

! "#\$%&' ( ) \* + , - . / ( &  
! "#\$%&' ( ) \* + , - . / ( & 1 "234 5 , 67/%&898&&  
: ; 9 & ' " < < "% = ) 0 (\$ - & > ? ) % 7 ) 4 & ' - ) # \$ % 7 \$ & @ / ( ( 4 & 5 > & 98 ; AB &  
A : BCDD8C8EF ; && ) 2 / 30 # 0 I I O \$ - J I , H ) K 7 &

**! / 0 1 % + # 2 3 &**

&

89:8& + , L 4 & + " , / 0 ( & M & ! ) - 0 ? / " 20 ( & + , / ) % , ) # 4 & @ 0 2 ? 0 2 K & N H @ H & ' - 0 % & + , - " " ( & " . & O 7 I ( / , & @ ) 0 ( \$ - &  
L / # # ) 2 \$ O \$ / " % P & Q R , , 7 S O \$ / " % O ( & T U S " # 7 2 ) # & 0 # & + " , / 0 ( & L ) \$ ) 2 < / % 0 % \$ # & " . & > \* / % \* V &

89:8& + , L 4 & T S / K ) < / " ( " \* W 4 & X % / ? ) 2 # / \$ Y & O 0 2 / # & Z [ C + 7 K & ! " # \$ % & ' ( ) \* + ) ' , \$ & - ' . / + 0 / + ( ' I 2 . 2 '   
3 - / % ' 4 5 - # # 6 ' # 7 ' 8 9 : 6 \$ 5 ' . ) / 6 & - ; '   
L / # # ) 2 \$ O \$ / " % P & Q T U S " # / \$ / " % # & K & & N 2 0 ? 0 / ( P & L Y \$ ) 2 < / % 0 % \$ # & + " , / 0 7 U & K ) & ( 0 & \ / ) / ( ( / # # ) < ) % S V &

899E& 5 + , 4 & + " , / 0 ( & M & ! ) - 0 ? / " 20 ( & + , / ) % , ) # 4 & @ 0 2 ? 0 2 K & N H @ H & ' - 0 % & + , - " " ( & " . & O 7 I ( / , & @ ) 0 ( \$ - &

899D& ! > 4 & 1 " < ) % & M & 6 ) % K ) 2 & + \$ 7 K / ) # & 0 % K & T % \* ( / # - & ] / \$ ) 2 0 \$ 7 2 ) 4 & 1 0 # - / % \* \$ " % & X % / ? ) 2 # / \$ W & / % &   
+ \$ H & ] " 7 / # & ^ # 7 < < 0 & , 7 < & ( 0 7 K ) \_ &&

&

**% 1 % / ! 4 # 1 & % 5 5 2 # 3 + 4 ! 3 + ) &&**

&

8 + \$ < / + = ' / > > # \$ % & < ) % & ? ' &

8989CS2) # ) % \$ & > # # " , / 0 \$ ) & O 2 " . ) # # " 2 4 & + , - " " ( & " . & + " , / 0 ( & 1 " 2 3 4 ! " # \$ " % & ' " ( ) \* ) 4 & ' - ) # \$ % 7 \$ & @ / ( ( 4 & 5 > &

89: ; C8989& > # # / # \$ O % \$ & O 2 " . ) # # " 2 4 & + , - " " ( & " . & + " , / 0 ( & 1 " 2 3 4 ! " # \$ " % & ' " ( ) \* ) 4 & ' - ) # \$ % 7 \$ & @ / ( ( 4 & 5 > &

89:8C89: ; & O " # \$ K " , \$ " 2 0 ( & ` ) ( ( " = 4 & ' ) % \$ ) 2 & . " 2 & O " S 7 ( O \$ / " % & O % K & L ) ? ) ( " S < ) % \$ & + \$ 7 K / ) # 4 & @ 0 2 ? 0 2 K &   
X % / ? ) 2 # / \$ W 4 & ' 0 < I 2 / K \* ) 4 & 5 > &

4) 5 # % ( / + = ' / > > # \$ % & < ) % & ? ' / % ( ' / 7 \$ 6 \$ / & \$ # % ? ' &

898FCS2) # ) % \$ & > K a 7 % , \$ & > # # " , / 0 \$ ) & O 2 " . ) # # " 2 4 & L ) S O 2 \$ < ) % \$ & " . & + " , / 0 ( & 0 % K & ! ) - 0 ? / " 20 ( & + , / ) % , ) # 4 &   
@ 0 2 ? 0 2 K & N H @ H & ' - 0 % & + , - " " ( & " . & O 7 I ( / , & @ ) 0 ( \$ - &

8988C898F& \ / # / \$ / % \* & b ) # ) O 2 , - ) 2 4 & L ) S O 2 \$ < ) % \$ & " . & T % ? / 2 " % < ) % \$ O ( & @ ) 0 ( \$ - 4 & ! " # \$ " % & X % / ? ) 2 # / \$ W &   
+ , - " " ( & " . & O 7 I ( / , & @ ) 0 ( \$ - 4 & ! " # \$ " % & 4 & 5 > &

89: ; C898: & \ / # / \$ / % \* & + , / ) % \$ / # \$ 4 & ' ) % \$ ) 2 & . " 2 & ' " < < 7 % / \$ W C I O # ) K & b ) # ) O 2 , - 4 & L O % O C ` O 2 I ) 2 & ' 0 % , ) 2 &   
[ % # \$ / \$ 7 \$ ) 4 & ! " # \$ " % & 4 & 5 > &

89: ; C8989& \ / # / \$ / % \* & + , / ) % \$ / # \$ 4 & ' ) % \$ ) 2 & . " 2 & O " S 7 ( O \$ / " % & O % K & L ) ? ) ( " S < ) % \$ & + \$ 7 K / ) # 4 & @ 0 2 ? 0 2 K &   
X % / ? ) 2 # / \$ W 4 & ' 0 < I 2 / K \* ) 4 & 5 > &

&

&

5!!'6"!7#!8!/&50\*' #1%+#23)&

&

X%K)2(/%)&/%K/,0\$)#&7%K)2\*20K70\$)4&<0#)\$2c#4&K",,\$"20(4&"2&S"#SCK",,\$"20(&\$20/%)&)&

&

:H )9::9;<-&!('(-&>2"204&dH+H4&!7,-I/%K)24&5H&^898;\_H&+7SS"2\$/%\*&R!C6ef#&/%&OI"2\$/%"C  
2)#\$/,\$/?)&#S\$)\$#g>&S(OWI""3&."2&/%#\$/7\$/%"#H&"@A@'898;hFF8^i\_PA:FjA:;H&

&

8H )9::9;<-&!('(-&\_5\_,d)\$,-%/)4&+H5H4&>2"204&dH>H4&!7,-I/%K)24&5H&^898;\_H&X+&RI#)\$2/,/O%  
6W%),("\*/#&#&O)2,)/?)K&[<S0,\$#&"&.O"#jB#: :?'0"/5C?#%&+\$0\$)&>I"2\$/%"&!0%#H&"@A@'  
D)&,#+C'E>)%2&898;hB^:\_P)8FD8:9EH&

&

FH )9::9;<-&!('(-&] "?" )a"W4&5H'H4&+,-%)/K)24&LHdH4&L\_@)"2%4&6H4&L/OIC ]/%-02\$4&eH4&O)\$)2#4&+HTH&  
^898;h&/%&S2)##\_H&T%\*0\*/%\*&("=C=0\*)&="23)2#&/%&-)0(\$-&0%K&=)(I)/%\*&#72?)W&2)#)02,-P&  
+&20\$)\*#&.2"<&./?)&",,7S0\$/%"0(&#7K/)#H&@<)+\$5/%"#9+%/6'#7'89:6\$5'. )/6&-2&

&

;H )9::9;<-&!('(-&5\_,d)\$,-%/)4&+H5H4&>2"204&dH+H4&!7,-I/%K)24&5H&>2)&#S\$)&OI"2\$/%"&IO%#&0%&

:9H ! "%K4& ]H4&+ / < < "%#4&T4&





FBH \0%&@)K)(4&dH4&5 )a{0C67)?020&[H

;AH )9: :9;<-&! (' (4&@72\$0K"4&LH>H4&R3), -73=74& 'H>H4&N0<)2#4&+H J H4& f )(#"%4& 'H ' H4& d / <4&+H+H4&  
1 0\*%)24& 6HbH4&+"2)%#)%4& 6Hk^89: ;\_HkTUS"#72)&\$" &="23S(0, )&0I7#)&0%Kk2/#3&".&/%a72W&0<"%\*  
- )0(\$-&, 02)&="23)2#Hk@<)+\$5/%'"#9+%/6'#7'K%( 9?&+\$/6'A ) (\$5\$%)R'DB^8\_4&888CF8Hk&

&

;BH T?0% ".4&>HTH4&)9: :9;<-&! (' (4& ' 02\$"%4& 5 H4& ' 1)2%/ , -" =4&+H4&z/%#4& 5 H4& ] ), ( )2, 4&>H4&L)#, 0\$-04&>Hk  
^89: ;\_HkL")#&"I)#/\$W&<"K/.W&\$-&)&2)(0\$/ "%#- /S&I)\$=))%&)US"#72)&\$" &" , ,7S0\$/ "%0(&.0, \$"2#&0%Kk  
<7#, 7(" #3)( )\$0(&K/#"2K)2#&/%&<)%m&b)#7(\$#&.2" <&\$-&)& 6 > zT J & , " - "2&#&\$7KWH&8^E4'E%)R'U^:9\_P&  
) :9EAFHk

&

;iH 5 "%\$)14&oHdH4&)9: :9;<-&! (' (-& 6(W<"724& 5 H 5 H4& ! )23<0%4& J H`Hk^89: ;\_HkN-)&K/? )2\* /% \*&  
\$"S"\*20S-W&".&="23C.0</ (W&(/.)&0<"%\*&X+&="<)%&IW&)K7, 0\$/ "%0(k( )?)(Hk 8#>96/&\$#%'I )? ) /+5 -'  
/%( '8#6\$5='I )0\$ ) , R'WW4&A8ECA; i H&&

&

;EH f )(#"%4& 'H ' H4& 1 0\*%)24& 6H4& ' 0I0% C 5 02\$/%)14&>H4& ! 7US"%4&RH 5 H4& d )% = ""K4& ' H4&)9: :9;<-&! (' (4&  
&0#- /<"\$ "4&LH4&@ "S, /04&d H4&> ( )%4&oHLH4&+"2)%#)%4& 6Hk^89: ;\_Hk ' 0% , )2&2/#3C2)(0\$)K&I)-0?/"2#P&  
= -0\$&02)&\$-&)&K/.. )2)%\$/0(k, "%\$2/I7\$/ "%#&" .&0\*)&\*2"7S&/%&\$-&)&="23S(0, )&)%?/2" %<)%\$m&@<)+\$5/%'  
"#9+%/6'#7'8+)0%&\$0)'A ) (\$5\$%)R'XP^F\_4&+7SS(<)%\$&:4&+; 8C+D:H&&

&

D9H )9: :9;<-&! (' (-& 6(W<"724& 5 H 5 H4&L)#, 0\$-04&>H4& ] ), ( )2, 4&>H4&z/%#4& 5 H4& 6 "(KI)2\*4& 5 H4& ! )23<0%4&  
J H`Hk^89:F\_Hk ! /" < ) , -0% / , 0(k0%K&S#W, - "#", /0(k", , 7S0\$/ "%0(k)US"#72)#P&o"/%&\$&S2)K/, \$"2#&" .&  
.7% , \$/"%0(k-)0(\$-&/%&2)\$/2) <)%\$H&@ (0/%5)? '\$%^\$7)'3#9+?'I )? ) /+5 -R

&

DAH R3), -73=7k ' H>H4kT(k>WOK/k>H4kNO<)2#4k+H4k)9: :9;<k!( ' (-k ! )23<0%4k JH`Hk^89:8\_Hk@"7#)- "(Kk  
. " "Kk/%#7../,/)%, W4k./%0%, /O(k#\$20/%4k = "23C.0</ (Wk#\$20/%k0%KkK)S2)##/? )k#W <S\$" <#k/%k\$- )k  
= "23/%\*k, (O##P&b)#7(\$#k.2" <k\$- )k 1 "23k`0</ (Wk0%Kk@)0(\$- k#\$7KWk@< )+\$5/%''#9+%/6'#7'89:6\$5'  
. )/6k-R'STQ^:\_4k:8AC:FFHkk

&

DBH L)#, 0\$-0k>H4kL7?0(k+H4k)9: :9;<k!( ' (-k \ 7"\$S" & 6Hk^89:8\_HkL/./, 7(\$k = "23/%\*k, "%K/\$/"%#4k  
2)\$/2) < )%\$4k0%Kk2). "2<k/%k`20%, )Pk 1 -0\$k02)k\$- )k2"()#k" .k\$- )k < )K/, 0(k#" , /O(k = "23)2k0%KkS2/ <02Wk  
, 02)kS-W#/, /O%mk . )/6k- '/%( '4#5\$/6' L#+CR'WY^:\_Hkk

&

X%K)2k2)?)=k

&

DiH ` "2#- )K)%k+ /K"(/4kTH4k 6W%/%\*kTHk ! H4k ! (/ %K" =4k d H4k ' )K#\$20%K4kTH4k+OII0\$-4kTH JH4k ! 27(/%4k  
THk 1 "23S(0, )& 5 /#\$2)0\$ < )%\$k" .k+= )K/#-k@)0(\$-k ' 02)kO2" .)##/"%0(#PkO2) ?0()%, )kO%KkO)2S)\$20\$"2#k  
0, 2"##kO2" .)##/"%4k+)U4kO%Kk ! /2\$-k ' "7%\$2WHk^b) ?/#)KkO%Kk2)#7I < /\$



ADH 5 , d) \$ , - % / ) 4 & + H 5 H 4 & d ( ) / % 4 & T H d H 4 & > 2 " 20 4 & d H + H 4 & ! 7 , - I / % K ) 2 4 & 5 H 4 & ) 9 : : 9 ; < - & ! ( ' ( & Q [ & . ) ) ( & ( / 3 ) & \$ - ) 2 ) c # & O & S " ( / \$ / , / O % & / % & \$ - ) & 2 " " < V P & O 2 " ? / K ) 2 & S ) 2 , ) S \$ / " % # & " . & \$ - ) & / < S O , \$ # & " . & # \$ O \$ ) & O I " 2 \$ / " % & I O % # & " % & S - W # / , / O % C S O \$ / ) % \$ & 2 ) ( O \$ / " % # - / S # H & ^ X % K ) 2 & 2 ) ? / ) = \_ H & &

AAH \ " # # 4 & 5 H 1 H 4 & O " \$ ( O 4 & + H 4 & ) 9 : : 9 ; < - & ! ( ' ( 4 & 1 0 \* % ) 2 4 & 6 H b H 4 & O ) \$ ) 2 # 4 & + H T H & ' " % # / K ) 2 / % \* & \$ - ) & , " % # ) n 7 ) % , ) # & " . & < / % / < / 1 / % \* & \$ - ) & 2 " ( ) & " . & % " % C 7 % / . " 2 < ) K & S ) 2 # " % % ) ( & / % & < ) 2 \* % , W & 2 ) # S " % # ) H & ^ X % K ) 2 & 2 ) ? / ) = \_ 2 & &

= "%3 + & ) 0 5 5 2 " + &

' 7 2 2 ) % \$ &

898 ; C 8 9 8 B &      b 9 : & R @ 9 : 8 A A ; &  
f O \$ / " % 0 ( & [ % # \$ / \$ 7 \$ ) & . " 2 & R , , 7 S O \$ / " % 0 ( & + 0 . ) \$ W & O % K & @ ) O ( \$ - &  
5 ) % \$ O ( & - ) O ( \$ - & O % K & = " 2 3 C

' " <S()\$)K&

89:AC898: & 8X:ER@99i iA:C:9  
 f 0\$/ "%0(&[#\$/7\$)&. "2&R, , 7S0\$/ "%0(&+0.)\$W&O%K&@)0(\$-&  
 @02?02K&N&H&@H& ' -0%&+, - " ("&. &07I(/, &@)0(\$-& ' )%\$)2&. "2& 1 "23&@)0(\$-4&0%K& 1 )((C  
 I)/%\*V&^ ' )%\$)2&O[P& 6("2/0%&+"2)%#)%\_&  
 N"\$0(&, "#\$#P&~:4DFA4Fi i H&&  
 b "( )P&O2" a), \$& ] )OK4&Q@ " #S/\$0(&= "23&"2\*0%/10\$/ "%P&>##)##/%\*&- )0(\$-&/ <S0, \$&=/\$-&  
 O&(" %\*/\$7K/%0(&K0\$OIO#)V&

89: ;C89: i & Bd9: &R@9:9ABFC98&&  
 f 0\$/ "%0(&[#\$/7\$)&. "2&R, , 7S0\$/ "%0(&+0.)\$W&O%K&@)0(\$-&  
 } 70%\$/ .W/%\*&), "% " </, &0%K&- )0(\$-&..) , \$&#& " .&S#W, - "#", /0(&= "23S(0, )&)US"#72)#&  
 N"\$0(&, "#\$#P&~F8; 4999&  
 b "( )P&O2/ % , /S0(&/% ? )#\$/ \*O\$ "2&

899BC89: A& DX:ER@99i iA:C9B&  
 f 0\$/ "%0(&[#\$/7\$)&. "2&R, , 7S0\$/ "%0(&+0.)\$W&O%K&@)0(\$-&  
 @02?02K&+, - " ("&. &07I(/, &@)0(\$-& ' )%\$)2&. "2& 1 "23&@)0(\$-4&0%K& 1 )((CI)/%\*H&&  
 b "( )P& ' "C/%? )#\$/ \*O\$ "2&^O2/ % , /S0(&/% ? )#\$/ \*O\$ "2P& 6("2/0%&+"2)%#)%\_ ' "

89:D& N)0, - /%\*&O%K& 5 )%\$ "2/ %\* &TUS)%#) &^N> 5 T\_& 620%\$&&  
 ! "#\$ "%& ' " ( ) \* ) &R. / , ) & " .& \$ - ) & O2 " ? " # \$ &  
 N"\$0(&, "#\$#P&~:4BE9H&&  
 b "( )P&O2/ % , /S0(&/% ? )#\$/ \*O\$ "2&

89:FC89: ; & @02?02K& ' )%\$)2&. "2&O "S7(0\$/ "%&O%K&L) ? ) ("S < )%\$&+\$7K/ )#&  
 N/ < )&7#) &O < "%\*&2)\$/2) )#&/ %&\$ - ) & ` 2) % , - & 6 > zT ] & ' " - "2SP&L)#, 2/S\$/ "%4&(/. )&, "72#) &  
 S2)K/ , \$ "2#4&O%K&- )0(\$-&O##" , /O\$/ "%#H&  
 N"\$0(&, "#\$#P&~D4AA9&  
 b "( )P&O2/ % , /S0(&/% ? )#\$/ \*O\$ "2&

89:8C89:F& N; 8&R@99i ; :A4&@02?02KC f [R+@&TK7, 0\$/ "%&O%K&b)#)02, -& ' )%\$)2&^Tb ' \_H&&  
 O7I(/, &S "(/, W&, -0%\* )#&/ %&% 72#/%\*&- " < )&2)/ < I72#) < )%\$&O%K&- )0(\$-& " .&K/2) , \$C, 02) &  
 = "23)2#&  
 N"\$0(&, "#\$#P&~:94999&  
 b "( )P& ' "CS2/ % , /S0(&/% ? )#\$/ \*O\$ "2&^ ' "CS2/ % , /S0(&/% ? )#\$/ \*O\$ "2P& ' 0##O%K20&  
 R3), -73=7\_&

899EC89: 8& L[ 5 &bY#)07&K) &b), - )2, - )& ` 20% , / ( ) %P&+0%\$Y4&T% ? /2" % % ) < )%\$&N"U/ , " ( "\*/ )H '  
 TUS" #/ "/ % #&K) &N20?0/(P&LY\$)2 < /%0%\$#&+" , /07U&K) &(O& \ / ) / ( / ## ) < )%\$&  
 N"\$0(&, "#\$#P&F&W)02#&S2)K" , \$ "20(&#0(02W&O%K&I) )% , /#H&&  
 b "( )P&O2/ % , /S0(&/% ? )#\$/ \*O\$ "2&^#S " # " 2P& 5 02, ) (& 6 " (KI)2\* \_&  
 &





898;CS2)#)%\$& !27%0&] "S)1&  
 8988CS2)#)%\$& b/,02K" &L/) \* " &+702)1&b "a0#&  
 89:EC8988& d/<I)2(W&@"30%#" %&  
 89:iC8989& L0)& 5 0\*(0(0% \* &&  
 89:BC89:E& o7(/)& 5 /(())2&&  
 L/##)2\$0\$/ "%& ' " <</(\$\$))& 5 )<I)2&  
 898FCS2)#)%\$& f/,3/) &!72%)W&!V#?&#%'3#66)\*)'L\$66\$/<'J'3#%%)66'45-##6'#7'D9+?%\*%&;&  
 8989C898;& T(/#0I)\$-&+&\$(#"%&! . /+0/( 'I. 2'3 -/%'45-##6'#7'89:6\$5' . )/6&-;'  
 89:BC89:E& 00<)(0&] /%1)2&!V#?&#%'3#66)\*)'L\$66\$/<'J'3#%%)66'45-##6'#7'D9+?%\*%&;&  
 89:AC89:i& 00I(" &60/\$0&&b "##/&&

**5 ! ! " 6 " ! 7 # ! 8 ! / & 1 2 3 H ! " ! 3 1 ! & 5 " ! ) ! 3 + % + # 2 3 ) &**

H 5 , d)\$, - %/ )4&+H& 5 H4&d()/%4&T H&d H4&>2"204&d H&+H4& ! 7, - I/%K)24& 5 H4&M&)9: :9;<-&! (& ^pqqu4&  
 o0%702W\_H&N- )&/<S0, \$#&" .&L " II#&?H&o0, 3# " %&" %&2)(0\$/ " %&- /S#&I)\$= ) )%&&S0\$/ )%&#&0%K&R ! C 6 e f #&/%&  
 #S0\$)#&=#/\$- &2)#\$2/, \$/?)&OI "2\$/ "%&(0=#H&+ , /)\$W&. "2&+ , /0(& 1 "23&b)#)02, -4&+)0\$\$(&4& 1 >H&  
 &  
 8H )9: :9;<-&! ('(4& 5 , d)\$, - %/ )4&+H 5 H4&>2"204&d H>H4& ! 7, - I/%K)24& 5 H&^898; 4&+)S\$) <I)2\_H&L2/?)2#&" .&  
 <"20(&K/#\$2)##&0<"%\* &" I#\$)\$2/, /0%C\*W% ) , ("\* /#&#&/%&&#&S0\$)#&=#/\$- &S"#&CB#: : ?&OI "2\$/ "%&I0%#&  
 [%\$)2K/#, /S(/%02W&>##" , /0\$/ "%&. "2&O "S7(0\$/ "%&@)0(\$- &+\$7K/) #4& ! 0(\$/<"2)4& 5 L H&  
 &  
 FH )9: :9;<-&! ('(4& 5 , d)\$, - %/ )4&+H 5 H4&>2"204&d H>H4& ! 7, - I/%K)24& 5 H&^898F4&R, \$" I)2\_H&[ <S0, \$#&" .&  
 S"#&CB#: : ?&#&S0\$)&OI "2\$/ "%&I0%#&" %&" I#\$)\$2/, /0%C\*W% ) , ("\* /#&#&H&[%\$)2K/#, /S(/%02W&>##" , /0\$/ "%&. "2&  
 O "S7(0\$/ "%&@)0(\$- &+\$7K/) #4& ! 0(\$/<"2)4& 5 L H&  
 &  
 ;H )9: :9;<-&! ('(4& 1 /((/#4& 5 H4& 1 )##)(/%34&>H4& 1 0%\*4&NH4&@0\$, - 4&THTH4& 1 /#)4& ]H>H&^898F4&o7%)\_H&  
 >##" , /0\$/ "%&I)\$= ) )%&a " I&, "%\$2" (&0%K& . ) , 7%K0I/(/SW&/%&&O&S2) , "% , )S\$/ "%&, " - "2SH&+ , /)\$W&. "2&  
 TS/K) </" ("\* /, &b)#)02, - 4&O "2\$(0%K4&R b H&  
 &  
 DH )9: :9;<-&! ('(4& f /)(#)%4&d H4& ' 7%/%\* -0<4& ' H4&@0<<)24& ]H&^89884&R, \$" I)2\_H& 1 "23&"2\*0%/10\$/ "%&  
 0#&0&, "2)&K/< )%#/"%&" .&N" \$0(& 1 "23)2&@)0(\$- P&N" =02K&0%&)US)2\$&, "%&#)%#7#H&N - /2K&[%\$)2%0\$/ "%&0(  
 +W<S"#/7<&\$"&>K?0% , )&N" \$0(& 1 "23)2&@)0(\$- 4& ! )\$- )#K04& 5 L H&  
 &  
 AH ' 02(#"%4& ' H4& ' -02\$/ )24&d H4& 6 " /%\*#4&NH ' H4&)9: :9;<-&! ('(-&X20K04& ] H&^89894&o0%702W\_H& f [ @&, 02) )2&  
 K)?)("S< )%&&^d \_&0=02K#&. "2&#", /0(&="23&.0, 7(\$WP&TUS)2/)%, )#&0%K&0K?/, )&.2" <&2) , )%&&0=02K))#H&  
 b "7%K\$0I(&S2)#)%\$0\$/ "%&4&+ , /)\$W&. "2&+ , /0(& 1 "23&0%K&b)#)02, -4& 1 0#- /%\*\$%&4&L H ' H&



\$- )&! "#\$"%&@ "#S/\$0(& 1 "23)2#&@)0(\$- &+\$7KW&^ ! @ 1 @+\_&" .&\$- )&@02?02K&' )%\$)2&. "2& 1 "234&@)0(\$-4&  
0%K& 1 )((I)/%\*H&R20(&S2)#)%\$0\$/ "%4&TUSO%K/%\*&b)#)02, -&002\$%)2#- /S#P&+\$0\$)&R.&N- )&+, /)% , )&  
' "%.)2)% , )&^ f [R+@\_&>72"204&' R&

&  
:A&

/%\$)22)(0\$/ "%# - /SH&R20(&S2)#) %S0\$/ "%4&>O>• f [R+@& 1 "234&+\$2)##4&0%K&@)0(\$- &<))\$/%\*4&>\$ (0%\$04&  
6 >H&

&

8DH )9: :9;<-&! ('(-&S2)H(4&H)O/O&67) ?0204&[H4&6(W<"724& 5 H 5 H4& ! )23<0%4& ] `H&^89:D4&o0%702W\_H& ]/.)\$/<)&  
-/\* -C#\$20/%&="23P&00##/?)&a " I##K72/%\*&="23/%\*&(/.)&0(#"&S2)K/, \$&S "#S2)\$/2)<)%\$&,"\*%/\$/?)&

/<S0/2<)%SH&R20(&S2)#) %S0\$/ "%4&>O>• f [R+@& 1 "234&+\$2)##4&0%K&@)0(\$- &<))\$/%\*4&>\$ (0%\$04& 6 >H&

&

8AH )9: :9;<-&! ('(-& 5 )a/O&67) ?0204&[H4&6(W<"724& 5 H 5 H4& ! )23<0%4& ] `H&^89:D4&o0%702W\_H& ]/.)\$/<)&  
="23C.0</(W&)US"#72)##&S2)K/, \$&#7I#)n7)%\$&<"2\$0(/\$W&2/#3&0<"%\*&"(K)2&><)/,0%&="<)%H&R20(&  
S2)#) %S0\$/ "%4&+" ,/)\$W&."2&+" ,/0(& 1 "23&0%K&b)#)02, -4& f )=&R2()0%#4& ]>H&

&

8BH



F;H )9: :9;<-k!( '(-k!)23<0%4k]H`Hk^89:F4k>S2/(\_Hk b)\$/2)<)%\$&0%Kk#" ,/0(k)%\*0\*)<)%\$&/%&\$- )k`2)% , -k  
6 >zT]k , " -"2\$HkR20(kS2)#)%\$0\$/%"%4kO"S7(O\$/%"%k>##" ,/O\$/%"%k".k><)/,0k0%70(k<))\$/%\*4k f )=k  
R2()0%#4k] >Hk

FDH )9: :9;<-k!( '(-k6 "(KI)2\*5 H4k 1 74k } H4kL)#,0\$-0k>Hk^89: :4kR, \$"I)2\_Hk ' 0%&0k#/%\*( )C/\$)<k< )0#72)&  
0##)##&S-W#/,0(k("OKkO\$= "23m&>0(W#)#k.2" <&\$- )k6 >zT]k & ' " -"2\$HkO"#)2kS2)#)%\$0\$/%"%4k  
R, ,7S0\$/%"%0(k@)0(\$-k0%Kk+0.)\$W&L/?/#/"%4k>< )2/,0%&07I(/, &@)0(\$-k>##" ,/O\$/%"%k>%70(k 5 ))\$/%\*4k  
10#-/%\*\$%"%4kL ' Hk

FAH )9: :9;<-k!( '(4k 5 )(, -/"24k 5 H4k 6 "(KI)2\*4k 5 H4k ! )23<0%4k]H`Hk^899E4k f "?"<I)2\_Hk[%K/?/K70(k0%Kk  
"2\*0%/10\$/%"%0(k, "%#)n7)% , )#k".k , "<S)\$/%\*k= "23k0%Kk.0</(W&K)<0%K#k/%&\$- )k6 >zT]k , " -"2\$Hk  
O"#)2kS2)#)%\$0\$/%"%4kR , ,7S0\$/%"%0(k@)0(\$-k0%Kk+0.)\$W&L/?/#/"%4k>< )2/,0%&07I(/, &@)0(\$-k  
>##" ,/O\$/%"%k>%70(k 5 ))\$/%\*4kO-/(OK)(S-/04kO>Hk&

&

) I 4 5 2 )#%& 2 ' =%3#J! / &

&

:H )9: :9;<-k!( '(4k>- "%)%4kTH } H4k+\$)(#"%4kTH4k b )W%"(K#4k 5 Hk^898;4k+)S\$)<I)2\_Hk 1 "23k0#k0k#" ,/0(k

&

:H )9: :9;<-&!('(&^898;4& f " ? ) < I ) 2\_H&+\$O\$)&OI " 2\$/ "%& IO%#&O#&O&= " 23S(0, )&- ) O(\$- &- 0102K&. " 2&R ! C  
6 e f #P& ` /%K/% \*#&. 2" < &O& < 7(\$/C#&O\$)&#&7KW& 6 20%K&2 " 7%K#&4&L ) S02\$ < ) %&\$& " .&RI#& ) \$2/ , #&O%K& 6  
W% ) , (" \*W4& 1 0#- /% \*\$ " %& @ " #S/ \$O( & ' ) %& ) 24& 1 0#- /% \*\$ " %& 4&L ' H&

&

8H ! 7, - I/%K) 24& 5 H4&) 9: :9;<-&!('(&^898;4&+) S\$) < I ) 2\_H&+\$O\$)&OI " 2\$/ "%& IO%#&O#&O&= " 23S(0, )&- ) O(\$- &-  
- 0102K&. " 2&R ! C 6 e f #H& 6 20%K&2 " 7%K#&4&L ) S02\$ < ) %&\$& " .&RI#& ) \$2/ , #&O%K& 6 W% ) , (" \*W4&X%/ ? ) 2#/\$W& " .&  
R3(0- " < 0& @ ) O(\$- &+ , / ) % , ) #& ' ) %& ) 24&R3(0- " < 0& ' /\$W4&R d H&

&

FH )9: :9;<-&!('(&^898;4&+) S\$) < I ) 2\_H&+\$O\$)&OI " 2\$/ "%& IO%#&O#&O&= " 23S(0, )&- ) O(\$- &- 0102K&. " 2&R ! C  
6 e f #P& ` /%K/% \*#&. 2" < &O& < 7(\$/C#&O\$)&#&7KW& 1 0#- /% \*\$ " %& X%/ ? ) 2#/\$W& /%& + \$H& ] " 7/#4&L ) S02\$ < ) %&\$& " .&  
1 " < ) %& 4& 6 ) %K) 24&O%K&+) U70( /\$W& + \$7K/ ) #4& b ) S2 " K7, \$/ ? ) &o 7#\$/ , ) & 1 " 23/ % \* & 6 2 " 7S&+ ) 2/ ) #4& + \$H& ] " 7/#4&  
5 R H&

&

;H )9: :9;<-&!('(&^898;4&o0% 702W\_H&+\$O\$)&OI " 2\$/ "%& IO%#&O#&O&= " 23S(0, )&- ) O(\$- &- 0102K&. " 2&R ! C 6 e f #P&  
` /%K/% \*#&. 2" < &O& < 7(\$/C#&O\$)&#&7KW& ! " # \$ " % & X%/ ? ) 2#/\$W& + , - " " ( & " .&O7I( / , & @ ) O(\$- 4&L ) S02\$ < ) %&\$& " .&  
TS/K) < / " (" \*W&#& ) < /% O2&#& ) 2/ ) #4& ! " # \$ " % & 4& 5 > H&

&

DH )9: :9;<-&!([ H&^898F& f " ? ) < I ) 2\_H& ' ( /% / , 0(4&S2" . ) ## / " % O(4&O%K&S) 2# " % O( & / < S0, \$#& " .&\$- ) & B# : : ? &  
K) , /# / " % & " % & R ! C 6 e f #& /% & OI " 2\$/ "% C

::H

88H ! )23 < 0%4& j H`H4& )9: :9;< &! ( ' (^89:84&+)S\$) < I)2\_H&b )\$/2) < )%\$&0%K&#", /0(&2)(0\$/"%#- /S#&/%&\$- )&  
6 > zT] &, " - "2\$H& 5 0, > 2\$-72& ` "7%K0\$/"%& f )\$ = "23&"%&0%&> \* /% \* & + " , / )\$W& < ) )\$ /% \* 4& 1 0# - /% \* \$ " % 4&  
L ' H&

&  
8FH )9: :9;< &! ( ' H&^89:94&R, \$" I)2\_H& \ 0(/K0\$/"%& " .&0&#/#\*()C/\$) < & < )0#72)&" .& = "23C2)(0\$)K&S - W#/, 0(&  
.0\$/\*7)H&T% ?/2" % < )%\$0(&0%K&R, , 7S0\$/"%0(& 5 )K/ , /% )& + ) < /% 02& + )2/) #4&L )S02\$ < )%\$& " .&  
T% ?/2" % < )%\$0(&@)0(\$ - 4& @02?02K& + , - "" (& " .&07I(/, & @)0(\$ - 4& ! "#\$ " % 4& 5 > H&&

&  
&

2 + , ! " & 5 0 \* ' # 1 % + # 2 3 ) &

899BC899E b)#)02, ->##/#\$0%\$4 1 "234`0</(W4O%K@)0(\$- f)\$="234@02?02K&NH@Hk ' -0%&  
+, - ""(k" .k07I(/, k@)0(\$-4k ! "#\$"%4k 5 >k

899AC899B +)%/"2k b)#)02, ->%0(W#\$•b)#)02, ->%0(W#\$4k ' (/%, 0(k+\$20\$)\*W&O2"\*20<#4&N- )&  
>K?/#"2W& ! "02K& ' " <S0%W4& 1 0#-/%\*\$"%4&L ' &

899DC899A +)%/"2k b)#)02, ->##", /O\$)•b)#)02, ->##", /O\$)4&N- )&>K?/#"2W& ! "02K& ' " <S0%W4&  
1 0#-/%\*\$"%4&L ' &



898;CS2)#)%\$& >K?/#"2W&SO%)(&<) <I)24& ' L ' &O2?)%\$O\$/?)&+)2?/,)#&NO#3&`"2,)&

898;CS2)#)%\$& >K?/#"2W&SO%)(&<) <I)24&b)#)02,-&' " <<7%/\$W&"%&&\$-)&Tn7/\$W&[<S0,\$#&" .&  
 B#: : ?4&> ,0K)<W@)0(\$-• ' " <<"%=)0(\$-&`7%K&

898FCS2)#)%\$& b)#)02,-&OK?/#"2W&\*2"7S&<) <I)24& f 0\$/%"0(&' "7% ,/(&."2&5 )%\$O(&1 )((I)/%\*•&  
 5 )%\$O(&@)0(\$-&`/2#&&>/K&

8988CS2)#)%\$& >K?/#"2W&SO%)(&<) <I)24&+ " ,/) \$W&."2&N"\$O(&1 "23)2&@)0(\$-&&

89884&898F& >K&- " ,&#&7KW&#) ,\$/ "%&<) <I)24&L/#)0#)4&L/#OI/(/\$W4&O%K&[%a72W&O2?)%\$/"%&O%K&  
 ' "%\$2"(&+S) ,/O(&T<S-0#/#&O0%)(4& f 0\$/%"0(&[%#&/\$7\$)&."2&R , ,7S0\$/%"0(&+0. )\$W&O%K&  
 @)0(\$-&&

898:C898F& L O\$O&#0. )\$W&< "%/\$"2/%\*&I"02K&<) <I)24&+NNb&#&7KW&

898:C8988& N) , -%/ ,0(&US)2&\$&S0%)(/#\$4&+7I#&S0% , )&> I7#)&O%K&5 )%\$O(&@)0(\$-&&+)2?/,)#&  
 >K</#/\$20\$/%"&^+> 5 @+>\_&

89:DCS2)#)%\$& ' "C] )0K4&620%K&' -0( )%\* )&\$"&T20K/ ,0\$)&+ " ,/O(&[#"(0\$/%"&4&>< )2/ ,0%&> ,0K)<W&" .&  
 + " ,/O(&1 "23&O%K&+ " ,/O(&1 )(.02)&

89::& e"7%\*&TS/K)</(" \*W&+ , - "(02#&^ e T+\_&# , - "(02#- /S& , "<S)\$/\$/"%&a7K\*)4&b" I)2&\$  
 1 " "K&o" -%#" %&`"7%K0\$/%"&

&

89:8C89:A& 6)2"%\$ ("\*/,0(k+" ,/)\$W&" .&> < )2/,04& ! )-0?/"20(k0%K&+" ,/0(k+,/)% ,)#k#) ,\$/"%&  
899EC89:;& > < )2/,0%&07I(/, &@)0(\$-&#>##" ,/0\$/"%4&R , ,7S0\$/"%0(k@)0(\$-&0%K&+0.)\$W&#) ,\$/"%&  
&

**) 1 , 2 2 ' &% 3 / & 0 3 # 7 ! " ) # + I & ) ! " 7 # 1 ! &**

& &  
898;CS2)#)%\$& O2"?"#&c#&>K?/#"2W& ' "7% ,/(&  
8988C898;& N)%72)&0%K&O2" < "\$/"%& ' " < < /\$& )4&+ , - "'(k" .&+" ,/0(k 1 "23&  
898:C8988& ' -0/2&Tn7/\$W4&o7#\$/ , )4&0%K&[% , (7#/"%&[%/\$/0\$/?)4&+ , - "'(k" .&+" ,/0(k 1 "23&  
898:C898;& L " , \$"20(k ' " < < /\$& )4&+ , - "'(k" .&+" ,/0(k 1 "23&  
8989CS2)#)%\$& 5 )0#72) < )%&\$&0%K& 5 )\$2/ , #&+7IC ' " < < /\$& )4& ! "#\$"%& ' "(\*)&+ , - "'(k" .&+" ,/0(k  
1 "23&Tn7/\$W4&o7#\$/ , )4&0%K&[% , (7#/"%&[%/\$/0\$/?)&  
89:EC8988& ' 722/ , 7(7 < k ' " < < /\$& )& . "2kX%/?)2#/\$WC 1 /K)&> , 0K) < / , &O2"\*20 < #&  
89:iC8989& +)02 , -& ' " < < /\$& )4&+ , - "'(k" .&+" ,/0(k 1 "23&!/5- /\$+ ) ( 'QTQT;&  
89:iC8989& +\$))2/%\*& ' " < < /\$& )4& ! "#\$"%& ' "(\*)& ' )%\$)2& . "2k+\$0\$/#\$/ , #&0%K&>K?0% , )K&  
>%0(W#/#&  
89:i& +)02 , -& ' " < < /\$& )4&+ )/"2&b)#)02 , -&+\$0\$/#\$/ , /0%4& ! "#\$"%& ' "(\*)& &b)#)02 , -&  
>+ )2?/ , )#&  
89:i& +)02 , -& ' " < < /\$& )4&O2"\*20 < &/%& 6 ("IO(k07I(/, &@)0(\$-&0%K&\$-)& ' " < < "%& 6 "'K4&  
! "#\$"%& ' "(\*)&  
89:AC89:i& TU) , 7\$/?)& ! "O2K4&+ , - "'(k" .&+" ,/0(k 1 "234& ! "#\$"%& ' "(\*)&  
89: ;C89:A& >K?/#"2W& ' " < < /\$& )4& ! &NO(3#&> \* /% \* & ? /K) " &#)2/) #4& ! "#\$"%& ' "(\*)& &[%#\$/7\$)& "%&  
> \* /% \* &  
89:DC89:B& +\$))2/%\*& ' " < < /\$& )4& ! "#\$"%& ' "(\*)& ' )%\$)2& "%&> \* /% \* & 0%K& 1 "23&  
89:D& +)02 , -& ' " < < /\$& )4& b . )2) % , )& ] /I202/0%4&+ , - "'(k" .&+" ,/0(k 1 "23&  
89: ;CS2)#)%\$&

$\rightarrow (/\&)( 'E5\&#: )+ 'QTQX'$