

# MINE4250

< UfXfcW\_ 'A ]bY '8Yg][ b 'UbX ': YUg]V]`]]miDfc ^VWh

HYfa %Z &\$&&




7ci fgY'8YHJ]`g

I b]hg'cZ7fYX]h\*`

Gi a a UfmicZ`h\Y'7ci fgY

8Yj Y`cda YbhcZU'dfY!ZYUg]V`]mighi XmiZc'f'U'a YH`]]Z'fci g'a ]b]b[ 'dfc'YW'5W]j ]hYg' ]bWl XY. UggYgga YbhcZ fYgYfj Ygža YhcX'gY`YW]cbž'Umc i hUbX'cdh]a ]gUh]cb'cZgi fZJW'UbX'i bXYf[ fci bX'cdYfU]cbgž [ YchYWXb]WJ`XYg][ bžj Ybh'Uh]cb'XYg][ bždfc'YW'f]g\_ UggYgga Ybž'a ]bY'gVWYXi `]b[ žYei ]da YbhigY`YW]cbž W'ghYgh]a Uh]cbž'YW'cbca ]Wg#]bUbW'UbX'gi gh]bUV`]m'`I gY'cZa ]bY'XYg][ b'UbX'cdh]a ]gUh]cb'gcZk UfY dUW\_U[ Yg"

H\]g'Wci fgY'Wcj Yfg'h\Y'Z`ck ]b[ 'hcd]Wg.


@YUfb]b[ `Ci hWca Y	95 `GHU[ Y`%7ca dYHbWYg
UbX`UXj UbVWX`k f]hYb`UbX`cfU`Wca a i b]WU]cb`g_]`g	D9' "(žD9' ") žD9' "*"

HYUWX ]b[ `GhfUH[ ]Yg`

%` Dfc`YVW`VUgYX`YUfb]b[ .`H\]g`Wci fgY`i h`]gYg`dfc`YVW`VUgYX`YUfb]b[ `a`YhcXg`"Gh`XYb]k`j`VY`  
 [ ]`Yb`Wca`dfY\Ybg]`Y`[ fci`d`dfc`YVW`g`hc`k`cf\_`cb`"Gh`XYb]k`UfY`fYei`]fYX`hc`k`cf\_`]b`[ fci`dgž`g\UfY`  
 hY`dfc`YVW`k`cf\_`cUXž`UbX`\Uj`Y`k`YY\_`mia`YY]b`[ g`UbX`X]gW`gg]cbg`"  
 &"`E`i`Yg]cb`#5`bgk`Yf`gYgg]cbg.`Dfc`YVW`k`cf\_`k`j`VY`gi`ddcf`fYX`k`]h`k`YY\_`mE`#5`gYgg]cbg`"5`gh`XYb]k`  
 UfY`hc`U`hYbX`h`YgY`gYgg]cbg`"  
 '``;`fci`d`k`cf\_`:`fci`dg`k`j`VY`Yg]UV`]g\YX`Vm]b]gf`i`W]cbg`Zca`h`Y`Wci`fgY`Wcbj`YbcF`"9UWX`dfc`YVW`  
 k`j`\Uj`Y`U`bi`a`VYf`cZ]cd]W]cZYa`d\Ug]g`"9UWX`a`Ya`VYf`cZ]h`Y`[ fci`d`W]b`Y`YW]hc`k`cf\_`cb`U`hd]W`  
 cZ]h`Y`dfc`YVW`Vi`hU`a`Ya`VYfg`a`i`gh`fYdcf]h`Y`]f`k`cf\_`hc`h`Y`[ fci`d`cb`k`YY\_`mVUg]g`"5`dYf`fYj`]Yk`  
 k`j`\Uj`Y`hc`VY`gi`Va`]hYX`VmYUWX`h`Ua`ž`]bX]WU]b[ `h`Y`dfc`dcf]cb`cZYUWX`]bX]j`]Xi`U`[ fci`d`  
 a`Ya`VYff]g`Wcb]f]Vi`h]cb`hc`h`Y`dfc`YVW`Gca`Y`a`Uf`g`k`j`VY`hU`Yb`Zca`h`Y`i`bXYfdYfZca`]b[  
 gh`XYb]k`hc`ch`Yfg`"ZU`gh`XYb]h`a`U`Yg`bc`Wcb]f]Vi`h]cb`hc`h`Y`dfc`YVW`Z\Y#]Y`k`j`fYVW`]j`Y`nYfc`Zcf`  
 h`Uhd]fc`YVW`"  
 ("`9ZYW]j`Y`7ca`a`i`b]WU]cb.C`bY`cZ]h`Y`a`cgh`YZYW]j`Y`a`YUbg`cZ`YUfb]b[ ]`g`hc`YZYW]j`Y`m`  
 Wca`a`i`b]WU]h`k`h`U`h`Ug`VYYb`YUfbYX`"DUf]hcZ]h`Y`UggYgga`Ybh]b`h`]g`Wci`fgY`k`j`VY`XYH`fa`]bYX`Vm`  
 \ck`YZYW]j`Y`m`h`Y`fYgi`hg`UfY`Wca`a`i`b]WU]h`X`"H`Y`dfc`VW`gg`cZk`f]h]b[ `fYdcf]gž`VfU]b]g]h`fa`]b[  
 k`]h`]b`U`[ fci`dž`dYf`UggYgga`Ybž`dfYdUfU]cb`UbX`dfYgYb]h]cb`cZfYdcf]ž`fYei`]fYg`WUf]micZ`  
 h`]b\_]b[ ž`XYZ`bX]b[ `UbX`fYj`]g]b[ `U`XYg][ b`UbX`UbU`mg]b[ `h`Y`f]g\_g]b\YfYbh]b`U`dfc`YVW`"

# 5ggYgga Ybh

5ggYgga YbhUg_	K Y][ \h	8i Y'8UH	7ci fgY'@YUfb]b[ Ci hWca Yg'5ggYggYX
%"Dfc[ fYgg' bHYfj ]Yk '%	%)	\$, # \$ #&\$&\$%\$\$'DA	%ž&ž'
&"Dfc[ fYgg' bHYfj ]Yk '&	%)	\$) # \$ ( #&\$&\$%\$\$'DA	%ž&ž'
' " : ]bU'DfYgYbhU]cb	& )	&) # \$ ( #&\$&\$%\$\$'5A	%ž&ž'
(" : ]bU'<UfX'F cW_A ]bY 8Yg][ b'F Ydcfh	) \$)	\$* # \$) #&\$&\$) . \$\$'DA	%ž&ž'

5ggYgga Ybh% [Dfc[ fYgg' bHYfj ]Yk '%

GHUfhXUH. %) #&#&\$&\$%\$\$'DA

Gi Va ]gg]cb' bchYg. 'Bc'gi Va ]gg]cb' ]g'fYei ]fYXžHYUa g'a YYh]b[ ' ]g'fYei ]fYX

8i Y'XUH. \$, # \$ #&\$&\$%\$\$'DA

H\ ]g' ]g'U' [ fci d' ]bhYfj ]Yk "'5''hY' [ fci d'a Ya VYfg'a i ghVY'dfYgYbhUbX'Ubgk Yf'hY'ei Ygh]cbg'fY'Yj Ubhlc  
hY'dfc YWihUg\_'hY'dfc YWihUg\_' ]g'a ]bY'cdh]a ]gU]cb"'Gh XYbhg'a i ghdfcj ]XY'XYa cbghfU]cb'cZhY]f'ZbU'  
XYW]g]cb'cb'd]hcdh]a ]gU]cb'Vmi g]b[ 'K \ ]hY'GcZk UfY"'H\ ]g' ]bhYfj ]Yk 'a UmhU\_Y' ' \$'a ]b"'9UWX'gh XYbh  
g\ci 'X'VY'WUdUV'cZXYa cbghfU]b[ 'K \ ]hY'GcZk UfY"'Bc'UXX]h]cbU'XcW'a YbhU]cb' ]g'fYei ]fYX"'H\ ]g'  
UggYgga YbhWUb'VY'XcbY'hfci [ \ 'HYUa g'cf'ZJW'rc'ZJW'XYdYbX]b[ 'cb'hY'g]h U]cb''

5ggYgga YbhW]hYf]U

5VY'h'XYa cbghfUH'hY'i gY'cZK \ ]hY'GcZk UfY

Dfcj ]X]b[ 'U'gi Z]W]Ybhibi a VY'cZgW]bU]cg'Zcf'XYW]g]cb'a U\_]b[

;GJET†053 onitional documentation is required. This

GHUfhXUH. %) #&#&\$&&'\$\$'DA

Gi Va ]gg]cb'bcHfg. Bc'gi Va ]gg]cb ]g'fYei ]fYXžHYUa g'a YYh]b[ ]g'fYei ]fYX

8i Y'XUH. \$) #\$( #&\$&&'\$\$'DA

H\]g' ]g'U'[ fci d' ]bhYfj ]Yk "5`"hY[ fci d'a Ya VYfg'a i ghVY'dfYgYbhUbX'Ubgk Yf'hY'ei Ygh]cbg'fY'Yj Ubhlc  
hY'dfc YWñHug\_"hY'dfc YWñHug\_]g'a ]bY'XYg][ b"Gh XYbHg'a i ghdfcj ]XY'U'XYa cbghfUñcb'cZhY]f'ZbU`  
cdYb'd]hUbX'i bXYf[ fci bX'a ]bY'XYg][ b'XYW]g]cbg'Vmi g]b[ 'J i `WUb'GcZk UFY"hY]g' ]bhYfj ]Yk 'a UmH\_U' '\$

Gi Va ]gg]cb'bcHfg. F Ydcfghi Va ]gg]cb' ]g'fYei ]fYX'fbc'dU[ Y'cf'k cfX''a ]t





A UfWk		cb`hY`XYg][ b`UbX`Umci hcZcdYb`d]h/ i bXYf[ fci bX`XYg][ b`UbX`Umci h
K YY_`*.`&%A UfWk`!`&) A UfWk	Dfc`YVh	7 cb]i`Y`K`cf_`cb`hY`XYg][ b`UbX`Umci hcZcdYb`d]h/ i bXYf[ fci bX`XYg][ b`UbX`Umci h
K YY_`+.`&.`A UfWk`!`% 5df`]	Dfc`YVh	9ei`]da`YbhgY`YVW]cb`Zcf`Vcl`h`cdYb`d]hUbX i bXYf[ fci bX`a`]bY`fi`YYhg]hYz`W]dUW]mz`mdYz` YhW`E`  J`Yb]g]a`]g]a`i`U]cbz`[ fci bX`gi`ddcf]hXYg][ bZ`YhW`  : ]bU`]g]b[ `hY`XYg][ b`UbX`Umci hcZcdYb`d]h/ i bXYf[ fci bX`XYg][ b`UbX`@Umci`h`
	K`cf_g]cd	hXi`ghfmK`cf_g]cd`!`7`UX]U`A`]bY`9b[ ]bYYfg`hc` fYj`]Yk`]cb`a`]bY`XYg][ bg`
K YY_`,`(`5df]`!`,`5df]`]	5ggYgga`Ybh	Dfc[ fYgg`hYfj`]Yk`]&
K YY_`-`.`%`%5df]`!`% 5df]`]	Dfc`YVh	7`cghYgh]a`U]cb`UbX`YV`bca`]WYj`U`i`U]cb`  Gi`ghU]bUV`Y`XYj`Y`cda`Ybh`  7`Ud]hU`UbX`cdYfU]h]b[ `W`ghg]z`dfcXi`W]cb`W`ghg]z` gYbg]h]j`]miUbU`mg]g]z`B`D`J`z`YhW`  F`]g_`UbU`mg]g]z`Ybj`]fcb`a`YbhU`UbX`gcW]U`]`ja`dUW]g]z` a`]bY`Wcgi`fYz`YhW`
K YY_`%\$.`%`5df]`!`&& 5df]`]	Dfc`YVh	: ]bU`]gY`hY`dfc`YVh`k`cf_`
	DfYgYbhU]cb	8`fm`I`i`b`



Gi Va ]gg]cb 'cZ5ggYgga YbhiHUg\_g

H\Y'GWcc`\Ug'XYj Y'cdYX'U'[ i ]XY'jby'fc \Y'd'mci 'k \Yb'gi Va ]h]b[ 'U'W'i fgY'Ugg][ ba YbH'



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

Mci f`YWhi fYf`UbX`hY`l b]j Yfg]m]k ]`YI dYWhimci f]gi Va ]H`X`Ugg][ ba Ybhtg`UFY`hfi`mimci f`ck b`k cf\_"I BGK  
`Ug`j Yfm`WYUf`[ i ]XY`bYg`cb`k `Uhd`U[ ]Uf]ga `]g`UbX`ck`hc`Uj`c]X`]H`D`U[ ]Uf]ga `]g`i`g]b[ `hY`k`cfXg`cf  
]XYUg`cZchYfg`UbX`dfYgYbh]b[ `h`Ya `Ug`mci f`ck b`D`U[ ]Uf]ga `]g`U`hmdY`cZ]bhY`YWhi U`h`Y`Z`h`WUb`hU`Y  
a UbmZcfa gZ`Zca `XY`VYfUhr`WXYUhr]b[ `hc`UW`W`XYbhU`miW`dm]b[ `Zca `U`gci fW`k ]h`ci hUW`bck`YX[ Ya Ybh`  
H`Y`l b]j Yfg]m]k`Ug`UXcdh`X`Ub`YXi`W]h] Y`UddfcUW`hc`d`U[ ]Uf]ga `UbX`Ug`XYj`Y`cdYX`U`fUb[ Y`cZ  
fYgci fW`g`hc`gi ddcf]h] XYbh]g"5`h`Y`XYhU]g`cb`d`U[ ]Uf]ga ž]bWi X]b[ `gca Y`i`gYZ`fYgci fW`gZ`WUb`VY  
Zci bX`Uh`[k k k "gh XYbh`i bgk "YXi "Ui #d`U\[ \]Uf\]ga "](#)

5`A ]b]b[ `9b[ ]bYf]b[ `gh XYbh]g`UFY`fYei ]fYX`hc`W`ca`d`Y`h`U`gh XYbhXYWUfUhr]cb`Zcf`UWUXYa ]W]bhY[ ]m  
k`W`]g`ci`h]bYX`]b`h`Y`Ugg][ ba YbhW`j`Yf`g`Y`Y`h]g"6mg][ b]b[ `h]g`XYWUfUhr]cb`ž`mci `U[ fY`h`U`h`mci f`k`cf\_]g  
mci f`ck b`cf][ ]bU`k`cf\_"

žmci `bYXX`gca Y`UXX]h]cbU`gi ddcf]k ]h`mci f`k`f]h]b[ `g\_]`gZ`d`YUgY`W`b`h`U`h`Y`@YUfb]b[ `7`YbhY`cf]j ]Yk  
gca Y`cZ`h`Y`fYgci fW`g`cb`h`Y]f`k`YVg]hY. [k k k "Wi bgk "YXi "Ui "](#)H`Y`@YUfb]b[ `7`YbhY`]g`XYg][ bYX`hc`Y`d  
mci ]a`dfcj`Y`mci f`UWUXYa ]Wk`f]h]b[ `UbX`W`ca`a`i`b]W]h]cb`g\_]`g" Gca Y`gh XYbh]g`i`gY`h`Y`7`YbhY`gYf] ]W`g

5 WUXYa ]W#Zcfa Uh]cb

7 ci fgY`F Ygi `hg

: cf`XYHJ]g`cb`l BGK `UggYgga Ybhd`Wz`d`YUgY`j ]g]h [k k "gh XYbhi bgk "YXi "Ui #UggYgga Ybh](#)



K Y`UW\_bck `YX[ Y`hY`6YXY[ U`dYcd`Y`k \c`UfY`hY`hfUX]hcbU`W ghcX]Ubg`cZhY`UbXg`cb`k \]W`l B GK  
? Ybg]b[ hcb`Wla di g`lg`cW]hYX"



