



ARTS3270

F YZYW]b['cb' <]ghcf]Yg'UbX' <]ghcf]Ubg. '7 UdghcbY

HYfa 'H\fYY'##'&\$&\$



GWcc``cZ< i a Ub]h]Yg'UbX'@Ub[i U[Yg'##' I BGK ``5ftg'UbX'GcWU``GWYbWg

7 ci fgY`Cj Yfj]Yk

GHJZZ7cbHJW`8YHU]`g

7cbj Ybcfg

| B Ua Y | 9a U] | 5j U]`UV]]]m | @cW]h]cb | D\cbY |
|----------------------|---------------------------------|---|--------------------------|-------|
| B]W`Ug`F Uga i ggYb | B "F Uga i ggYb4 i bgk "YXi "Ui | K \]Y`k YffY`k cf_]b[fYa chY`mž`d`YUgY Ya U]`a Y`tc`UffUb[Y U`d\cbY#]XYc W`bgi `U]h]cb | ' %(`A cfj Yb 6fck b | |

GWXcc``7cbHJW`bZcfa U]h]cb

GWXcc``cZ<i a Ub]h]Yg`UbX`@Jb[i U[Yg

@cW]h]cb.`GWXcc``C Z]W`žA cfj Yb`6fck b`6i]X]b[ž`@Yj Y``&ž&),

CdYb]b[`<ci fg.`A cbXUm! : f]XUmž`- Ua `!) da

D\cbY.`ž`*%&`-`' ,) `)%* , %

: Ul .`ž`*%&`-`' ,) `; , +\$)

9a U]: [\U`4 i bgk "YXi "Ui](#)

7 ci fgY'8YHJ]`g

7 fYX]hDc]bHg '*`

Gi a a UfmcZ\hY'7 ci fgY

Gi V'YWhi5fYU.'<]ghcfm`

⊕`h]g`WJdghcbY`Wci fgY'mci `k]``c]b`U``hY`chYf`ghi XYbHg'a Ucf]b[`]b`<]ghcfm]b`U`k YY_`mgYa]bUf
XYg][bYX`tc`dYfZ`WhiUbX`fYZYWhicb`hY`g_]`g`mci `Uj Y`YUfbYX`]b`mci f`\]ghcfmXY[fYY"Mc`i `k]`X]gW gg`UbX

5ggYgga Ybh

5ggYgga YbhHUg_g`

| 5ggYgga YbhHUg_ | K Y][\h | 8i Y'8UH | Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX |
|----------------------------|----------|-----------------------------|--|
| ᄃ`WUgg`E i]nnYg` | %) | Bch5dd`]WUV`Y | %ž&ž |
| A i gYi a `j]g]hUbX`YggUm | &\$ | %* #/\$#&\$&\$`\$(. \$\$`DA | %ž&ž ž |
| F YgYUfW`9ggUm | *) | &` #/\$#&\$&\$`\$(. \$\$`DA | %ž&ž (ž) |

5ggYgga Ybh8YHU]`g

5ggYgga Ybh% `ᄃ`WUgg`E i]nnYg`

GHUfhXUH. `Bch5dd`]WUV`Y

8YHU]`g.

7`Ugg`X]gW`gg]cbg`k]`VY`ghfi`W`fYX`Ufci`bX`U`gYf]Yg`cZei`Ygh]cbg`]bhYffc[`Uh]b[`hY`Ugg][`bYX`fYUX]b[`g"

9UW`gYa`]bUf`fUff]b[`hY`žfgH`k]`VY`Zc`ck`YX`VmU`g`cffi`Ubgk`Yf`ei`]n`hYgh]b[`mci`fi`bXYfgHUbX]b[`cZ`hY`_YmW`bV`dHg`X]gW`ggYX`]b`WUgg"

;`fUXYg`k]`VY`dfcj`]XYX`j]U`A`ccX`Y`UbX`k`Yfi`X]W`gg`hY`W`ffYW`UbGk`Yfg`Uh`hY`VY[]bb]b[`cZ`hY`Zc`ck]b[

YI \]V]hg fVch\`cb`]bY`UbX`]b`dYfgcbE`k]`VY`dcghYX`cb`A`ccX`Yž`UbX`cb`mfYdcfng`cb`h`YgY``]ghYX`YI \]V]hg
k]`VY`a`Uf`_YX"

Gi Va]gg]cb`bchYg.H\]g`Ugg][ba Ybh]g`i`gi`U`mWca`d`YHYX`VmdU]fg`cZgh`XYbhgžk`c`a`i`ghYUW\`gi`Va`]h
H<9`G5A`9`YggUm

Hi`fb]h]b`gYH]b[.`H\]g`Ugg][ba Ybh]g`gi`Va`]hYX`h`fci`[\`Hi`fb]h]b`UbX`gh`XYbhg`WJb`gYY`Hi`fb]h]b`g]a`]`Uf]m
fYdcfng"

5ggYgga`Ybh`.`F`YgYUfW\`9ggUm

GHUfhXUHY.`Bch5dd`]WV`Y

@Yb[`h.`&)`\$\$`k`cfX` @Yb[`h.`

5 HbXUbW F Yei]fYa Ybhg

Gh XYbhg UfY gfcfb[mYbWci fU[YX hc UHbX U WUggYg UbX fYj]Yk YWfi fY fYWcfX]b[g"

7 ci fgY GWYXi Y

[J Yk WUgg ha YhUVY](#)

Hja YhUV Y

| 8 UHr | HmdY | 7 cbHrYbh |
|---------------------------------------|-------------|---|
| K YY_%%(GYdhYa VYf! % GYdhYa VYf | GYa]bUf | <p>hfcXi W]cb. K \Uh]g\]ghcfnzUbX'k \Uh]g\]ghc]c[fUd\mB</p> <p>H\Y Z]fgha YYh]b['k]']bj c] Y \ci gY_YYd]b['a UHrfgz]bW X]b['Ub YI d'UbUhc]b'cZhY'a U'cf'UggYgga Ybhg UbX'hY'XUH'g'Xi Y''A cfY]a dcfUbhmk Y'k]' W'a Y hc'VY'U'dfUW]W' UbX'hYcfY]W' i bXYfghUbX]b['cZ k \Uh\]ghc]Ubg'Xc'UbX'k \Uh'hY'X]ZYfYbhk Umg'hYm Xc]h!! 'W' YW]j Y'mz'f]ghc]c[fUd\mf!! 'UfY"</p> |
| | < ca Yk cf_ | 7 ci fgY fYUX]b[g]b @Y[Ubhc |
| K YY_&.&%GYdhYa VYf! &) GYdhYa VYf | < ca Yk cf_ | 7 ci fgY fYUX]b[g]b @Y[Ubhc |
| | 5ggYgga Ybh | h!WUgg'ei]n'cb'Ugg][bYX'fYUX]b[|
| | GYa]bUf | <p>DfcZYgg]cbU'\]ghc]fmUbX'di V']Wa Ya cfm</p> <p>DfcZYgg]cbU'\]ghc]Ubg'UfY'cZYb'fYUH'X'Vm'hY di V']WUg']j cfmhc'k Yf]bh'YW' U'g'k \c'UVci f'Uk Um cb'f]j]U'hd]W]b'hY'XYgYf]YX'cVgW f]hmcZXi ghm UfW]j Yg''M'h'hY'di V']W!! Yj Yb'hYgY'gUa Y'W]h]W !! \UfVci f'\]ghc]W' VY']Yz' hUhUfY]a dcfUbhic hYa 'UbX'k \]W'hYmYI dYWh'c'VY'gi ddcf'hX'Vm \]ghc]Ubg'UbX'\]ghc]W' Yj]XYbW'' : fYei Ybhim'hYgY VX'Yf]g\YX'\]ghc]W' bUffU]j Yg'W'cbZ]W'hk]h'k \Uh dfcZYgg]cbU'\]ghc]Ubg'U'Y'fgca Y'h]a Yg i bW'bf'c] Yfg]U'm'Ug'YghUV']g\YX'Z]W'</p> <p>H\YgY'W'cbZ]W]b['i bXYfghUbX]b[g'cZ'hY'dUgh cWUg]cbU'm'W'a Y]b'c'hY'cdYbz'YgdYW]U'mk \Yb ghc]Yg'Zci bXUhc]bU'hc'W'h'fU'cf'bUhc]bU']XYbh]m UfY'i dXUH'X'UW'cfX]b['hc'dfcZYgg]cbU'gU'XUfXg]b di V']WZcfUz'gi W'Ug'gV'cc'W'ff]W'U'cf'a i gYi a YI \]V]h''H\YmfU]gY'ei Ygh]cbg'UVci h'hY'\]ghc]Ubg' gcW]U'fc'Y'UbX'Xi h]Yg''K Y'k]' X]gW'gg'hY'fc'Yg \]ghc]Ubg'd'Um]b'di V']W]b'h]g'gYa]bUfz'ZcW'g]b['cb hY'W'bf'c] Yfgm]c] Yf'hY'9bc'U'; UmYI \]V]h]cb'Uh hY'Ga]h]gcb]Ub'A i gYi a]b'%-)''</p> <p>H\Y]b!WUgg'ei]nYg'k]'U'gc'VY[]b'h]g'k YY_''</p> |
| K YY_'&.&'GYdhYa VYf! &'C'W'VYf | GYa]bUf | <]ghc]W]g'V'c'Ufg\]d'UbX'UX]c'WUW'h |

| | | |
|-------------------------------------|-------------|---|
| | | <p>5fY` \]ghcf]Ubg'gi VYWhlc`Yh]WJ`ghUbxUfXg`VYmcBx k \Uh]g`fYeI]fYX`Zcf`hY`di V`]WJh]cb`cZ`hY]f`k`cf_]b dYYfI.fYj]Yk YX`'ci fbU`g`fY"["fI hZ` `UbX`Vta d`YH fYdcf]b[`cZdf]a UfmYj]XYbW`'gci fW`gž`c[]WJ` Uf[i a YbU]h]cbž`W]h]cb`cZ]bZi Yb]U`'cf`c`hYfk]gY]a dcfU]bhigYV`bXUfmgci fW`gž3: cf`YI Ua d`Yž g\ci `X`h`Ymdi V`]WmX]gW`gg`]ggi Yg`cb`mk]h]b`hY]f Xca U]b`cZgVX`c`UfmYI dYf]gY3`A i gh`h`YmV`cbg]XYf h`Y`gcW]U`]a dU]Vh]cZ`hY]f`gVX`c`Ufmk`cf_]b di V]g\]b[`cb`W`f]U]b`ei Ygh]cbg`UbX`#`f`i`g]b[`W`f]U]b gci fW`gž3`C`bW`]h]g`di V]g\YXž`Xc`h`YmVYUf`Ubm c`h`Yf`fYgdcbg]V]`]h]Yg`]b`XYgW]V]b[`]h]b`di V]W j`Ybi Yg`gi W`Ug`h`Y`V`ei fffcca 3</p> <p>H\Y`dc]bhmYbX`cZgi W`ei Ygh]cbg`Ug`VYYb YI dYf]YbW`X`Vma YX]WJ` \]ghcf]Ubg`k`cf_]b[`cb h`cVUW`" `#`h]g`WUgg`k`Y`k`]`V`cbg]XYf` \]ghcf]Ubgfi fc`Yg`]b`h`Y`h`cVUW`" `]h[U]h]cb`W]gYg`cZ`h`Y`%` -` \$g UbX`&\$\$\$g`UbX`XYVUH` \]ghcf]UbgfiYh]WJ` fYgdcbg]V]`]h]Yg`h`c`h`Y]f`gi V`Y`W`gž`Ui X]YbW`gž`UbX dfcZ`gg]cbU`V`ta`a`i`b]h]Yg"</p> |
| | <ca Yk cf_ | 7ci fgY fYUX]b[g]b`@Y[Ubhc |
| | 5ggYgga Ybh | #!WUgg`ei]n`cb`Ugg][bYX`V`ei fgY`fYUX]b[|
| K YY_(.)`C`W`cVYf!`'- C`W`cVYf | GYa]bUf | Bc`WUgg`gYgg]cb`!`@UVci`f`8Um |
| K YY_)`.%&`C`W`cVYf!`%* C`W`cVYf | GYa]bUf | |

| | | |
|---|-------------|---|
| | | <p>H\]g:k YY_`k Y`Wcbg]XYf`hY`k Umg`]b`k \]W\`]\]gfcf]Ubg \Uj Y`i gYX`[YbXYf`UbX`gYI`Ug`U`a YUbg`cZ YI Ua `]b]b[`hY`Uggi a dhcbg`hUha Uf[]bU`]gYž gi VcfX]bUHz`cf`fYbXYf`]bj`]g]V`Y`hY`YI dYf]YbW`g`cZ]bX]j]Xi U`g`cf`[fci dg`]b`]\]gfcf]c[fUd`m`6Y[]bb]b[k]h`hY`5a Yf]Wb`]\]gfcf]Ub`>cUb`K ``G`W`h`f`g gi [[Yghcb`h`Uh`\]gfcf]Ubg`a i ghbchia YfY`miUXX k ca Yb`h`c`]\]gfcf]miUbX`]g]h`f`k`Y`k`]`W`cbg]XYf`hY Yj c`i`h`cb`cZ[YbXYf`\]gfcf]mi]b`hY`&\$h`W`b`h`f`miUbX]hg`]a`d`]W]h`cbg`Z`c`f`i`g`Ug`\]gfcf]Ubg`]b`hY`d`f`Y`g`Y`b`h`</p> |
| | < ca Yk cf_ | 7 ci fgY`fYUX]b[g`]b`@Y[Ubhc |
| | 5ggYgga Ybh | -b!WUgg`ei]n`cb`Ugg][bYX`W`ci fgY`fYUX]b[|
| <p>K YY_`,`.`&Bcj Ya VYf!`* Bcj Ya VYf</p> | | |
| | | |
| | | |

| | | |
|----------------|-------------|---|
| &\$'Bcj Ya VYf | | <]gřcřmž']b`Wča a cb`k]ř`a cgh`i a Ub]řYg X]gV]d`]bYgž']g`ř.Y`gi V`YWřcZcb[c]b[`di V`]WUbx UWXYa]WXYVUřY`UVci hř.Y`bYXX`řc`XYWč`cb]gY W]řř]W`U`UbX`řYgYUřW`dřUW]W]g" `č`ř.Y`Z]bU`gYa]bUř k`Y`k]`YI Ua]bY`ř.Y`dř]bW]d`Yg`cZXYWč`cb]nUřcbž YI d`cřY`k` \Uřř.Y`a c] Ya Ybh`cdYg`řc`UWX]Yj YžUbX k]ř`ř.Y` \Y`d`cZřYW`bhgW]c`Uřg`]džX]gW gg`ř.Y dcgg]V]]řYg`UbX`ž` h` řY`cZXYWč`cb]gYX` \]gřcřmř . |
| | < ca Yk cř_ | 7 ci řgY`řYUX]b[g`]b`@Y[Ubřc |
| | 5ggYgga Ybh | č!WUgg`ei]n`cb`Ugg][bYX`Wči řgY`řYUX]b[|

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

5`fYei]fYX`UbX`fYWta a YbXYX`fYUX]b[g`Zcf`YUWk`gYa]bUf`k]`VY`dcghYX`hc`@Y[Ubhc`":Z`hYfY`UfY`Ubm
dfcV`Ya g`UWfWgg]b[`hY`fYUX]b[ž`U`Yfha Y`VmYa U`]a a YX]UHy`mUbX`=k]`Y]hYf`fYWf]Zni@Y[Ubhc`cf`dcghU
dXZ]b`A ccX`Y"

F YWta a YbXYX`F Ygci fWg

8UfUVUgY#g`fYgd`":Zcf`hY`fYgYUfWk`YggUm`k]`VY`]bhf`Xi`WfX`UbX`X]gW`ggYX`]b`ci`f`ZfghgYa]bUfz`Ug`k]`hY
A`i`gY`a`5gg][`ba`YbH`":`i`f`hYf`]bghf`Wf]cbg`UbX`hY`gYh`d]WZcf`hY`F`YgYUfWk`9ggUm`k]`VY`dcghYX`Vm
K`YY`_`"``=a`UmdcghfY`Yj`Ubh[`i`]X`Ygž`g`c`fhd]YWf`g`cf`]b`_`g`]b`A`ccX`Y"

7ci fgY`9j`U`i`Uh]cb`UbX`8Yj`Y`cda`Ybh

7ci fgYg`UfY`dYf]cX]Wf`mifYj`]Yk`YXž`UbX`gh`XYbhf]ZYXVUW`_]g`i`gYX`hc`]a`dfcj`Y`hYa`":`YYXVUW`_]g
[`UhYfYX`Zca`gh`XYbhf`i`g]b[`a`m9I`dYf]YbWf`"``#i]g`YbWci`fU[`YX`gh`XYbhf`Wta`d`YH`hY]f]gi`fj`Ymg`Vm
UWfWgg]b[`hY`dYfgcbU`]nYX`k`YV`"b`_`j`]U`hY`A`ccX`Y`Wci`fgY`g]hY"

:`c`ck`]b[`Zcfa`U`UbX`]bZcfa`U`gh`XYbhZYXVUW`_`UghmYUfz`#j`Y`fU`_Yb`ghYdg`hc`Ybgi`fY`hY`fYUX]b[`cUX`]g
a`cfY`a`UbU[`YUV`Yž`UbX`Wf]Ub[`YX`hY`Z]bU`gYa]bUf`gi`V`Y`Wf`hc`cbY`h`UhYfZYWf]g`a`cfY`Wf]Uf`mcb`hY
X]gWd`]bYf]Z`h`fY"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

Hi fb]h]b`Gi Va]gg]cb

≠mci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UH`Ya` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`h`fci`[`\`Hi`fb]h]b`z`d`Y`Ug`Y`
HY`Yd`cb`Y`9I`HY`fb`U`Gi`ddc`fh`cb`-`'`,`)`"``'``%`cf`Ya`U]`h`Ya`i`cb`YI`HY`fb`U`HY`hgi`ddc`fh`4`i`bgk`"YXi`"Ui`""Gi`ddc`fh`
`l`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`i`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`-`).\$\$da`i`cb`k`YY`YbXg`f`l`*)`XUmg`U`m`Y`Uf`l`"≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Z`Ji`h`k`]h`Hi`fb]h]b`mci`i`a`Um`Udd`m`Z`f`Ub`YI`HY`bg]cb`z`Vi`hmc`i`
a`i`gh`f`Y`h]b`mci`f`h]W`Y`hbi`a`VY`f`Z`ca`9I`HY`fb`U`Gi`ddc`fh`f`U`cb[`k`]h`Ub`m`c`h`Y`f`f`Y`Y`Ub`h`X`c`W`a`Y`b`h`g`k`h`c`
]b`Wi`XY`Ug`Y`j`]X`Y`b`W`hc`gi`ddc`fh`mci`f`YI`HY`bg]cb`Udd`]W`h]cb`"≠mci`Ya`U]`9I`HY`fb`U`Gi`ddc`fh`mci`k`]`
Ui`h`ca`U`h]W`U`m`f`Y`W`]j`Y`U`h]W`Y`hbi`a`VY`f`z`Vi`h]Z`mci`HY`Yd`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z]W`U`m`Ug`_`Z`f`c`b`Y`"
Hi`fb]h]b`U`gc`d`fc`j`]X`Y`gi`d`X`U`h`g`c`b`h`Y`]f`g`m`g`h`Ya`i`g`h`U`h`g`c`b`H`k`]h`Y`f`"

;`Yb`Y`f`U`m`z`Ugg`Y`gga`Yb`hi`U`g`_`g`a`i`gh`V`Y`gi`Va`]h`Y`X`Y`Y`W`f`c`b]W`U`m`j`]U`Y`]h`Y`f`Hi`fb]h]b`c`f`U`A`cc`X`Y`
Ugg][`ba`Yb`h`i`h`]b`g`h`U`b`W`g`k` \Y`f`Y`h`g`]g`b`c`h`d`c`g`g]V`Y`z`]h`k`]`V`Y`g`h`U`h`X`c`b`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`h`Y`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`h]g`"

:`c`f`]b`Z`c`fa`U`h]c`b`c`b` \c`k`hc`gi`Va`]h`Ugg][`ba`Yb`h`g`c`b`]b`Y`j`]U`A`cc`X`Y`.\`h`d`g`#`g`h`XY`b`h`i`bgk`"YXi`"Ui`#`c`k`!`
gi`Va`]h`Ugg][`ba`Yb`h`a`cc`X`Y`"

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[`h`Y`a` `U`g`m`c`i`f`c`k`b``#W]b`h]U`_`Y`a`U`b`m`
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[`h`c` `U`W`W`Y`X`Y`b`h]U`m`i`W`c`d`m]b[`Z`c`a` `U`g`c`i`f`W`k`]h`c`i`h`U`W`_`b`c`k` `Y`X[`Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k`]b[`W`U`h`Y`[`c`f]Y`g.

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wcdmf][\hž' BGK 'Gh XYbh7cXY'cZ7cbXi W'Ubx'5Ww'dhUV'Y'I gY'cZ I BGK '⇒H'F Ygci fW'g'Dc`]Wm
- VY'Uk UfY'cZh'Y'ghUbxUfXg'cZVY\Uj]ci f'YI dYW'X'cZYj Yfmcby']b'h'Y'I BGK 'Wca a i b]m
- 'cWJh'gYfj]W'g'UbX'j]bZcfa Uh'cb'UVci hl BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh'YgY'UfYUg'k]''VY'ZJa]]Uf'hc'mci ž'ch'Yfg'k]''VY'bYk "'; U]b]b['U'gc`]X'i bXYfghUbx]b['cZU''h'Y fY'UH'X'UgdYW'g'cZ9@-G9'k]''\Y'd'mci 'a U_Y'h'Y'a cgh'cZmci f'gh X]Yg'Uhl BGK ""

[\hd. #gj V'YW'f i \]XYg" \]VfUfm'i bgk "YXi "Ui #' \]gY#JVci h' \]gY](#)

