(<%0#&% .6(*&-(*6(C%..%L6(G/ ! R/(N06#,"#-3(@A?B+I'((

E*+.-(@'(/#-=6(C%&(; -9"1,04(; ,6D(L,#\$(<&,#,1*.(<%0#&% .6(G/ ! R/(N06#,"#-3(@A?B+I8(

/#-=6(C%&(; -9"1,04(; ,6D(L,#\$(<&,#,1*.(<%0#&% .6((
&'\$7%:+(F-&C%& 5 (N0,#,*.() *=(! 66-66 5 -0#(T(9-#-& 5 ,0,04(L\$*#(\$*6(++-0(, 5 =.- 5 -0#-9(*09(L\$-&-(4*=6(&- 5 *,0(C%&(-*1\$(1%0#&% .(*09(6"+T1%0#&% .8(

!

<p>&'\$7%;+([- : -. %=(*0(N5=-. 5-0#*#,%0(; %*9 5 *=(T(6-. -1# ,04(#\$-(6=-1, C,1(1%0#&%.6(G*09(6"+T 1%0#&%.6I(%(+-(, 5=-. 5-0#-9,(0(-*1\$=(\$*6-3(*09(61\$-9" .,04(#\$-(= \$*6-6(+*6-9(%0(+ "6,0-66(&,6D(1%06,9-&*#,%068(</p>
<p>&'\$7%<+(N5=-. 5-0#(#\$-(^,&6#(F\$*6-(%C(<%0#&%.6(T,(9-0# ,CJ,04(-] ,6# ,04(#%%.6(#\$*#(1*0(+-(&-="&=%6-9(%&(5 %&-(C" ..J(" #,.,2-93(0-L(%#% .6(%(*1e" ,&-3(=&%1-66-6(#% (+-(-0\$*01-93(*09(6D,..6(#% (+-(9- : -. %=-9(#\$&% "4\$(&* ,0,048(</p>
<p>&'\$7%=(NO#-4&*#-(<%0#&%.6(,0#%(H=-&*#,%06(T(C%1"6,04(%0(1%0# ,0" % "6(5 %0 ,#& ,04(*09(5 ,# ,4*# ,%0(*09(L-* : ,04(0-L(=&%1-66-6(,0#%(6#*09*&9(*1e" ,6,#,%0(*09(6J6#- 5 6(5 *0*4- 5-0#(%=-&*#,%068(</p>
<p>&'\$7%>+(; -=%&#(*09(U*0*4-(F&%4&-66(*4* ,06#(#\$-(N5=-. 5-0#*#,%0(; %*9 5 *=(9- : -. %=-9,(0(/#-=(@8(E\$-0(&-=-*#(/#- =6(VTB(,0(#\$-(0-]#(= \$*6-(%C(#\$-(; %*9 5 *=8(</p>

!

-#-!1 *3&* ' /!2&! . (%0!

/ , 5 ,. *&. J3(#\$&- -(*09(*(\$*.C(J-*&6(*4%(/%0J(L*6(*4* ,0,(0(#\$-(6=%#.,4\$#(L,#\$(&-6=-1#(#%(
*0#(#\$-(5 *0%&(+&-*1\$8(! =&.,(@a3(@A??3(/%0J(L*6(&-=%&#-9(#%(\$*: -(6"CC-&-9(* (5 *66, : -(
+&-*1\$(,0,#6(: ,9-%(4* 5 -(%0.,0-(0-#L%&D(#\$*#(. -9(#%(\$#-(#-\$-C#(%C(0* 5 -63(*99&-66-63(*09(
=%66,+.J(1&-9,#(1*&9(9*#*(+-.%04,04(#%(` ` (5 ,...,%0("6-&(*11%"0#6(G_*D-&(d(^,0D.-3(@A??I8(
/ - : -&*. (9*J6(. *#-&(0(U*J(W3(@A??3(/%0J(&- : -*. -9(#\$*#(#\$-(+&-*1\$(5 ,4\$#(\$*: -(*CC-1#-9(
@W8B(5 ,...,%0("6-&6(%C(/%0J(H0.,0-(K0#-&*# ,05 -0#3(5 *D,04(#\$,6(#\$-(. *&4-6#(=-&6%0*.(9*#*(
j gkuv"kp"j kuvqt{"Nxcuqh v."4233+0"Uqp{ou"tgrqpug"vq"vjku"kpekfgpv"jcu"dggp"y k fgn{"
1&,#,1,2-9(+J(6-1"&,#J(-]=-?(1%06" 5 -&63(*09(=%.,# ,1,*06(*.,D-(+-1*"6-(,(#%%#D(/%0J(%: -&(
(L--D(#%(. -&#("6-&6(#\$*#(#\$-,&(-&6%0*.(9-#* ,.6(5 *J(\$*: -(+- -0(6#%. -0(*09(#\$*#(/%0J(6#&-9(
#&-6-(9-#* ,.6(,0(*0("0-01&J=#-9(C%& 5 *#(G g -0#"&- _ -*#3(@A??3(@A??+I8(! 11%&9,04(#%(/#"*&#(
E\$% 5 *63(L\$%(&- : ,%"6.J(+ " ,#(#\$-(F.*J/#*#,%0(@ (0-#L%&D(C%&(/%0J(,0(@AA?3(#\$-(+,44-6#(
5 ,6#*D-(/%0J(5 *9-(#\$*#(. -9(#%(\$#-(F/R(\$*1D6(L*6(,6(%&4*0,2*#,%0*.(1% 5=-.] ,#J(*09(*
.*1D(%C(=&%=-&(6-1"& ,#J(6"==&#&#(#\$-(+*%&9(- : -. (G g -0#"&- _ -*#3(@A??I8(
(
U*J(W3(@A??3(*("F"&9"-(O0, : -&6,#J(=&%C-66%&(#-6# ,C,-9(#%(*(<%04&-66,%0*.(1% 5 5 ,##--(
,0: -6# ,4*# ,04(#\$-(5 *66, : -(9*#*(+&-*1\$(%C(/%0J() * 5 -(*09(K0#-&*# ,05 -0#(0-#L%&D6(L\$,1\$(

!
&-: -*.-9(#\$*#(/ %0J(\$*9(*.6%(C*,.-9(#%("6-(C,&-L*..6(#%(&%#-1#(,#6(O-#L%&D6(*09(L*6(1*"4\$#(
"6,04(%+6%.-#-(Lgd"cr rnkecvkqpu."y jkej"o c f g"v j g"eq o rcp{øu"ukvgu"cp"kp xkvkpi"vcti g v"vq"
\$*1D-&6(G; *6\$,93(@A??I8(M\$,.-(/ %0J(9-1.,0-9(#%(*==-*&(+ -C%&-(\$-(U*J(W3(@A??3(\$-*&,04(
1%0: -0-9(+J(\$-(P%"6-(<% 5 5 ,##- -(%0(KO-&4J(*09(<% 5 5 -&1-3(#\$-(1% 5 =*0J(6-0#(*O(
-,4\$#T=*4-(.-##-&(9-#*,.,04(L\$*#(,#(L*6(9%,04(#%(\$\$-(/ "+1% 5 5 ,##- -(%0(<% 5 5 -&1-3(
U*O"C*1#"&,043(*09(E&*9-(G; *6\$,93(@A??I8(E\$,6(9%1" 5 -0#("".#,0-9(,01&-*6-9(6-1" &,#J(C(
9*#*(+J("#,.,2,04(-01&J=#,%0(*.%04(L,#\$(O-L(#%%.6(#%(9-C-09(*4*,06#(C""&-(*##*1D68(H#\$-&(
,5=&%: -5 -0#6(,01."9-9(,0#-&0*(.9-#-1#,%0(5 -1\$*0,656(#\$*#(L%" .9(C.*4("O*"#\$%&,2-9(
*11-66(%&(*0% 5 *,.-6(%0#\$-(O-#L%&D8(U&8(/ #,04-&3(<\$,-C(K]-1"#,: -(%C(/ %0J(*#(\$\$-(# ,5 -3(
6*,9(#\$*#(\$\$-(***1D6(%0(/ %0J(\$*9(=&% 5 =#-9(#\$-(1% 5 =*0J(#%(6&-04#\$-0(6-1"&,#J(*1&%66(*..(
%C(,#6(=&%9"1#6(G_.,#%03(@A??I8((
(
E\$-(&-1-0#(R%: -5 +-&(@W3(@A?W3(+&-*1\$(*4*,06#(/ %0J(+J(\$\$-() HF(4&%"=.(-C#(-5 =.%J--6(
09(6=-1##%&6(L%09-&,04(\$L(6"1\$(*(. *&4-(+&-*1\$(1%" .9(%11" &(*4*,08(>"6#(\$&--(L--D6(
. *#-&(%0([-1-5 +-&(?B3(@A?W3(*C#-&(*##*1D-&6(*"O1\$-9(*9-: *6*#*,04(+*, #/(5 *.L*&-(*##*1D(
4,06#(/ %0J(F,1#"&-6(KO#-&#*,05 -0#(*09(+ -4*0(. -*D,04(6#%. -0(9*#*3(/ %0J(+&%D-(,#6(6,.-01-(
+J(\$&,04(*(&% 5 ,0-0#(O8/8(*##%&O-J(#%(\$&-*#-0(#%(6"- (5 -9,*(%"#. -#6(\$\$*#(&-=&%9"1-(#\$-(
.-*D-9(,0C%&5 *#,%0(*09(#%(9-5 *09(#\$*#(\$\$-J(9-.-#-(*..(-*D-9T-5 *,.63(1%0#&*1#6(*09(%#\$-&(
,0C%&5 *#,%0(G/1\$L* (@A?W+I8(/ %0J(-] -1"#,: -6(C*,.-9(#%(*#D-(=&%*1#,: -(&-6=%06+,.,#J(C%&(
v j g"ugewtkv{"dtgcej."y jkej"tguwnvgf"kp"ewttgpn"cpf"hqt o gt"g o rnq{gguoø"rgtuqpcn"
,0C%&5 *#,%0(+,-,04(. -*D-9(G/1\$L* (@A?W1I8(/ %0J(F,1#"&-6(-] -1"#,: -(! 5 J(F*61*.(#%.9(
_.%% 5 +-&4(R-L6(öK"fqpøv"v j kpm"v j cv"cp{dqf{"v j kpmu"v j cv"v j ku(y cu"cp{qpgøu"hcwnv"y j q"
L%&D6(\$-&-3(*09(N(\$\$,0D(1%0#,0",#J(*09(6"==%&#(*09(4%,04(Cqtyctf"ku"y j cvøu"ko rqtvcpv"
0%L8ö(/ ,01-(/ %0J(6"CC-&-9(,#6(\$*1D(*##*1D3(#\$-(1% 5 =*0J(\$*6(,66"-9(: -&J(.,##.-,(0C%&5 *#,%0(
L,#\$(&-6=-1#(vq"v j g"dtgcej."gze gr v"v q"uc{"v j cv"kv"y cu"öc"xgt{"uq r j kuvkecvgf"e{dg tcvvcemö"
G/1\$L* (@A?W1I8(
(
(
(

<&, #, 1*.(<%0#&%.6(#\$*#(/ %0J(/ \$%" .9(P* : -(N5 =.- 5 -0#-9! | c(

!

5#!6773,/)! . /+ * ',&0!& (! . (%0!!

(

5#"!1 ',&,+23!1 (%&' (34!6773,/)!

(

N5 =.- 5 -0# ,04(- : -0*(C-L(%C(#\$(<&, #, 1*.(<%0#&%.6(,01."9,04(1-&#*,0(6"+T1%0#&%.6(1%" .9(
\$* : -(4&- *#.J(*66,6#-9(/ %0J(L,#\$(5 ,# ,4*# ,043(%&(#*(.- *6#(9-#-1# ,04(#\$(-(+&- *1\$(6%#0-&8(
OOC%&#"0#- .J3(5 ,66-9(%==%&#"0,#,-6(+J(/ %0J(&-6" .#-9(,0*(#&*4,1(,01,9-0#(#\$*#(-]=%6-9(
6-06,#, : -(9%1" 5 -0#6(#(#\$(-L%&.98(! 6,9-(C&% 5 (#\$(-(#\$(C(%C(-.- 1#&%0,1(9*#*3(#\$(-) HF(4&% "=(
5 *9-(*6#*#- 5 -0#(0%#(%0.J(#%(/ %0J(+ "#(*.6%(#%#(#\$(-L%&.9(#\$*#(C* ,.,04(#(4" *&9(%0-ø6(9*#*(
1%" .9(="(*0(%&4*0,2*#,%0(,0(#\$(-6* 5 -(6,#" *#,%08(! .#\$%"4\$(#\$(-&-(,6(0%(%0-T6,2-(C,#6(*..(
*==&%*1\$(#(6-1" &,#J(#\$(-&-(9%-6(-] ,6#(C%"09*#,%0*(.1%01-==#6(#\$*#(- : -&J(%&4*0,2*#,%0(
6\$%" .9(" ,.,2-(#(#\$(-.=(&- : -0#(1J+-&T*#*#1D8(E\$(-C%..%L,04(*&-(#\$(-<&, #, 1*.(<%0#&%.6(*09(
6"+T1%0#&%.6(#\$*#(1%" .9(\$* : -(4&- *#.J(*66,6#-9(/ %0J(,0(#\$(-(+&- *1\$(%C(R% : - 5 +-&(@W3(@A?W8(((

(5#"#!\$44 * /!"2!!

E\$(-) HF(4&% "= (L*6(*..-4-9.J(*+.-(#%(%+*# ,0(6% 5 -(?AA(#-&*+J#-6(%C(9*#*(6#%.-0(C&% 5 (/ %0J(
6-& : -&6(,01."9,04(6-06,#, : -(,0C%& 5 *#,%0(,01."9,04(/ %1 ,*.(/ -1" &,#J(0" 5 +-&63("6-&0* 5 -63(
=*66L%&963(*09(- 5 * ,.68(E%("(#\$*#(,0#%(-&6=-1# , : -3(?A(#-&*+J#-6(1*0(\$%.9(#\$(-0#,&-(
=&,0#-9(1%..-1#,%0(%C(#\$(- \ ,+&*&J(%C(<%04&-66(G ; %++3(@A?WI8((

5#"#!8 / 9 /) ,2& , (%!"2: !1 ',&,+23!1 (%&' (3! ; "<!=!>2&2!?' (&/+& , (%!

E\$(-(%+0-1# , : -(%C(<&, #, 1*.(<%0#&%.6(?` ,6(#%(&#%-1#(9*#*(&-4*&9.-66(C,(#(,6(,0#-&0*.(#%#(#\$(-
pgvy qtmqt"ku"vtcpuhgttgf"qww0"Kp"Uqp{øu"ecug3(=&#%-1# ,04(6-06,#, : -(9*#*(C&% 5 (+.-,04(
"=.%*9-9(#%#(#\$(-N0#-&0-#(C%&(#\$(-0#,&-(L%&.9(#(6- - (L*6(0%#(#\$(- ,9-*.(6,#" *#,%08(N#(,6(
=&-C-&*+.-(#%#(9-#-1#(#\$(-]C ,.#&*#,%0(%C(9*#*(-*&.J(,0(#\$(-(*#*#1DX(\$%L - : -&3(C(%0-ø6(9*#*(,6(
6#%.-0(\$* : ,04,(-01&J=#-9(1% 5 =.,1*#-6(#\$(-(*#*#1D-&6ø(*+ ,.,#J(#%(9-1,=\$-&,(#6(1%0#-0#68(((

E*+.- (V'(/ " +T<%0#&%.6(?` TV(G/ ! R / (N06#,#"-3(@A?B*I8(

& (9? ! 01' ,0% : @?<%	
A\$# ,.-7'-01%%	877/-\$) '%0%&01*%%
F-&C%& 5 (*0(*66-66 5 -0#(%C(9*#*(#% ,9-0# ,#J(6-06,#, : -(,0C%& 5 *#,%0(#\$*#(&-e" ,&-6(#\$(-	N9-0# ,C,1*#,%0(%C(6-06,#, : -(,0C%& 5 *#,%0(,01."9,04(/ %1 ,*.(/ -1" &,#J(0" 5 +-&63(

!

==., 1#, %O(%C(-01&J=#, %O(*09(, 0#-4&, #J(1%O#&% .68("6-&0* 5 -63(=*66L%&963(*09(- 5 *, .6(4, :- (#\$-(*99-9(5 -1\$*0, 6 5 (%C(9-C-06-(, 0(#\$-(- : -0#(%C(*(+&-*1\$8(P*9(-01&J=#, %O(L, #\$(/ " +T <%O#&% .(?`TV(+ --0(, 5 =. - 5 -0#-9(%O(\$, 6(6-06, #, :- (, 0C%& 5 *#, %O(, # (L%" .9(\$*: -(, 01&-*6-9(\$-(9, CC, 1" .#J(%C(" =.%*9, 04(#\$-6-(6-06, #, :- (9%1" 5 -0#6(, 0(1.-*&(#-]#(#(\$-(NO#-&O-#8((
--	---

(

E*+.- (W'(/ " +T<%O#&% .(?`TB(G/ ! R / (NO6#, #" #-3(@A?B*I8%

&(9?!01', 0%/:@?>%	
A\$#., -7'-01%%	877/-\$)'0%&01*%%
[-=.%J(*O(*"##% 5 *#-9(##% .(%O(0-#L%&D(=-&, 5 -#-&6(##(5 %O, ##&(C%&(1-&#*, 0(6-06, #, :- (, 0C%& 5 *#, %O(G, 8-83(=-&6%0*..J(, 9-0#C, *+.- (, 0C%& 5 *#, %OI3(D-JL%&963(*09(##\$-&(9%1" 5 -0#(1\$*&*1#-&, 16(##(9, 61% :- &("O*"#\$%&, 2-9(*##- 5 =#6(##(-]C, .#&*#-(9*#*(*1&%66(0-#L%&D(+%"09*&, -6(*09(+.%1D(6"1\$(#&*06C-&6(L\$, .-(*.-&#, 04(, 0C%& 5 *#, %O(6-1"&, #J(=-&6%00-.8((	! (#&- 5 -09%"6(* 5 %"O#(%C(#&*CC, 1(L%" .9(\$*: -(+--0(4-0-&*#-9(L, #\$(*O(*..-4-9(?AA(#-&*+J#-6(%C(9*#*(+-, 04(6#%. -0(+J(\$-() HF8(/ %OJ(%O.J(L%" .9(\$*: -(0--9-9(##(9-#-1#(* (C&*1#, %O(%C#\$*#(, 0(%&9-&(#% (+-(#,, =-9(%CC(#\$*#(#\$(, &(0-#L%&D(L*6("09-&(*##*1D8([, ., 4-0#.J(*"#% 5 *#, 04(*(%% .(##(\$"O#(C%&("O*"#\$%&, 2-9(6-06, #, :- (, 0C%& 5 *#, %O(.-*:, 04(#\$-(0-#L%&D(1%" .9(\$*: -(4&-*#.J(*66, 6#-9(/ %OJ(*09(=&- :-0#-9(\$-(5 *Q%&, #J(%C(, #6(6-06, #, :- (, 0C%& 5 *#, %O(C%& 5 (+-, 04(6#%. -08((

(

(

(

!

E*+.- (B'(/ " +T<%0#&%. (?`Ta(G/ ! R/(N06#,#"-3(@A?B*I8(

&(9?!01',0%:@?B% %	
A\$#.,-7'-01%%	877/-)\$%'0%&01*%%
<%09"1#(=-&,%9,1(61*06(%C(6-&:-&6("6,04(*"#% 5 *#-9(%%&%.6(#%(9-#-& 5 ,0-(L\$-#\$-&(6-06,#,:-(9***(G,8-83(=-&6%0*..J(,9-0#C,*+.- (,0C%& 5 *#,%03(\$-*.#\$3(1&-9,#(1*&93(*09(1.*66,C,-9(,0C%& 5 *#,%0I(,6(=&-6-0#(%0(#\$-(6J6#- 5 (,0(1.-*&(#-]#8(E\$-6-(#%%.63(L\$,1\$(6-*&1\$(C%&(=***-&06(#\$*#(,09,1*#-(#\$-(=&-6-01-(%C(6-06,#,:-(,0C%& 5 *#,%03(1*0(\$-.(,9-0#CJ(C(*+"6,0-66(%&(#-1\$0,1*.(=&%1-66(,6(.-*:,04(+-\$,09(%&(%#\$-&L,6-(-.*D,04(6-06,#,:-(,0C%& 5 *#,%08((	M,\$\$(/" +T<%0#&%. (?`Ta(/ %0J(1%" .9(\$*: -(*1#,:-.J(6-*&1\$-9(C%&(6-06,#,:-(,0C%& 5 *#,%0(6#%&-9(,0(1.-*&(#-]#8(! .#\$%"4\$(0%(%&4*0,2*#,%0(L*0#6(#\$-&,(9***(#% (+-(6#%.-03(\$*9(#\$-(9***(#%(-.*6#(+ -0(-01&J=#-9(,1%" .9(\$*: -(4&-*#.J(\$,09-&-9(#\$-(***1D-&6ø(*+,.,#J(#%(&-*9(#\$-(1%0#-0#68((

(

E*+.- (a'(/ " +T<%0#&%. (?`T?@(G/ ! R/(N06#,#"-3(@A?B*I8%

&(9?!01',0%:@?:;% %	
A\$#.,-7'-01%%	877/-)\$%'0%&01*%%
U %0,#%&(*..(#&*CC,1(.-*:,04(#\$-(%&4*0,2*#,%0(*09(9-#-1#(*0J("0*"#\$%&,2-9("6-(%C(-01&J=#,%08(! ###1D-&6(%C#-0("6-(*0(-01&J=#-9(1\$*00-.(#% (+J=*66(0-#L%&D(6-1"&#J(9-:,1-68(E\$-&-C%&-3(,#(,6(-66-0#,*.(#\$*#(%&4*0,2*#,%06(+-(+*+.-(#%(9-#-1#(&%4"- (1%00-1#,%063(#-& 5 ,0*#-(#\$-(1%00-1#,%03(*09(&- 5 -9,*#-(#\$-(,0C-1#-9(6J6#- 5 8(	/ %0J(1%" .9(\$*: -(-6#+.,6\$-9(/ " +T<%0#&%. (?`T?@(#%C"&#\$-&(,0:-6#,4*#-(.*&4-(* 5 %"0#6(%C(9***(.-*:,04(#\$-&,(0-#L%&D8(NC(/ %0J(L*6(*+.-(#%(9,CC-&-0#,*#-(+-#L--0(-.4,#, 5 *#-(-01&J=#,%0(1\$*00-.6(:68(*(%66,+.-(+*1D(1\$*00-.3(,1%" .9(\$*: -(C%&-L*&0-9(/ %0J(#\$*#(#\$-J(L-&-("09-&(*###1D8((

(

!

!

!

5#"#-!\$44* /!-2!

- *,#((5 *.L* &-(6(uq"ecmgf"dgecwug"kv"gtcugu"fvcv"htq o "xkevko uø"eq o rwwgt"f tkxgu"ó(=.*J-9(
(D-J(=&#(,0(#\$-(1%6#.J(1J+-&6-1" &,#J(+&-*1\$(9,&-1#-9(*4*,06#(/ %0J(F,1#"&-6(KO#-&#*,05-0#(
,0(. *#-(@A?W(G ; %+,06%03(@A?BI8() , :-0(#\$-(9-6#&"1#,: -(0*#"&-(%C(#\$,6(5 *.L* &-3(-*&.J(
9-#-1#, %0(%C(#\$-(9&%==-&(*09(,#6(,06#*..-9(C,.-6(L% ".9(\$*:- (+--0(-66-0#,*.(#% (= &- :-0#(
6,40,C,1*0#(9*#*(. %66-6(G) *..*4\$-&3(@A?WI8((

5#"#-#!8 / 9 /),2&,(%!-2: !1 ',&,+23! 1 (%&' (3! ; @! !=A23B2' /!> /& / +&,(%!

U *.L* &-(L*6*(("\$ 4-(1%0#&,+ "%#&(%C(#\$-(/ %0J(F,1#"&-6(KO#-&#*,05-0#(+&-*1\$(,0(@A?W(
L\$-&-(#\$() HF(9-. -#-9(#\$-(1%0#-06(%C("\$ 09&-96(%C(1% 5 ="#-&6(,0(%&9-&(#% (5 *D-(#\$(5 (
"0"6*+.-(+J("6-&6(! ==.J,04(5 *.L* &-(9-C-06-6(*09(9-#-1#, %0(L% ".9(\$*:- (*66,6#-9(/ %0J(
F,1#"&-6(KO#-&#*,05-0#(,0(= %66,+ .J(=&- :-0#,04(#\$-(+*, #((5 *.L* &-(C&% 5 (\$*:,04(6=&-*98(

E*+.-(' (/ " +T<%0#&%.(BT` (G / ! R / (N06#,#" #-3(@A?B*I8(

&(9?!01',0/%>?@%	
A\$#.,-7'-01%%	877/-\$)'0%&01*%%
\,5,#("6-(%C(-]#-&0*.(9-: ,1-6(#%(\$%6-(#\$*#(\$*:-(*("6,0-66(0--98(U%0,#%&(C%&("6-(*09(*##-5=#-9("6-(%C(-]#-&0*.(9-: ,1-68(	NC(5 *.L* &-(%&(1%=J,04(%C(9*#*(%11"&&-9(: ,*(-]#-&0*.(9-: ,1-63(/ " +T<%0#&%.(BT` (L% ".9(\$*:- (0%# ,C,-9(#\$-(6-1" &,#J(#- 5 (#\$*#(6% 5 -#\$,04("0"6"*.(L*6(%11"&&,04(%0(/ %0J(6J6#- 5 68((

(

E*+.-(' (b' (/ " +T<%0#&%.(BTc(G / ! R / (N06#,#" #-3(@A?B*I8%

&(9?!01',0/%>?C%		%
A\$#.,-7'-01%%	877/-\$)'0%&01*%%	
O6-(0-#L%&DT+*6-9(*0# ,T 5 *.L* &-(#% % .6(#%(,9-0# ,CJ(-] -1" *#+. -6(,0(*..(0-#L%&D(#&*CC,1(*09("6-(#-1\$0,e"-6(%#\$-&(#\$*0(6,40*#"&-T +*6-9(9-#-1#, %0(%#(,9-0# ,CJ(*09(C,.-&( %" #(	/ ,40*#"&-T+*6-9(#% % .6(L,..(%0.J(1*#1\$(5 *.L* &-(#\$*#(, #(*. &-*9J(D0%L6(*+% " #8(P%L-: -&3(" #,.,2,04(#-1\$0,e"-6(6"1\$(*6(#\$%6-(.,6#-9(0(/ " +T<%0#&%.(BTc(#% (,9-0# ,CJ(

!

5 *.,1,% "6(1%0#-0#(+ -C%&- (#(*&&, :-6(*#(#\$-(-09=%,0#8((-] -1"#+.-6,(0(0-#L%&D(#&*CC,1(1%" .9(\$*: -(*66,6#-9(/ %0J(L,#\$(*0% 5 *.,-6,(0(#\$-(,0C&*6#&" 1#"&-8((
---	---

!

5#"#5!\$44* /!52%

E\$-() HF(,06#*..-9(+*,#((5 *.L*&-(%0(1% 5 ="#-&(6J6#- 5 6(#\$*#(9-.-#-9(*..(#\$-(1%0#-0#6(%0(
#\$-(\$*&9(9&, :-8((

5#"#5#"!8 / 9 /),2&,(%!52:!!1 ',&,+23! 1 (%&' (3! ; C!>2&2!8 / + (D/ '0!1 272E,3,&0!

; -6#%&-(1% 5 ="#-&(6J6#- 5 6(*6(e",1D.J(*6(=%66,+.- (C&% 5 (#&"6#L%&#J(+*1D"=68(_ -,04(*+.-(#%(
&-6#%&-(9*#*(,6(%0-(5 *Q%&(=, -1-(#%(&-6#%&,04(#\$-(%&4*0,2*#,%06(,0C&*6#&" 1#"&-8((

E*+.- (c'(/ " +T<%0#&%.(bT?(G/ ! R / (N06#,#" #-3(@A?B*I8(

& (9?! 01' ,0/%D?: %	
A\$#.,-7'-01%%	877/-\$)'0%&01*%%
K06"&-(#\$*#(-*1\$(6J6#- 5 (,6(*"##% 5 *#,1*..J(+*1D-9("=(*#(-.*6#(%01-(*(L--D3(*09(5 %&-(%C#-0(C%&(6J6#- 5 6(6#%&,04(6-06,#,: -(,0C& 5 *#,%08(E%(\$-.-(-06"&-(#\$-(*+,.,#J(#%(&*=,9.J(&-6#%&-(*(6J6#- 5 (C&% 5 (+*1D"=3(#\$-(%=&*#,04(6J6#- 5 3(*==.,1*#,%0(6%C#L*&-3(*09(9*#*(%0(* (5 *1\$,0-(6\$%" .9(-*1\$+-(,01."9-9(,0(#\$-(%: -&*..(+*1D"=(=&%1-9"&-8(E\$-6-(#\$&--(1% 5 =%0-0#6(%C*(6J6#- 5 (9%(0%#(\$*: -(#%(+-(,01."9-9(,0(#\$-(6* 5 -(+*1D"=(C,.-(%&("6-(#\$-(6* 5 -(+*1D"=(6%C#L*&-8(E\$-&-(6\$%" .9(+-(5 " .#.=.-(+*1D"=6(%: -&(#, 5 -3(6%(#\$*#(,0(#\$-(-: -0#(%C(5 *.L*&-(,0C-1#,%03(&-6#%&*#,%0(1*0(+-(C&% 5 (*(: -&6,%0(#\$*#(,6(+-.,-: -9(%#(=&-9*#-(\$\$-(%&,4,0*.(,0C-1#,%08(	^%&(-*1\$(9*J(/ %0J(L*6(9%L0(,#("09%" +#-9.J(1%6#(#\$-(%&4*0,2*#,%0(5 %&-(5 %0-J(*09(#, 5 -(C%&(&-6#%&*#,%08(P*: ,04(#\$-(1*=*+,.,#J(#%(e",1D.J(&-6#%&-(C&% 5 (5 *.L*&-T C&--(+*1D"=6(C%&(1&,#,1*.(6J6#- 5 6(1%" .9(\$*: -(&-9"1-9(#\$-(#, 5 -(/ %0J(F,1#"&-6(K0#-&*#,05 -0#(6J6#- 5 6(L-&-(D-=#(%CC.,0-8(

!

! ..(+*1D"=(=.,1,-6(6\$%" .9(+-(1% 5=.,*0#(L,#\$(*0J(&-4".*%&&J(%&(%CC,1,*.(&-e",&- 5 -0#68((
---	--

(

E*+.-(?A'(/ "+T<%0#&%.(bTV(G/ ! R/(N06#,#"-3(@A?B*I8%

&(9?!01',0%D?<%	
A\$#.,-7'-01%%	877/-\$)'0%&01*%%
K06"&-(#\$*#(+*1D"=6(*&-(=&%=-&.J(=&%#-1#-9(:,*(\$J6,1*.(6-1"&,#J(%&(-01&J=#,%0(L\$-0(#\$-J(*&-(6%&-93(*6(L-..(*6(L\$-0(#\$-J(*&-(5%:-9(*1&%66(\$\$-(0-#L%&D8(E\$,6(,01."9-6(&- 5 %#-(+*1D"=6(*09(1.%"9(6-&:,1-68(	M,#\$(\$\$-("6-(%C(/ "+T<%0#&%.(bTV(/ %0J(L%" .9(\$*: -(+--0(*+.-(#%(&%=-&.J("6-(=&%#-1#-9(+*1D"=6(#%(. ,5,#(\$\$-(=##-0#,*.(61%=-(%C(\$\$-(/ %0J(+&-*1\$(\$\$*#(\$\$-() HF(4*,0-9(,0(,#6(*##*1D8(N#(*.6%(1%" .9(\$*: -(-06"&-9(#&"6#(L%&#J(+*1D"=68((

%

<E:E=%5##(\$%="''%

E\$-() HF(4&%" =(L*6(*+.-(#%(1% 5=-.#-.J(1% 5=&% 5,6-(\$\$-(/ %0J(F,1#"&-6(K0#-&##,05 -0#(0-#L%&D8(

<E:E=E:\$F\$6\$)-'''-01%="+'! ,-'-'/'% ! 01',0/%G:;,%?% ! 01',0/(\$)%H#\$%0I%8) 6-1-#','''-4\$%J,-4-/K\$%#%

E\$-(5,6"6-(%C(*9 5,0,6#&*#,: -(=&,:.,-4-6(,6(\$\$-(=&,5 *&J(5 *00-&(,0(L\$,1\$(*##*1D-&6(6=&-*9(,06,9-(*(#&4-#(-0#-&=&,6-(G/ ! R/(N06#,#"-3(@A?B*I8(K:-0(%0-(*11%"0#(+,-,04(1% 5=&% 5,6-9(+J(\$\$-(*##*1D-&(1*0(.-*9(%#%*(1% 5=*0JTL,9-(+&-*1\$8(

E*+.-(??'(/ "+T<%0#&%.(?@T?@(G/ ! R/(N06#,#"-3(@A?B*I8(

&(9?!01',0%/:;?:;%	
A\$#.,-7'-01%%	877/-\$)'0%&01*%%
O6-(5 " .#,C*1#%&(*"#-\$-0#,1*#,%0(C%&(*..(*9 5,0,6#&*#,: -(*11-663(,01."9,04(9% 5 *,0(	R%#(%0.J(9,9(\$\$-() HF(,0C,.,#&*#-(\$\$-(/ %0J(0-#L%&D3(\$\$-J(*.6%(- 5 +-99-9(-.4,#,5 *#-(

!

95,0,6#&#,:-(*11-668(U".#,TC*1#%&(	"6-&0*5-(*09(1&-9-0#,* .6(,0#%(\$-(5*.L*&-(
"# \$-0# ,1#,%0(1*0(,01."9-(*(:*&,-#J(C(	C%&*(\$,4\$-&(6" 11-66(&*#-(%C(6=&-*9,04(
#-1\$0,e"-63(#%(,01."9-(#\$-("6-(%C(65*&#(	#\$&% "4\$%"#/#\$-(,0C&*6#&"1#"&-8(F&% : ,9,04(
1*&96(L,#\$(1-&# ,C,1*#-63(H0-(E,5-(F*66L%&9(	*99,#,%0*.(*"# \$-0# ,1*#,%0(C%&(*95,0,6#&*#,:-(
GHEFI(%#D-063(*09(+,%5 -#&,168(	*11%"0#6(1%" .9(\$*:- (= &- : -0#-9(#\$-() HF(
	C&% 5 (1% 5 =&% 5 ,6,04(6-06,#,: -(*11%"0#68((

!

5#"#@!\$44* /!@2!

E\$-() HF(4&% "=(9&%== -9(#\$-(+* ,#/(5*.L*&-3(L\$,1\$(#%#D(*C%#%\$%.9(L,#\$,0(#\$-(

,0C&*6#&"1#"&-(%C(/ %0J(F,1#"&-6(K0#-&*# ,05 -0#8(

5#"#@#"!8/ 9/),2&,(%!@2:!!1',&,+23!1 (%&' (3!; "F!=!A2,%&/%2%+/6!A (%,&(' ,%H6!2%)!

6%2304,4!(!6*),&!J (H4!

[-C,1,-01,-6(,0(6-1"&,#J(.%44,04(*09(*0*.J6,6(*..L-9(*##1D-&6(#%(\$,9-(#\$-,&(.%1*#,%03(

5*.,1,% "6(6C#L*&-3(*09(*1#,: ,#,-6(%0(: ,1#,5 (5*1\$,0-6(G/ ! R/(N06#,#"-3(@A?B*I8((

E*+.-(?@'(/ "+T<%0#&%.(?WTc(G/ ! R/(N06#,#"-3(@A?B*I8(

&(9?!01',0%:=?C%	
A\$#.,-7'-01%%	877/-\$)'0%&01*%%
[-=.%J*(/NKU(G/-1"&,#J(N01,9-0#(*09(	O6,04(/ "+T<%0#&%.(?WTc3(/ %0J(1%" .9(\$*:- (
K:-0#(U*0*4- 5 -0#I(%&(.%4(*0*.J#,1(%%#.6(	9-#-1#-9(#\$*#(#\$-,&(,0C&*6#&"1#"&-(L*6(
C%&(.%4(*44&-4*#,%0(*09(1%06%.,9*#,%0(C&% 5 (	+&-*1\$-9(+J(1%&&-.*# ,04(*1#,: ,#,-6(#\$*#(
5 ".#,-(5*1\$,0-6(*09(C%&(.%4(1%&&-.*#,%0(	9-: ,#-9(C&% 5 (#\$-,&(D0%L0(+*6-.,0-8(
*09(*0*.J6,68(O6,04*(/NKU(%%#.3(6J6#- 5 (	S0%L,04(L\$*#(,6(0%&5*.(,0(%0-ø6(
95,0,6#&#%&6(*09(6-1"&,#J(=-&6%00-.(	,0C&*6#&"1#"&-(,6(,5=-&*#,: -(#%(9-#-1#(
6\$%" .9(9-: ,6-(=&%C.,-6(%C(1% 5 5%0(-: -0#6(	5*.,1,% "6(*1#,: ,#J8(
6%(\$\$*#(\$-J(1*0(#"0-(9-#-1#,%0(#%(C%1"6(%0(
"0"6"*.(*1#,: ,#J3(*: % ,9,04(C*.6-(=%6,#,: -63(
5 %&-(&* =,9.J(,9-0# ,CJ,04(*0% 5*.,-63(*09(
=&-: -0#(%: -&L\$-. 5 ,04(*0*.J6#6(L,#\$(

<&,1*.(<%0#&%.6(#\$*#(/ %0J(/ \$%" .9(P*: -(N5 =.- 5 -0#-9! | ?a(

!

,06,40,C,1*0#(*.-D(
------------------------	--

!

5#"#K!\$44* /!K2!

E\$-() HF(4&%"=(L*6(*+.-(#%(+&,04(9%L0(#\$-(-0#,&-(/ %0J(F,1#"&-6(K0#-&#*,05 -0#(
#-1\$0%.%4J(,0C&*6#&"1#"&-8((

5#"#K#!8 / 9 /),2&,(%!K2:!1 ',&,+23!1 (%&' (3!; "L!=! . /+ * ' /!M/ &B ('N!O%H,%// ',%H!

K6#*+.,6\$(0-#L%&D(6-45 -0#*#,%0(,0(%&9-&(#%(1&-*#-(#\$-(0-1-66*&J(*J-&6(C%&(&#%-1#,04(
1&#,1*.(6J6#- 5 68((

E*+.-(?V'(/ "+T<%0#&%.(?cTW(G/ ! R/(N06#,#"-3(@A?B*I8%

&(9?!01',0%:C?=%	
A\$#.,-7'-01%%	877/-\$)'0%&01*%%
/ -45 -0#(\$-(-0#-&=&,6-(0-#L%&D(,0#%(5 ".#,-.3(6-=*&*#-(#&"6#(2%0-6(#%(&%" : ,9-(*(5 %&-(4&*0" .*&(1%0#&%.(%C(6J6#- 5 (*11-66(*09(*99,#,%0*.(,0#&*0-#(+%"09*&J(9-C-06-68((	NC(/ %0J(\$*9("#,.,2-9(/ "+T<%0#&%.(?cTW3(*09(#\$"6(\$*9(4&*0" .*&(6-45 -0#*#,%0%C(6J6#- 5 6(L,#\$(*99,#,%0*.(6-1"&,#J(, 5 =.- 5 -0#-93,(#(1%" .9(\$*: -(-66-0-93(%&(*.-&#-93(/ %0J(#%(*(+&-*1\$8((

!

5#"#<\$44* /!<2!

!##*1D-&6(L-&-(*+.-(#%(C,4"&-(%"#*(L*J(#%(&-*1\$(\$\$-(6-1"&,#J(%C(/ %0J(F,1#"&-6(
K0#-&#*,05 -0#8((

5#"#<#!8 / 9 /),2&,(%!<2:!1 ',&,+23!1 (%&' (3!; -P!=!? /% /&'2&,(%!Q/4&4!2%)!8 /)!
Q/29!OR/'+,4/4!

H&4*0,2*#,%06(0--9(#%(+- (C* 5 ,.,*&(L,#\$(\$\$-(9,CC-&-0#(*##*1D(: -1#%&6(*09(#\$-(&#%-0#,*.(L*J6(
*##*1D-&6(1*0(+&-*1\$(\$\$-,&(1% 5 ="#-&(,0C&*6#&"1#"&-8((

(

(

<&,#,1*.(<%0#&% .6(#\$*#(/ %0J(/ \$% ".9(P* : -(N5 =.- 5 -0#-9! ?` (

!

E*+.-(?W'(/ " +T<%0#&% .(@AT?(G/ ! R / (N06#,#" #-3(@A?B*I8(

& (9?! 01' ,0%;L?:%	
A\$#.,-7'-01%%	877/-\$) %'0%&01*%%
<%09"1#(&-4" .*&(-]#-&0*.(*09(,0#-&0*.(=-0-#&*#,%0(#-6#6(#%(,9-0#,CJ(: ".0-&*+,,#,-6(*09(*##*1D(: -1#%&6(#\$*#(1*0(+-("6-9(#%(-]=.%#(-0#-&=&,6-(6J6#- 5 6(6"11-66C" ..J8(F-0-#&*#,%0(#-6#,04(6\$% ".9(%11" &(C&% 5 (% "6,9-(#\$-(0-#L%&D(=-&, 5 -#-&(G-8483(#\$-(N0#-&0-#(%&(L,&.-.66(C&-e" -01,-6(*&% "09(*0(%&4*0,2*#,%0I(*6(L-..(*6(C&% 5 (L,#\$,0,#6(+"09*&,-6(G-8483(%0(#\$-(,0#-&0*.(0-#L%&DI(#%(6,5 ".*#-(+)%\$(% "6,9-&(*09(,06,9-&(*##*1D68(	P* : ,04(=-0-#&*#,%0(#-6#6(%0(qpgøu" ,0C&*6#&"1#"&-(1*0(=%,0#(% " # (5 *0J(%C(#\$-(L *J6(*##*1D-&6(1*0(+&-*1\$(*0(%&4*0,2*#,%08(U%&-(, 5 =%&#*0#.J3(\$*9(/ %0J(-6#*+.,6\$-9(*1#,%0(, #- 5 6(#%(5 ,#4*#-(#\$-(\$,4\$-6#(&,6D6(#\$-J(1% ".9(\$* : -(=%#-0#,*..J(=&- : -0#-9(#\$-(*##*1D(: -1#%&(" #,.,2-9(+J(#\$-() HF(4&% "=8(

!

5#"#C!\$44* /!C2!

/ %0J(*9 5 ,##-9(#%(\$* : ,04(6"CC-&-9(* (5 *Q%&(1J+-&6-1" &,#J(+&-*1\$X(\$*1D-&6(0%#(%0.J(-&*6-9(
9*##*(C&% 5 (,#6(6J6#- 5 63(+ " #(*.6%(6#% .-(*09(5 *9-(6% 5 -(%C(,#(="+. ,13(,01."9,04(5 % : ,-(= &-T
&-.-*6-63(,09,: ,9"* .øu" r tkxcvg" kphqt o cvkqp."cp f" ugpukvkxg" f qew o gpvu"* /#-,0+-&43(@A?WI8(
%

5#"#C#"!8 / 9 /) ,2&,(%!C2: !1' ,&,+23!1 (%&' (3! ; "C!=\$%+,) /%&!8 /47 (%4/!2%)!
A2%2H/ 9 /%&!!

/ %0J(9,9(0%#(=&%=-&. J(0%&(-CC-1#,: -.J(9-=.% J(,01,9-0#(&-6=%06-(9" &,04(#\$-(+&-*1\$8(N0(#\$-(
C"#"&-3(/ %0J(0--96(#%(+-(*+.-(#%(e" ,1D.J(,0: % : -(0-1-66*&J(#-* 5 6(*09(+-(C* 5 ,.,*&(L,#\$(
,01,9-0#(&-6=%06-(=&%1-9" &-6(,0(%&9-&(#%(=&- : -0#(C"#"&-(-,01,9-0#68((

(

(

(

!
E*+.-(?B'(/ "+T<%0#&%.(?bT`G/ ! R/(N06#,#"-3(@A?B*IE%

&(9?!01',0/:%D?@%	
A\$#.,-7'-01%%	877/-)\$%'0%&01*%%
<%09"1#(=-&,%9,1(,01,9-0#(61-0*&,%(6-66,%06(C%&(-&6%00-.(*66%1,*#-9(L,#\$(\$\$-(,01,9-0#(\$*09.,04(#-*5(#%(-06"&-(#\$*#(\$\$-J("09-&6#*09(1"&&-0#(\$\$&-*#6(*09(&,6D63(*6(L-...(*6(\$\$-,&(&-6=%06,+,.,#,-6(,0(6"==%&#,04(\$\$-(,01,9-0#(\$*09.,04(#-*58(KCC-1#, :-J(=&*1#,1,04(,01,9-0#(&-6=%06-(\$*09.,04(1%" .9(\$*: -(*66,6#-9(/ %0J(L,#\$(+-.04(*+.-(#%(&-1%:-&(*09(+&,04(\$\$-(%&4*0,2*#,%0(%0.,0-(e",1D-&8(/ %0J(F,1#"&-6(K0#-&#*,05-0#(#-1\$0,1,*06(*09(-]=-(*&-(%0.J(0%L(+ -4,00,04(#%(&%..(" # (0-L(1%5=" #-&6J6#-56(L,#\$(\$\$-,4\$#-0-9(6-1"&,#J(6*C-4"*&963(6,](L--D6(*C#-&(*(\$*1D(*##*1D(1&,==.-9(%=-&*#,%06(G<"00,04\$*53(@A?BI8((

F#! 1 *3&* ' /! . S,I&!2&! . (%0!

(
E\$-,(06(*09(% "#6(%C(\$\$-(5*0J(1J+-&T*##*1D6(*4*,06#(/ %0J(,0(&-1-0#(J-*&6(ó(+%#\$ (L\$J(*09(\$%L(\$\$-J(\$*: -(%11"&&-9(ó(=&%: ,9-(*C*61,0*#,04(.%#D(,0#%(L\$*#(\$\$*== -06(L\$-0(\$*1D-&(*09(1%&=%&#*-(1" .#"&-6(*09(: *." -6(1%...9-(GK6#-63(@A?WI8(OOC%&#"0*#-.J3(\$\$,6(L*6(0%#(\$\$-(C,&6#(#,5- (/ %0J(\$*6(6"CC-&-9(*.*&4-(6-1"&,#J(+&-*1\$(L,#\$,0(\$\$-,&,(OC&*6#&1#"&-8(>"6#(\$\$--(J-*&6(-*&.,-&3(,0(@A?73(/ %0J(=&%: ,9-9(*9%1"5-0#(#%(\$\$-(/ "+1%55,##--(%0(<%55-&1-(*+% "#(,01&-*6,04(6-1"&,#J(%C(\$\$-,&(9*#*(L,#\$(-01&J=#,%0(*09(5-1\$*0,656(#%(9-#-1#(*0%5*.,-6(%0(\$\$-(0-#L%&D8(P%L-:-&3(0%0-(%C(\$\$-(6-1"&,#J(,5=&%: -5-0#6(5*9-(+J(/ %0J(F,1#"&-6(K0#-&#*,05-0#(%:-&(\$\$-(J-*&6(=&%: -9(#%(+-(%C(.,##.-("6-(*6(\$\$-() HF(4&%"=(+&%"4\$#(9%L0(\$\$-(-0#,&- (0-#L%&D8(

(
!##-5=#,04(#%(*==.J(6-1"&,#J(1%0#&% .6(L,#\$%"#(-06"&,04(\$\$*#(\$\$-(%&4*0,2*#,%0(\$*6(\$\$-(&,4\$#(6-1"&,#J(1" .#"&-,(6(6,5,.*&(#%(" #,.,2,04(*1\$*,0(#%(1.%6-(%0-ø6(9%%&6(L,#\$%"#(*(*=9.1D8(N#(=&%: ,9-6(*C*.6-(6-06-(%C(6-1"&,#J(*09(*&4"*+.J(=" #6(*0(%&4*0,2*#,%0(*#(5%&-(&,6D(9"-(#% (,01%&&-1#(*66"5=#,%068(O==-&(5*0*4-5-0#3(,01."9,04(+%*&9(5-5+-&63(5"6#(6-#(\$\$-(#-5=%(%C(\$\$-(%&4*0,2*#,%0ø6(1" .#"&- (6\$,C#(*09(L%&D(L,#\$(\$\$-(&,4\$#(=-%=-(#%(-06"&-,(#,(6(,0(.,0-(

!

L,#\$(\$-(-+6#(6-1"&,#J(=&*1#,1-68(M,#\$(\$-(&,4\$#(=-%=-.-(#*D,04(&-6=%06,+.,#J(*09(
11%"0#+,.,#J(C%&(*0(%&4*0,2*#,%0ø6(6-1"&,#J(=6#"&-63(,66"-6(1*0(+-(4,:-0(\$-(&#=-&(
*##-0#,%08(K:-0(L,#\$(6"==%&#(C&% 5 ("==-&(5 *0*4- 5 -0#3(\$#-(1" .#"&-(6\$,C#(1*00%#(+-(C%&1-9(
%0#% (,09,: ,9"* .6(%&(-.6-(%&4*0,2*#,%06(L,..(&-1-,: -(5 ,0, 5 *.(1% 5 =.*1-01J8(N06#-*93(
1% 5 =*0,-6(5 "6#(-9"1*#-(\$-,&(- 5 =.%J--6(*6(#(L\$J(*09(\$ L(#\$-(1" .#"&-(5 "6#(1\$*04-(C%&(
#\$-(: -&*..(4%9%0C(\$#-(,09,: ,9"*.(*09(\$#-(%&4*0,2*#,%08(
(
H&4*0,2*#,%063(*#/#, 5 -63(L,..(#\$,0D(%C(6-1"&,#J(*6(*0(*C#-&#\$%"4\$#(*09(,06#-*9(L,..(C%1"6*..
#\$-,&(-0-&4J(0#(\$-,&(=&, 5 *&J(C"01#,%06(%C(&-:-0"-3(6*C-#J3(*:*,.,*+,.,#J3(*09(%#\$-&(
1% 5 =%0-0#6(%C(\$#-("+6,0-668(E\$-(1" .#"&-(6\$,C#(0--9-9(%#9*J(,6(%0-(L\$-&-(6-1"&,#J(,6(*0(
*##&,+ "#-(%C(\$#-(%&4*0,2*#,%0ø6(=&, 5 *&J(C"01#,%06X(\$"63(,6(\$%" .9(&-1-,: -(\$#-(6* 5 -(* 5 %"0#(
%C(*##-0#,%08(! (. *1D(%C*(1" .#"&-(6\$,C#(L\$-0(, 5 =.- 5 -0#0,04(6-1"&,#J(1*0(- *9(%#(61-0*&,%6(
6, 5 ,.*&#(%#(/ %0J(F,1#"&-6(KO#-&#*,05 -0#(L\$-&-(#\$-(-0#,&-(%&4*0,2*#,%0(L*6(+&% "4\$#(%#(*(
6#*096#,..8(_%#\$ (6-1"&,#J(1%0#&%.6(*09(*1" .#"&-(6\$,C#(L,..(0%#(0-1-66*&,.J(4"*&0#--(*(
+&-*1\$(C&--(-0: ,&%05 -0#3(+ "#(, #L,..(=&=*&-(*0(%&4*0,2*#,%0C%&(\$#-(0-1-66*&J(#%%.6(*09(
1* =*+,.,#,-6(%#(=&-:-0#3(9-#-1#3(*09(&-6=%09(%#(=%#-0#,*.(+&-*1\$-68((

@#! 1 (%+3*4, (%!!

!#(*0J(5 % 5 -0#3(*0(%&4*0,2*#,%0(1*0(+-(***1D-9(+J(\$*1D-&6(L\$%(L,..(*##- 5 =#3(*09(-:-0(
6"11--93(*#(1% 5 =&% 5 ,6,04(\$#-(1% 5 ="#-&(,0C&*6#&"1#"&-8(/ %0J(F,1#"&-6(KO#-&#*,05 -0#(L*6(
%0-(6"1\$(: ,1#, 5 (9"&,04(\$#-(5 *66,: -(+&-*1\$(,0(@A?W3(+ "#(5 *0J(%&4*0,2*#,%06(1*0(-*6,.J(+-(
,0(\$#-(6* 5 -(61-0*&,%8(E\$-(+&-*1\$(*4*,06#(/ %0J(F,1#"&-6(KO#-&#*,05 -0#(,0(@A?W(+J(\$#-(
) HF(+&% "4\$#(\$#-(-0#,&-(%&4*0,2*#,%0(9%L0(*09(. -9(%#(\$#-(- *D,04(%C(6-06,#,: -(9*#*(%0(\$#-(
NO#-&0-#8(R%#(0.J(L*6(6-06,#,: -(9*#*(. - *D-9(+ "#(\$#-() HF(,06-&#-9(+*, #/(5 *.L*&-(,0%#(\$#-(
,0C&*6#&"1#"&-(#\$*#(-66-0#,*..J(5 *9-(+&,1D6(% "#(C(Uqp{øu(1% 5 ="#-&(6J6#- 5 68(/ %0J(F,1#"&-6(
KO#-&#*,05 -0#(L*6(C%&1-9(%#(61&* 5 +.-(#%(+&,04(\$#-(,0C&*6#&"1#"&-(*1D("=(L\$,.-(9-*.,04(
L,#\$(\$#-(5 *66,: -(* 5 %"0#(%C(6-06,#,: -(9%1" 5 -0#6(*CC-1#,04(- 5 =.%J--6(*09(\$#-(
%&4*0,2*#,%08(NO(*99,#,%03(/ %0Jø6(&-6=%06-(+%"#(6",04(5 -9,*(% "#. -#6(C%&("+.,6\$,04(
,0C%& 5 *#,%0(9,9(0%#(\$#-=(L,#\$(\$#-,&(6#*01-(%C(L*0#,04(%#(, 5 =&% :- (6-1"&,#J8(((

!

NO(5 *OJ(,06#*01-6(*(&-*1\$(,6(*(&-6" .#(%C(*(&-*D9%LO(%&(. *1D(%C(6-1" &, #J(1%0#&% .6(,0(
: *&, %"6(*&-*68(M, #\$(/ %0J(F, 1#" &-6(KO#- &#*, 05 -0#(,06"CC, 1, -0#(5 *.L* &- (9-C-06-63(
5 %0, #&, 043(*"9, #(.%463(-01&J=#, %03(1%0#&% ..-9("6-(%C(*95 ,0,6#&*#, : -(1&-9-0#, *.63(*09(
,01,9-0#(&-6=%06-(1%0#&, + "#-9(#%(\$-(5 *66, : -(+&-*1\$(%0(#\$-(%&4*0,2*#, %08(E\$-(/ ! R / (E%=(
@A(<&, #, 1*. (<%0#&% .6(*66,6#(L, #\$(*1#, %0*+.-, #- 5 6(#\$*#(*..%L(%&4*0,2*#, %06(#% (5 , #, 4*#- (&, 6D6(
e", 1D.J(*09(-CC-1#, : -.J8(R#(%0.J(1*(%&4*0,2*#, %06(, 5 =. - 5 -0#(6-1" &, #J(1\$*04-63(+ "#(\$-J(
* &-(*.6%(*+.-(%(*"9, #(#\$%6-(1\$*04-6(,0(%&9-&(#% (5 -*6" &-(-CC-1#, : -0-668((

^%&(- : -&J(*##*1D3(%&4*0,2*#, %06(5 "6#(. -*&0(, #6(9-C, 1, -01, -6(*09(-6#*+.,6\$(*1#, %0*+.-, #- 5 6(
#%(1%06#*0#.J(, 5 =&% : -8(E\$, 6(, 5 =&% : - 5 -0#(5 "6#(+-(6"==%&#-9(+J(#\$-(\$,4\$-6#(. : -. (%C(#\$-(
%&4*0,2*#, %0(L, #\$(*1% 5 5 , #5 -0#(#% (5 *, 0#*, 0(6-1" &, #J(*6(*O(*##&, + "#- (%C(#\$-(9*JT#%T9*J(
C"01#, %068(P#L - : -&3(Q"6#(L*0#, 04(#% (, 5 =&% : -(6-1" &, #J(, 6(0%#(-0%"4\$8(N#(5 "6#(+-(6"==%&#-9(
+J(=&% : -0(5 -#\$%9%.%4, -6(6"1\$(*6(#\$-(/ ! R / (E%=(@A(<&, #, 1*. (<%0#&% .6(L\$, 1\$(=&% : ,9- (#\$-(
C&* 5 -L%&D(#%(-1\$0, 1*..J(, 5 =&% : -(*0(%&4*0,2*#, %0ø6(6-1" &, #J(=%6#" &-8(E-1\$0, 1*. (1%0#&% .6(
09(#\$-(=&%=-&(1" .#" &- (6\$, C#(-6#+.,6\$-9(+J("==&(5 *0*4- 5 -0#(4, : -(%&4*0,2*#, %06(#\$-(
=&, %&, #, -6(%C(*.,40,04(6-1" &, #J(L, #\$(#\$- (+ "6,0-668(! (. *1D(%C(%0-(%&(#\$-(%#-\$-&(4, : -6(*C*.6-(
6-06-(%C(6-1" &, #J(*09(.-* : -6(%&4*0,2*#, %06(*6D,04(L\$J(L\$-O(* (5 *Q&(&+&-*1\$(%11" &68(! ..(
%&4*0,2*#, %06(6\$%" .9(.%&D(*#(#\$-6-(1% 5 5 %0(=, #C*..6(6%(\$*#(#\$-, &(%&4*0,2*#, %0(9%-6(0%#(
dgeq o g" c"pcvkqpcn" jgcfnkpg" ykvj "c"dtgcej "vcmgp"qww"qh" c" ; 2øu" jcemgt" o qxkg0" (

!

<&, #, 1*.(<%0#&% .6(#\$*#(/ %0J(/ \$%" .9(P* : -(N5 =.- 5 -0#-9! | @?(

!

K#! 8 / ! / ' / % + / 4!

! +9%..*\$3(E8(G@A?B3(>*0"*&J(cI8(/ %0J(F, 1#"&-6(<KH(\$*9(\O%(=.*J+%D)(C%&(5 -4*\$*1D(%O(

6#"9,%(T(h*\$%%(^,0*01-8(; -#&,- : -9(C&% 5 (\$##=6'iiC,0*01-8J*\$%81% 5 iO-L6i6%0JT

=,1#"&-6T1-%T\$*9T0%TAaVbWccA?8\$# 5.(

_*\$D-&3(\83(d(^,OD.-3(>8(G@A?3(! =&.,(@aI8(/ %0J(F.*J / ##%,%0(6"CC-&6(5 *66, : -(9*##(+&-*1\$j(

; -"#-&68(; -#&,- : -9(C&% 5 (\$##='iiL L L&&- "#-&681% 5 i*&#,1.-i@A??iAWi@ai"6T6%0JT

6#%.9-09*##T,9O/E ; K`VFaM_@A??AW@a(

__<(R-L68(G@A?W3(>"0-I8(R%&\$(\$%&-*(\$&-*#-06(L*%0(O/(% : -&(S, 5 (>%04T"O(5 % : ,-(T(

; -#&,- : -9(C&% 5 (\$##='iiL L L8++181% 5 iO-L6iL%&.9T*6,*T@bA?WAac(

,.#%03(R8(G@A?3(U*J(?`I8(/ %0J(<\$,-C([-C-096(; -6=%06-(#(F.*J / ##%,%0([*##(&-*1\$(T(

R hE, 5 -681% 5 8(; -#&,- : -9(C&% 5 (\$##='ii+,#68+.%4680J#, 5 -681% 5 i@A??iABi?`i6%0JT

1\$, -CT9-C-096T&-6=%06-T#%T=.*J6#*##,%0T9*##T+&-*1\$ikl&m?(

<"00,04\$* 5 3(E8(G@A?B3(>*0"*&J(cI8(WB([*J6(! C#-&(P*1D(! ##*1D'(M\$*#6(#\$-(/ ###-(%C(/ %0J(

F,1#"&-68(; -#&,- : -9(C&% 5 (\$##='iiL L L8#\$-L&*=81% 5 iWBT9*J6T*C#-&T\$*1DT*##*1DT#\$-T

6#*##-T%CT6%0JT=,1#"&-6i(

K6#-63(! 8(G@A?W3([-1- 5 +-&(cI8(M\$J(/ %0J(S--=6() -##,04(P*1D-98(; -#&,- : -9(C&% 5 (

\$##='ii4,25 %9%81% 5 iL\$JT6%0JTD--=6T4-##,04T\$*1D-9T?aa`@Bc@VV(

^%](R-L6(G@A?W3([-1- 5 +-&(cI8(^_N(+.* 5 -6(R%&\$(\$%&-*C%&(/ %0J(\$*1D3(O/(L-,4\$6(

&-6=%06-8(; -#&,- : -9(C&% 5 (\$##='iiL L L8C%]O-L681% 5 i=.,#,16i@A?Wi?@i?ci"6T

L-,4\$6T&-6=%06-T#%T*##*1DT%OT6%0JTC+,T=&-=*&-6T#%T, 5 =.,1*#-TO%&#\$TD%&-*i(

(

<&#,1*.(<%O#&%.6(#\$*#(/%OJ(/\$%" .9(P*:-(N5=-.5-0#-9! |@@(

!

^&*01-61\$,T_,11\$,-&*3(\83(d(M ! ; ;KR3(<8(G@A?W*3([-1-5+-&(bI8(P*1D-&6(6-0#(-]#%&#,%O(

-5*,.(#%(/%OJ(-]-1"#,:-6(V(9*J6(+&C%&-(*##*1D8(; -#&,-:-9(C&%5(

\$##='ii5*6\$*+.-81%5i@A?Wi?@iAbi\$*1D-&6T-5*,.-9T6%OJT-]-16i(

^&*01-61\$,T_,11\$,-&*3(\8(G@A?W+3([-1-5+-&(bI8([%O!#(+-.,-:-(\$J=-'(/%OJ(\$*1D(0%#(

!"0=&-1-9-0#-93\(-]=(6*J8(; -#&,-:-9(C&%5(

\$##='ii5*6\$*+.-81%5i@A?Wi?@iAbi6%OJT\$*1DT"0=&-1-9-0#-9T"09-#-1#*+.-i(

)*..*4\$-&3(U0"*4236."Fgeg o dgt"5+0"Kpukfg"vjg"öykr g t ö" o c n y c t g"vjcv"dtqwi jv"Uqp{"

F,1#"&-6(#%((D0--6(nO=9*#-o(j(!&6E-1\$0,1*8(; -#&,-:-9(C&%5(

\$##='ii*&6#-1\$0,1*81%5i6-1"&,#Ji@A?Wi?@i,06,9-T#\$-TL,=-&T5*.L*&-T#\$*#T+&%"4\$T

6%OJT=,1#"&-6T#%T,#6TD0--6i(

P%&OJ*D3(E8(G@A?B3(^-&+"*&J(BI8(P*1D(#%(1%6#(/%OJ(fVB(5,...,%O(,O(NE(&-=*,&6(j(</H(

H0.,0-8(; -#&,-:-9(C&%5(\$##='iiLLLL816%%0.,0-81%5i*&#,1.-i@b`cWWWi9*#*T

+&-*1\$!\$*1DT#%T1%6#T6%OJTVBT5,...,%OT,OT,#T&-=*,&68\$#5.(

S,53(>83(d(P%..*093(/8(G@A?W3([-1-5+-&(@AI8(R%&#\$(S%&-*(9-0,-6(\$*1D,04(/%OJ3(O8/8(

6#*096(+J(#6(*66-&#,%Oj(; -"#-&68(; -#&,-:-9(C&%5(

\$##='iiLLLL8&-"#-&681%5i*&#,1.-i@A?Wi?@i@Ai"6T6%OJT1J+-&6-1"&,#JT"6*T

,9O/S_RA>p?UP@A?W?@@A(

NxcxUqhv0"*4233."Oc{"6+0"Uqp{øu"Ugewtkv{"Dtgcej"Oc{"Dg"vjg"Dki iguv"Rgtuqpcn"Fcvc"

P-,6#(,O(P,6#%&J(j(*: *6%C#8(; -#&,-:-9(C&%5(

\$##='iiLLLL8.*: *6%C#81%5i5J.*: *6%C#i1%5=*0Ji+.%4i6%OJqK@qbaqcc6T6-1"&,#JT

+&-*1\$T5*JT+-T#\$-T+,44-6#T=-&6%O*.T9*#*T\$-,6#T,OT\$,6#%&J(

(

<&,1*.(<%O#&%.6(#\$*#(/%OJ(/\$%" .9(P*: -(N5 =.- 5 -0#-9! | @V(

!

U %&-..%3(<83(d(U,..-&3() 8(G@A?B3(>*0"*&J(@I8(O8/8(, 5=%6-6(6*01#,%06(%0(R8(S %&-*(

C%..%L,04(*##*1D(%O(/%OJ(T(E\$-(M*6\$,04#%0(F%6#8(; -#&,- : -9(C&% 5 (

\$##='iiL L L 8 L *6\$,04#%0=%6#81% 5 iL %&.9i0*#,%0*.T6-1" &,#Ji"6T, 5=%6-6T6*01#,%06T

%OTOTD%&-*TC%..%L,04T*##*1DT%OT6%OJi@A?BiA?iA@iV-BW@V*-Tc@*CT??-WT*cAAT

ccaA@?W9W19` 16#%&J8\$#5 .(

F-*&6%03(>8(G@A?W3([-1- 5 +-&(?` I8(/%OJ(F,1#"&-6(<KH(1%06" .#-9(O8/8(/###-([-=#(%0(C,.. 5 3(

.-*D-9(- 5 *,.6(6\$L(j([*,..J(U*,.(H0.,0-8(; -#&,- : -9(C&% 5 (

\$##='iiL L L 8 9*,.J 5 *,.81%8"DiL,&-6i&- "#-&6i*#&,1.-T@b` `@?Bi/%OJTF,1#"&-6T<KHT

1%06" .#-9TOT/T/##-T [-=#TC,.. 5 T.-*D-9T- 5 *,.6T6\$L8\$#5 .(

; *6\$,93(^8(G@A??3(>"0-(BI8(/%OJ(R-#L%&D6(\ *1D-9(^,&-L*..3(; *0(H+6%.-#-(/%C#L*#&-'(

E-6#, 5 %OJ8(; -#&,- : -9(C&% 5 (\$##='iiL L L 8 -L--D81% 5 ili*i / -1" &,#Ji/%OJTR-#L%&D6T

\ *1D-9T^,&-L*..T ; *0TH+6%.-#-T/%C#L*#&-TE-6#, 5 %OJT?AVWBA(

; _/8(G@A?W3([-1- 5 +-&(BI(! (_&-*D9%L0(*09(! 0*.J6,6(C(#\$-([-1- 5 +-&3(@A?W(/%OJ(

P*1D8(; -#&,- : -9(C&% 5 (\$##=6'iiL L L 8&,6D+*6-96-1" &,#J81% 5 i@A?Wi?@i*T+&-*D9%L0T

*09T*0*.J6,6T%CT#\$-T9-1- 5 +-&T@A?WT6%OJT\$*1Dir1*#1\$,04"=*091.%6,04%"#(

; %++3([8(G@A?W3([-1- 5 +-&(@@I8(/%OJ(P*1D'(! (E, 5 -.,0-(j([-*9.,0-8(; -#&,- : -9(C&% 5 (

\$##='ii9-*9.,0-81% 5 i@A?Wi?@i6%OJT\$*1DT#, 5 -.,0-T*OJT=*61*.T#\$-T,0#-&:,-LTO%&#\$T

D%&-*T?@A?V@BBA?i(

; %+,06%03(; 8(U8(G@A?B3(>*0"*&J(@?I8(! ##-0#,%0(; -e",&-9s(j(<.% "9^.*&-8(; -#&,- : -9(C&% 5 (

\$##='ii6-1" &,#J,0#-...,4-01-81% 5 iL,=-&T 5 *.L*#&-T=%6-6T9-6#&"1#,:-T

#\$&-*#ir8 g g [&4#R g \$PL(

(

!

; "6\$-3([8(G@A?B3(^-+&"*&J(BI8(! 5 J(F*61*.(6#-=6(9%L0(C&% 5 (/ %OJ(F,1#"&-6,(0(L*D-(%C(

9*5 *4,04(- 5 *,.(\$*1D(j(^,. 5 (j(E\$-() "*"&9,*08(; -#&,- : -9(C&% 5 (

\$##='iiL L L 8#\$-4"*&9,*081% 5 iC,. 5 i@A?BiC-+iABi* 5 JT=*61*.T.-*: ,04T6%OJT

=,1#"&-6T- 5 *,.T.-*D(

/ *04TP "03(<8(G@A?W3([-1- 5 +-&(`I8(R%&#\$(\$&%-*([-0,-6(; %.-,(0(/ %OJ(F,1#"&-6(P*1D,04(T(

R hE, 5 -681% 5 8(; -#&,- : -9(C&% 5 (

\$##='iiL L L 80J#, 5 -681% 5 i@A?Wi?@iAbi+"6,0-66i0%&#\$TD%&-*T9-0,-6T\$*1D,04T6%OJT

+ "#T1*..6T*##*1DT*T&,4\$#-% "6T9--98\$# 5 .k1 &mA(

/ ! R / (N06#,#"-8(G@A?B*IT(<&, #, 1*.(/ -1" &, #J(<%O#&% .68(; -#&,- : -9(C&% 5 (

\$##=6'iiL L L 86*068%&4i1&, #, 1*.T6-1" &, #JT1%O#&% .6i(

/ ! R / (N06#,#"-8(G@A?B+IT(<&, #, 1*.(/ -1" &, #J(<%O#&% .6'() " ,9-.,0-68(; -#&,- : -9(C&% 5 (

\$##='iiL L L 86*068%&4i1&, #, 1*.T6-1" &, #JT1%O#&% .6i4" ,9-.,0-6(

/ 1\$L *(U8(>8(G@A?W*3([-1- 5 +-&(@I8(/ %OJ(P*1D'(^_N(N66"-6(U*.L* &-(! .-&#(T(

_ *ODNOC% / -1" &, #J8(; -#&,- : -9(C&% 5 (\$##='iiL L L 8+*OD,OC%6-1" &, #J81% 5 i6%OJT\$*1DT

C+,T,66"-6T 5 *.L* &-T*.-&#T*T`a@bi%=T?(

/ 1\$L *(U8(G@A?W+3([-1- 5 +-&(?BI8(/ %OJ(_&-*1\$(; -6=%06-'(\ -4*(.E\$&-*#6(T(

_ *ODNOC% / -1" &, #J8(; -#&,- : -9(C&% 5 (\$##='iiL L L 8+*OD,OC%6-1" &, #J81% 5 i6%OJT

+&-*1\$T&-6=%06-T.-4*.T#\$&-*#6T*T`a`ai%=T?(

/ 1\$L *(U8(G@A?W13([-1- 5 +-&(@VI8(/ %OJ'6(`(_&-*1\$(; -6=%06-(U,6#*D-6(T(

_ *ODNOC% / -1" &, #J8(; -#&,- : -9(C&% 5 (

\$##='iiL L L 8+*OD,OC%6-1" &, #J81% 5 i+.%46i6%0J6T`T+&-*1\$T&-6=%06-T 5 ,6#*D-6T=T

?`bBi%=T?(

(

<&, #, 1*.(<%O#&%.6(#\$*#(/ %OJ(/ \$%" .9(P*: -(N5 =.- 5 -O#-9! | @B(

!

/#- ,0+-&43(>8(G@A?W3([-1- 5+-&(??I8(U*66,: -(/-1"&,#J(_&-*1\$(!#(/ %OJ(TT(P-&-!6(M\$*#(

h%"(R--9(E%(S0%L(T(^%&+-68(; -#&,- :-9(C&% 5 (

\$##='iiLLLC%&+-681% 5 i6,#-6iQ%6-=\$6#- ,0+-&4i@A?Wi?@i??i 5 *66,: -T6-1"&,#JT

+&-*1\$T*#T6%OJT\$-&-6TL\$*#TJ%"TO--9T#%TD0%Li(

g-0#"&- _- *#8(G@A???) / -=#- 5+-&(@@I8(/ -1"&,#J(. -66%06(C&% 5 (\$-(F.*J / #*#,%O(R-#L%&D(

+&-*1\$(j(g-0#"&- _- *#(j(R-L6(j(+J(g-0#"&- _- *#8(; -#&,- :-9(C&% 5 (

\$##='ii: -0#"&-+- *#81% 5 i@A??iAci@@i6-1"&,#JT. -66%06TC&% 5 T#\$-T=.*J6#*#,%OT

O-#L%&DT+&-*1\$(i(

Z-##-&3(M0"*4236."Fgeg o dgt"5+0"Uqp{ " I qv" J cemgf" J ct f<" Y j cv" Y g"Mpqy"cpf"Fqpøv"

S0%L(/ %(^*&8(; -#&,- :-9(C&% 5 (\$##='iiLLLL&L,&-981% 5 i@A?Wi?@i6%OJT\$*1DTL\$*#T

L-TD0%Li(

(

(

(

(

(

(

(

(

(

(

(

(

(

!

(

(

(