



"# \$%&()\*! \* +,-#%.( /! ./! \*+,-#%.( /# 0! &#+&'\$2.34  
5'#+,#%&6&'%.)-#%&7&8.3#0  
\*+,-#%.( /# 0! &#+&'\$2.39\*:1;!8'(<'#=

> -#+&=.-! >\$\$&\$\$=&/%0#/

"#\$%&'#!()!

\*+!,#-./&0\$1/2!3'/#45+0%! 6/.-2&)7!889;9:<:<!

!"#\$%&&'()\*&\*)&+),-('\$%-),//'\$0&)1\*\$%&&'")2%.3)  
.4..-5" ..6.7./8.6'(")

5HYLHZHG ZLWK FXUULFXOXP FKDQJHV E\ WKH \$FDGHPLF \$V  
5HYLHZHG DV DQ LQIRUPDWLRQ LWHP E\ WKH )DFXOW

"!

!"#\$%&%#'( ) \*+,-./+0#12+(2345-6#74424482/,#\$0+/9(. \*#

" !""#\$% #&'&()(\$&%

\$%&!()\*+,-./+0!1&+(&23%-4!52.62+7!42&4+2&3!\*)22&/,!&84&2-&/\*&(!&()\*+,-./+0!42.9&33-./+03!..!  
+33)7&!&()\*+,-./+0!0&+(&23%-4!2.0&3!-/!+00!:"#!3\*%..0!3&,,-/63<! =&!(.!,%-3!,%2.)6%&!&/+\*,-/6!,%&!&  
>\*%..0!9!()\*+,-./!/?2+(+),&!>,-&3!@&4+2,7&/!7-33-./!,!42&4+2&3\*%.0+20A!42+\*,--./&23!  
62.)/(&(!-/!4)24.3&!+/(!2&3&+2\*%!,,!+((2&33!\* .740&8!42.B0&73!.9!42+\*,-\*&!-/!,%&!\*/.,&8,!.030+3D+  
E/(-6&/.)3!+/(!\*0,)2+00A!+/(!0-/6)-3,-\*+00A!(-F&23&!3&,,-/63<! ?2+(+),&3!9!42&2@7!!  
(&7./3,2+,&!+!\* .77-,7&/!,!-/!0)3-F&/&33!+/(!&99&\*,-F&!0&+(&23%-4!+3!,%&A!42.F-(&!0&+0&23%-4!,!  
3\*%..0!\* .77)/-,-&3G!(&7./3,2+,&!+/(!&/\*.)2+6&!\*.00+B.2+,-F&!0&+(&23%-4!-/!,%&-2!(+0A!-/,&2+\*,-/3!  
H-,%!0&+2/&23!+/(!,%&-2!9+7-0-&3!\*.77)/-,-&3!+/(!\* .00&+6)&3G!+/(!7.(&0!-/,&00&\*,)+0!F-,+0-,A!-/!,%&!&  
H.2D40+\* &<!

\$\*#+\*)% %&#,-.&!#\$%

\$%&!()\*+,-./+0!1&+(&23%-4!42.62+7!-/!,%&!>\*%..0!9!()\*+,-./!/?2+(+),&!>,-&3!@&4+2,7&/,!  
J.00&6&!9!C2,3!+/(!>-\*&/\*&3!\*.742-3&3!,%2&&!2+\*D3!,!(&62&&!.740&,-/<!\$%&!K+3,&2!9!()\*+,-./!  
'()\*+,-./+0!1&+(&23%-4!LK<'(<M!2&N)-2&3!3)\*\*&339)0!\* .740&,-./!9!OP!\*2&(-,3!LH%-\*%!/-.24.2+,&3!,%&  
#Q!\*2&(-,3!9!2&N)-2&(!\*)23&3!9.2!+!\$A&!R!C(7-/3,2+,.2!J&2,-9-\*+,-./MG!+!/?2+(+),&3!J&2,-9-\*+,&  
52-/\*-4+0!9!#Q!\*2&(-,3G!+/(!+!+((-,./+0!K+3,&2!.9!()\*+,-./!()\*+,-./+0!1&+(&23%-4!,2+\*D!9.2!  
3,)(&/,3!H%.!%+F&!+!K+3,&2!.9!()\*+,-./!(&62&&!-/!+.,%&2!&()\*+,-./!42.62+7<!\$%&!0+,,&2!2&N)-2&3!,%&  
3+7&!OP!\*2&(-,3!9!,%&!K<'(<!H-,%!,2+/39&2!\*2&(-,3!F&2-9-(&!B&9.2&!+\*\*&4,+/\*&<!\$%&3&!,2+\*D3!42&  
62+(+),&3!,!+33)7&!3\*%..0!0&+(&23%-4!2.0&3!+3!\*&2,-9-\*+,&(!42.9&33-./+03!H-,%!+!&840-\*-,!\*%+26&  
-742.F&!+\*%&-F&7&/!9.2!&F&2A!0&+2/&2!-/!,%&-2!&()\*+,-./+0!\* .77)/-,-&3!+9,&2!+\*\*&4,-/6!,%&!0&+(&23  
2.0&<!

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

>,)(&/!0&+2/-/6!),\*.7&3!9.2!,%&!K+3,&2!.9!()'\*,./!()'\*,./+0!1&+(&23%-4!+/(!?2+)+,&! J&2,-9-\*+,&S!52-/\*-4+0!+2&!B+3&(!./!,%&!T+,-./+0!()'\*,./+0!1&+(&23%-4!52&4+2+,-./LT'15M!3,+/(+2(3!

C,!,%&!\*.740&,-./!9!,%-3!42.62+7!3,)(&/3!H)/(023,+/(!+/(!(&7./3,2+,&!,%&!\*+4+\*-A!,.!42.7.,&! ,%&!\*)22&/,+/(!9,)2&!3)\*\*&33!+/(!H&00;B&-6!.9!&+\*%!3,)(&/,+/(!+!)0,-./!,%&-2!3\*%..0!\* .77)/-,A!BA! +440A-/6!,%&!D/.H0&(6&!3D-003!+/(!\*.77-,7&/3!/&\*&3\$+2A!

9"&-\*\$'):3)J.00+B.2+,-F&0A!0&+(!(&3-6!/+/(!-740&7&/,+!+3\*%..0!7-33-./!F-3-./!+/(!42.\*&33!9.2! \*./,-/.)3!-742.F&7&/!,%+,!2&90&\* ,3!+!\* .2&!3&,!.9!F+0)&3!+/(!42-.2,-&3!,%+,!/\*0)(&!(+,+)3&! ,&\*%/.0.6A!&N)-,A!(-F&23-,A!(-6-,+0!\*-, -W&/3%-4!+/(!\*.77)/-,A<!

9"&-\*\$');3)Z/(&23,+/(!+/(!(&7./3,2+,&!,%&!\*+4+\*-A!,.!(F.\*+,&!9.2!&,%-+0!(&\*-3-./3!+/(!\*)0,-F+,&! +/(!&/+\*,!42.9&33-./+0!/.273<!

9"&-\*\$')<3)@&F&0.4!+/(!7+/-,+/-!+!3)44.2,-F&!&N)-,+B0&!\*)0,)2+00A!2&34./3-F&!+/(!/\*0)3-F&!3\*%..0! \*)0,)2&<!

9"&-\*\$')=3)'F+0)+,&!(&F&0.4!+/(!-740&7&/,\*.%&2&/,!3A3,&73!.9!\*)22-\*0)7!-./3,2)\*,-./!(+,+! 3A3,&73!3)44.2,3!+/(!+33&337&/,<!

9"&-\*\$')>3'/6+6&!9+7-0-&3!\* .77)/-,A!+/(!3\*%..0!4&23.//&0!-/!2(&2!,!3,2&/6,%&/!3,)(&/!0&+2/-/6! 3)44.2,!3\*%..0!-742.F&7&/,!!+/(!+(F.\*+,&!9.2!,%&!/&&(3!.9!,%&-2!3\*%..0!+/(!\*.77)/-,A<!

9"&-\*\$')?3)E742.F&!7+/-+6&7&/,!\* .77)/-\*+,-./!,&\*%/.0.6A!3\*%..0;0&F&0!6.F&2+/\*&!+/(! .4&2+,-./!3A3,&73!,!(&F&0.4!+/(!-742.F&!(+,+;-/9.27&(!+/(!&N)-,+B0&!3\*%..0!2&3.)2\* &!40+3!+/(!,! +440A!0+H3!4.0-\*&3!+/(!2&6)0+,-./3<!

9"&-\*\$')@3)R-0(!,%&!3\*%..0[3!42.9&33-./+0!\*+4+\*-A!&/6+6&!3,+99!-/!,%&!(&F&0.47&/,!.9!+! \*.00+B.2+,-F&!42.9&33-./+0!\*)0,)2&!+/(!-742.F&!3A3,&73!.9!3,+99!3)4&2F-3-./!&F+0)+,-./!3)44.2,!!+/(! 42.9&33-./+0!0&+2/-/6<!

\$%&3&!.),\*.7&3!2&3)0,-./!,%&!9.00.H-/6!52.62+7!>,)(&/!1&+2/-/6!),\*.7&<!

Z4./!\* .740&,-./!9!,%&-2!'@1!42.62+7!62+)+,&3!H-00!B&!+B0&!,.S!

- ¥ J.00+B.2+,-F&0A!0&+(!(&3-6!/+/(!-740&7&/,+!+3\*%..0!7-33-./!F-3-./!+/(!42.\*&33!9.2! \*./,-/.)3!-742.F&7&/!,%+,!2&90&\* ,3!+!\* .2&!3&,!.9!F+0)&3!+/(!42-.2,-&3!,%+,!/\*0)(&!(+,+) )3&!,&\*%/.0.6A!&N)-,A!(-F&23-,A!(-6-,+0!\*-, -W&/3%-4!+/(!\*.77)/-,A<!
- ¥ Z/(&23,+/(!+/(!(&7./3,2+,&!,%&!\*+4+\*-A!,.!(F.\*+,&!9.2!&,%-+0!(&\*-3-./3!+/(!\*)0,-F+,&!+/(! &/+\*,!42.9&33-./+0!/.273<!
- ¥ @&F&0.4!+/(!7+/-,+/-!+!3)44.2,-F&!&N)-,+B0&!\*)0,)2+00A!2&34./3-F&!+/(!/\*0)3-F&!3\*%..0! \*)0,)2&<!
- ¥ 'F+0)+,&!(&F&0.4!+/(!-740&7&/,\*.%&2&/,!3A3,&73!.9!\*)22-\*0)7!-./3,2)\*,-./!(+,+! 3A3,&73!3)44.2,3!+/(!+33&337&/,<!
- ¥ '/6+6&!9+7-0-&3!\* .77)/-,A!+/(!3\*%..0!4&23.//&0!-/!2(&2!,!3,2&/6,%&/!3,)(&/!0&+2/-/6! 3)44.2,!3\*%..0!-742.F&7&/,!!+/(!+(F.\*+,&!9.2!,%&!/&&(3!.9!,%&-2!3\*%..0!+/(!\*.77)/-,A<!

O!

¥ E742.F&!7+ /+6&7&/,!\* .77)/- \*+,-./! ,&\*%/.0.6A!3\*%..0;0&F&0!6.F&2+ /+\* &!+ /(!.4&2+,-./!  
 3A3,&73!,.!(&F&0.4!+ /(!-742.F&!(+ ,+;-/9.27&(!+ /(!&N)- ,+B0&!3\*%..0!2&3.)2\* &!40+ /3!+ /(!,..!  
 +440A!0+H3!4.0- \*-&3!+ /(!2&6)0+,-./3<!  
 ¥ R)-0(!, %&!3\*%..0[3!42.9&33-./+0! \*+4+ \*-,A!&/6+6&!3,+99!-./!, %&!(&F&0.47&/,!.9!+!\* .00+B.2+,-F

" ("-\*("%






<p>a2!K'4,4#!C,&gt;/6/#\$R!+&amp;&gt;&gt;-/'(@R!,!\$+)&amp;&amp;6!%#*\$&amp;  /!&amp;*.#!(&amp;!(#*4)#!\$(-.#!6#,*/'4R!\$-%%&amp;*(\$+)&amp;&amp;  /&gt;%*?#&gt;#(R!,!.?.&amp;+,(#C&amp;*!()#!##.#!&amp;C!()#!*!  \$+)&amp;&amp;6!,!.+&amp;&gt;&gt;-/'(@2!</p>	<p>^OO!M/\$%&amp;\$/(/&amp;\$!  &lt;\$#\$&gt;#'(0!  ^10!:/+#\$-#!,\$\$\$&gt;#'(R!&amp;*!&amp;()#!+&amp;[B(\$#.,\$\$\$\$&gt;#(!  ^80!7&amp;(#(!_'&amp;I6#.4#!  ^;0!9'\$(*+(/&amp;',6!:#,.*\$)/%!  ^U0!:#,.*\$)/%!,!.=,4#&gt;#(!/()/4!,!G/#6. [B,\$#.!E#(/'4!  ^a0E-%%&amp;*('/4!,!KCC#+(/?#E(-.#(!:#,*'/4!  K'?/*&amp;'&gt;#(!  ^N0!G,&gt;/6@!,!.!7&amp;&gt;&gt;-/'(@!"#6,(/&amp;\$!  ^OO!M/\$%&amp;\$/(/&amp;\$!</p>
<p>N2!9&gt;%*?#&gt;!,4#&gt;#(R!+&amp;&gt;&gt;-/'(/&amp;'R!(#+)'&amp;6&amp;4@  \$+)&amp;&amp;6#?#6!4&amp;7#*',+R!,!.&amp;%#*,(/&amp;'!\$@\$#&gt;\$!(&amp;!  .#?#6&amp;%!,!.!/&gt;%*?#&gt;!,(/C&amp;*#&gt;#.,!#A-/(,B6#!  \$+)&amp;&amp;6!*#\$&amp;-*+#!%6,\$!,!(&amp;!,%6@!6,\$R!%&amp;6/+  *#4-6,(/&amp;'\$2!</p>	<p>&lt;\$#\$&gt;#'(0!  ^80!7&amp;(#(!_'&amp;I6#.4#!  ^;0!9'\$(*+(/&amp;',6!:#,.*\$)/%!  ^U0!:#,.*\$)/%!,!.=,4#&gt;#(!/()/4!,!G/#6. [B,\$#.!E#(/'4!  ^a0E-%%&amp;*('/4!,!KCC#+(/?#E(-.#(!:#,*'/4!  K'?/*&amp;'&gt;#(!  ^N0!G,&gt;/6@!,!.!7&amp;&gt;&gt;-/'(@!"#6,(/&amp;\$!</p>
<p>O2!b-/6.!(#)!\$+)&amp;&amp;6Z\$!%*&amp;C#\$\$/&amp;',6!+,%,+/(@R!#'  \$(,CC!/)#!.#?#6&amp;%&gt;#(!&amp;C!,!+&amp;66,B&amp;*,(/?#!%*&amp;C  +6(-*#R!,!.!/&gt;%*?#&gt;#(\$#@#\$&gt;\$!&amp;C!\$(,CC!\$-%*?)/  #?,6-,(/&amp;'R!\$-%%&amp;*(R!,!.!%*&amp;C#\$\$/&amp;',6!6#,*/'42!</p>	<p>&lt;\$#\$&gt;#'(0!  ^80!7&amp;(#(!_'&amp;I6#.4#!  ^;0!9'\$(*+(/&amp;',6!:#,.*\$)/%!  ^U0!:#,.*\$)/%!,!.=,4#&gt;#(!/()/4!,!G/#6. [B,\$#.!E#(/'4!  ^a0E-%%&amp;*('/4!,!KCC#+(/?#E(-.#(!:#,*'/4!  K'?/*&amp;'&gt;#(!  ^OO!M/\$%&amp;\$/(/&amp;\$!</p>

\$\*#.( ""%

\$%&! '@1! 42.62+7! 42.\*&33! &/,+03! ,2-+/6)0+,-./ .9! (+,+! -/\*0)(-/6! \*./3-(&2+,-./3! .9! ,%&! (+,+!  
\*%+2+\*,&2-3,-\*3G!+!7&,%.(.9!(+,+!+/+0A3-3!,%+,-/\*0)(&3!9.27+,-F&!+/(!3)77+,-F&!, -7&0-/&3G!+/(!  
9.27)0+,-./ .9!2&\*.77&/(&(!42.62+7!2&F-3-./3!+/(!\*%+/6&3<!

AC%.0D"7.&%\*0)\*H)G.&.)

V&! .9!,%&! 7+Y.2!(&3-6!/42-/\*-40&3! -!/+33&337&/,-!-3!,2-+/6)0+,-./ .9!,A4&3!+/(!3.)2\* &3!.9!(+,+<!  
\$+B0&!O!0-3,3!,%&! (+,+!3.)2\* &3!+/(!,A4&3!\*)22&/,0A!-!)3&!+/(!(-&/,-9-&3!,%&!2&0+,-F&!3,2&/6,%3!.9!&+  
+442.+\*%<!


=&!3&!,%-3!\*%+2!,!&/3)2&!,%&2&-3!&/.)6%!F+2-+,-./-!(+,+!,.!42.F-(&!+\*.742&%&/3-F&!4.2,2+-,.!9!.)  
42.62+7! ,! -/9.27! +/(! 6)-(&! +\*,-./3! 9.2! 42.62+7! 2&F-3-./<! C,! ,%-3! 4.-/,! H&! 2&\*.6/-W&! +! /&&(! ,!  
-/F&3,-6+,&!+/(!-740&7&/,!+!(99&2&/,!(+,+!3.)2\*!&+/(!,A4&!9.2!C33&337&/,!`"<!

=%+,!-3!7-33-/6!92.7!,%-3!\*%+2,!+2&!\*+/(-(+,&!&8-,!3)2F&A3!+/(!\*+/(-(+,&!Y.B!40+\* &7&/,!(+,+!-74+\*,&(!  
BA!9-/+/\*-+0!-33)&3!.9!,%&!-/3,-),-./<!\$%&!3&!.9!,%.3&!(+,+!\*.)0(!-/9.27!,%&!42.62+7!.9!4.3;62+()+,&!  
3)\*\*&33<!.9-00!,%-3!6+4!,%&!42.62+7!-3!-/3,-),-/6!+!42.62+7!+(F-3.2A!\* .77-,,&&!\*.74.3&(!.9!+99&\*,&(!  
3,+,&!+/(!.77)/-,A!7&7B&23!+/(!42.62+7!\*./3,-)&/,3!,%+,!7&&,3!./\*!&!+!A&+2!,.!42.F-(&!4&2\* &4,)+0!  
(+,+!+B.),!,%&!42.62+7<!

F&+\*(\*)H)G.&.),0.74%/)

C3!H&!+2&!\*)22&/,0A!+,!,%&!B&6-//-/6!.9!A&+2!,H!.!9!-740&7&/,-/6! ,%&!T'15!3,+/(+2(3&&8!  
-742.F&7&/,-/!)2!\* .00&\*,-./!+!+0A3-3!+/(!)3&!.9! (+,+!,.+33&33!42.62+7!-742.F&7&/,3<!=&!\*)22&/,0A!  
%+F&!(&F&0.4&(!9-F&!.9!,%&!3&F&/!+33&337&/,3!H&!3&!,%2.)6%!+!3A3,&7-\*!42.\*&33!.9!F+0-(+,-./!2&0  
+/(!9+-2/&33!\*%&\*D-/6!,%+,!-/F.0F&3!.)2!F+2-.)3!42.62+7!3,+D&% .0(&23<!V&F-3-/6!,%&!9-/+0!,H!.!52.62  
0&F&0!&A!C33&337&/,3&3)2!H.2D!40+!9.2!Cb#c^#!+/(!Cb#^##<!\$%&!-/,&/,!9!,%&!H.2D!./!  
,%&3&!+33&337&/,3&3)2&!,%+,!H&!%+F&!F+0-(+/(!)3&9)0!(+,+!9.2!42.62+7!-742.F&7&/,<!