

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

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!%0123!/024%506025%78390%8:%6;;26<5%  
:89%012%02!01%7/973/0%

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"#\$%&'()\*!+,-./0!,. # 10!23!4560!"#\$%&'()\*+,, -##\$&'0!

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7'8')&#1!"'+\$"'!)#(.+ -0!23!4560!./&)/#%0\$'-0!"#\$%&'()\*+,, -##\$&'0!

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96!!

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:+; '<1!\$6!8&)' -0!:\$60!&-!1&;!+%&&\*#&#!\*#<#\*#&./!#;!<\$';&)' -.!+%!  
.1'!, -&.')!; .#.';0!23!4560! I -(-&0\$&'()\*+,, -##--0!

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1 +<&!.\$&8'0!23!4560! I -(-&0\$&'!2&' -34-&/3)\*+,, -##--0!

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+>!#??245!@ABC!3D2!, >E32F!; 3432G!) EG3AEH3!\*BIA3!

@BA!3D2!) EG3AEH3!B@!, 34D0! - B6!JKLLMH9MNO!

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=9/2:%8:%<6>%;98:255895%65%!"#\$%&'#!(%/!%53;;890%8:%  
42:2!46!05(6;;2<<225%6!4%42:2!46!05(/!029?2!895(  
6;;2<<225%/!%:6?89%8:%6::/9@6!72%

AAAAAAAAAAAAAAAAAAAAAAAAAAAA!

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\*DAEG3B?D2A!"6!PE>32A!

"23HD2GMPE5QE>GB>!\*2>32A!@BA!-43IA45!

\$2GBIAH2G0!'>2ARS0!4>F!'>9EAB>C2>3!

,>E92AGE3S!B@!\*B5BA4FB!(4T!;HDBB5!

PB5@!(4T!8IE5FE>R0!JUV!,\*8!

8BI5F2A0!\*+!WUXUO!

YNUXZ![UVM\UUL!

HDAEG6TE>32A]HB5BA4FB62FI!

!

;4A4D!#6!^43GICB3B!

"23HD2GM"A22>!-43IA45!\$2GBIAH2G0!

'>2ARS0!4>F!'>9EAB>C2>345!(4T!\*5E>EH!

,>E92AGE3S!B@!\*B5BA4FB!(4T!;HDBB5!

PB5@!(4T!8IE5FE>R0!JUV!,\*8!

8BI5F2A0!\*+!WUXUO!

YLU\Z!XNVMMNNVN!

G4A4D6C43GICB3B]HB5BA4FB62FI!

./5&)-#/(/3!\$6%7%.753%\$-!8\$9!"3/(-)/3)

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**06=<2%8 :%7 8 ! 02 ! 05%**  
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**6@/7/%739/62N5%50602@2!0%8:!/!029250%**

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! # CEHE!4A2!54T!GHDBB5! ?AB@2GGBAG! TDB!4A2!2a?2A3G!E>!3D2!@E25F!B@! ?Ib5EH!54>F!  
 54T!4>F!>43IA45!A2GBIAH2G!54T6! ^ BG3!D492!TAE332>!4>F! ?Ib5EGD2F!2a32>GE925S!E>!3D2G2!  
 @E25FG6! . DABIRD!BIA!324HDE>R!4>F!GHDB54AGDE?0!T2! ?ABC B32!I>F2AG34>FE>R!B@!3D2!54T!  
 RB92A>E>R! C4>4R2C2>3! B@! @2F2A45! ?Ib5EH! 54>FG0! 4>F! 3D2! DEG3BAS! B@! 3D2! 54T\_G!  
 F2925B?C2>36!!

!

. DEG! H4G2! ?A2G2>3G! @I>F4C2>345! ` I2G3EB>G! 4bBI3! 3D2! 4FCe>EG3A43EB>! B@! 3D2!  
 #>3E` IE3E2G! #H36! \*2>3A45! 3B! 3D2! A2GB5I3EB>! B@! 3DEG! H4G2! EG! 4>! I>F2AG34>FE>R! B@! 3D2!  
 DEG3BAS!B@!3D2! #>3E` IE3E2G! #H3!4>F!3D2!C4>>2A!E>!TDEHD!@2F2A45!HB IA3G!D492!A29E2T2F!  
 3D2!2a2AHEG2!B@!<A2GEF2>3E45!FEGHA23EB>! I>F2A!3D2! #H36! . D2!4CEHE!54T! ?AB@2GGBAG!4A2!  
 I>E` I25S!GE3I432F!3B!4GGEG3!3DEG! \*B IA3!E>!A2GB5I3EB>!B@!3DEG!H4G26!!

!

<IAGI4>3! 3B! %2F6! \$6! # ??6! <6! LOY4ZYJZY ) ZMY ' Z0! 4CEHE! @E52! 3DEG! bAE2@! TE3D! 3D2!  
 HB>G2>3!B@!455! ?4A3E2G6! - B! ?4A3S\_G!HB I>G25!4I3DBA2F!3DEG!bAE2@!E>!TDB52!BA!E>! ?4A30!4>F!  
 >B! ?2AGB> 1 E>H5IFE>R!4>S! ?4A3S!BA! ?4A3S\_G!HB I>G25 1 HB>3AEbI32F!CB>2S!BA!B3D2ATEG2!  
 @I>F2F!3D2! ?A2?4A43EB>!4>F!GIbCEGGEB>!B@!3DEG!bAE2@6! #>!4??2>FEa!5EG3E>R!3D2!>4C2G!  
 B@!3D2!4CEHE!54T! ?AB@2GGBAG!EG!E>H5IF2F!4@32A!3D2!HB>H5IGEB>!B@!3DEG!bAE2@6!

**53@@690%8:%69P3@2!0%**

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. D2! #>3E` IE3E2G! #H3!B@!VOU\ !HB>@2AG! I ?B>!3D2!<A2GEF2>3!bAB4F!4I3DBAE3S!4>F!  
 FEGHA23EB>!3B! ?AB32H3! Bbc2H3G! TE3D! DEG3BAEH! BA! GHE2>3E@EH! 945I2!4>F!3B! A2G2A92! ?Ib5EH!

\$!

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3T2>3SMB>2!?A2GEF2>3G!TDB!D492!G2A92F!GE>H2!3D2!#H3!T4G!?4GG2F!B92A!VV[!S24AG!4RB0!  
2ERD322> 1 >E>2! \$2?Ib5EH4>G!4>F!>E>2! ) 2CBHA43G 1 D492! IG2F!E3!3B!2G34b5EGD!GBC2!  
VNU! ?AB32H32F!4A24G!HB92AE>R!>24A5S!VUU! CE55EB>!4HA2G!B@! ?Ib5EH!54>FG6#! +92A!3D43!  
2>3EA2! ?2AEBF0% \*B>RA2GG!D4G! >292A!4C2>F2F!E3G! ?AEC4AS!32ACG6! .B!3D2!HB>3A4AS0!  
\*B>RA2GG!D4G!B@32>!HB>@EAC2F!4>F!2a?4>F2F! ?AB32H3EB>G! ?A2GEF2>3G!D492! ?I3!E>! ?54H2!  
3DABIRD!3D2! #H36!&>F22F0!4bBI3!D45@!B@!3D2!>43EB>\_G!\X!mHABT>!c2T25n!>43EB>45! ?4AQG!  
3D43! \*B>RA2GG!D4G!52REG5432F! T2A2!@EAG3! ?AB32H32F!bS! ?A2GEF2>3G!IGE>R!3D2! #H36! -B!  
@2F2A45!HBIA3!D4G!292A!F2H54A2F!4!<A2GEF2>3E45! ?ABH54C43EB>!3B!b2!E>!9EB543EB>!B@!3D2!  
#H30!4>F!24HD!S24A0!32>G!B@! CE55EB>G!B@! ?2B?52!9EGE3!3D2G2!4A24G6! &>!GDBA30!3D2!  
#>3E`IE3E2G!#H3!D4G! ?AB92>!3B!b2!B>2!B@!3D2!CBG3!EC?BA34>3!4>F!2>FIAE>R! ?E2H2G!B@!  
?Ib5EH!54>F!52REG543EB>IE>! , 6; 6!DEG3BAS0!A2GI53E>R!E>!3D2! ?AB32H3EB>!B@!94G3!>ICb2AG!B@!  
@A4RE52!4>F!EAA2?54H24b52!A2GBIAH2G!4HABGG!3D2!HBI>3AS0!@BA!3D2!b2>2@E3!B@!@I3IA2!4G!  
T255!4G! ?A2G2>3!R2>2A43EB>G6!!!!

&>9BQE>R!3DEG!4I3DBAE3S0!<A2GEF2>3!8EF2>!EGGI2F!3TB! ?ABH54C43EB>G!A2G3BAE>R!  
824AG! '4AG!4>F! "A4>F! ;34EAH4G2M'GH454>32! -43EB>45! ^B>IC2>3G!E>! ,34D6!8B3D!4A24G!  
4A2!F2>G2!TE3D!HI53IA45!4A3E@4H3G0!4>F!3D2S!4A2!G4HA2F!3B!3D2! .AEB2G!B@!3D2!F2G2A3!  
GBI3DT2G3!A2REB>6! .D2!824AG! '4AG!&>32AM .AEB45! \*B45E3EB>!2G3EC432G!3D43!824AG! '4AG!EG!

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#!=- -!\*B>RA2GGEB>45!\$2G24AHD! ;2A9EH20!M\$%/&\$#!B /&56 -&'!)\$&O!'@-!+&%N5%%- )!+7!  
YI?F432F! :4>6!L0!LULJZ0!D33?KggGR?6@4G6BARgHAGgCEGHg\$JVXXU6?F@6!





>292A! 455BT2F! 3D2! 5E3ER43EB>! 3B! ?ABH22F! b2SB>F! 3D2! ?524FE>RG! G34R26! =- -0! -;G;0!  
B\$))\$7@5)-'')! 8/A)'-36-&H)! +))H&! 4;! ?/))0! OJN! %6XF! NXN! Y) 6\*6! \*EA6! LUVOZ0!  
B/5&'\$%&!='\$'-)!8-G\$#!>/5&0;!4;!I5)@0!XU\!%6XF!VVXL!Y) 6\*6!\*EA6!LUULZ0!<'\$@!+))H&!  
/(!. &'J);!4;!I5)@0!XV\!%6!; I? ?6!LF!VV[L!Y) 6! , 34D!LUUJZ6!8 2H4IG2!3D2!#>3E` IE3E2G!#H3!  
FB2G! >B3! ?AB9EF2! @BA! cIFEHE45! A29E2T0! @2F2A45! HBIA3G! D492! TA2G352F! TE3D! 3D2!  
494E54bE5E3S! 4>F! GHB?2! B@! >B>G343I3BAS! cIFEHE45! A29E2T! B@! <A2GEF2>3E45! CB>IC2>3!  
?ABH54C43EB>G6! . D2!) 6\*6!\*EAHIE3!\*BIA3!B@!# ??245G!D4G!F2925B?2F!4!IG2@I5!@A4C2TBAQ!  
3D43! H4>! G2A92! 4G! 4! RIEF2! @BA! 3DEG! HBIA30! HB>FIH3E>R! 4! @4HE45! A29E2T! B@! 3D2!  
?ABH54C43EB>G!@BA! ?IA25S!52R45! ` I2G3EB>G!4G!3B! TD23D2A!3D2! <A2GEF2>3!4H32F! TE3DE>!  
F252R432F!G343I3BAS!4I3DBAE3S6!%BA!B3D2A!H54ECG!3D43!EC ?5EH432!` I2G3EB>G!B@!@4H3!BA!3D43!  
C4S!E>3AIF2!E>3B!3D2!<A2GEF2>3\_G!FEGHA23EB>0!HBIA3G!D492!A2@A4E>2F!@ABC!F2HEFE>R!3D2!  
I53EC432! ` I2G3EB>!4G!3B!3D2!494E54bE5E3S!BA!GHB?2!B@!>B>G343I3BAS!cIFEHE45!A29E2T!B@!  
<A2GEF2>3E45!4H3EB>6!

. D2!H54ECG!43!EGGI2!E>!3DEG!4??245!4A2!GECe54A!E>!455!C432AE45!A2G?2H3G!3B!3D2G2!  
H4G2G!@ABC!3D2!) 6\*6!\*EAHIE3!\*BIA3!B@!# ??245G6! # ??2554>3G!4GQ!3DEG!HBIA3!3B!RB!@4A!  
b2SB>F!3D2! ?AB?2A!bBI>F4AE2G!@BA!cIFEHE45!A29E2T!4>F!3B!GIbG3E3I32!E3G!cIFRC2>3!@BA!  
3D43!B@!3D2! <A2GEF2>36! . DBG2!4ARIC2>3G!4G!3B!3D2! ?AB?2A!AB52!B@!3D2!@2F2A45!HBIA3G!  
GDBI5F!b2!A2c2H32F!B>!3D2!G4C2!b4GEG!3D43!3D2S!T2A2!E>!3D2!) 6\*6!\*EAHIE36!!

. D2!@2F2A45!RB92A>C2>3!4GQG!3DEG! \*BIA3!3B!RB!@4A3D2A!3D4>!4>S! ?A29EBIG!HBIA3!  
D4G! FB>2! E>! A2G3AEH3E>R! cIFEHE45! A29E2T0! 4>F! 3B! 4FFA2GG! D2A23B@BA2! I>A2GB592F!

!

` I2G3EB>G!B@!54T!3D43!TBI5F!D492!bAB4F!EC ?5EH43EB>G!@BA!G2?4A43EB>!B@! ?BT2AG6!&3!EG!  
>B3!>2H2GG4AS!@BA!3DEG! \*BIA3!3B!4FFA2GG!3D2G2!` I2G3EB>G6! ' 92>!E@!E3!GEC ?5S!4GGIC2G!  
3D43!5ECE32F!A29E2T!B@!3D2!<A2GEF2>3\_G!2a2AHEG2!B@!FEGHA23EB>!I>F2A!3D2!#>3E` IE3E2G!#H3!  
CERD3!b2!494E54b520!E3!H4>!A24FE5S!@E>F!3D43! # ??2554>3G!D492!@4E52F!3B!4552R2!@4H3G!  
H455E>R!3D43!FEGHA23EB>!E>3B!` I2G3EB>6!!

**69P3@2!0%**

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/K%QB##JKL%DMC% 6KDJREJDJC## 6HDS% 7''KLGC##%BT''QDCT%UFCVJWFC%FBKLEBLC%DMBD%  
LGBKD#% D''% DMC% ;GC#JTCKD% WG''BT% TJ#HGCDJ''K% D''% QG''DCHD% B% XJTC% BGGBY% ''U%  
GC#''EGHC#%BKT%UCBDEGC#%U''EKT%''K%QEWfJH%FBKT#%B#%KBDJ''KBF% I ''KE I CKD#\$%%

!

# ??2554>3G! ?IA?BA3!3B! HD4552>R2!3D2!3S?2G!B@! Bbc2H3G!3D43!H4>!b2! ?AB32H32F!  
I>F2A!3D2!#>3E` IE3E2G!#H3!4>F!3D2!GEp2!B@!3D2!A2G2A943EB>G6!#G!FEGHIGG2F!E>!CBA2!F234E5!  
@IA3D2A!b25BT0!3D2EA!H54ECG!D492!b22>!A2c2H32F!bS!292AS!HBI A3!3B!HB>GEF2A!3DBG2!EGGI2G6!  
#G!4! ?A25ECE>4AS!C4332A0!DBT292A0!# ??2554>3G!4332C ?3!3B! ?AB? !I ?!3D2EA!@54T2F!H54ECG!  
TE3D! 4>! E>HBC ?5232! 4>F! E>4HHIA432! A2HE343EB>! B@! 3D2! 52REG543E92! DEG3BAS0! TDEHD!  
CEGA2?A2G2>3G!3D2!FEGHA23EB>!RA4>32F!3B!3D2!<A2GEF2>3!bS!\*B>RA2GG6! P 2!3D2A2@BA2!G34A3!  
TE3D! b4HQRABI>F! HB>32a3! B>! 3D2! #>3E` IE3E2G! #H3! 4>F! 3D2! ?ABH2GG! 3D43! 2 ( G ) 1 ( ! ) - 1 933 80052

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NJ! , 6; 6\*6!f!XLUXUVY4Z!Y2C ?D4GEG!4FF2FZ6! . D2!?54E>!54>RI4R2!B@!3D2! #H30!C432AE455S!

I>HD4>R2F!GE>H2!2>4H3C2>30!2a32>FG!@4A!b2SB>F!4AHD42B5BREH45!4A3E@4H3G6!&>G324F0!E3!

RE92G!3D2!<A2GEF2>3!FEGHA23EB>!3B!EF2>3E@S!mBbc2H3G!B@!DEG3BAEH!BA!GHE2>3E@EH!E>32A2G3n!

3D43!T4AA4>3!?AB32H3EB>0!

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B@!3D2!&>32AEBA!4>F!3D2! " 2>2A45! ( 4>F! +@@EH26! ( 220!)5, 3\$!43!NL6! ( 4H2S!3D2>!B@@2A2F!4!

HBC ?23E>R!bE550! 1 6\$6!VVULV0!N\!"! \*B>R6!YVOUZ0!3D43!E>H5IF2F!4!C IHD!bAB4F2A!RA4>3!

B@!4I3DBAE3S!3B! ?AB32H3!A2GBIAH2G!B>! ?Ib5EH!54>F0!4I3DBAEpE>R!3D2!<A2GEF2>3!3B!

qGr23! 4?4A3! 4>F! A2G2A92! 3A4H3G! B@! ?Ib5EH! 54>F0! TDEHD! @BA! 3D2EA! GH2>EH!  
b24I3S0!>43IA45! TB>F2AG!BA!HIAEBGE3E2G0!4>HE2>3!AIE>G!BA!A25EH3G0!BA!B3D2A!  
Bbc2H3G!B@!GHE2>3E@EH!BA!DEG3BAEH!E>32A2G30!BA!G?AE>RG!B@!C2FEHE>45!BA!B3D2A!  
?AB?2A3E2G!E3!EG!F2GEA4b52!3B! ?AB32H3! 4>F! I3E5Ep2!E>!3D2!E>32A2G3G!B@!3D2!  
?Ib5EHo! 4>F! 3D2! <A2GEF2>3! GD4550! bS! ?Ib5EH! ?ABH54C43EB>0! F2H54A2! 3D2!  
2G34b5EGDC2>3!B@!GIHD!A2G2A943EB>G!4>F!3D2!5ECE3G!3D2A2B@6!

!

. D2! 54>RI4R2! 4FFA2GGE>R! mBbc2H3Gn! TE3D! GHE2>3E@EH! BA! DEG3BAEH! 945I2G! 3DIG!

4??24AG!3B!D492!BAERE>432F!E>! 1 6\$6!VVULV!CBG35EQ25S!43!3D2!A2` I2G3!B@!3D2!) 2?4A3C2>3!

B@! 3D2! &>32AEBA0! TDEHD! mT4G! ?54E>5S! G22QE>R! bAB4F! FEGHA23EB>4AS! 4I3DBAE3S! @BA! 3D2!

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\*B>RA2GG!4>F!GER>2F!bS!<A2GEF2>3! . D2BFBA2! \$BBG292536! P D2A24G!24A5E2A!92AGEB>G!B@!  
3D2! bE55! mD4F! b22>! 5ECE32F! 3B! DEG3BAEH! 4>F! ?A2DEG3BAEH! 4>3E` IE3E2G! 4>F! C4F2! >B!  
?AB9EGEB>! B@! ?AB32H3E>R!>43IA45!4A24Gq0r! s! s! s! 1 2T233! T4G! ?2AGI4F2F0! ?ABb4b5S!bS!  
B@@EHE45G!B@!3D2!&>32AEBA! ) 2?4A3C2>30!3B!bAB4F2>!DEG!FA4@3!3B!E>H5IF2!3D2! ?DA4G2!tB3D2A!  
Bbc2H3G! B@! DEG3BAEH! BA! GHE2>3E@EH! E>32A2G36\_n! ( 220! )5, 3\$! 43! [ J6! . DEG! 54>RI4R2! T4G!  
E>32>F2F! bS!E3G!FA4@32AG!3B!E>H5IF2!3D2! ?AB32H3EB>! B@!EC ?BA34>3!R2B5BREH! 4>F!B3D2A!  
>43IA45!A2GBIAH2G6!!

. D2!4H3! C4F2!H524A!3D43!GIHD! tBbc2H3G\_! T2A2!>B3!HB>@E>2F!3B!G?2HE@EH!  
E32CG!B@!4>3E` IE3S!5EQ2!4A3E@4H3G!BA!G3A!H3IA2G0!b2H4IG2! 1 2T233!GDA2TF5S!  
bBAABT2F! 54>RI4R2! @ABC! B>2! B@! 3D2! bAB4F2A! bE55G! 3D43! D4F! b22>!  
E>3ABFIH2F! E>! VOUU! 3B! 455BT! 3D2! ?A2GEF2>3! 3B! A2G2A92! ?Ib5EH! 54>F! 3B!  
?AB32H3! >B3! B>5S! tDEG3BAEH! 54>FC4AQQ\_! 4>F! tDEG3BAEH! 4>F! ?A2DEG3BAEH!  
G3A!H3IA2G0\_!bI3!45GB!tB3D2A!Bbc2H3G!B@!DEG3BAEH!BA!GHE2>3E@EH!E>32A2G36\_!

!

( 2GDS0! )5, 3\$! 43! LNW6! ^ BA2B92A0! 3D2! bE55! A2c2H32F! G3AEH3! 5ECE3G! B>! 3D2! GEp2! B@!  
CB>IC2>3G!4>F!E>G324F!HDBG2!4!CBA2!m@52aEb52! ?AB9EGEB>!3D43! ?2ACE332F!3D2!<A2GEF2>3!  
3B!2G34b5EGD!54AR2A!4A24G!E@!cIG3E@E4b52!s!s!s6n! ( 220! )53\$

!

3B!HB92A!B>5S!mA4A2!E32CGn!4>F!mFEGH4AF2F!bAB4F2A!H432RBAE2G6n! " 4A@E25F!8A6!43!XW6! . B!

3D2!HB>3A4AS0!

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CB>IC2>3! TE3D! 4G! CIHD! 54>F! 4G! C4S! b2! >2H2GG4AS! @BA! 3D2! ?AB?2A!  
?AB32H3EB>!3D2A2B@K!

!

<ABH54C43EB>! - B6!\NW0!XJ! ; 3436!XLX\!YVOU\



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\$\$!

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\$%!



!

! ^ BA2!3D4>!@E@3S!S24AG!5432A0!3D2! ; I ?A2C2!\*BIA3!D24AF!4!H4G2!E>9B59E>R! ) 29E5\_G!

1 B520!4!F22?!H492A>!E>! ) 243D!d 4552S! - 43EB>45! ^ B>I C2>3!HB>34E>E>R!4>!I>F2ARABI>F!



!

YHE3E>R!mI>4CbERIBIG!; I?A2C2!\*BIA3!?A2H2F2>3nZo! B /5&'\$%&!= '\$'-)!8-G\$#!>/5&0;!4;!

I5)@0!XU\!%6XF!VVXL0!VVX[!Y)6!\*6!\*EA6!LUULZ!Y?54E>3E@G\_!4ARIC2>3!m@4E5G!4G!4!C4332A!

B@!54T!E>!5ERD3!B@!; I?A2C2!\*BIA3!?A2H2F2>3nZ6!!

**/? \$% OMC% 4\$7\$% 7JGHEJD% 7"EGD% "U% 6QQCBF##% QG"ZJTC##% U"G% UBHJBF% GCZJCX% "U%  
;GC#JTCKDJBF%QG"HFB IBDJ"K#%D"%CK#EGC%DMBD%DMC%;GC#JTCKD%BHDCT%XJDMJK%DMC%  
W"EKT#"U%#DBDED"GY%BEDM"GJDY\$%**

!

- B>2! B@! 3

!

!

*B\$*);!*8/A*)'-36-&*H*)!+))&!OJN!%6XF!43!NJU6!

\$\*!

!

<A2GEF2>3\_G! FEGHA23EB>6n! *B* /5&'\$%&! = '\$'-)E! XU\! %6XF! 43! VVX\! Y7% '%&G! . @\$6A-3! /(!

. /66-37-!4;! ?-%7@0! [J!%6XF!VXLL!Y)6\*6! \*EA6!VOO\ZZ6! \$25SE>R!B>! ?-%7@0!3D2! )6\*6!

\*EAHIE3!\*



!

&>!4!HBC?4>EB>!H4G20!D5#\$3-!. /5&'J

\$,!

!

4! ?BA3EB>! B@! 3D2! ^ B>I C2>3! 3D43! 54HQG! 3D2! >43IA45! A2GBIAH2G! 4>F! 2HBGSG32CG! 3D2!  
<A2GEF2>3!GBIRD3!3B!?AB32H36n!2O6!43!NJ J6(!!!

. D2! ;I?A2C2! \*BIA3! F2>E2F! 3D2! ?54E>3E@@G\_! ?23E3EB>! @BA! H2A3EBA4AE6! B\$));!  
8/A)'-36-&H)!+))H&!4;! ?\$%6 /&O/0!VJV! ;6!\* 36!O [O!YLULVZ6!# ??2554>3G!D2A2!?54H2!RA243!  
T2ERD3!B>!4!G2?4A432!mG3432C2>3n!3D2! \*DE2@!: IG3EH2!@E52F!45B>R! TE3D!3D2!F2>E456! = - -0!  
-;G;0! " 4A@E25F!8A6!43!X6!8 I3!3D2! \*DE2@!: IG3EH2!HB>HIAA2F!E>!3D2!F2>E45!B@!H2A3EBA4AE!Y4G!  
FEF!455!3D2!B3D2A!: IG3EH2GZ!4>F!>B32F!3D2! ) 6\*6! \*EAHIE3! \*BIA3\_G!DB5FE>R!m3D43!?23E3EB>2AG!  
FEF!>B3!?524F!GI@@EHE2>3!@4H3G!3B!4GG2GG!3D2EA!H54EC!3D43!3D2! ^ B>I C2>3n!EG!E>HB>GEG32>3!  
TE3D! 3D2! mGC4552G3! 4A24! HBC?43Eb52n! ?AB9EGEB>! E>! 3D2! #>3E` IE3E2G! #H36! B\$));!

!

'GH454>32! - 43EB>45! ^ B>I C2>3G6! . D2S!4552R2!<A2GEF2>3!8EF2>lm2aH22F2F!DEG!G343I3BAS!

4;! <&%'-O! = '\$'- )0! L[O! %6XF! VLVJ0! VLLO! YVU!"! \*EA6! LUULZ! Y7% '%&G! <&%'-O! D3%A-! /(!  
=@\$9&- -!2&O%\$&)/4;! <&%'-O! = '\$'- )0! LNX! %6XF! NJX0! NJW! YVU! \*EA6! LUUVZZ6! <# '3\$! 4%3- )!  
A29E2T! FB2G! >B3! 2a32>F! 3B! HD4552>R2G! 3B! mt4>! E>HBAA2H3! F2HEGEB>! 4G! 3B! 54T! BA! @4H36\_n!  
206! Y` IB3E>R! 8\$3)/&! 4;! 1 / 6 - ) %7! F! > /3- %G&! . / 6 6 -37-! . /3, ;0! XX[! , 6; 6! \WL0! \ON!  
YVOJOZZ6!!

. DIG0! I>F2A! 3D2! @A4C2TBAQ! GIRR2G32F! D2A20! HBI A3G! H4>! HB>FIH3! 4! @4HE45! A29E2T!  
B@! 4! CB>IC2>3! ?ABH54C43EB>! 3B! 4FFA2GG! 4552R43EB>G! 3D43! 3D2! <A2GEF2>3! F2GER>432F!  
Bbc2H3G! B>! ?AE9432! BA! G3432! 54>F! 3D43! EG! >B3! mBT>2F! BA! HB>3AB552F! bS! 3D2! @2F2A45!  
RB92A>C2>36n)! . D2S! H4>! 45GB! 4FFA2GG! 4552R43EB>G! 3D43! 3D2! <A2GEF2>3! GDAI>Q! BA!  
25ECE>432F! 4! >43EB>45! CB>IC2>30! 3D2A2bS! 4H3E>R! E>! 2aH2GG! B@! 3D2! 4I3DBAE3S! RA4>32F! 3B!  
3D2! B@@EH2! bS! \* B>RA2GG\*! #>F! 3D2S! H4>! 45GB! HB>GEF2A! 4552R43EB>G! 3D43! 3D2! <A2GEF2>3!  
4H32F! E>! HB>3A492>3EB>! B@! B3D2A! 4? ?5EH4b52! @2F2A45! 54T6+! ' 4HD! B@! 3D2G2! 2a4C ?52G!  
TBI5F! b2! A2GB592F! 4G! 4! C4332A! B@! 54T! B>! 3D2! @4H2! B@! 3D2! ?ABH54C43EB>6! &>! 24HD! H4G2!  
3D2! HBI A3! TBI5F! ?54S! 4! 5ECE32F! AB52! E>! 2>GIAE>R! 3D43! 3D2! <A2GEF2>3! 4H32F! TE3DE>! 3D2!

\_\_\_\_\_!  
)! ; 220! -; G; 0! <&%'-O! = '\$'- )/4;! . \$#%( /3&%\$0! JX\! , 6; 6! XL! YVO[ WZ6!  
\*! . DEG! EG! 3D2! H54EC! G3E55! ?2>FE>R! b2@BA2! 3D2! ) 6\*6! ) EG3AEH3! \*BIA3! E>! 3D2! H4G2G!  
HD4552>RE>R! <A2GEF2>3! . AIC?\_G! ?ABH54C43EB>G! GDAE>QE>R! 824AG! ' 4AG! 4>F! " A4>FM  
; 34EAH4G2! ' GH454>32! - 43EB>45! ^ B>IC2>3G6! C / , %! D3%A -E! - ' ;! \$#! 4;! D356 , E! - ' ;! \$#! 0!  
\*B>GB5EF432F! \*4G2G! - B6! VKV [MH9MULNOU! Y ) 6\*6! ) EG36! \*36Z6!!!!  
+! = - -0! -; G; 0! + 6 -3%7\$&! >/3- )! ? - ) /537- )! . /5&7%#! 4;! <&%'-O! = '\$'- )0! [ [! %6J!"! [W [! Y ) 6\*6!  
\*EA6! LULXZ6! B53 , @J! . /; 4;! IO- &0! \N! %6J!"! !VVLL! YO!"! \*EA6! LULXZ6!

!

G343I3BAS!4I3DBAE3S! ?AB9EF2F!bS! \*B>RA2GG!E>!3D2! #>3E` IE3E2G! #H3!4>F!FEF!>B3!4H3!E>!  
H524A!9EB543EB>!B@!G343I3BAS! ?ABDEbE3EB>G6#·!!

. DEG! 5ECE32F! GHB?2! B@! A29E2T! ?AB?2A5S! A2G?2H3G! 3D2! FEGHA23EB>! RA4>32F! bS!  
\*B>RA2GG!3B!3D2! <A2GEF2>36!%2F2A45!HBIA3G!4A2!2G?2HE455S!G2>GE3E92!3B!mGIbG3E3I3qE>R!  
3D2EAr!cIFRC2>3!@BA!3D43!B@!3D2!<A2GEF2>30!s!s!s!E>!4>!4A2>4!E>!TDEHD!3D2!HB>RA2GGEB>45!  
E>32>3! CBG3! H524A5S! C4>E@2G3! EG! s! s! s! 3B! F252R432! F2HEGEB>MC4QE>R! 3B! 3D2! GB I>F!  
FEGHA23EB>! B@! 3D2! <A2GEF2>36n! <'\$@! +))H&! /(! . &'J);0! XV\! %6! ; I? ?6! LF! 43! VVW\6!  
# ? ?2554>3G\_IGIRR2G3EB>!3D43!5# '3\$!4%3- )!A29E2T !EG!4!mG34>F4AF!C2HD4>EGCn!@BA!cIFEHE45!  
A29E2T0!B>2!3D43!455B TG!4!HBIA3!3B!A29E2T!3D2!<A2GEF2>3\_G!E>32A?A2343EB>!B@!G343I3BAS!  
32ACG!2>3AIG32F!3B!DEG!FEGHA23EB>0!TBI5F!I ?G23!3DEG!F25EH432!b454>H2!4>F!FEGA2G?2H3!3D2!  
G2?4A43EB>!B@! ?BT2AG6! B /5&'\$%&!='\$'- )!8-G\$#!>/5&0;0!XU\!%6XF!43!VVXN6!!

! . D2! %2F2A45! F2@2>F4>3G! TBI5F! RB! HB>GEF2A4b5S! @IA3D2A! 3D4>! 4>S! B@! 3D2!  
#>3E` IE3E2G! #H3!F2HEGEB>G!FEGHIGG2F!D2A2!E>!5ECE3E>R!cIFEHE45!A29E2T!B@!<A2GEF2>3E45!  
?ABH54C43EB>G! I>F2A! 3D2! #>3E` IE3E2G! #H36! . D2S! b4G2! 3D2EA! H54ECG! B>! GB92A2ER>!  
ECCI>E3S!4>F!4ARI2!3D43!3D2!5# '3\$!4%3- )!FBH3AE>2!GEC ?5S!FB2G!>B3!4? ?5S!3B!G343I3BAS!

\_\_\_\_\_!  
#·! . DEG!EG!45GB!3D2!4??AB4HD!3B!cIFEHE45!A29E2T!4FB?32F!bS!3D2! ) EG3AEH3!B@! , 34D!E>!3D2!  
H4G2! 3D43! HD4552>R2F! 3D2! BAERE>45! ?ABH54C43EB>! 2G34b5EGDE>R! " A4>F! ; 34EAH4G2M  
' GH454>32! - 43EB>45! ^ B>IC2>36! <'\$@! +))H&! /(! . &'J);0! XV\! %6! ; I? ?6! XF! 43! VV [L!  
YHD4552>RE>R! <ABH54C43EB>! \OLU!Y\ V! %2F6! \$2R6! NU0LLX! Y ; 2?36! LX0! VOO\Z! Ymb2SB>F!  
GIHD!4!@4HE45!A29E2T!3D2!HBIA3!EG!>B3! ?2ACE32F!3B!RBnZ!Y7%'%&G! I \$#' /&0!NVV! , 6 ; 6!43!  
J\Lo!>3\$& :#%&!4;! B \$))\$7@5) - '' )0!NUN! , 6 ; 6! [ WW!YVOOLZZ6!&>!E3G!B ?E>EB>!E>!3DEG!H4G20!3D2!  
FEG3AEH3!HBIA3!FEF!>B3!4FFA2GG!3D2!4??AB4HD!3B!cIFEHE45!A29E2T!@B55BT2F!E>!<'\$@!+))H&!  
/(! . &'J)6!!!



!

# ??2554>3G\_!G2HB>F! ?AEC4AS!H54EC!EG!3D43!3D2!CB>I C2>3G!4A2!>B3!5ECE32F!3B!3D2!  
mGC4552G3!4A24!HBC ?43Eb52!TE3D!3D2! ?AB ?2A!H4A2!4>F!C4>4R2C2>3!B@!3D2!Bbc2H3G!3B!b2!  
?AB32H32F6n!!NJ! , 6 ; 6 \* 6! f!XLUXUVYbZ6! . D2!54>RI4R2!mA2@2AAE>R!3B!3D2! ?AB ?2A!H4A2!4>F!  
C4>4R2C2>3n! 92G3G! bAB4F! FEGHA23EB>! 3B!3D2! <A2GEF2>36! &>F22F0! E3! EG! FE@@EH!53! 3B!G22!  
DBT!4!@2F2A45!HBIA3!HB I5F!A29E2T!4! ?A2GEF2>3E45!F232ACE>43EB>!4bBI3! TD43!QE>F!B@!  
mH4A2!4>F!C4>4R2C2>3n!EG!m?AB ?2An!TE3DBI3!GEC ?5S!GIbG3E3I3E>RIE3G!cIFRC2>3!@BA!3D43!  
B@!3D2!<A2GEF2>36! . D2!32a3G!B@!3D2! ?ABH54C43EB>G!H524A5S!F2CB>G3A432!3D43!E>!G233E>R!  
3D2!bBI>F4AE2G!B@!3D2!3TB!CB>I C2>3G!E>!` I2G3EB>0!3D2!<A2GEF2>3!H4A2@I55S!HB>GEF2A2F0!  
E>! RA243! F234E50! 3D2! 54AR2! >I Cb2A! B@! Bbc2H3G! 3D2! ?ABH54C43EB>! EF2>3E@E2F! 4>F! 3D2!  
2a32>GE92! R2BRA4 ?DEH! 4A24! C4>S! B@! 3D2C! HB92A2F6! . DEG! C4Q2G! E3! Bb9EB IG! D2! T4G!  
4H3E>R!TE3DE>!3D2!4I3DBAE3S!\* B>RA2GG!F252R432F!3B!DEC!I>F2A!3D2!#>3E` IE3E2G!#H36!=- -0!  
-,G;0!<ABH54C43EB>!VU0LWN!43!L!Ym3D2!A2G2A943EB>!F2GHAEb2F!b25BT!EG!3D2!GC4552G3!4A24!  
HBC ?43Eb52! TE3D! 3D2! ?AB ?2A! H4A2! 4>F! C4>4R2C2>3! B@! 3D2! Bbc2H3G! B@! DEG3BAEH! 4>F!  
GHE2>3E@EH!E>32A2G3!>4C2F!E>!3DEG! ?ABH54C43EB>!4>F!<ABH54C43EB>!ONNWnZ6!

^ BA2!G?2HE@EH!3B!3DEG!H4G20!DBT292A0! # ??2554>3G!D492!@4E52F!3B!G23!@BA3D!4>S!  
4552R43EB>G! B@! @4H3! 3D43! TBI5F! 3AERR2A! 3D2! ` I2G3EB>! B@! TD23D2A! cIFEHE45! A29E2T! EG!  
494E54b526! B\$));! 8/A)'-36-&H)! +))&60! OJN! %6XF! 43! NJJo! B /5&'\$%&! ='\$'-)! 8-G\$#!  
>/5&O;0!XU\!%6XF!43!VVX[!Y?54E>3E@@!m?A2G2>3G!3D2!HBIA3! TE3D!>B!BHH4GEB>!3B!F2HEF2!  
3D2! I53EC432!` I2G3EB>!B@!3D2!494E54bE5E3S!BA!GHB?2!B@!cIFEHE45!A29E2TnZo!D5#\$3-! . 'J;0!  
XU\!%6XF!43!VVJL!Y?54E>3E@@\_G!4552R43EB>G!4A2!4!m52R45!HB>H5IGEB>!HB IHD2F!4G!4!@4H3I45!

!

4552R43EB>nZ6!&>!3DEG!H4G20!# ??2554>3G\_mGC4552G3!4A24!HBC?43Eb52n!4ARIC2>3!F2?2>FG!  
TDB55S! I?B>! 3D2EA! 4ARIC2>3! 3D43! 3D2! <A2GEF2>3! ?AB32H32F! E>25EREb52! Bbc2H3G6! =--!  
" 4A@E25F! # C6! \*BC?6! 43! [[6! # ??2554>3G! GIRR2G3! 3D43! B>5S! m4! GC455! >ICb2A! B@!  
EF2>3E@E2F!E32CGn!C4S!m5EQ25S!` I45E@Sn!@BA!?AB32H3EB>0!%O6!43!?4A4!XLV0!4>F!3D2>!@4E5!3B!  
4552R2!4>S!G?2HE@EH!4552R43EB>G!A2R4AFE>R!?AB?2A!H4A2!4>F!C4>4R2C2>3!B@!3D2!Bbc2H3G!  
4H3I455S! E>H5IF2F! E>! 3D2! ?ABH54C43EB>G6! ;ECE54A5S0! 3D2S! 4552R2! R2>2A455S! 3D43! 4!  
A2G2A943EB>!CIG3!b2!5ECE32F!3B!4!GEp2!m@ABC!4!@2T!4HA2G!3B!4!@2T!3DBIG4>F!4HA2G0n!%O6!  
43! [W!?4A4!XLW

%)!



!

\$2G?2H3@I55S!GIbCE332F!3DEG!V\3D!F4S!B@!:4>I4AS!LULJ6!%

!

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! ! ! ! ! !

X)X! . @3%)'/ , @-3!K;!L%&' -3!

\*DAEG3B?D2A! " 6! P E>32A!

" 23HD2GM P E5QE>GB>! \*2>32A!@BA! - 43IA45!

\$2GBIAH2G0! ' >2ARS0!4>F! ' >9EAB>C2>3!

, >E92AGE3S!B@!\*B5BA4FB!( 4T! ; HDBB5!!

P B5@!( 4T!8 IE5FE>R0!JUV! , \* 8!

8BI5F2A0!\* +!WUXUO!

YNUXZ![ UVM\UUL!

HDAEG6TE>32A ] HB5BA4FB62FI!!

!

X)X!=\$3\$@!+;!B\$')56//!!

;4A4D!#6! ^ 43GICB3B!

" 23HD2GM " A22>! - 43IA45!\$2GBIAH2G0! ' >2ARS0!

!

6 ; ; 2 ! 4 / ] ^ % < / 5 0 % 8 : % 6 @ / 7 / % < 6 > % ; 9 8 : 2 5 5 8 9 5 %

!

^ 4AQ! ; 6! ; ` IE554H2!

\$ 4 ? D 4 2 5 ! : 6 ! ^ B G 2 G ! < A B @ 2 G G B A ! B @ ! - 4 3 I A 4 5 ! \$ 2 G B I A H 2 G ! ( 4 T !

, > E 9 2 A G E 3 S ! B @ ! \* B 5 B A 4 F B ! ( 4 T ! ; H D B B 5 !

!

: B D > ! ) 6 ! ( 2 G D S !

) E G 3 E > R I E G D 2 F ! < A B @ 2 G G B A ! ' C 2 A E 3 I G !

, > E 9 2 A G E 3 S ! B @ ! \* 4 5 E @ B A > E 4 ! \* B 5 5 2 R 2 ! B @ ! 3 D 2 ! ( 4 T ! ; 4 > ! % A 4 > H E G H B !

!

8 A 2 3 ! 8 E A F G B > R !

< A B @ 2 G G B A ! B @ ! ( 4 T !

P E 5 5 E 4 C ! ; 6 ! 8 B S F ! ; H D B B 5 ! B @ ! ( 4 T 0 ! , > E 9 2 A G E 3 S ! B @ ! - 2 9 4 F 4 0 ! ( 4 G ! d 2 R 4 G !

!

: B D > ! ' 6 ! 8 B > E > 2 ! !

8 6 8 6 ! x 5 E Q G ! < A B @ 2 G G B A ! B @ ! ( 4 T ! !

, > E 9 2 A G E 3 S ! B @ ! + A 2 R B > !

!

- E H D B 5 4 G ! ; 6 ! 8 A S > 2 A !

# G G B H E 4 3 2 ! < A B @ 2 G G B A ! B @ ! ( 4 T !

: B D > ! < 6 ! ( 4 b B A F 2 ! ' > F B T 2 F ! < A B @ 2 G G B A G D E ? ! E > ! ' > 2 A R S ! ( 4 T !

< 4 I 5 ! ^ 6 ! 1 2 b 2 A 3 ! ( 4 T ! \* 2 > 3 2 A 0 ! ( B I E G E 4 > 4 ! ; 3 4 3 2 ! , > E 9 2 A G E 3 S !

!

# 5 2 c 4 > F A B ! ' 6 ! \* 4 C 4 H D B !

\* D 4 > H 2 5 5 B A \_ G ! < A B @ 2 G G B A ! B @ ! ( 4 T ! !

% 4 H I 5 3 S ! ) E A 2 H 3 B A 0 ! \* 2 > 3 2 A ! @ B A ! ( 4 > F 0 ! ' > 9 E A B > C 2 > 3 0 ! 4 > F ! - 4 3 I A 4 5 ! \$ 2 G B I A H 2 G !

, > E 9 2 A G E 3 S ! B @ ! \* 4 5 E @ B A > E 4 0 ! & A 9 E > 2 !

!

\* D 2 5 G 2 4 ! \* B 5 T S > !

# F c I > H 3 ! < A B @ 2 G G B A !

!

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!

!

\$Bb2A3! ( 6! " 5EHQGC4>!

:686! y! ^ 4IAEH2!\* 6! ; D4?EAB!<AB@2GGBA!B@! ' >9EAB>C2>345! (4T!

%4HI53S! ) EA2H3BA0! ' >9EAB>C2>345!4>F! ' >2ARS! (4T!<ABRA4C!

. D2! " 2BAR2! P 4GDE>R3B>! , >E92AGE3S! (4T! ; HDBB5!

!

;4C! x 452>!!

P E55E4C! . 6! ; HDT4A3p! ) EG3E>RIEGD2F!<AB@2GGBA!B@! (4T!

, >E92AGE3S!B@! P SBC E>R! \* B552R2!B@! (4T!

!

#52a4>FA4! 86! x 54GG!

:4C2G! " 6! ) 2R>4>!<AB@2GGBA!B@! (4T!

, >E92AGE3S!B@! ^ EHDR4>! (4T! ; HDBB5!

!

#5b2A3! (E>!

<AB@2GGBA!B@! (4T!

, \*!) 49EG! ; HDBB5!B@! (4T!

!

!

1 243D2A!<4S>2!

<AB@2GGBA!B@!(4T!

;23B>!1 455! , >E92AGE3S! ;HDBB5!B@!(4T!

!

7SRCI>3!:686!<5432A!

<AB@2GGBA!4>F!\* BBAFE>43BA!B@!8 \*!(4>F!y!'>9EAB>C2>345!(4T!<ABRA4C!O6-3%'5)!

8BG3B>!\* B552R2!(4T! ;HDBB5!!

!

:4CE2!<52I>2!

#GGBHE432!<AB@2GGBA!B@!(4T!Y\$2G24AHDZ!y!P 4554H2! ;32R>2A!\* 2>32A!\$2G24AHD!%255BT!

, >E92AGE3S!B@! , 34D0! ;6:6!wIE>>2S!\* B552R2!B@!(4T!

!

)4>!:6!\$DB5@!

<AB@2GGBA!B@!(4T!

(2TEG!4>F!\* 54AQ!(4T! ;HDBB5!

!

-EHDB54G!#6!\$BbE>GB>!

"E5b2A3!y! ;4A4D!x 2A5E>!<AB@2GGBA!B@!'>9EAB>C2>345!(4T!O6-3%'5)!

!

) 49EF!#6! P 2G3bABBQ!!

( BIEG!#6! ) 25!\*B33B!<AB@2GGBA!

\*BM ) EA2H3BA0! - / \*!<ABRA4C!E>!%E>4>H2!y!(4T!

, >E92AGE3S!43!8 I@@45B!; HDBB5!B@!(4T!Y; , - / Z!

!

^ 4AS!\*DAEG3E>4! P BBF!

<DE5E?! 1 6! x >ERD3!<AB@2GGBA!

%4HI53S! ) EA2H3BA0! ' >9EAB>C2>345!4>F! - 43IA45!\$2GBIAH2G!(4T!\*2>32A!

, >E92AGE3S!B@!+A2RB>!; HDBB5!B@!(4T

!

7 2 9 0 / : / 7 6 0 2 % 8 : % 7 8 @ ; < / 6 ! 7 2 %

%

V6 . DEG!FBHIC2>3!HBC?5E2G!TE3D!3D2!3S?2M9B5IC2!5ECE3G!B@!%2F2A45!

\$ I52!B@!#??255432!<ABH2FIA2!LOY4ZYNZ!b2H4IG2!3DEG!FBHIC2>3!HB>34E>G!\0JNU!

TBAFG6!

L6 . DEG! FBHIC2>3! HBC?5E2G! TE3D! 3D2! 3S?2@4H2! A2` IEA2C2>3G! B@!

%2F2A45!\$ I52!B@!#??255432!<ABH2FIA2!XLY4ZYNZ!4>F!3D2!3S?2MG3S52!A2` IEA2C2>3G!

B@!%2F2A45!\$ I52!B@!#??255432!<ABH2FIA2!XLY4ZY\Z!b2H4IG2!3DEG!FBHIC2>3!D4G!

b22>! ?A2?4A2F! E>! ?AB?BA3EB>455S! G?4H2F! 3S?2@4H2! IGE>R! ^ EHABGB@3! P BAF! BA!

+@@EH2!X\N!E>!VJM?BE>3! . EC2G! - 2T!\$BC4>6!

!

X)X! \*DAEG3B?D2A!" 6! P E>32A! !

!

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&%!

!

!

**7290/:/7602%8:%529?/72!**

! &!H2A3E@S!3D43!B>!:4>I4AS!V\0!LULJ0!3D2!@BA2RBE>R!T4G!252H3AB>EH455S!@E52F!

3DABIRD!3DEG!\*BIA3\_G!\* ^ g ' \*%!GSG32C0!TDEHD!TE55!G2>F!4!>B3EH2!B@!@E5E>R!3B!455!

A2REG32A2F!IG2AG6!

! ! ! ! !

! X)X! \*DAEG3B?D2A!"6!PE>32A! !

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