

EDST5457

@jhfUhi fy`F Yj jYk `]b`9Xi WUjcb

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7 ci fgY`Cj Yfj]Yk

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B Ua Y	9a U]`	5j U]`UV]`]m	@cWU]cb	D\cbY
F]WX UFX`B]YgWXY	f`b]YgWXY4 i bgk "YXi "Ui	9a U]`Zcf`Ub Uddc]bñ Ybh	; %*`A cfj Yb 6fck b	f\$&Ł`-\$*) %* &&

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9. `YXi WU]cb4 i bgk "YXi "Ui

K . \`hñdg.## k k "Uftg"i bgk "YXi "Ui #YXi WU]cb

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I B GK `5fngž8Yg][b`UbX`5fWk]fYWhi fY? Ybg]b[hcb`UbX`DUXX]b[hcb`Wla di gYg`UfY`Vi]hcb`5Vcf][]bU`
@UbXg"K Y`dUmci f`fYgdYWhg`hc`hY`6]X][U`UbX`; UX][U`dYcd`Yg`k`c`UfY`hY`7i`gfcX]Ubg`cZ`hY`gY`UbXg"
K Y`UW_bck`YX[Y`hY`5Vcf][]bU`UbX`Hc`fYg`G`fU]h`g`UbXYf`dYcd`Ygž`hY`;]fgh5i`gfcU`Ubgžk`c`gY`UbXgž
k]bXg`UbX`k`U`fYg`k`Y`U`bck`g`UfYž`UbX`dUm`fYgdYWhi`hc`hY]f`i`b]ei`Y`j`U`i`Ygž`UbX`hY]f`V`b`h]bi]b[`UbX
YbXi`f]b[`W`h`fYg`k`\\W`XYYdYb`UbX`Yb]W`hY`Z`cZci`f`bU`h]cb`UbX`W`a`a`i`b]h]Yg"

U[Y`W`ci`f`hY`gmicZ`hY`C`Z]W`cZ`hY`D`fc`J`]W`!7`UbW`c`f`bX][Ybci`g`[L`B`G`K`f`g`bX\]\[Ybci`g`g`f`U`h`l`m](#)

7ci fgY'8YHJ`g

I b]hg'cZ7 fYX]h*`

K cf_`cUX

%) \$`ci fg]bWi X]b[`WUgg`VcbUW\ci fgžfYUX]b[gžWUgg'dfYdUfU]cbžUggYgga YbžZc`ck`i d`UW]j]fYgž YHW

Gi a a UfmcZ`h`Y'7ci fgY

H\]g`Vci fgY'dfcj]XYg'mci `k]h`Ub`cddcfi b]m]hc`VcbXi W]Ub`]b]XYd]h`fYj]Yk`cZ]h`Y`]]fYfU]i fY`cb`U`hcd]WcZ]b]fYfYgž`cf`]ggi Y`fY`U]h`X`h`c`YXi W]h]cb`" `k]`YbUV`Y`mci `h`XYj Y`cd`U`XYdYf`fYZYW]j Y`UddfcUWX`h` YXi W]h]cb`UbX`dfcj]XY`U`Zci bXU]h]cb`]b`k cf_]b[`Ui`h`bca`ci`g`mk]h`[i]XUbWV`Zca`Ub`UW]XYa]W gi dYfj]gcf"

7ci fgY`@YUfb]b[`Ci h`Vca Yg

%" 7 f]h]W]`mYb[U[Y`]b`U`gVXc`Ufm]bei]fmcZfY`Yj Ubh]h`Ycfm]UbX`fYgYUfVX`]]fYfU]i fY`fY`U]h`X`h`c`U`hcd]WcZ]b]fYfYgž`cf`]ggi Y`]b`YXi W]h]cb`
&" @cW]h]Y`UbX`W]h]W]`m]fYj]Yk`h`Ycfm]UbX`fYgYUfVX`]b`h`Y`]]fYfU]i fY`fY`U]h`X`h`c`U`hcd]WcZ]b]fYfYgž`cf`]ggi Y`]b`YXi W]h]cb`
' " l`gY`Uddfcdf]U]h`g]fi W]h`fYžcf[Ub]gU]h]cb`UbX`k f]h]b[`g]m]Y`Zcf`U`]]fYfU]i fY`fYj]Yk`cb`U`hcd]WcZ]b]fYfYgž`cf`]ggi Y`]b`YXi W]h]cb`"

HYUWX]b[`G]fU]h]Y[]Yg`

F U]h]cbU`Y.

H\]g`Vci fgY`g`VY]b[`cZYfYX`h`dfcj]XY`gh`XYb]h]k]h`Ub`cddcfi b]m]hc`i bXYfU`Y`]]fYfU]i fY`fYj]Yk`]b`U`gdYW]Z]WUfYU`cZYXi W]h]cb`cZ]h`Y]f`VXc]W]h`" H\Y`Vci fgY`k]`U`gc`YbUV`Y`gh`XYb]h]h`c`XYj Y`cd`U`XYdYf`fYZYW]j Y`UddfcUWX`h`YXi W]h]cb`UbX`[]j Y`h`Ya`U`Zci bXU]h]cb`]b`k cf_]b[`Ui`h`bca`ci`g`mk]h`[i]XUbWV`Zca`Ub`UW]XYa]Wgi dYfj]gcf"

HYUWX]b[`G]fU]h]Y[]Yg.

H\Y`Vci fgY`k]`]b]h]U`mi`gY`Yi`d`]W]h]b]g]fi`W]h]cb`XYg][bYX`h`c`gh]a`i`U]h]g]h`XYb]h]h]b_]b[`VYW]i`gY`h`YfY`UfY`U`bi`a`VYf`cZ]ggi`Yg`h`U]h]g]h`XYb]h]k]`bYX`h`c`UXXfYgg`gc`h`U]h]h`Y`fYj]Yk`cZ`]]fYfU]i`fY`W]b`VYVca`Y`dfUW]W]V`Y`UbX`ZYUg]V`Y`UbX`U`gcž`[fci`d`X]gW`gg]cb`UbX`UW]j]h]Yg`XYg][bYX`h`c`]b`W]YUgY`h`Y`W]dUW]m]UbX`W]dUW]]]m]cZ]gh`XYb]h]h`Zcf`VcbXi`W]h]b[`U`]]fYfU]i`fY`fYj]Yk`"

5ggYgga Ybh

5ggYgga YbhUg_	K Y][\h	8i Y'8UH	7ci fgY'@YUfb]b[Ci hWca Yg'5ggYggYX
%"@]hYfUhi fY'fYj]Yk	%%\$!i	Bch5dd']WUVY	%ž'&ž'

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H\]g'dUfhcZhY'hUg_]g'U'Yf d]V'fYeI]fYa Ybh'

: cfa Uhj Y'ZYXVUW_dfcj]YX'cb`]bY'h'fci [\ 'A ccX'Y'cb'h'Y'Wci fgY'k YVg]h'k]h.]b'%'XUmg'cZgi Va]gg]cb"

DUfh6. "@]hYfUhi fY'fYj]Yk

@Yb[h.) \$\$\$'k cfXg

E i U']hUj Y'UbX'ei Ubh]hUj Y'ZYXVUW_dfcj]YX'cb`]bY'h'fci [\ 'A ccX'Y'cb'h'Y'Wci fgY'k YVg]h'k]h.]b'%'XUmg'cZgi Va gg]cb"

5XX]h]cbU'XYhU]`g

DUfh5. 'DfcdcgU`

Mci f'Ug_]g'hc'k f]h'U'%%\$!k cfX`"]hYfUhi fY'fYj]Yk 'dfcdcgU`"

H\Y'dfcdcgU`g\ci 'X']bWi XY'h'Y'Zc`ck]b[.

% " 5b'Uddfcdf]UHY'h]hY"

&" ÆYbh]Z]W]h]cb'cZh'Y'hcd]W

' " 9ghUV]g\ 'h'Y'ja dcfhUbvW'cZhc]W

(" 8YZ]bY'_YmiYfa g"

) " 8YgW]VY`"]hYfUhi fY'gYUfW'ghfUHY[]Yg"

*" 8YgW]VY'YI hYbhUbx'buhi fY'cZh'Y`"]hYfUhi fY'fW'ghfUHY[]Yg"

% 5b·UddfcdF]UHy`hY`-a UHX Yg:k \Uhmci f`]fYfUhi fY`fYj]Yk`]g·UVci h`
&" bfcXi W]cb`-gYhg`WcbhYI h`YI d`U]bg`k \Uhk]`VY`fYj]Yk YX`UbX`k \m]hk]`VY`fYj]Yk YX"
' " 6cXm-`W]hWU`X]gW`gg]cb`cZ`YmfYgYUfW`UbX`Z]bX]b[g`UbX`]XYbh]Z]W]h]cb`cZ[Udg`]b`hY`"]fYfUhi fY"
(" 7cbW`g]cbgZ`X]fYW]h]cbg`Zc`f`fYgYUfW`Z]a`d`]W]h]cbg`Zc`d`fUW]h]W`"
) " 5D5`ghmY`Zc`f`W]h]h]cb`UbX`fY`ZY`fY`bW]b["

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Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

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≠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`l`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`f1`*)`XUmg`U`mY`Uf2`"≠mci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`Ybhi`Xi`Y`hc`U`Zi`h`k`]h`Hi`fb]h]b`mci`i`a`Um`Udd`m`Zc`f`Ub`YI`HY`bg]cb`z`Vi`hmc`i`
a`i`gh`fY`hU]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`mci`h`Y`f`fY`Yj`Ub`h`Xc`W`a`Yb`hg`L`hc`
]b`Wi`XY`Ug`Yj`]XY`b`V`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`hc`a`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`l`cb`Y`mci`k`]`b`Y`Y`X`hc`gd`Y`W`Z]W`U`m`Ug`_`Zc`f`cb`Y`"
Hi`fb]h]b`U`gc`d`fc`j`]XY`gi`d`XU`HY`g`i`cb`h`Y]f`gmg`h`Ya`i`gh`U`h`g`i`cb`Hk`]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`cb]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`gh`U`b`V`W`g`k` \Y`fY`h`l`g`]g`b`ch`id`c`gg]V`Y`z`]h`k`]`V`Y`g`h`U`H`X`i`cb`mci`f`W`ci`fg`Y`g`A`cc`X`Y`g`]h`k`]h`
U`HY`fb`U`h]`Y`gi`Va`]gg]cb`X`Y`hU]`g`"

:`cf`]b`Z`c`fa`U`h]`cb`i`cb`l`ck`hc`gi`Va`]h`Ugg][`ba`Yb`hg`i`cb`]b`Y`j`]U`A`cc`X`Y`.\`h`d`g`#`gh`XY`b`h`i`bgk`"YXi`"Ui`#`ck`!
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 cfXg`cf`]XYUg`cZch`Yfg`UbX`dfYgYbh]b[`h`Ya `Ug`mci f`ck b``#WU]b`hU`Y`a Ubm
Zcfa gZ`Zca `XY`]VYfUHY`WXYU]b[`hc`UW]XYbhU`miWc`dm]b[`Zca `U`gci fW`k]h`ci hUW`bck `YX[`Ya `Ybh`

I BGK `[fci dg`d`U[]Uf]ga `]bhc`h`Y`Zc``ck]b[`WU]h[cf]Yg.

7cdm]b[.`I`g]b[`h`Y`gUa Y`cf`j Yfmg]a]Uf`k cfXg`hc`h`Y`cf][]bU`hY`hcf`]XYU`k]h`ci hUW`bck `YX[]b[`h`Y
gci fW`cf`i g]b[`ei`chU]cb`a Uf`g``H`g]bW] XYg`Wc`dm]b[`a`U]Yf]U`gZ`]XYUg`cf`Wc`bW]d]h]`Zca `U`Vcc`Z`Uf]h]WY`Z

5 WUXYa]WbZcfa Uh]cb

8i Y`tc`Yj`c`j`]b[`UXj`]W`VmB`GK` `<YU`h`z`gh`XYbh`g`a`i`gh`WXYW`Zc`f`i`dXU`h`X`]bZc`fa`Uh]cb`fY[`UfX]b[`cb`]bY`YUfb]b[`Zc`f`U`5`fng`z`8`Yg][`b`UbX`5`fW`X]h`W`h`fY`W`e`i`fgY`g`h`g`h`f`a`f`j`]U`A`ccX`Y`c`f`W`e`i`fgY`]bZc`fa`Uh]cb`dfcj`]XYX`Ł

: cf`YggYbh]U`gh`XYbh]bZc`fa`Uh]cb`fY`Uh]b[`tc.

- fYei`Yg`h`Zc`f`YI`h`bg]cb/
- `UH`gi`Va`]gg]cbg`[`i`]XY`]bYg/
- fYj`]Yk`c`Za`Uf_g/
- I`B`GK` `<YU`h`UbX`GUZ`h`m`d`c`]W`Yg/
- YI`Ua`]bUh]cb`dfc`W`X`i`fYg/
- gdYW]U`W`e`bg]XYfUh]cb`]b`h`Y`Yj`Ybh`c`Z`]b`Ygg`c`f`a`]gUXj`Ybh`fY/
- gh`XYbh`Ye`i`]m`UbX`X]gUV`]m/
- UbX`c`h`Y`f`YggYbh]U`UWXYa`]W]bZc`fa`Uh]cb`z`g`Y`Y

\h`d`g`#`k`k`k`"i`bgk`"YXi`"Ui`#Ufng!XYg][`b!UfW`X]h`W`h`fY`#gh`XYbh`]Z`#Ygci`fW`g`l`gi`ddc`f`h`#`d`f`c`h`W`e`g`!`[`i`]XY`]bYg`.

⇒ U[Y`7`fYX]h

GmbYf[]Yg`]b`Gci`bX`&\$%*`

7F ⇒ CG