







! ^ ( ) & g , 0 ! # \$ , % & , / & # ( ) & L ( \$ - + ! 904 ! \_ % ! 113 ! f ! 54 ! U ? 3 & & ' & 6 ! 3 E ( 4 ; ! 9 - , , T ; ! ! 6 ! % & !

! + V ! / # ! % 4 & Y ! 5 & f & 5 , - [ . & d ) 24 ! T H ! 9 - , , ; ; ! 6 !

! A 6 ! + < ! c ) , 4 & 04 & Y ) \* ! - & Q # ( \$ 01 ! - - . ! 9 - , , ; ; ! !

! 6 ! R ! ] % \$ 24 & , / & / # 4 & ^ ( , 3 ! 1 & Y 404 !

! R : ! 9 - , , ; ; ! 9 % & 2 % 13 E ! ( I O G D ( % \$ 0 ! A D & ! ? % M \$ ! % D & ; !

! A 6 !

! : ! 7 ! " . - ! % + & Y 404 & , / & d ! 0 ) 6 & d ) - \$ \* \$ , % 6 & c ) % + ) " & ! % + & L - ! 11 & T + & 9 - , , ; ; ! 9 % & 2 % 13 E !

! ( I O G D ( % \$ 0 ! A D & ! ? % M \$ ! % D & ; !

! / # ' + 4 ! + T H ! 9 - , , ; ; ! 6 ! R . & 04 & , / & L ! # ( , - \$ 0 & Y ) \* 4 &

! !!!! A 6 ! T ! Y ) \* ! - & Q # ( \$ 01 & H . &

! 9 - , , ; ; ! 9 G 33 ? = ? 32 % 3 J 3 E ! i D \$ ? & ' \* ; !

! R ! A ! R R ! 04 & , / & L ! # ( , - \$ 0 & Y ) \* 4 & / # ' + 4 ! . V !

! 9 - , , ; ; ! 9 ( I O G D ( % \$ 0 ! % & ! ? D E \$ A ! % D & ; !

! !! 04 & , / & L ! # ( , - \$ 0 & / , 0 \$ ! - & ^ ( , ' \* ( # ! - V V ! 9 - , , ; ; ! 9 G 33 ? = ? 32 % 3 J 3 E ! i D \$ ? & ' \* ; ! ! 6 ! - !

! !! 6 ! + < ! 04 & Y 4 & f & d ) - \$ \* 4 ! R - V ! 9 - , , R ; ! 9 G 33 ? = ? 32 % 3 J 3 E ! i D \$ ? & ' \* ; ! !

! !! P ! 3 ) & Y 4 & d ) 24 ! < R < ! 9 - , , R ; ! A 6 ! V < ! 8 , # " ) &

! !! 6 ! + ! 04 & , / & L ! # ( , - \$ 0 & / , 0 \$ ! - & ^ ( , ' \* ( # ! R + V ! 9 - , , R ; ! 9 G 33 ? = ? 32 % 3 J 3 E !

! i D \$ ? & ' \* ; ! !

!

!! 8D136!

6!+, <! ) ! " 24kY4kd ) 24!++, -!9+<<:;! :

UDD@!d32%3J(!

!

!

? k . T04kL ! # ( , - \$0kY ) \* ! - k  
/ # ' + \$ ) 1k9 - , - , ; ! 9% & 2% 13E ! ( I O GD ( % \$ O ! ? 32% 3 J ! DS ! 04kU " ) ) % k f k Y4k / # " ! % \* 6k " k Y \$ \* ( # k  
] % 1 ) ) % b k " k ) \$ 1 # , " . k , / k L ! # ( , - \$ 0 k Y ) \* ! - k Q + ' 0 ! # \$ , % ; !

!

!

UDD@!d32%3J!DS!0DB&! \_ %113!0?46!c , + [1k0 , ' 1#6k c , + [1k0 ' 1#\$0)bkY ! 5k ! % + k  
d ) - \$ \* \$ , % k \$ % k # ( ) k \_ ) 1# ) " % k ^ " ! + \$ # \$ , % k & ! B3!0 , ' " % ! - k , / k d ) - \$ \* \$ , % ! T T b + + < = + - + !  
90' & 4! - , , T ; !

!

!!

:  
6!- , , - ! ] 4kX - - 4k  
Y4kd ) 24!RVV!9?32%3J%&N!^ ) " " . k 7 , ) 6k / 0 ( , , - 16k g , ' 0 ( 0 . 2411533890 . 2 ( \* ) - 0240001411 . 415 - 27



! 6!^ ( )k5 ' 7-\$0kP\$10 , ' "1)k9 7 ' ?4!<6!- , ++;!  
! 9D&\*%&3!iD\$?&'\*;!  
! , 6!L , 3 3 , % 5 ) ! -k9P3A4!H6!- , + , ;!  
! : & 6!L , 3 3 , % 5 ) ! -k9 \ A14!  
! - , 6!- , + , ;!9D&\*%&3!23?(%D&;!  
! 8 & : 6!  
! L , 3 3 , % 5 ) ! -k9/3G4!+ , 6!- , + , ;!  
! 6!^ ( )k5 ' 7-\$0k  
! P\$10 , ' "1)k90\$\*4!<6!- , + , ;!9D&\*%&3!iD\$?&'\*;!  
! : ?!L , 3 3 , % 5 ) ! -k9 7 ' I!-+6!- , + , ;  
! 6!L , 3 3 , % 5 ) ! -k9?32%3 J%&N!/# 2 )%k ) 4k / ( \$ / / " \$ % 6k ^ ( ) k  
! d ) - \$ \* \$ , ' 1kY ) / # k ! % + k L ( ' " 0 ( = / # ! # ) k d ) - ! # \$ , % 1 ; ! 9 7 ' ? 4 ! + - 6 ! - , + , ;  
! A ( ) 6!P\$! - , \* ' ) bk " k0 , ' " % ! - k , / k  
! 7 , " 3 , % k ^ ( , ' \* ( # ! 9 - , , < ; ! 9 % & 2 ! 3 E ! ( I O G D ( % \$ O ! A D & ! ? % M \$ ! % D & ;  
! ? 6!L , 3 3 , % 5 ) ! -k9 \ A14!<6!- , , < ; ! 9 ? 3 2 % 3 J ! D S ! / ! 3 ) = / ) : k  
! 7 ! " " \$ ! \* ) k ! % + k d ) - \$ \* \$ , ' 1kY\$7 ) " # . bkQ 3 ) " \* \$ % \* k L , % / - \$ 0 # 1k9 P D \$ N \* ' ( ! Y ' I A D A @ ! 3 !  
! '\*46!3E(4;!!  
! : 86!L , 3 3 , % 5 ) ! -!90' &4!+ : 6!- , , < ;  
! 6!L , 3 3 , % 5 ) ! -k9 " \$N4!+ . 6!- , , T ; k9?32%3 J%&N!^ ( ) k \ 4# \$ , % k  
! / , " k # ( ) k 5 , , " k \$ % k L ( " \$ 1 # \$ ! % k ^ ( ) , - , \* . ! 9 P ' & % 3 \* ! c 4 ! c ? D D E I 6 ! 3 E 4 ; ! ' & E ! ^ B D O ' ( ! 0 4 !  
! 7 ' ( ( ' ? D 6 ! / 4 0 4 ! ] % \$ # ) + k / # ! # ) 1 k \_ ) - / ! " ) k 5 , - \$ 0 . bk " k L ! # ( , - \$ 0 k d ) 1 4 , % 1 ) ; !  
! A 6! " 3 ) " \$ 0 ! k 9 " \$ N 4 ! R 6 ! - , , T ; k9?32%3 J%&N! ` " ! % 9 k Y ! 3 7 ) " # 6 k  
! d ) - \$ \* \$ , % k \$ % k " 3 ) " \$ 0 ! % k 5 , - \$ # \$ 0 1 bk " k / ( , " # k ) \$ 1 # , " . ; !!  
! 6!L , 3 3 , % 5 ) ! -!9P3A4!-+6!- , , V ; ! 9 ? 3 2 % 3 J % & N ! P , % k U " , 5 % \$ % \* 6 ! Q 6 ' ! - \$ # . k  
! ! % + k # ( ) k ` ! 3 \$ - . bk " k ` ' % + ! 3 ) % # ! - 6 k 5 " ! 0 # \$ 0 ! - k ^ ( ) , - , \* . k , / k L ( \$ - + " ) % 6 k  
! 7 , # ( ) " 1 k ! % + k ` ! # ( ) " 1 ; !!  
!

!  
6! " 3 ) "\$0 ! !90' &4! + . = - - 6! - , , V ; !9?32%3 J %&N!L ( "\$1#\$ ! %\$# . k ! % + k # ( ) k  
/ , ' - k , / k # ( ) k ] % \$ 2 ) " 1 \$ # . b k ` ! \$ # ( k ! 1 k ! k ` , ' % + ! # \$ , % k / , " k X % # ) - - ) 0 # ' ! - k  
L , 3 3 ' % \$ # . ; ! 9 P 4 ! ) 3 & ? I ! f ! 7 4 ! U 3 ' 1 I 6 ! 3 E ( 4 ; !

!  
A  
6! L , 3 3 , % 5 ) ! - ! 9 7 ' I ! . 6 ! - , , : ; ! 9 ? 3 2 % 3 J % & N ! d , 7 ) " # k  
\_ ' # ( % , 5 6 k " 3 ) "\$0 ! % k 7 . # ( , 1 b k \_ ( . k \ ' " k U ) 1 # k Q



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

A 6! " AA3(!ID!0\$(1%A3!`D?\$ 0 6!Y3N' \*!  
/3?2%A3(!LD?GD?'1%D&6!) '?2'?E!Y' J!/ABDD\*!9 \ A14!- , +V;!  
A ? ) D! ^DG%A(>LDD\*!^ '\*@!  
(3?%3(6! 7 \$?GBI!X&(1%1\$136! ] &%23?(%1I!DS!/14!^BD O '(!9/3G4!- , +V;!  
6!LD&(1%1\$I%D&!P ' I!Y3A1\$?36!L?D J &!LD\*\*3N3!9/3G4!  
- , +V;!  
6!/14!0D(3GB[(! ] &%23?(%1I!9`3M4!  
- , +V;!  
/ 6! " O 3?%A' &!  
" ((DA% ' 1%D&!DS!Y' J!/ABDD\*(!' &&\$ '\*!AD&S3?3&A36!/ ' &!`?' &A%(AD!90' &4!- , +V;!  
A , , 6!LD&S3?3&A3!D&! " N3&AI6!

! A ? " AA3((!D!0\$(1%A3!  
LD&S3?3&A36!^3Z'(!" f 7!] &%23?(%1I!Y' J!/ABDD\*!9 7 'I!-,+.;!9%&2%13E!?3(GD&(3!ID!  
P '2%E!Y\$M'&[(!@3I&D!3!'EE?3((;!  
! ?6!X&13?&'!D&'!  
" ((DA% '1%D&!DS!Y' J!/ABDD\*(!P3 '&([!LD&S3?3&A36! ] &%23?(%E'E!/3?N%D! " ?MD\*3E'6!  
UDND! '9 " G?%\*!-,+.;!  
! ?6!/A'?G'!LD&S3?3&A36! g%\*\*' &D2'!Y' J!/ABDD\*!9 " G?%\*!-,+.;!  
! 6!X?3\*' &E!Y3A1\$?36!/14!5 '\$\*!/3 0%&'!I6!  
] &%23?(%1I!DS!/14!^BD O '(!9 " G?%\*!-,+.;!  
! 6!Y' J !5?DS3((D?(!LB?%(1% '&  
'3\*\*DJ (B%G!' &&\$ '\*!AD&S3?3&A36! \_ '(B%&NID&6!P4L4!90' &4!-,+.;!  
! & : 6!L' &'E' &!  
LB?%(1% '&!Y3N'!\*!`3\*\*DJ (B%G!' &&\$ '\*!AD&S3?3&A36! \_ B%(1\*3?6!U4L4!9 \ A14!-,+.R;!  
! 6!LD&S3?3&A3!DS!d3\*%N%D\$(\*I! " SS%\*'13E!  
Y' J!/ABDD\*(6! ] &%23?(%1I!DS!/14!^BD O '(!ABDD\*!DS!Y' J !9/3G4!-,+.R;!  
! 6!  
^'MD?!Y3A1\$?36!g '\*G'?'%(D! ] &%23?(%1I!9`3M4!-,+.R;  
! A , ?6!LD&S3?3&A3!D&!Y' J!' &E!  
YD236!53GG3?E%&3! ] &%23?(%1I!9`3M4!-,+.R;!  
! A :  
6!8 '1%D&'\*!Y' J! ] &%23?(%1I!j!P3\*B%!9 8D24!-,+.H;!!  
! A , ^(%&NB\$'!] &%23?(%1I!Y' J!/ABDD\*6!  
U3%i%&N!9/3G4!-,+.H;!!  
!

! A - 6! 7 \$(% 0=LB?(1% '&!P% '\*DN\$3!Y3A1\$?3!/3?%3(6!  
] &%23?(%1I!DS!/14!^BD O '(!9 \ A1DM3?!- ,+-;!!  
! , c 3D?N31D J &! ] &%23?(%1I!  
! Y' J !L3&13?!9/3G4!- ,+-;!  
! 6!` %S1B!X&13?&'1%D&'\*!Y3N'\*!Q1B%A(!  
! LD&S3?3&A36!U' &SS6!L' &'E' !90\$\*4!- ,+-;!  
!

! ! : , 6! " 0 3?A' &! " ((DA% '1%D&!DS!Y' J! / ABDD\*(!  
'&&\$ '\*!AD&S3?3&A36! / ' &!`?' &A%(AD!90' &4!- , +, ;!!

! ! - 6!LD&S3?3&A3!D&!  
/DA% '\*!0\$(1%A36! 7 ' ?#\$3!13! ] &%23?(%I!9 8 D24!- , +, ;!!

! ! A , : A  
A 6! \ G3&! ) 3 ' ?!(6! \ G3&! 7 %&E(6! ' &E!` '%?= 7 %&E3E! \_ D?E(b! " !  
LD&S3?3&A3!D&!Y%S3! ' &E!LB%D%A3!%&!B3! " MD?1%D&!P 3M' 136!5?%&A3!D&! ] &%23?(%I!  
9 \ A14!- , +, ;

! ! 6!`D\$?1B!X&13?&' 1%D&' \*!Y3N' \*!Q1B%A(!LD&S3?3&A36!  
/1' &SD?E!Y' J! / ABDD\*!90\$\*4!- , +, ;

! ! 6! " U " !LD&S3?3&A3!D&!5?DS3((%D&' \*!d3(GD&(%M%\*!I!6!  
/3' 11\*3!90\$&4!- , +, ;

! ! : A  
6!LD&S3?3&A3!D&!B3!LB' ?%( O ' 1%A!5?%&A%G\*3!%&!QAD&D O%A! ' &E!L%2%\*!Y%S36!  
/DGB% ' ! ] &%23?(%I!6!YDGG% ' &D6!X1 ' \*I!9 7 ' I!- , +, ;

! ! 6! / I OGD(%\$ O !D&!` ?33ED O!  
DS!LD&(A%3&A3!%&! 7 3E%A '\*!5?' A!A%36! \ B%D! / 1' !3! ] &%23?(%I!Y' J! / ABDD\*!9 " G?4!- , +, ;

! ! 6!S' A\$\*I!AD\*\*D#\$%\$ O 6! ] &%23?(%I!DS! / 14!^BD O ' (!  
Y' J! / ABDD\*!9 7 ' ?4!- , +, ;!

! ! :  
6! / I OGD(%\$ O !D&!B3!` \$!\$?3!DS!d%NB1(!DS!LD&(A%3&A3!%&!  
) 3 '\*!B!L ' ?36!U?%NB ' O !KDS&N! ] &%23?(%I!Y' J! / ABDD\*!9` 3M4!- , +, ;

! ! & : 6! 7 \$?GBI!X&(1%1\$13!  
LD&S3?3&A3!D&!LB?(1% ' &!d3 '\*%( O 6! ] &%23?(%I!DS! / 14!^BD O ' (!9 8 D24!- , , <;

! ! 6! 8 D1?3!P ' O 3!L3&13?!SD?!  
Q1B%A(! ' &E!L\$\*1\$?3!9 8 D24!- , , <;!9G' &3\*!E3E%A' 13E!1D!E!(A\$((%D&!DS!L , %10\$) % 0 )&  
!%+&#( )&L , 3 3 , %&c , , +b&d) 0 - ! \$ 3 % \* &#( )&/ 4 ! 0 )&U) # 5 ) %&t5) " 1 , %&!%+&/ # ! # ) ;

! ! ? ! / 3!D&!  
) '\*!Y' J! / ABDD\*!LD&S3?3&A3!D&!d3\*%N%D\$(!Y3N' \*!^B3D?I!9 8 D24!- , , <;

! ! : ?6!d3\*%N%D&!8 3 J ( J ?%13?(!  
" ((DA% ' 1%D&' &&\$ '\*!AD&S3?3&A36! 7 %&&3' GD\*(!9 / 3G4!- , , <;

6!/14!YD\$%(!] &%23?(%1I!Y' J!/ABDD\*!S' A\$\*1I!AD\*\*D#\$\$ \$ O!9/3G4!- , , <;!

6!] &%23?(%1I!  
`'A\$\*1I!SD?!Y%3!LD&S3?3&A36! ] &%23?(%1I!DS!/14!^BDO '(!90\$&4!- , , <;!

?6!LD&S3?3&A3!D&!L'!BD\*%A!Y3N' \*!^BD\$NB16!L'!BD\*%A!  
] &%23?(%1I!DS! " O 3?%A'!90\$&4!- , , <;!

6!  
`D?EB' O !L3&13?!SD?!d3\*%N%D&! '&E!LS\$1\$?36!`D?EB' O ! ] &%23?(%1I!9 " G?4!- , , <;!!

6!] &%23?(%1I!DS! \ @\* ' BDO '!Y' J!/ABDD\*!S' A\$\*1I!  
AD\*\*D#\$\$ \$ O!9 " G?4!- , , <;!!

6!] &%23?(%1I!DS!LD\*D?'ED!Y' J!/ABDD\*!S' A\$\*1I!  
AD\*\*D#\$\$ \$ O!9` 3M4!- , , <;!!

6!` '%1B6! \_ D?\*E2%3 J 6!' &E!B3!Y' J!/ I OGD(%\$ O 6!LB?(1% '&  
Y3N'\*/DA%3!I6! ] &%23?(%1I!DS! 7 %&&3(D! 'Y' J!/ABDD\*!90' &4!- , , <;!!

A : A 6!) \$ OMD\*E!  
] &%23?(%1I6!U3?%&6! c 3? O ' &I!9 \ A14!- , , T;!!

6! 7 \$?GBI!X&(1%1\$13!SD?!L'!BD\*%A!  
^BD\$NB16!Y' J 6!' &E!5D\*%AI!5\$M\*%A!`D?\$ O 6! ] &%23?(%1I!DS!/14!^BDO '(!9/3G14!- , , T;!

A 6! " U " !LD&S3?3&A3!D&!  
5?DS3((%D&' \*!d3(GD&(M%\*%1I6!UD(1D&!9 7 ' I!- , , T;!!





!

!

QIB%A(! \ SS%A3?6! 8 KL - , +- !9!B3!D?N' &%k' l%D&!E3E%A' l3E!lD!M?%&N%&N!B3!- , +- !