



ARTS3095

65 'A YX]U' ðhY fbg\]d

HYfa `C.bY`##`&\$%-



GWcc`cZH Y`5 frg`UbX`A YX]U`##`I BGK `5 frg`UbX`GcW]U`GWY bWg

7 ci fgY'Cj Yfj JYk

'GHUZZ'7 cbhUWw'8YHUJ`g`

'7cbj Ybcfg`

B Ua Y	9a Uj`	5j Uj'UVj]m	@cWUjcb	D\cbY
9a a U'>UbY	Ya a U"AbY4 i bgk "YXi "Ui	6mUddc]bha Ybh	%%) ž'@Yj Y`%ž F cVYfh K YVghYf	

GWXcc`7 cbhUWw'žZcfa Uhjcb

Fcca " %&ž'Yj Y`" 'F cVYfhK YVghYf'6i]X]b[

D\cbY. f\$&Ł-' ,) '(,) *

9a Uj]: [gUa 4 i bgk "YXi "Ui](#)

K YVg]hY: [\hfdg.#gUa "Ufmg"i bgk "YXi "Ui](#)

H\Y'GWXcc`cZhY'5fmg'UbX'A YX]U'k ci 'X`_Y'hc'F YgdYWw'`m5W_bck 'YX[Y'hY'HfUX]hcbU`7 i ghcX]Ubgž
hY'6YXY[U'fP Ybg]b[hcb'WJa di gŁž; UX][U'f7]mUbX'5fhi'8Yg][b'7 Ua di gYgŁ'UbX'hY'B [i bbUk U`
dYcd'Y'fBi gfu]Ub'8YZ'bvW': cfW'5WUXYa m]b'7 UbVYffUŁ'cZhY'UbXg'k \YfY YUW'WJa di g'cZI BGK 'jg
'cWUHYX"

7ci fgY'8YHJ`g

7fYX]hDc]bHg`*`

Gi a a UfmicZ\hY'7ci fgY

Gi VYWh5fYU.`? W[St 5g`fgdWS` V FWUZ` a`aYk

H\]g`Wci fgY`dfcj]XYg`mci `k]h`Ub`cddcfh b]hmc`i bXYftU_Y`k cf_]bH[fUHx`YUfb]b[`UbX`[U]b`]bXi gHm
YI dYf]YbW`k]h`U`cgHcf[Ub]gU]cb`WcgY`mfY`UHx`hc`mci f`A U`cf`]b`A YX]Uz`7i` `h`fY`UbX`HYW`bc`c[m`Mci
a UmU`gc`Udd`mhc`k cf`_cb`UHfUW`a Ybhc]b`Ub`UWUXYa]WfYgYUfW`dfc`YWhcf`k cf_]b`Ub`YX]hc]f]U`fc`Y`Zc`f`Ub
UWUXYa]W`ci fbU`"X`YU`n`z`mci `k]`i bXYftU_Y`Ub`]bHf]bg\]d`UzHf`mci `Uj`Y`W`a d`Y`H`X`%)`m`U`fg`c`Z`Z`!`h`a`Y
gh`Xmfc`f`Yei]j`U`Y`b`h`UbX`W`a d`Y`H`X`U`a]b]a`i`a`c`Z`%`I`C`7`]b`h`Y`A`U`cf`"5`h`h`Y`Y`b`X`c`Z`h`Y`]b`H`f]bg\]d`mci
k]`d`f`c`j]X`Y`U`gi`a`a`U`h`j`Y`f`Y`d`c`f`h`c`Z`mci`f`Y`I`d`Y`f]Y`b`W`g`UbX`k`cf`_Y`I`U`a`d`Y`g`W`a`d`Y`H`X`X`i`f]b[`h`Y`]b`H`f]bg\]d`"

H\Y`]b`H`f]bg\]d`f`Yei]fYg`U`hc`U`W`a`a`]h`a`Y`b`h`c`Z`%`\$`!`%`\$`_`ci`fg`c`Z`k`cf`_k`]h`U`cg`h`c`f[Ub]gU]cb`UbX`a`Um
bcfa`U`m`V`Y`h`U`_Y`b`]b`Z`f`g`h`z`g`Y`W`b`X`c`f`gi`a`a`Y`f`g`Y`a`Y`g`h`Y`f`"b`H`f]bg\]d`c`d`d`c`f`h`b`]h`Y`g`U`f`Y`U`X`j`Y`f`h`g`Y`X`j`]U`h`Y
G`W`cc`c`Z`h`Y`5`f`g`_UbX`A`Y`X]U`b`H`f]bg\]d`B`Y`k`g`Y`H`Y`f`5`h`Y`fb`U`h`j`Y`m`mci`a`Um`U`d`d`c`U`W`U`f`Y`Y`j`Ub`h
cf[Ub]gU]cb`hc`U`d`d`m`Z`c`f`Ub`]b`H`f]bg\]d`"D`f`c`f`hc`g`Y`Y`_]b[`Ub`]b`H`f]bg\]d`z`mci`g`_ci`X`U`H`Y`b`X`Ub`]b`H`f]bg\]d`
]b`Z`c`fa`U`h`c`b`g`Y`g`g`c`b`fi`b`V`m`h`Y`G`W`cc`c`Z`h`Y`5`f`g`_UbX`A`Y`X]U`"

Hc`V`Y`Y`][]V`Y`Z`c`f`h`g`W`ci fgY`z`mci`a`i`gh`U`j`Y`U`a`]b]a`i`a`K`5`A`c`Z`+`\$`"

7ci fgY`@YUfb]b[`Ci hW`a Yg

%`_`U`j`Y`[U]b`Y`X`Y`I`d`Y`f]Y`b`W`c`Z`]b`X`i`g`h`f`m`d`f`c`W`g`g`Y`g`U`b`X`d`f`U`W`]W`g
&`"U`d`d`m`h`Y`c`f`Y`h`W`"W`b`W`d`f`g`_UbX`d`f`U`W`]W`"g`_]`g`[U]b`Y`X`]b`h`Y`d`f`c[f`U`a`hc`f`Y`U`!`k`c`f`X`W`b`h`Y`I`h`g
'`"U`j`Y`Y`b`_Ub`W`X`h`Y`]f`W`d`U`W`]m`Z`c`f`]b`X`Y`d`Y`b`X`Y`b`h`Y`b[U[Y`a`Y`b`h`k`]h`]b`X`i`g`h`f`m`d`f`c`j]X`Y`f`g`"

HYUW\]b[`G`h`f`U`H`[]Y`g`

H\]g`Wci fgY`_Ug`bc`Zcfa`U`h`Y`U`W\]b[`W`a`d`c`b`Y`b`h`"

5ggYgga Ybh

H\]g'gi VYWi]g'i b[fUXYX'gc'U'dUgg']g'XYdYbXYbhcb'GUh]gZUWc'fmfGMŁ'cf'I' bgU]gZUWc'fmfI' @Ł]b'a YYh]b[hY'Wci fgY'fYei]fYa Ybhg"5b'GM[fUXY'k]~'bchUZYWimci f'k Y][\hYX'Uj YfU[Y'a Uf_'fK 5A Ł'Vi hU': @[fUXY k]~"

7ci fgY'fYei]fYa Ybhg']bWl XY.

- 7ca d'Yh]cb'cZU'a]b]a i a 'cZ%\$\$'\ci fg'cZd'UW'a Ybh
- Gi Va]gg]cbg'cZUggYgga YbhUg_g' %/ '&'XYa cbg]fU]b['U'gYf]ci g'U]hYa dhlc'Ubgk Yf'hY'fUg_ fYei]fYa Ybhg

F Ygci fWg

DfYgW]VYX`F Ygci fWg`

H\YfY`UfY`bc`dfYgW]VYX`fYgci fWg`Zcf`h]g`Wci fgY"

F YWca a YbXYX`F Ygci fWg

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

Øf]YZmci h]bY`ack`gh`XYbhZYXVUW`fVch`Zcfa U`UbX`]bZcfa U`E`cb`hY`Wci fgY`k`J`VY`[UH\YfYXZ`ack`]h`k`J`VY`UbU`mgYX`UbX`ack`]hk`J`VY`UW`YX`i`dcb`hc`]a`dfcj`Y`hY`gh`XYbh`YUfb]b[`YI`dYf]YbW`": cf`YI`Ua`d`Yž`mci`a`][`hX]gW`gg`k`U`hik`Ug`]XYbh]ZYX`]b`dUghZYXVUW`UbX`ack`h]g`Wci`fgY`k`Ug`W`Ub[`YX`hc`UXXfYgg`hY`]ggi`Y`Q

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Gi Va]gg]cb`cZ5ggYgga YbhHUg_g

Hi fb]hb`Gi Va]gg]cb

zmc i`YbWci bhYf`U`dfcV`Ya`k` \Yb`U`H`Ya` dh]b[`hc`gi Va]hmc i`f`Ugg][ba YbhHfci [\`Hi fb]hbzd`YUgY
H`Y`d`l`cb`Y`9I`H`f`b`U`Gi` ddcfhcb`-`'` ,`)` " ` ' ` ' ` %cf`Ya` U]`H`Ya` `cb`YI`H`f`b`U`H`f`gi` ddcfh4` i` b`gk` "YXi` "Ui` "Gi` ddcfh
`l`ci` fg`UfY` ,` .`\$\$Ua` -`-%\$.`\$\$da` `cb`k` YY`_`XUmg`U`b`X`-` .`\$Ua` -`)` .`\$da` `cb`k` YY`_`YbXg`f`l` *`)` `XUmg`U`m`Y`U`f`l`" zmc i
UfY`i` bUV`Y`hc`gi Va]hmc i`f`Ugg][ba YbhXi`Y`hc`U`ZU`i`h`k`]H`Hi`fb]hb`mc i`a`Um`U`dd`m`i`Z`f`U`b`YI`H`f`b`g]cb`z`Vi`h`mc i
a`i`gh`f`Y`H]b`mc i`f`h]W`Y`h`bi`a`VY`f`Z`ca` `9I`H`f`b`U`Gi` ddcfhfU`cb[`k`]H`U`b`m`c`H`Y`f`f`Y`j`U`b`h`X`c`W`a`Y`b`h`g`l`hc
]b`W`i`X`Y`U`g`Y`j`]X`Y`b`W`hc`gi` ddcfhmc i`f`YI`H`f`b`g]cb`U`dd`]W`h]cb" zmc i`Ya`U]`9I`H`f`b`U`Gi` ddcfhmc i`k`]`
Ui`hc`a`U`h]W`U`m`f`Y`W`]j`Y`U`h]W`Y`h`bi`a`VY`f`z`Vi`h]Z`mc i`H`Y`d`l`cb`Y`mc i`k`]`b`Y`Y`X`hc`gd`Y`W`Z]W`U`m`U`g`_`Z`f`cb`Y`"
Hi`fb]hb`U`gc`d`fc`j`]X`Y`g`i`d`X`U`H`Y`g`i`cb`H`Y`j`f`g`m`g`H`Ya` `g`h`U`h`g`i`cb`H`k`]H`Y`f`"

; YbYfU`mz`UggYgga YbhHUg_g`a`i`gh`V`Y`gi`Va`]H`Y`X`Y`Y`W`f`cb]W`U`mj`]U`Y`]H`Y`f`Hi`fb]hb`cf`U`A`cc`X`Y`
Ugg][ba Ybh`H`b`]b`g`h`U`b`W`g`k` \Y`f`Y`H`L`g`]g`b`c`h`i`d`c`g`g]V`Y`Z`]h`k`]`V`Y`g`h`U`H`X`i`cb`mc i`f`W`ci`fg`Y`g`A`cc`X`Y`g`]H`Y`k`]H`
U`H`f`b`U`h]j`Y`gi`Va`]gg]cb`XY`H]`g`"

: cf`]b`Z`c`fa`U`h]cb`cb`l`ck`hc`gi Va]hUgg][ba Ybh`g`cb`]b`Y`j`]U`A`cc`X`Y` .` \`h`td`g` .`#`g`h`XY`b`h`i` b`gk` "YXi` "Ui` #`ack`!
gi Va]hUgg][ba Ybh`a`cc`X`Y`"

5 WUXYa]W<c bYghmUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i g]b[`hY`k cfXg`cf]XYUg`cZchYfg`UbX`dfYgYbh]b[`hYa `Ug`mci f`ck b" `hWUb`hU`Y`a Ubm
Zcfa gž`Zca `XY`]VYfUHY`WXYU]b[`hc`UWV]XYbhU`mW`dm]b[`Zca `U`gci fW`k]h`ci hUW_bck`YX[Ya Ybh`

I BGK `[fci dg`d`U[]Uf]ga `]bhc`hY`Zc`ck]b[`WUHY`[cf]Yg.

7 cdm]b[.`i g]b[`hY`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`hY`cf][]bU`hYI hcf]XYU`k]h`ci hUW_bck`YX[]b[`hY`
gci fW`cf`i g]b[`ei chU]cb`a Uf_g" `H\]g`U`gc`Udd`]Yg`hc`]a U[YgžUfhUbX`XYg][b`dfc`YWgžUg`k Y`Ug
dfYgYbhU]cbg`k \YfY`gca YcbY`dfYgYbh]g`UbchYf`g]XYUg`cf`k cfXg`k]h`ci hWYX]h`

hUddfcdf]UHY`dUfUd`fUg]b[.`7`Ub[]b[`U`ZYk`k cfXg`UbX`d`fUgYg`k`Y`a cghmifYU]b]b[`hY`cf][]bU`
ghfi W`fY`UbX`#`f`dfc[fYgg]cb`cZ]XYUg`cZ`hY`cf][]bU`ž`UbX`]bZcfa U]cb`k]h`ci hUW_bck`YX[Ya Ybh`H\]g`U`gc
Udd`]Yg`]b`dfYgYbhU]cbg`k \YfY`gca YcbY`dUfUd`fUgYg`UbchYf`g]XYUg`cf`k cfXg`k]h`ci hWYX]hU`bX`hc
d]YW]b[`hc[YhYf`ei chYg`UbX`dUfUd`fUgYg`]bhc`U`bYk`k \c`Yž`k]h`ci hUddfcdf]UHY`fYZYfYbW]b["

7 c`i g]cb.`k cf_]b[`k]h`chYfg`Vi hdUgg]b[`cZ`hY`k cf_]Ug`U`dYfgcb`g`]bX]j]Xi U`k cf_]7 c`i g]cb`U`gc
]bWi XYg`dfcj]X]b[`mci f`k cf_]hc`UbchYf`gh`XYbhVYZc`fY`hY`Xi Y`XUHYž`cf`Zc`f`hY`di fdcgY`cZ`hY`a

- i bXYfghUbx'mci f'f][\hg'UbX'fYgdcbg]V]h]Yg'Ug'U'gh XYbhUhl BGK
- VY'Uk UfY'cZd'U[]Uf]ga ž'Wc'dmf][\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'j]b'h'Y'I BGK 'Wc a i b]m
- `cWJh'gYfj]W'g'UbX'j]bZ'fa U]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 cghcZmci f'gh X]Yg'Uhl BGK ""

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

