

C: LH 8DGEDG6 I>DC

;DGB ,+(F
I 67A: D; 8DCI: CIH

GRXV

GRce @* =Z_R_TZR] @_W`c^ReZ`_

@eV^ -* =Z_R_TZR] JeReV^V_ed

: ` _d` JZUReVU JeReV^V_ed `W FaVcReZ`_d W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , R_U . . , -5
%f_RfUZeVU&

: ` _d` JZUReVU JeReV^V_ed `W : ` ^ acVYV_dZgV @_T` ^V %C`dd& W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . ,
R_U . . , -5 %f_RfUZeVU&

: ` _d` JZUReVU 9R]R_TV JYVved Rd `W JVaeV^SVc /,(. . . , %f_RfUZeVU& R_U Af_V /,(. . . , %RfUZeVU&

: ` _d` JZUReVU JeReV^V_ed `W : RdY =]` h d W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , R_U . . , -5
%f_RfUZeVU&

E`eVd e` eYV L_RfUZeVU : ` _d` JZUReVU =Z_R_TZR] JeReV^V_ed

XV

.
/
0
1
2

E6GI >

>I: B ,) ;>C6C8>6A HI 6 I: B : CIH

C: LH 8DGEDG6 I>DC

8DCHDA>96 I: 9 HI 6 I: B : CIH D; DE: G6 I>DCH

%L_RfUZeVU7 ^Z]Z`_d(ViTVae aVc dYRcV R ^ ` f_ed&

	C_dUc	;_b dXU dXbUU]_^dXc U^TUT HU^dU] RUB .+' -++- -+,4	
		-++-	-+,4
I VgV_fVd6			
: ZcTf]ReZ`_ R_U dfSdTcZaeZ`_	!	-(, , . !	551
8 UgVceZdZ_X		// .	2,4
: ` _df ^Vc		00-	/43
I VR] VdeReV		./1	.-4
FeYVc		-,3	-/. .
K`eR] I VgV_fVd	.	.-(-3	./0,
FaVcReZ_X ViaV_dVd		%-(-20&	%-(/4&
JV]Z_X(XV_VcR] R_U RU ^Z_ZdecReZgV		%241&	%34-&
; VacVTZReZ`_ R_U R ^ ` ceZkReZ`_		%-20&	%-2.&
@ ^ aRZc ^V_e R_U cVdecfTefcZ_X TYRcXVd	/	%0,&	%.53&
<b fZej]` ddVd ` W RWWZ]ZReVd	0	%-&	%.&
@_eVcVde %ViaV_dV& Z_T` ^V(_Ve		%4&	0
FeYVc(_Ve	- .	-3	0
@_T` ^V %]` dd& SVW` cV Z_T` ^V eRi %ViaV_dV& SV_VWZe		3 .	%./.&
@_T` ^V eRi %ViaV_dV& SV_VWZe	- ,	%.1&	.-
EVe Z_T` ^V %]` dd&		03	%.-&
CVdd6 EVe Z_T` ^V ReecZSfeRS]V e` _` _T` _ec`]Z_X Z_eVcVded		%-/&	%-2&
EVe Z_T` ^V %]` dd& ReecZSfeRS]V e` EVhd : `ca` cReZ` _de` T\Y`]UVcd		! /0	! %..3&
EVe Z_T` ^V %]` dd& ReecZSfeRS]V e` EVhd : `ca` cReZ` _de` T\Y`]UVcd aVc dYRcV6	4		
9RdZT R_U UZ]feVU	!	*,2 !	%,*/5&

KYV RTT` ^ aR_jZ_X _` eVd RcV R_ Z_eVXcR] aRce `W eYVdV f_RfUZeVU T` _d`]ZUReVU WZ_R_TZR] deReV ^V_ed*

C : LH 8DGEDG6 I>DC

8DCHDA>9 6 I : 9 HI 6 I : B : CIH D ; 8DBEG : = : CH>K : >C8DB : \$ADHH%
%L_RfUZeVU7 ^Z]Z`_d&

	;_b dXU dXbUU]_^dXc U^TUT HU^dU] RUB .+' -++- -+,4	
EVe Z_T` ^V %]`dd&	!	03 ! % . --&
FeYVc T` ^acVYV_dZgV Z_T` ^V %]`dd&6		
=`cVZX_ TfccV_Tj ecR_d]ReZ` _RU[fde^V_ed	- ,3	% -41&
EVe TYR_XV Z_eYV WRZc gR]fV `W TRdY W]`h YVUXVd ^{Rk}	% .&	% -0&
9V_VWZe a]R_ RU[fde^V_ed(_Ve ^{Sk}	4	--
FeYVc T` ^acVYV_dZgV Z_T` ^V %]`dd&	-- /	% -44&
: ` ^acVYV_dZgV Z_T` ^V %]`dd&	-2 ,	% /55&
CVdd6 EVe Z_T` ^V ReecZSfeRS]V e` _`_T`_ec`]]Z_X Z_eVcVded	% - /&	% -2&
CVdd6 FeYVc T` ^acVYV_dZgV %Z_T` ^V&]`dd ReecZSfeRS]V e` _`_T`_ec`]]Z_X Z_eVcVded	% -3&	01
: ` ^acVYV_dZgV Z_T` ^V %]`dd& ReecZSfeRS]V e` EVhd : `ca`cReZ`_de`T\Y`JUVCd	! - / ,	! % /3 ,&
^{Rk} EVe `W Z_T` ^V eRi SV_VWZe `W _Z] R_U !/ ^Z]Z`_W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc / , (. . . , R_U . , -5(cVdaVTeZgV]j*		
^{Sk} EVe `W Z_T` ^V eRi ViaV_dV `W !/ ^Z]Z`_W`c S`eY eYV eYcVV ^`_eYd V_UVU JVaeV^SVc / , (. . . , R_U . , -5*		
KYV RTT` ^aR_jZ_X _`eVd RcV R_ Z_eVXcR] aRce `W eYVdV f_RfUZeVU T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed*		

C: LH 8DGEDG6 I>DC

C : LH 8DGEDG6I>DC

8DCHDA>96I : 9 HI 6I : B : CIHD ; 86H= ;ADLH

C: LH 8DGEDG6I>DC

CDI:H ID I=: JC6J9>I: 9 8DCHDA>96I: 9 ;>C6C8>6A HI 6I: B : CIH

CDI: ,) 9 : H8G>EI>DC D; 7JH>C: HH 6C9 76H>H D; EG: H: CI 6I>DC

EVhd : `ca`cReZ`_ `e`XVeYVc hZeY Zed dfSdZUZRcZVd(qEVhd : `ca`cReZ`_(r qEVhd : `ca(r eYV q: `^ aR_j(r qhVr `c qfdr& Zd R X)`SR] UzgVcdZWVU ^VUZR_R_U_Z`c^ReZ`_ dVcgZTVd T`^ aR_j T`^ acZdVU `W SfdZ_VddVd RTc`dd R cR_XV `W ^VUZR(Z_T)fUZ_X6 UZXZer] cVR] VdeReV dVcgZTVd(dfSdTcaZ`_ gZUV` dVcgZTVd Z_ 8 fdecR]ZR(_Vhd R_U_Z`c^ReZ`_ dVcgZTVd_R_U S` ` \ afS]ZdYZ_X*

; fcZ_X eYV `W fceY bfRceVc `W WzdTR] . . . , (Z_ T`_ _VTeZ`_ hZeY eYV : `^ aR_j]d dR]V `W Zed EVhd 8 ^VcZTR DRc\VeZ_X cVa`ceZ_X f_Ze R_U Zed R__fR] cVgZVh `W Zed cVa`ceRS]V dVX^V_ed(eYV : `^ aR_j UVeVc^Z_VU e` UzDRXXcVXReV Zed ; `h A`_Vd `aVcReZ_X dVX^V_e Rd R dVaRcReV cVa`ceRS]V dVX^V_e_Z_RTT`cUR_TV hZeY 8TT`f_eZ_X JeR_URcU : `UZWZTReZ`_ %q8J : r& .4, (qJVX^V_e I Va`ceZ_X*r GcVgZ` fd]j(eYV WZ_R_TZR] Z`c^ReZ`_ `W c eYzD `aVcReZ_X dVX^V_e hRd RXXcVXReVU hZeY eYV SfdZ_VddVd hZeYZ_eYV EVhd DVUZR `aVcReZ_X dVX^V_e R_U(e`XVeYVc `W`c^VU eYV EVhd R_U @_`c^ReZ`_ J VcgZTVd cVa`ceRS]V dVX^V_e* =]] `hZ_X eYV dR]V `W Zed EVhd 8 ^VcZTR DRc\VeZ_X SfdZ_VddZ_eYV `W fceY bfRceVc `W WzdTR] . . . , R_U_Z`_ _[f_TeZ`_ hZeY eYV : `^ aR_jsd R__fR] S fUXVeZ_X ac`TVdd(eYV : `^ aR_j UVeVc^Z_VU eYRe RXXcVXReZ`_ hRd ` _] `XVc Raac`acZReV Rd TVceRZ`_ `W eYV cV^RZ_X SfdZ_VddVd ` _] `XVc dYRcVU dZ^Z]Rc VT`_ `^ZT TYRcRtVcZdeZTd* 8d R cVdf]e(eYV : `^ aR_j YRd cVgZdVU Zed YZde`cZTR] UZdT]`dfcVd `W`c eYV acZ`c aVcZ`U e` cVW]VTe eYV _Vh ; `h A`_Vd R_U EVhd DVUZR cVa`ceRS]V dVX^V_ed*

+; LCL H@ 6K?L?GM; MCHG

KYV RTT`^ aR_jZ_X f_RfUZeVU T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed `W eYV : `^ aR_j(hYZTY RcV cVWVccVU e` YVcVZ_Rd eYV q: `^_d`]ZUReVU =Z_R_TZR] JeReV^V_ed(r YRgV SVV`acVaRcVU Z_ RTT`cUR_TV hZeY XV_VcR]j] RTTVaeVU RTT`f_eZ_X acZ_TZa]Vd Z_eYV L_ZeVU JeReVd `W 8 ^VcZTR %q> 8 8Gr& `W`c Z_eVcZ^ WZ_R_TZR] Z`c^ReZ`_ R_U hZeY eYV Z_decfTeZ`_d e` =`c^ - ,)H R_U 8ceZT]V - , `W I VXF]ReZ`_ J)O* @_ eYV `aZ_Z`_ `W ^R_RXV^V_e(R]] RU[fde^V_ed T`_dZdeZ_X ` _] j `W`c^R] cVTfccZ_X RU[fde^V_ed _VTVddRc] `W`c R WRZc acVdV_eReZ`_ YRgV SVV`cVW]VTeVU Z_eYVdV : `^_d`]ZUReVU =Z_R_TZR] JeReV^V_ed* FaVcReZ_X cVdf]ed `W`c eYV Z_eVcZ^ aVcZ`U acVdV_eVU RcV `e`_VTVddRcZ]j Z_UZTReZgV `W eYV cVdf]ed eYRe ^Rj SV Vi aVTeVU `W`c eYV WzdTR] jVRc V_UZ_X Af_V / , (. . . - * KYV acVaRcReZ`_ `W eYV : `^ aR_jsd : `^_d`]ZUReVU =Z_R_TZR] JeReV^V_ed Z_ T`_ `W`c^Ze j hZeY > 8 8G cVbVfZcVd ^R_RXV^V_e` ^R\ V VdeZ^ReVd R_U Rddf^ aaeZ`_d eYRe RWWVTe eYV R^`f_ed eYRe RcV cVa`ceVU Z_eYV : `^_d`]ZUReVU =Z_R_TZR] JeReV^V_ed R_U RTT`^ aR_jZ_X UZdT]`dfcVd* KYV SfdZ_Vdd R_U VT`_ `^ZT f_TVceRZ_ej cVdf]eZ_X Wc`^ eYV Z^aRTed `W eYV `X`Z_X `gV] T`c`_RgZcfd %q: FM@ ;) -5r& aR_UV^ZT YRd SVV`_ T`_dZUVcVU Z_ ^R\Z_X eY`dV VdeZ^ReVd R_U Rddf^ aaeZ`_d* 8TefR] cVdf]ed T`f]U UZWWVc Wc`^ eY`dV VdeZ^ReVd*

@_eVcT`^ aR_j ecR_dRteZ`_d R_U SR]R_TVd YRgV SVV`V]Z^Z_ReVU* <bfZe j Z_gVde^V_ed Z_ hYZTY eYV : `^ aR_j ViVcTZdVd dZX_ZWZTR_e Z_W]fV_TV Sfe U`Vd `e ViVcTZdV T`_ec`] R_U Zd `e eYV acZ^Rcj SV`WVZTRcj RcV RTT`f_eVU `W`c fdZ_X eYV VbVfZe j ^VeY U* @_gVde^V_ed Z_ hYZTY eYV : `^ aR_j Zd `e RS]V e` ViVcTZdV dZX_ZWZTR_e Z_W]fV_TV `gVc eYV Z_gVdeV RcV ^VRdfcVU Re WRZc gR]fV(ZW eYV WRZc gR]fV Zd cVRUz]j UVeVc^Z_RS]V* @W R_Z_gVde^V_esd WRZc gR]fV Zd `e cVRUz]j UVeVc^Z_RS]V(eYV : `^ aR_j hZ]] ^VRdfcV eYV Z_gVde^V_e Re T`de(]Vdd R_j Z^aRZc^V_e(a]fd `c ^Z_fd TYR_XVd cVdf]eZ_X Wc`^ `SdVcgRS]V acZTV TYR_XVd `cUVc]j ecR_dRteZ`_d `W`c R_ZUV_eZTR] `c dZ^Z]Rc Z_gVde^V_e `W eYV dR^V ZddfVc*

KYV T`_d`]ZUReVU deReV^V_ed `W `aVcReZ`_d RcV cVWVccVU e` YVcVZ_Rd eYV qJeReV^V_ed `W FaVcReZ`_d*r KYV T`_d`]ZUReVU SR]R_TV dYVved RcV cVWVccVU e` YVcVZ_Rd eYV q9R]R_TV JYVved*r KYV T`_d`]ZUReVU deReV^V_ed `W TRdY W]`hd RcV cVWVccVU e` YVcVZ_Rd eYV qJeReV^V_ed `W : RdY =]`hd*r

KYV RTT`^ aR_jZ_X : `^_d`]ZUReVU =Z_R_TZR] JeReV^V_ed R_U `eVd eYVcVe` dY`f]U SV cVRU Z_ T`_ _[f_TeZ`_ hZeY eYV RfUZeVU T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed R_U `eVd eYVcVe` Z_T]fUVU Z_eYV : `^ aR_jsd 8__fR] I Va`ce`_ `c^ - ,)B `W`c eYV WzdTR] jVRc V_UVU Af_V / , (. . . , Rd W]VU hZeY eYV JVTfcZeZVd R_U <iTYR_XV : `^ ^ZddZ`_ %eYV qJ<: r& ` _ 8fXfde --(. . . , %eYV q. . . , =`c^ - ,)Br&*

: VceRZ`_cVT]RddZWZTReZ`_d YRgV SVV`^RUV e` eYV acZ`c aVcZ`U T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed e` T`_ `W`c^ e` eYV TfccV_e jVRc acVdV_eReZ`_ * JaVTZWZTR]j(eYV : `^ aR_j cVT]RddZWZVU TVceRZ`_ T`ded Re eYV FeYVc dVX^V_e eYRe hVcV acVgZ`fd]j Z_T]fUVU hZeYZ_JV]Z_X(XV_VcR] R_U RU^Z_ddecReZgV e` FaVcReZ_X ViaV_dVd* =`c eYV eYcVv ^`_eYd V_UVU JVaeV^SVc / , (. . . -5(eYVdV cVT]RddZWZTReZ`_d Z_TcVrdVU FaVcReZ_X ViaV_dVd S j ! - ^Z]Z`_*

KYV : `^ aR_jsd WzdTR] jVRc V_Ud `e eYV Jf_URj T]`dVde` Af_V / , * =ZdTR] . . . - R_U WzdTR] . . . , Z_T]fUV 1. hVV[d* 8] cVWVcV_TVd e` eYV eYcVv ^`_eYd V_UVU JVaeV^SVc / , (. . . , R_U . . . -5 cV]ReV e` eYV eYcVv ^`_eYd V_UVU JVaeV^SVc .3(. . . , R_U JVaeV^SVc .5(. . . -5(cVdaVTeZgV]j* =`c T`_gV_ZV_TV afca`dVd(eYV : `^ aR_j T`_eZ`_fVd e` UReV Zed : `^_d`]ZUReVU =Z_R_TZR] JeReV^V_ed Rd `W JVaeV^SVc / , *

7?=?GWER 0LLN?> *==HNGMCGA 6KHGHNG=?F?GML

-HSTXIH

@_Af_V . , -2(eYV =Z_R_TZR] 8TT` f_eZ_X JeR_URcUd 9`RcU %q=8J9r& ZddfVU 8TT` f_eZ_X JeR_URcUd LaUReV %q8JLr& . , -2)-/(

CDI: -)G:K:CJ:H

DdXUb bUfU^eU TtS\cebUc

KYV : `^ aR_j e j aZTR]]j ViaV_dVd dR]Vd T` ^ ^ ZddZ`_d Z_TfccVU e` `SeRZ_R Tfde` ^ Vc T` _ecRTe Rd eY`dV R`^` f_ed RcV Z_TfccVU Rd eYV R`^` ceZkReZ`_ aVcZ`U Zd -. ^` _eYd `c]Vdd* KYVdV T` ded RcV cVT` cUVU hZeYZ_ JV]]Z_X(XV_VcR] R_U RU ^Z_ZdecReZgV Z_ eYV JeReV ^V_ed `W FaVcReZ`_d* KYV : `^ aR_j R]d` U` Vd _`e TRaZeR]ZkV dZX_ZWZTR_e WZ_R_TZ_X T` ^ a` _V_ed hYV_ eYV ecR_dWVc `W eYV X` `U `c dVcgZTV Zd aRZU hZeYZ_ -. ^` _eYd `c]Vdd(`c eYV cVTVZae `W T` _dZUVcReZ`_ Zd cVTVZgVU hZeYZ_ -. ^` _eYd `c]Vdd `W eYV ecR_dWVc `W eYV X` `U `c dVcgZTV*

=`c eYV eYcVV ^` _eYd V_UVU JVaeV^SVc /,(. . . ,(eYV : `^ aR_j cVT` X_ZkVU Raac` iZ^ReV]j !53 ^Z]]Z`_ Z_ cVgV_fVd cV]ReVU e` aVcW`c^R_TV `S]ZXReZ`_d eYRe hVcV dReZdWZVU `c aRceZR]]j dReZdWZVU Z_R acZ`c cVa`ceZ_X aVcZ`U* KYV cV^RZ_Z_X ecR_dRTeZ`_ acZTV cV]ReVU e` f_dReZdWZVU aVcW`c^R_TV `S]ZXReZ`_d Rd `W JVaeV^SVc /,(. . . hRd Raac` iZ^ReV]j !014 ^Z]]Z`_(`W hYZTY Raac` iZ^ReV]j !-31 ^Z]]Z`_ Zd ViaVTeVU e` SV cVT` X_ZkVU `gVc eYV cV^RZ_UVc `W WzdTR] . . -(Raac` iZ^ReV]j !-5 ^Z]]Z`_ Zd ViaVTeVU e` SV cVT` X_ZkVU Z_ WzdTR] . . R_U Raac` iZ^ReV]j !01 ^Z]]Z`_ Zd ViaVTeVU e` SV cVT` X_ZkVU Z_ WzdTR] . . / (hZeY eYV cV^RZ_UVc e` SV cVT` X_ZkVU eYVcVRWeVc* KYVdV R`^` f_ed U` _`e Z_T]fUV %Z& T` _ecRTed hZeY R_ ViaVTeVU UfcReZ`_ `W _`V jVRc `c]Vdd(%Z& T` _ecRTed W`c hYZTY gRcZRS]V T`_dZUVcReZ`_ Zd UVeVc^Z_VU SRdVU ` _eYV Tfde` ^Vcsd dfSdVbFV_e dR]V `c fdRXV R_U %Z&& gRcZRS]V T`_dZUVcReZ`_ R]]` TReVU e` aVcW`c^R_TV `S]ZXReZ`_d RTT` f_eVU W`c f_UVc eYV dVcZVd XfZUR_TV eYRe ^Vved eYV R]]` TReZ`_ `S[VTeZgV f_UVc 8J : 2,2(qIVgV_fV =c` ^ : ` _ecRTed NZeY : fde` ^Vcdr*

CDI : .) G:HIGJ 8 IJG>C< EGD<G6 BH

7?LMKN=INKCGA

; fcZ_X eYV eYcVV ^` _eYd V_UVU JVaeV^SVc /,(. . . , R_U . , -5(eYV : `^ aR_j cVT` cUVU cVdecfTefcZ_X TYRcXVd `W !O, ^Z]]Z`_ R_U !.O ^Z]]Z`_(cVdaVTeZgV]j(`W hYZTY !/- ^Z]]Z`_ R_U !-4 ^Z]]Z`_(cVdaVTeZgV]j(cV]ReVU e` eYV EVhd DVUZR dVX^V_e* KYV cVdecfTefcZ_X TYRcXVd cVT` cUVU Z_ WzdTR] . . - acZ^RcZ]j cV]ReV e` ViZe T` ded Rdd` TZReVU hZeY eYV R_eZTzaReVU T]` dfcV `W eYV

%Rk <bfZej ^VeY`U Z_gVde^V_ed RcV acZ^RcZ]j T` ^acZdVU `W =` ieV]sd Z_gVde^V_e Z_ EZT\V]`UV`_ 8 fdecR]ZR A`Z_e MV_efcV R_U
<]RcR KVTY_`]`XZVd GeV* CeU* %q<]RcRr&(hYZTY `aVcReVd Gc`aKZXVc*T` ^ R_U ?`fdZ_X*T` ^*

%Sk <bfZej dVTfcZzVd RcV acZ^RcZ]j T` ^acZdVU `W TVceRZ_ Z_gVde^V_ed Z_ : YZ_R R_U eYV : `^aR_jsd Z_gVde^V_e Z_ ?K#<
CZ^ZeVU(hYZTY `aVcReVd R a`ceW`]Z` `W 8 fdecR]ZR_cRUZ` R_U `feU`^c ^VUZR RddVed*

KYV : `^aR_j YRd VbfZej dVTfcZzVd hZeY bf`eVU acZTVd Z_ RTeZgV ^Rc\Ved Rd hV]] Rd VbfZej dVTfcZzVd hZeY` fe cVRUZ]j

8d`W JVaeV^SVc /,(. . .,(eYV =`ieV] ;VSe >c`fa YRU f_UcRh_T` ^ ^Ze^V_ed`W 8!51 ^Z]]Z` _f_UVc eYVdV WRTZ]ZeZVd W`c
hYZTY Ze aRjd R T` ^ ^Ze^V_e WVV `W O1 "

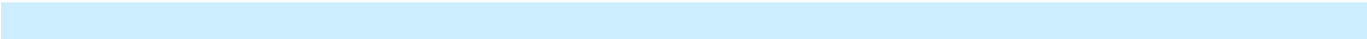
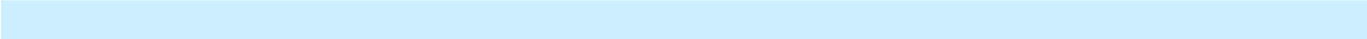
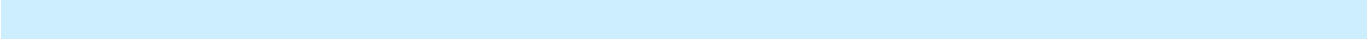
9UbifQdlfU >^edbe] U^dc

KYV : `^ aR_j Zd UzcVTe]j R_U Z_UzcVTe]j RWWWTeVU Sj cZd\dd`TZReVU hZeY TYR_XVd Z_TVceRZ_ ^Rc\Ve T`_UZeZ`_d* NYV_UVV^VU Raac`acZReV(eYV : `^ aR_j fdVd UVcZgReZgV Z_decf^V_ed e` ^ZeZXReV eYV a`eV_eZ] Z^ aRTe `W eYVdV ^Rc\Ve cZd\dd* KYV acZ^Rcj ^Rc\Ve cZd\dd ^R_RXVU Sj eYV : `^ aR_j eYc`fXY eYV fdV `W UVcZgReZgV Z_decf^V_ed Z_T]fUV6

- m W`cVZX_TfccV_Tj ViTYR_XV cReV cZd\6 RcZdZ_X acZ^RcZ]j eYc`fXY =`ieV] ;VSe >c`fa S`cc`hZ_Xd UV` ^Z_ReVU Z_L_ZeVU JeReVd %qL*J*r& U`]]Rcd(aRj ^V_ed W`c Tfde` ^Vc acV ^ZdV VbfZa ^V_e(R_U TVceRZ_ ac`XcR^ ^Z_X cZYed7 R_U
- m Z_eVcVde cReV cZd\6 RcZdZ_X Wc` ^ WZiVU R_U W]`ReZ_X cReV =`ieV] ;VSe >c`fa S`cc`hZ_Xd*

KYV : `^ aR_j W`c^R]]j UVdZX_ReVd bFR]Z]j Z_X UVcZgReZgVd Rd YVUXV cV]ReZ`_dYZad %qYVUXVdr& R_U Raa]ZVd YVUXV RTT`f_eZ_X hYV_T`_dZUVcVU Raac`acZReV* =`c VT` _`^ZT YVUXVd hYVcV _` YVUXV cV]ReZ`_dYZa YRd SVV_ UVdZX_ReVU(TYR_XVd Z_WRZc gR]fV RcV Z_T]fUVU Rd R T` ^a`_V_e `W _Ve Z_T` ^V Z_VRTY cVa`ceZ_X aVcZ`U hZeYZ_FeYVc(_Ve Z_eYV JeReV ^V_ed `W FaVcReZ`_d* KYV : `^ aR_j U`VSfV_eedV UVcZgReZgV WZ_R%Z] Z_dR%e`_ed W`c eZ]R]R R RdV]R]ReZgVd SVa`dVd* bZ^ bFR]R]R]S<d fccZ

?VUXVd RcV T]RddZWVU Rd TfccV_e `c _`_)TfccV_e Z_eYV 9R]R_TV JYVved SRdVU ` _eYVzc ^RefcZej UReVd* I VVVc e` eYV eRS]V SV]` h W`c WfceYVc UVeRZ]d6



:`ca`cReZ`_`%`XVeYVc(eYV qE 8 D GRceZVdr& R]VXZ_X gZ`]ReZ`_d`W WVUVcR] R_U deReV R_eZecfde]Rh d R_U T`^`^`_]Rh SfdZ_Vdd e`ced* KYV T`^`a]RZ_e dVV\d ecVS]V UR^RXVd(Z_[f_TeZgV cV]ZVW R_U Ree`c_Vjds WVVd R_U T`ded* F_ 8 fXfde -0(. , -5(eYV E 8 D GRceZVd R_U dh VcVU eYV T`^`a]RZ_e R_U RddVceVU R T`f_eVcT]RZ^`RXRZ_de @_dZX_ZR`W`c ScVRTY `W T`_ecRTe(R]VXZ_X eYRe @_dZX_ZR gZ`]ReVU R acZ`c dVee]V^`V_e RXcVV^`V_e Sveh VV_ E 8 D @_)Je`cV R_U @_dZX_ZR* F_ Af]j - , (. . . , (VRTY `W eYV E 8 D GRceZVd R_U @_dZX_ZR WZ]VU R ^`eZ`_`W`c df^`^`Rcj [fUX^`V_e`_`eYV T`f_eVcT]RZ^`* NYZ]V Ze Zd`_`e a`ddZ]V Re eYZd eZ^`V e` acVUZTe hZeY R_j UVXcVV `W TVceRZ_ej eYV f]eZ^`ReV `feT`^`V`W eYZd RTeZ`_(eYV E 8 D GRceZVd SV]ZVgV eYVj YRgV SVV_ T`^`a]RZ_e hZeY Raa]ZTRS]V]Rh d R_U Z_eV_U e` UVWV_U eYV^`dV]gVd gZ`c`fd]j*

BEPEWMMW /SQOYRMGEXMSRW# 5RC%

F_ E`gV^`SvC 4(. , -/(MR]RddZd WZ]VU R T`^`a]RZ_e Z_eYV L*J* ;ZdecZTe : `fce`W`c eYV <RdeVc_ ;ZdecZTe `W DZTYZX`_`%eYV q; ZdecZTe : `fcer& RXRZ_de eYV E 8 D GRceZVd R_U EVhd 8^`VcZTR @_T`ca`cReVU`%`XVeYVc(eYV qE 8 D >c`far& R]VXZ_X gZ`]ReZ`_d`W WVUVcR] R_U deReV R_eZecfde]Rh d R_U T`^`^`_]Rh SfdZ_Vdd e`ced(Z_T]fUZ_X f_WRZc T`^`aVeZeZ`_* KYV T`^`a]RZ_e dVV\d ecVS]V UR^RXVd(Z_[f_TeZgV cV]ZVW R_U Ree`c_Vjds WVVd R_U T`ded* E 8 D @_)Je`cV R_U E 8 D =J@ RddVceVU R T`f_eVcT]RZ^`RXRZ_de MR]RddZd`W`c f_WRZc T`^`aVeZeZ`_(R]VXZ_X eYRe MR]RddZd YRd V_XRXVU Z_eYV dR^`V acRTeZTVd eYRe Ze R]VXVd e` SV f_WRZc* @_ E`gV^`SvC . , -5(eYV aRceZVd RXcVVU e`UZdT`_eZ_fV eYV f_WRZc T`^`aVeZeZ`_ T]RZ^`R_U T`f_eVcT]RZ^`*

F_ ;VTV^`SvC -5(. , -/(eYV E 8 D >c`fa WZ]VU R ^`eZ`_`e`UZd^`Zdd eYV T`^`a]RZ_e R_U`_`DRcTY / , (. , -2(eYV ;ZdecZTe : `fce UZd^`ZddVU MR]RddZdsd Sf_U]Z_X R_U ejZ_X T]RZ^`d* F_ JVaeV^`SvC .1(. , -3(eYV ;ZdecZTe : `fce XcR_eVU MR]RddZdsd ^`eZ`_`e`ecR_dWVc eYV TRdV e`eYV L*J* ;ZdecZTe : `fce`W`c eYV J`feYVc_ ;ZdecZTe `W EVh P`c`%eYV qE*P* ;ZdecZTe : `fcer&* F_ 8 acZ] -/(. , -4(eYV E 8 D >c`fa WZ]VU R ^`eZ`_`W`c df^`^`Rcj [fUX^`V_e UZd^`ZddZ_X eYV TRdV hYZTY hRd XcR_eVU Z_aRce R_U UV_ZVU Z_aRce Sj eYV E*P* ;ZdecZTe : `fce`_`=VScfRcj .-(. , -5* KYV E*P* ;ZdecZTe : `fce`W`f_U eYRe eYV E 8 D >c`fasd SZUUZ_X acRTeZTVd hVcV]RhWf] Sfe UV_ZVU Zed ^`eZ`_`hZeY cVdaVTe e` T]RZ^`d RcZdZ_X`fe`W TVceRZ`_`eYVc R]VXVU T`_ecRTeZ_X acRTeZTVd* @_ RUUZeZ`_(eYV E*P* ;ZdecZTe : `fce R]d` UZd^`ZddVU MR]RddZdsd T]RZ^`d cV]ReZ_X e`WcV)deR_UZ_X Z_dVce ac`UfTed* F_ ;VTV^`SvC . , (. , -5(eYV E*P* ;ZdecZTe : `fce XcR_eVU eYV E 8 D >c`fasd ^`eZ`_`e`ViT]fUV eYV eVdeZ^`_`j`W MR]RddZdsd d`]V UR^RXVd Vi aVce(Sfe dfSdVbfV_e]j T]RcWZVU eYRe MR]RddZd T`f]U dVV` eYV T`fcesd aVc^`ZddZ`_`e`ac`gV UR^RXVd eYc`fXY`eYVc VgZUV_TV* MR]RddZd WZ]VU R ^`eZ`_`e`dfaa]V^`V_e R_U R^`V_U Zed Vi aVce R_U acV)ecZR] UR^RXVd UZdT`dfcVd(hYZTY eYV E*P* ;ZdecZTe : `fce XcR_eVU`_`8 acZ] .0(. . . , * F_ DRj 4(. . . , (eYV E 8 D >c`fa WZ]VU R ^`eZ`_`e`cVT`_dZUVc eYV E*P* ;ZdecZTe : `fcesd 8 acZ] .0(. . . , UVTZdZ`_(hYZTY eYV T`fce UV_ZVU`_`FTe`SvC ./(. . . , * 8 ecZR] UR eV YRd`_`e SVV_dVe Sj eYV T`fce* NYZ]V Ze Zd`_`e a`ddZ]V Re eYZd eZ^`V e` acVUZTe hZeY R_j UVXcVV `W TVceRZ_ej eYV f]eZ^`ReV `feT`^`V`W eYZd RTeZ`_(eYV E 8 D >c`fa SV]ZVgVd Ze YRd SVV_ T`^`a]RZ_e hZeY Raa]ZTRS]V]Rh d R_U Z_eV_Ud e` UVWV_U ZedV]W gZ`c`fd]j*

A%7% : I [WTETIV 9EXXIVW

:ZgZ] T]RZ^`d YRgV SVV_ Sc`fXYe RXRZ_de eYV : `^`aR_j hZeY cVdaVTe e` (R^`_X`eYVc eYL_Xd(g`ZTV^`RZ] Z_eVcTVaeZ`_`R_U Z_Raac`acZReV aRj^`V_ed e`afS]ZT`WWTZR]d Re eYV : `^`aR_jsd`W`c^`Vc afS]ZTReZ`_(@LI : I [W SJ XLI CSVPH(R_U Re @LI ?YR(R_U cV]ReVU ^`ReeVcd %eYV qL*B* EVhdaRaVc DReeVcdR* KYV : `^`aR_j YRd RU^`ZeeVU]ZRSZ]Ze j_`^`R_j TZgZ] TRdVd R_U YRd dVee]VU R _f^`SvC`W TRdVd* KYV : `^`aR_j R]d`dVee]VU R_f^`SvC`W T]RZ^`d eYc`fXY R acZgReV T`^`aV_dReZ`_`dTYV^`V hYZTY hRd T]`dVU e`_`Vh T]RZ^`d RWeVc 8 acZ] 4(. , -/*

@_ T`_`VTeZ`_`hZeY eYV dVaRcReZ`_`W eYV : `^`aR_j Wc`^`KhV_ej)=Zede : V_efcj =`i(@_T*%q. -de : V_efcj =`ir&`_`Af_V .4(. , -/(eYV : `^`aR_j R_U . -de : V_efcj =`i RXcVVU Z_eYV JVaRcReZ`_`R_U ;ZdecZSfeZ`_`8 XcVV^`V_e eYRe . -de : V_efcj =`i h`f]JU Z_UV^`_`ZWj eYV : `^`aR_j`W`c aRj^`V_ed ^`RUV RWeVc dfTY UR eV RcZdZ_X`fe`W TZgZ] T]RZ^`d R_U Z_gVdeZXReZ`_`d cV]ReZ_X e`eYV L*B* EVhdaRaVc DReeVcd Rd hV]] Rd]VXR] R_U ac`WVddZ`_`R] WVVd R_U Vi aV_dVd aRZU Z_`T`_`VTeZ`_`hZeY eYV acVgZ`fd]j T`_`T]fUVU TcZ^`Z_R] ^`ReeVcd(`eYVc eYR_`WVVd(Vi aV_dVd R_U T`ded cV]ReZ_X e`V^`a]`j VVd %Z& hY`RcV`_`e UZcVTe`cd(`WWTZVcd`c TVceRZ`_`UVdZX_ReVU V^`a]`j VVd`c %Z& hZeY cVdaVTe e`TZgZ] ^`ReeVcd(hY`RcV`_`e T`UVWV`UR_ed hZeY eYV : `^`aR_j`c . -de : V_efcj =`i* . -de : V_efcj =`isd Z_UV^`_`ZWZTReZ`_`_`S]ZXReZ`_`d hZeY cVdaVTe e`eYVdV ^`ReeVcd RcV dVee]VU`_`R`RWeVc)eRi SRdZd`@_`DRcTY . , -5(Rd aRce`W eYV dVaRcReZ`_`W =`i : `ca`cReZ`_`%q=FO&`Wc`^` . -de : V_efcj =`i(eYV : `^`aR_j(EVhd : `ca`?`JUZ_Xd LB # @cV]R_U(. -de : V_efcj =`i R_U =FO V_eVcVU Z_e`R GRceZR] 8ddZX`^`V_e R_U 8ddf^`aeZ`_`8 XcVV^`V_e(afcdFR_e`hYZTY(R^`_X`eYVc

C : LH 8DGEDG6I>DC

CDI : H ID I = : JC6J9>I : 9 8DCHDA>96I : 9 ;>C6C8>6A HI 6I : B : CIH

cVTVZgRS]V Z_FeYVc TfccV_e RddVed ` _eYV 9R]R_TV JYVVe Rd `W JVaeV^SVc / , (. . . , * @e Zd ` _e a`ddZS]V e` VdeZ^ReV eYV]ZRSZ]Ze] `c T`ccVda` _UZ_X cVTVZgRS]V W`c R_j RUUZeZ`_R] T]RZ^d eYRe ^Rj SV WZ]VU XZgV`_eYV Z`W`c^ReZ`_eYRe Zd TfccV_e]j RgRZ]RS]V e` eYV : ` ^aR_j * @W ^ `cV T]RZ^d Rcv WZ]VU R_U RUUZeZ`_R] Z`W`c^ReZ`_ SVT` ^Vd RgRZ]RS]V(eYV : ` ^aR_j hZ]] faUReV eYV]ZRSZ]Ze] ac`gzdZ`_R_U T`ccVda` _UZ_X cVTVZgRS]V W`c dfTY ^ReeVcd*

KYV : ` ^aR_j Zd ` _e RS]V e` acVUZTe eYV f]eZ^ReV ` feT` ^V `c T`de `W eYV TZgZ] T]RZ^d * @e Zd a`ddZS]V eYRe eYVdV ac`TVVUZ_Xd R_U R_U j RUGVcdV cVd`]feZ`_eYVcV`W T` f]U UR^RXV Zed cVa feReZ`_(Z^aRZc Zed RSZ]Ze] e` T`_UfTe Zed SfdZ_Vdd R_U RUGVcdV]j RWWWTe Zed cVdf]ed `W`aVcReZ`_d R_U WZ_R_TZR] T`_UZeZ`_*

; XLIV

KYV : ` ^aR_j sd eRi cVefc_d Rcv dfS[VTe e` `_)X`Z_X cVgZVh R_U ViR^Z_ReZ`_ Sj gRcZ` fd eRi RfeY`cZeZVd* KRi RfeY`cZeZVd ^Rj ` _e RXcVV hZeY eYV ecVRe^V_e `W ZeV^d cVa`ceVU Z_eYV : ` ^aR_j sd eRi cVefc_d(R_U eYVcVW`cV eYV ` feT` ^V `W eRi cVgZVhd R_U ViR^Z_ReZ`_d TR_SV f_acVUZTeRS]V*

KYV : ` ^aR_j SV]ZVgVd Ze Yrd Raac`acZReV]j RTTcfVU W`c eYV ViaVTeVU ` feT` ^V `W f_TVceRZ`_eRi ^ReeVcd R_U SV]ZVgVd dfTY]ZRSZ]ZeZVd cVAcVdV_e R cVRd`_RS]V ac`gzdZ`_W`c eRi Vd f]eZ^ReV]j ViaVTeVU e` SV aRZU Y`h VgVc(eYVdV]ZRSZ]ZeZVd ^Rj `VVU e` SV RU[fdeVU Rd `Vh Z`W`c^ReZ`_ SVT` ^Vd ` _h`_R_U Rd eRi ViR^Z_ReZ`_d T`_eZ_fV e` ac`XcVdd(`c Rd dVee]V^V_ed `c]ZeZXRZ`_d `TTfc*

CDI : ,+)>C8DB : I6M:H

8e eYV V_U `W VRTY Z_eVcZ^ aVcZ`U(eYV : ` ^aR_j VdeZ^ReVd eYV R__fR] VWWWTeZgV eRi cReV R_U Raa]ZVd eYRe cReV e` Zed `cUZ_Rc] bfRceVc]j VRc_Z_Xd* KYV eRi ViaV_dV `c SV_VWZe cV]ReVU e` dZX_ZWZTR_e(f_fdfR] `c Viecr`cUZ_Rc] ZeV^d eYRe hZ]] SV dVaRcReV]j cVa`ceVU `c cVa`ceVU `Ve `W eYVZc cV]ReVU eRi VWWWTe Rcv Z_UZgZUfR]]j T` ^afeVU R_U cVT`X_ZkVU Z_eYV Z_eVcZ^ aVcZ`U Z`_h YZTY eY`d ZeV^d `TTfc* @_RUUZeZ`_(eYV VWWWTe d `W TYR_XVd Z`_V_RTeVU eRi]Rhd `c cReVd `c eRi deRefd Rcv cVT`X_ZkVU Z_eYV Z_eVcZ^ aVcZ`U Z`_h YZTY eYV TYR_XV `TTfcd* KYV TYR_XZ_X_R_U g`]ReZ]V ^Rtc`)VT` ` _`ZT T`_UZeZ`_d T`_VTeVU hZeY : FM@ ;)-5 ^Rj TRfdV W]fTefReZ`_d Z`_W`cVTRdeVU VRc_Z_Xd SVW`cV Z`_T` ^V eRi Vd` 8d dfTY(eYV : ` ^aR_j sd VWWWTeZgV eRi cReV T` f]U SV dfS[VTe e` g`]ReZ]Ze] Rd W`cVTRdeVU VRc_Z_Xd SVW`cV Z`_T` ^V eRi Vd Rcv Z^aRTeVU S] VgV_ed hYZTY Rcv YZY]j f_TVceRZ`_R_U TR`_e SV acVUZTeVU*

=`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc / , (. . . , (eYV : ` ^aR_j cVT`cUVU Z`_T` ^V eRi ViaV_dV `W !.1 ^Z]Z`_ ` _acV)eRi Z`_T` ^V `W !.3. ^Z]Z`_(cVdf]eZ`_X_Z_R_ VWWWTeZgV eRi cReV eYRe hRd YZYVc eYR_ eYV L*J* deRefe`cj eRi cReV* KYV YZYVc eRi cReV hRd acZ^RcZ]j UcgV`_Sj eYV : ` ^aR_j sd [fcZdUZTeZ`_R] Z`_T` ^V %) dd& ^Zi hYZTY Z`_T]fUVd eYV Z^aRTe `W`cVZX`_ aVcReZ`_d hYZTY Rcv dfS[VTe e` YZYVc eRi Vd*

=`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc / , (. . . -5(eYV : ` ^aR_j cVT`cUVU R_Z`_T` ^V eRi SV_VWZe `W !. - ^Z]Z`_ ` _R acV)eRi]`dd `W !. / . ^Z]Z`_(cVdf]eZ`_X_Z_R_ VWWWTeZgV eRi cReV eYRe hRd]`hVc eYR_ eYV L*J* deRefe`cj eRi cReV* KYV]`hVc eRi cReV hRd acZ^RcZ]j UfV e` eYV]`hVc eRi SV_VWZe cVT`cUVU ` _eYV Z^aRZc^V_e `W EVhd 8 ^VcZTR DRc\VeZ_Xsd X`_`U hZ]] R_U Z_UVWZ`_ZeV]]ZgVU Z_eR_XZS]V RddVed R_U S] gR]fReZ`_R]]`hR_Tvd SVZ_X cVT`cUVU RXRZ_de eRi SV_VWZed Z`_TVceRZ`_W`cVZX`_ [fcZdUZTeZ`_d hZeY `aVcReZ`_X]`ddVd*

DR_RXV^V_e RddVddVd RgRZ]RS]V VgZUV_TV e` UVeVc^Z`_V hYVeYVc dfWWWZTV_e WfefeV eRiRS]V Z`_T` ^V hZ]] SV XV_VcReVU e` aVc^Ze eYV fdV `W ViZdeZ`_X UVWVccVU eRi RddVed* 9RdVU ` _ ^R_RXV^V_esd RddVdd^V_e `W RgRZ]RS]V VgZUV_TV(Ze Yrd SVV_ UVeVc^Z`_VU eYRe Ze Zd ^`cV]Z[V]j eYR_ ` _e eYRe UVWVccVU eRi RddVed Z`_L*J* WVUVcR](deReV R_U W`cVZX`_ [fcZdUZTeZ`_d ^Rj ` _e SV cVR]ZkVU R_U eYVcVW`cV(R RgR]fReZ`_R]]`hR_TV Yrd SVV_ VdeRS]ZdYVU RXRZ_de eY`dV eRi RddVed*

KYV : ` ^aR_j sd eRi cVefc_d Rcv dfS[VTe e` `_)X`Z_X cVgZVh R_U ViR^Z_ReZ`_ Sj gRcZ` fd eRi RfeY`cZeZVd* KRi RfeY`cZeZVd ^Rj ` _e RXcVV hZeY eYV ecVRe^V_e `W ZeV^d cVa`ceVU Z_eYV : ` ^aR_j sd eRi cVefc_d(R_U eYVcVW`cV eYV ` feT` ^V `W eRi cVgZVhd R_U ViR^Z_ReZ`_d TR_SV f_acVUZTeRS]V* KYV : ` ^aR_j Zd TfccV_e]j f_UVcX`Z_X eRi ViR^Z_ReZ`_d Z`_gRcZ` fd L*J* deReV R_U W`cVZX`_ [fcZdUZTeZ`_d* ; fcZ`_X eYV eYcVV ^`_eYd V_UVU JVaeV^SVc / , (. . . , (eYV : ` ^aR_j cVRTYVU R_WZ_R] dVee]V^V_e hZeY eYV @_eVc_R] I VgV_fV JVcgZTV W`c eYV WzdTR] j VRc V_UVU Af_V / , (. . . -0 Rd eYV deRefeV `W]Z^ZeReZ`_d ViaZcVU W`c eYRe jVRc* KYVcV hRd ` _ TYR_XV W`c ^ eYV cVdf]ed eYRe eYV : ` ^aR_j cVT`cUVU Rd `W Af_V / , (. . . , W`c eYzd ViaZcReZ`_ `W deRefeV* KYV : ` ^aR_j SV]ZVgVd Ze Yrd Raac`acZReV]j RTTcfVU W`c eYV ViaVTeVU ` feT` ^V `W f_TVceRZ`_eRi ^ReeVcd R_U SV]ZVgVd dfTY]ZRSZ]ZeZVd cVAcVdV_e R cVRd`_RS]V ac`gzdZ`_W`c eRi Vd f]eZ^ReV]j ViaVTeVU e` SV aRZU* ?`hVgVc(eYV : ` ^aR_j ^Rj `VVU e` RTTcfV RUUZeZ`_R] Z`_T` ^V eRi ViaV_dV R_U Zed]ZRSZ]Ze] ^Rj `VVU e` SV RU[fdeVU Rd `Vh Z`_W`c^ReZ`_ SVT` ^Vd ` _h`_R_U Rd eYVdV eRi ViR^Z_ReZ`_d T`_eZ_fV e` ac`XcVdd(`c Rd dVee]V^V_ed `c]ZeZXRZ`_d `TTfc*

KYV : `^ aR_j aRZU Xc`dd Z_T`^V eRiVd `W !./ ^Z]]Z`_R_U !.3 ^Z]]Z`_UfcZ_X eYV eYcVV ^`_eYd V_UVU JVaev^SVc /,(.,., R_U
.,-5

C : LH 8DGEDG6I>DC
CDI : H ID I = : JC6J9>I : 9 8DCHDA>96I : 9 ;>C6C8>6A HI 6I : B : CIH

	$\frac{6c_V}{HU^dU J RUB .+^+ -++}$	$\frac{6c_V}{?e^U .+^+ -++}$
	\$!^ J _c%	
K`eR] RddVed6		
; ZXZeR] I VR] <deReV JVcgZTVd	!	!(./ / .)
J fSdTcZaeZ`_ MZUV` JVcgZTVd	/(1- /	/(015
; `h A`_Vd	.(0/1	.(04,
9``\ GfS]ZdYZ_X	.(./ /	.(.- .
EVhd DVUZR	.(, 31	-(550
FeYVc ^{%Rk}	-(051	-(053
@_gVde^V_ed	/-0	.53
K`eR] RddVed	<u>!</u>	<u>! -0(.2-</u>

^{%Rk} KYV FeYVc dVX^V_e acZ^RcZ]j Z_T]fUVd : RdY R_U TRdY VbfZgR]V_ed*

	$\frac{6c_V}{HU^dU J RUB .+^+ -++}$	$\frac{6c_V}{?e^U .+^+ -++}$
	\$!^ J _c%	
>`U hZ]] R_U Z_eR_XZS]V RddVed(_Ve6		
; ZXZeR] I VR] <deReV JVcgZTVd	!	!(123 ! -)
J fSdTcZaeZ`_ MZUV` JVcgZTVd	-(1/1	-(1- /
; `h A`_Vd	-(3-5	-(3. .
9``\ GfS]ZdYZ_X	32,	304
EVhd DVUZR	.41	.33
K`eR] >`U hZ]] R_U Z_eR_XZS]V RddVed(_Ve	<u>!</u>	<u>! 1(422 ! 1(4-1</u>

CDI : , -) 699>I>DC6A ;>C6C8>6A >C ;DGB 6I>DC

7?=?00;<E?L# G?#

IVTVzGRS]Vd RcV acVdV_eVU _Ve `W R_ R]]` hR_TV W`c U` fSeWf] RTT` f_ed(h YZTY Zd R_ VdeZ^ReV `W R^` f_ed eYRe ^Rj _`e SV T`]]VTeZS]V* KYV R]]` hR_TV W`c U` fSeWf] RTT` f_ed Zd VdeZ^ReVU SRdVU ` _YZde`cZTR] V i aVcZV_TV(cVTVzGRS]V RXZ_X(TfccV_e R_U WfefeV VT` _`^ZT ecV_Ud R_U daVTZWZT ZUV_eZWZTReZ` _` W TVceRZ_ cVTVzGRS]Vd eYRe RcV Re cZd\ `W _`e SVZ_X T`]]VTeVU*

IVTVzGRS]Vd(_Ve T`_dZde `W6

	$\frac{6c_V}{HU^dU J RUB .+^+ -++}$	$\frac{6c_V}{?e^U .+^+ -++}$
	\$!^ J _c%	
IVTVzGRS]Vd	!	! -(./ -1 ! -)
8]]` hR_TV W`c U` fSeWf] RTT` f_ed	%31&	
IVTVzGRS]Vd(_Ve	<u>!</u>	<u>! -(./ , /</u>

CDI : ,.) HJ7H:FJ:CI :K:CIH

IPEVE

@_ FTe`SVc . . . , (I<8 >c` fa V_eVcVU Z_e` R SZ_UZ_X RXcVV^V_e e` Z_TcVRdV Zed`h_VcdYZa Z_eVcVde Z_<]RcR* I<8 >c` fa TfccV_e]j
Y`]Ud R -/*1 " Z_eVcVde R_U`_T`^a]VeZ`_(Zd ViaVTeVU e` YRgV R dYRcVY`]UZ_X`W SvehVV_03*. " R_U 2-* - " R_U Y`]U WzgV`W
_Z_V dVRed`_<]RcRsd 9`RcU`W ; ZcVTe`cd* La`_T`^a]VeZ`_`W eYV ecR_dRTeZ`_(I<8 >c` fa hZ]] T`_d`]ZUReV<]RcRsd WZ_R_TZR]
cVdf]ed* KYV e`eR] T`_dZUV c` fa hZ]] T`_d`]ZUReV<]RcRsd WZ_R_TZR] >cV_

>I: B -) B 6C6 < : B : CIkH 9>H8 JHH>DC 6C9 6C6ANH>HD ; >C6C8>6A 8DC9>I>DC 6C9 G:HJAIH D;
DE:G6I>DCH

@LMW HSGYQIRX# MRGPYHMRK XLI JSPPS [MRK HMWGYWVMSR ERH EREP]JWW# GSRXEMRW WXEXIQIRXW XLEX GSRWXXYYI _JSV [EVH\$PSSOMRK
WXEXIQIRXW [MXLNR XLI QIERMRK SJ ?IGXMSR (' I SJ XLI ?IGYVXXMIW I\GLERKI -GX SJ ' ,) *# EW EQIRHIIH !XLI _I\GLERKI -GX`"# ERH
?IGXMSR (+ - SJ XLI ?IGYVXXMIW -GX SJ ' ,))# EW EQIRHIIH - PP WXEXIQIRXW XLEX EVI RSX WXEXIQIRXW SJ LMWXSVMGEP JEGX EVI JSV [EVH\$
PSSOMRK WXEXIQIRXW@LI [SVHW _I\TIGX# _JWXMQEXI# _ERNMGTEIX# _TVIHNGX# _FIPMIZI` ERH WQMPVEV I\TVIWWWMSRW ERH ZEVMEXMSRW
XLIVISJ EVI MRXIRHIIH XS MHIRXMJ] JSV [EVH\$PSSOMRK WXEXIQIRXW@LIWI WXEXIQIRXW ETTIEV MR E RYQFIV SJ TPEGIV MR XLMW HMWGYWVMSR
ERH EREP]JWW ERH MRGPYHI WXEXIQIRXW VIKEVHMRK XLI MRXIRX# FIPMIV SJ GYVIVRX I\TIGXEXMSRW SJ XLI /SQTER]# MXW HMVIGXSVW SV MXW
SJJIGIVW [MXL VIWTIGX XS# EQSRK SXLIV XLNRKW# XVRIRW EJJIGMRK XLI /SQTER]aW JMRERGMEP GSRHMXMSR SV VIWYPXW SJ STIVEXMSRW#
MRGPYHMRK I\TIGXIH MQTEGXW JVSQ XLI SRKSMRK RSZIP GSVSREZMVYW !_/ ; B50\$ ' , ` TERHIQMG ERH VIPEXIH TYFPNG LIEPLX QIEWYVIW#
XLI /SQTER]aW WXVEXIK] ERH WXVEXIKMG MRMXMEXMZIW ERH XLI SYXGSOI SJ GSRXMRKIRGMZW WYGL EW PMXMKEXMSR ERH MRZIXMKEXMSRW% >IEHVV
EVI GEYXMSRIH XLEX ER] JSV [EVH\$PSSOMRK WXEXIQIRXW EVI RSX KYEVERXIIW SJ JYXYVI TIVJSVQERGI ERH MRZSPZI VVWOW ERH
YRGIVXEMRXMTW# MRGPYHMRK XLSWI VIPEXIH XS / ; B50\$ ' , % 9 SVI MRJSVQEXMSR VIKEVHMRK XLIWI VVWOW ERH YRGIVXEMRXMTW !QER] SJ [LML
QE] FI EQTPMJIH F] / ; B50\$ ' , ` ERH SXLIV MQTSVXERX JEGXSVW XLEX GSYPH GEYWI EGXYEP VIWYPXW XS HUJIV QEXIVMEPP] JVSQ XLSWI MR
XLI JSV [EVH\$PSSOMRK WXEXIQIRXW MW WIX JSVXL YRHIV XLI LIEHMRK _>MWO 2EGXSVW` MR <EVX 5# SXIQ ' -% MR : I [W /SVTSVEXMSRaW -RRYEP
>ITSVX SR 2SVQ ' &\$7 JSV XLI JMWGEP JIEV IRHIIH 6YRI)&# (&(& EW JMH I [MXL XLI ?IGYVXXMIW ERH I\GLERKI /SQQWWWMSR !XLI
_?I /`" SR -YKYWX ' '# (&(!XLI _(&(& 2SVQ ' &\$7`"# ERH EW QE] FI YTHEXIH MR XLMW ERH SXLIV WYFWIUYIRX =YEYVIVP] >ITSVX
SR 2SVQ ' &\$=% @LI /SQTER] HSIW RSX SVHIREVMP] QEOI TVSNIGXMSRW SJ MXW JYXYVI STIVEXMRK VIWYPXW ERH YRHIVXEOIW RS SFPMKEXMSR
!ERH I\TVIWWP] HMWGPENQW ER] SFPMKEXMSR" XS TYFPNGP] YTHEXI SV VIZMWI ER] JSV [EVH\$PSSOMRK WXEXIQIRXW [LIXLIV EW E VIWYPX SJ
RI [MRJSVQEXMSR# JYXYVI IZIRXW SV SXLIV [MWI# I\GITX EW VIUYIVIH F] PE [% >IEHVV WLSYPH GEVIJYPP] VIZNI [XLMW HSGYQIRX ERH XLI
SXLIV HSGYQIRXW JMH I F] XLI /SQTER] [MXL XLI ?I /% @LMW WIGXMSR WLSYPH FI VIEH XSKIXLIV [MXL XLI YREYHMXIH GSRWSPMHEXIH
JMRERGMEP WXEXIQIRXW SJ : I [W /SVTSVEXMSR ERH VIPEXIH RSXIW WIX JSVXL IPWI [LIVI LIVIMR ERH XLI EYHMXIH GSRWSPMHEXIH JMRERGMEP
WXEXIQIRXW SJ : I [W /SVTSVEXMSR ERH VIPEXIH RSXIW WIX JSVXL MR XLI (&(& 2SVQ ' &\$7%

>CIGD9 J 8 I>DC

EVhd : `ca`cReZ` _%e`XVeYVc hZeY Zed dfSdZUZRcZVd(qEVhd : `ca`cReZ`_(r qEVhd : `ca(r eYV q : `^aR_j(r qhV(r `c qfdr& Zd R
X]`SR] UzGvcdZWZVU ^VUZR R_U_Z`_c^ReZ`_dVcgZTVd T`^aR_j T`^acZdVU `W SfdZ_VddVd RTc`dd R cR_XV`W ^VUZR(Z_T]fUZ_X6 UZXZeR]
cVR] VdeReV dVcgZTVd(dfSdTcZaeZ`_gZUV` dVcgZTVd Z_8 fdecR]ZR(_Vhd R_U_Z`_c^ReZ`_dVcgZTVd R_U S` `afS]dYZ_X`
; fcZ_X eYV W`fceY bfRceVc `W WzdTR] . . . , (Z_T`_VTeZ`_hZeY eYV : `^aR_j]d dR]V `W Zed EVhd 8^VcZTR DRc\VeZ_X cVa`ceZ_X f_Ze
R_U Zed R__FR] cVgZVh `W Zed cVa`ceRS]V dVX^V_ed(eYV : `^aR_j UVeVc^Z_VU e`UZdRXXcVXReV Zed ; `h A`_Vd `aVcReZ_X dVX^V_e Rd R
dVaRcReV cVa`ceRS]V dVX^V_e_Z_RTT`cUR_TV hZeY 8TT`f_eZ_X JeR_URcU : `UZWZTReZ`_%q8J : r& .4, (qJXV^V_e I Va`ceZ_X`r
GcVgZ`fdj] (eYV WZ_R_TZR] Z`_c^ReZ`_W`c eYzD `aVcReZ_X dVX^V_e hRd RXXcVXReVU hZeY eYV SfdZ_VddVd hZeZ_Y eYV EVhd DVUZR
`aVcReZ_X dVX^V_e R_U(e`XVeYVc(W`c^VU eYV EVhd R_U @`_W`c^ReZ`_J VcgZTVd cVa`ceRS]V dVX^V_e* =]] `hZ_X eYV dR]V `W Zed EVhd
8^VcZTR DRc\VeZ_X SfdZ_Vdd_Z_eYV W`fceY bfRceVc `W WzdTR] . . . , R_U Z_T`_[f_TeZ`_hZeY eYV : `^aR_j]sd R__FR] SFUXVeZ_X
ac`TVdd(eYV : `^aR_j UVeVc^Z_VU eYRe RXXcVXReZ`_hRd _`]`_XVc Raac`acZReV Rd TVceRZ`_W eYV cV^RZ_Z_X SfdZ_VddVd _`]`_XVc
dYRcVU dZ^Z]Rc VT`_`^ZT TYRcTeVcZdeZTd* 8d R cVdf]e(eYV : `^aR_j YRd cVgZdVU Zed YZde`cZTR] Uzdt]`dfcVd W`c eYV acZ`c aVcZ`U e`
cVW]VTe eYV _Vh ; `h A`_Vd R_U EVhd DVUZR cVa`ceRS]V dVX^V_ed*

: VceRZ_cVT]RddZWZTReZ`_d YRgV SVV`^RUV e`eYV acZ`c aVcZ`U T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed e`T`_W`c^e`eYV TfccV_e jVRc
acVdV_eReZ`_* JavTZWZTR]j(eYV : `^aR_j cVT]RddZWZVU TVceRZ`_T`ded Re eYV FeYVc dVX^V_e eYRe hVcV acVgZ`fdj] Z_T]fUVU hZeYZ`
JV]JZ_X(XV_VcR] R_U RU^Z_ZdecReZgV e`FaVcReZ_X ViaV_dVd* =`c eYV eYcVv ^`_eYd V_UVU JVaeV^SVc / , (. , -5(eYVdV
cVT]RddZWZTReZ`_d Z_TcVrdVU FaVcReZ_X ViaV_dVd Sj !- ^Z]Z`_*

KYV f_RfUZeVU T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed RcV cVWVccVU e`YVcVZ_Rd eYV q : `^aR_j]ZUReVU =Z_R_TZR] JeReV^V_ed*r KYV
T`_d`]ZUReVU deReV^V_ed `W`aVcReZ`_d RcV cVWVccVU e`YVcVZ_Rd eYV qJeReV^V_ed `W FaVcReZ`_d*r KYV T`_d`]ZUReVU SR]R_TV dYVved
RcV cVWVccVU e`YVcVZ_Rd eYV q9R]R_TV JYVved*r KYV T`_d`]ZUReVU deReV^V_ed `W TRdY W]`hd RcV cVWVccVU e`YVcVZ_Rd eYV
qJeReV^V_ed `W : RdY =]`hd*r KYV : `^aR_j]ZUReVU =Z_R_TZR] JeReV^V_ed YRgV SVV`_acVaRcVU Z_RTT`cUR_TV hZeY XV_VcR]j RTTVaeVU
RTT`f_eZ_X acZ`Tza]Vd Z_eYV L_ZeVU JeReVd `W 8^VcZTR %q> 8 8Grk*

DR_RXV^V_esd UzdtfddZ`_R_U_R_R]jdZd `W WZ_R_TZR] T`_UZeZ`_R_U cVdf]ed `W`aVcReZ`_d Zd Z_eV_UVU e`YV]a ac`gZUV R_
f_UVcdeR_UZ_X`W eYV : `^aR_j]sd WZ_R_TZR] T`_UZeZ`_(TYR_XVd Z_WZ_R_TZR] T`_UZeZ`_R_U cVdf]ed `W`aVcReZ`_d* KYZd UzdtfddZ`_Zd

T 7?LNEML H@ 5 I?K;MCHGL p KYZd dVTeZ`_ac`gZUVd R_ R_R]jdZd `W eYV : `^aR_jsd cVdf]ed `W `aVcReZ`_d W`c eYV eYcVV
^`_eYd V_UVU JVaeV^SVc /,(. . . , R_U . , -5* KYZd R_R]jdZd Zd acVdV_eVU ` _ S`eY R T`_d` JZUREVU SRdZd R_U R
dVX^V_e SRdZd* J faa]V^V_eR] cVgV_fV Z_W`c^ReZ`_Zd R]d` Z_T]fUVU W`c eVa`ceZ_X f_Zed hZeYZ_ TVceRZ_ dVX^V_ed R_U
Zd acVdV_eVU ` _ R Xc`dd SRdZd(SVW`cV V]Z^Z_ReZ`_d Z_T`_d` JZUREZ`_*@_ RUUZeZ`_(R ScZVW UVdTcZaeZ`_Zd ac`gZUVU `W
dZX_ZWZTR_e ecR_dRTEZ`_d R_U VgV_ed eYRe Z^aRTE eYV T` ^aRcRSZ]Ze j `W eYV cVdf]ed SVZ_X R_R]jkVU*

T 2CJNC>CMR ;G> , ;ICM;E 7?LHNK=?L p KYZd dVTeZ`_ac`gZUVd R_ R_R]jdZd `W eYV : `^aR_jsd TRdY W]`hd W`c eYV eYcVV
^`_eYd V_UVU JVaeV^SVc /,(. . . , R_U . , -5(Rd hV]] Rd R UZdTfddZ`_ `W eYV : `^aR_jsd WZ_R_TZR] RccR_XV^V_ed R_U
`fedeR_UZ_X T` ^ ^Ze^V_ed(S`eY WZc^ R_U T`_eZ_XV_e(eYRe ViZdeVU Rd `W JVaeV^SVc /,(. . . ,*

DK:GK>: L D; I = : 8DBE6CNkH 7JH>C:HH:H

KYV : `^aR_j ^R_RXVd R_U cVa`ced Zed SfdZ_VddVd Z_eYV W`]]`hZ_X dZi dVX^V_ed6

m -CACM;E 7?;E . LM;M? 8?KOC=?L p KYV ;ZXZeR] I VR] <deReV J VcgZTVd dVX^V_e T`_dZded `W eYV : `^aR_jsd 2-*2 " Z_eVcVde
Z_ I<8 >c`fa R_U 4, " Z_eVcVde Z_ D`gV* KYV cV^RZ_Z_X . , " Z_eVcVde Z_ D`gV Zd YV]U S j I<8 >c`fa* I<8
>c`fa Zd R ^Rc\Ve]]VRUZ_X UZZeR] ^VUZR SfdZ_Vdd daVTZR]ZkZ_X Z_ ac`aVcej R_U Zd JZdeVU ` _ eYV 8 fdecR]ZR_ JVTfcZeZVd

.E;K;

@_ FTe`SVc . . . , (I<8 >c` fa V_eVcVU Z_e` R SZ_UZ_X RXcVV^V_e e` Z_TcVRdV Zed` h_VcdYZa Z_eVcVde Z_ <]RcR KVTY_`]` XZVd GeV* CeU*
%q<]RcRrk* I<8 >c` fa TfccV_e]j Y`]Ud R -/*1 " Z_eVcVde R_U` _ T` ^a]VeZ`_(Zd ViaVTeVU e` YRgV R dYRcVY`]UZ_X `W SvehVV_
O3*. " R_U 2-* - " R_U Y`]U WZgV `W _Z_V dVRed` _ <]RcRsd 9` RcU` W ;ZcVTe`cd* La` _ T` ^a]VeZ` _ `W eYV ecR_dRTeZ`_(I<8 >c` fa
hZ]] T` _d`]ZUReV <]RcRsd WZ_R_TZR] cVdf]ed* KYV e`eR] T` _dZUVcR T` _d YV e`eR] T` a]VZ`_(I<8 >c` fa

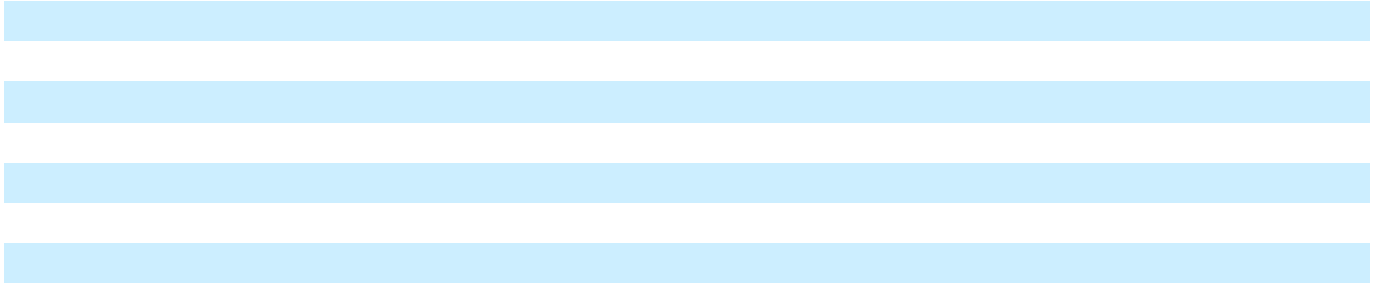
VhdaRaVcd Z 8 fdecR]ZR* KYV Z^ aRTe `W W`cVZX_ TfccV_Tj W]fTefReZ`_d `W eYV L*J* U`]]Rc R XRZ_de]`TR] TfccV_TZVd cVdf]eVU Z_ R_

4?M CG=HF? ;MMK<NM; <E? MH GHG=HG MKHEECGA CGM?K?LML p EVe Z_T` ^V ReecZS feRS]V e` _`_T`_ec`]Z_X Z_eVcVded UVTeVRdVU Sj !/
^Z]]Z`_(`c -5 "(W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , Rd T` ^aRcVU e` eYV T`ccVda`_UZ_X aVcZ`U `W WZdTR] . . . ,*

8?AF?GM *G;ERLCL

JVX^V_e <9@K; 8 Zd UVWZ_VU Rd cVgV_fVd]Vdd `aVcReZ_X ViaV_dVd R_U dV]]Z_X(XV_VcR] R_U RU^Z_ZdecReZgV ViaV_dVd* JVX^V_e
<9@K; 8 U`Vd _`e Z_T]fUV6 UVacVTZReZ`_R_U R^`ceZkReZ`_(Z^aRZc^V_e R_U cVdecfTefcZ_X TYRcXVd(VbfZej]`ddVd `W RWWZ]ZReVd(
Z_eVcVde %ViaV_dV& Z_T` ^V(_Ve(`eYVc(_Ve R_U Z_T` ^V eRi %ViaV_dV& SV_VWZe* JVX^V_e <9@K; 8 ^Rj _`e SV T` ^aRcRS]V e`

KYV W^JJ` hZ_X eRSJV dVed W`ceY eYV : `^ aR_jsd IVgV_fVd R_U JvX^V_e <9@K; 8 Sj dVX^V_e W`c eYV eYcVv ^`_eYd V_UVU
JVaeV^SVc /,(.,., R_U ., -56



8N<L=KCI\CHG :C>?H 8?KOC=?L %./ " R_U . . " `W eYV :` ^ aR_jsd T`_d`]ZUReVU cVgV_fVd Z_eYV eYcVV ^` _eYd V_UVU JVaeV^SVc /,(
 .,., R_U . . -5(cVdaVTeZgV]j&

	;_b dXU dXbUU]_^dXc U^TUT HU` dU] RUB .+'			
	-+--+	-+,4	8XQ^WU	" 8XQ^WU
%Z_ ^Z]Z`_d(ViTvae " &			7UddUb*\$L_bcU%	
I VgV_fVd6				
:ZcTf]ReZ`_ R_U dfSdTcZaeZ`_	! 0/3	! 01-	! %-0&	%/& "
8UgVceZdZ_X	1,	1-	%-&	%.& "
FeYVc	5	-.	%/&	%.1& "
I_dQ\ GUFU^eUc	/41	0,/	,\$3%	\$/% "
FaVcReZ_X ViaV_dVd	%///&	%/00&	--	/ "
JV]]Z_X(XV_VcR] R_U RU^Z_ZdecReZgV	%41&	%45&	0	0 "
HUW] U^d : 7>I 9 6	! 23	! 3,	! \$.%	\$/% "

=`c eYV eYcVV ^` _eYd V_UVU JVaeV^SVc /,(. . . , (cVgV_fVd Re eYV J fSdTcZaeZ`_ MZUV` J VcgZTVd dVX^V_e UVTeVRdVU !-4 ^Z]]Z`_(
 `c 0 " (Rd T` ^ aRcVU e` eYV T`ccVda`_UZ_X aVcZ`U `W WzdTR] . . . , * KYV cVgV_fV UVTeVRdV hRd acZ^RcZ]j UfV e`]` hVc dfSdTcZaeZ`_
 cVgV_fVd cVdf]eZ_X Wc` ^ Wv hVc cVdZUV_eZR] Sc` RUTRde dfSdTcZSVcd R_U eYV !-0 ^Z]]Z`_ UVTeVRdV Z` T` ^ ^VcTZR] dfSdTcZaeZ`_
 cVgV_fVd UfV e` `X`Z_X cVdecZTeZ`_d`_ a fSd(T]fSd R_U `eYVc T` ^ ^VcTZR] gV_fVd UfV e` : FM@ ;)-5* KYV UVTeVRdVd Z` cVgV_fVd
 hVcV aRceZR]]j `WwVde Sj eYV a` dZelgV Z^ aRte `W W`cVZX_TfccV_Tj W]fTefReZ`_d R_U !5 ^Z]]Z`_ `W YZXYVc cVgV_fVd Wc` ^ FKK
 ac`UfTed(acZ^RcZ]j BRj` R_U 9Z_XV* KYV Z^ aRte `W W`cVZX_TfccV_Tj W]fTefReZ`_d `W eYV L*J*U`]]Rc RXRZ_de]`TR] TfccV_TZVd
 cVdf]eVU Z` R cVgV_fV Z`TcVRdV `W !. , ^Z]]Z`_(`c / " (W`c eYV eYcVV ^` _eYd V_UVU JVaeV^SVc /,(. . . , Rd T` ^ aRcVU e` eYV
 T`ccVda`_UZ_X aVcZ`U `W WzdTR] . . . , *

=`c eYV eYcVV ^` _eYd V_UVU JVaeV^SVc /,(. . . , (JvX^V_e <9@K ; 8 UVTeVRdVU !/ ^Z]]Z`_(`c 0 " (Rd T` ^ aRcVU e` eYV
 T`ccVda`_UZ_X aVcZ`U `W WzdTR] . . . , * KYV JvX^V_e <9@K ; 8 UVTeVRdV hRd acZ^RcZ]j UfV e` eYV]` hVc cVgV_fVd UzdtfddVU RS`gV(
 aRceZR]]j `WwVde Sj T` de dRgZ_Xd acZ^RcZ]j UfV e`]` hVc V_eVceRZ`_ ^V_e ac` fTed(acZF

%T& K`eR] R_U GRZU =` ieV] E`h dfSdTcZSVcd Rd `W JVaeV^SVc /,(. . . , R_U . , -5* GRZU =` ieV] E`h dfSdTcZSVcd ViT]fUVd
 Tfde` ^Vcd cVTVZgZ_X dVcgZTV W`c _` TYRcXV f_UVc TVceRZ`_Vh dfSdTcZSVc ac`^`eZ`_d*
 %U& K`eR] R_U GRZU BRj` dfSdTcZSVcd Rd `W JVaeV^SVc /,(. . . , R_U . , -5* GRZU BRj` dfSdTcZSVcd ViT]fUVd Tfde` ^Vcd
 cVTVZgZ_X dVcgZTV W`c _` TYRcXV f_UVc TVceRZ`_Vh dfSdTcZSVc ac`^`eZ`_d*
 %V& K`eR] R_U GRZU 9Z_XV dfSdTcZSVcd Rd `W JVaeV^SVc /,(. . . , * 9Z_XV hRd]Rf_TYVU ` _ DRj . 1(. . . , * GRZU 9Z_XV
 dfSdTcZSVcd ViT]fUVd Tfde` ^Vcd cVTVZgZ_X dVcgZTV W`c _` TYRcXV f_UVc TVceRZ`_Vh dfSdTcZSVc ac`^`eZ`_d*
 %W& 8gVcRXV ^`_eY]j Sc`RUTRde cVdZUV_eZR] dfSdTcZaeZ`_cVgV_fVd aVc fVc %ViT]fUZ_X Faefd& %9c`RUTRde 8 IGL& W`c eYV eYcVV
 ^`_eYd V_UVU JVaeV^SVc /,(. . . , R_U . , -5*
 %X& 9c`RUTRde cVdZUV_eZR] dfSdTcZSVc TYfc`_cReV %ViT]fUZ_X Faefd& %9c`RUTRde J fSdTcZSVc : Yfc`& W`c eYV eYcVV ^`_eYd V_UVU
 JVaeV^SVc /,(. . . , R_U . , -5* 9c`RUTRde dfSdTcZSVc TYfc`_cVAcVdV_ed eYV_f^SVc `W TRS]V R_U dReV]]ZeV cVdZUV_eZR]
 dfSdTcZSVcd hY`dV dVcgZTV Zd UzdT`_VTevU(ViacVdVU Rd R aVcTV_eRXV `W eYV RgVcRXV e`eR] _f^SVc `W TRS]V R_U dReV]]ZeV
 cVdZUV_eZR] dfSdTcZSVcd(acVdV_eVU ` _R_ R__fR] SRdZd*

- HP IHG?L %-4 " R_U -2 " `W eYV :`^`aR_jsd T`_d`]ZUReVU cVgV_fVd Z_eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , R_U . , -5(
 cVdaVTeZgV]j&

%Z_ ^Z]Z`_d(ViTVae " &	;_b dXU dXbUU]_^dXc U^TUT HU`dU] RUB .+'			
	-+--+	-+,4	8XQ^WU	" 8XQ^WU
I VgV_fVd6			7UddUb*\$L_bcU%	
:ZcTf]ReZ`_R_U dfSdTcZaeZ`_	! /--	! .45	! ..	4 "
8UgVceZdZ_X	3,	40	%-0&	%-3& "
FeYVc	1	5	%0&	%00& "
I_dQ\ GUfU^eUc	.31	.3-	/	, "
FaVcReZ_X Vi aV_dVd	%-41&	%-43&	.	- "
JV]]Z_X(XV_VcR] R_U RU ^Z_ZdecReZgV	%-.5&	%-02&	-3	- . "
HUW] U^d : 7>I 9 6	! 2-	! /4	! -. 	/2 "

=`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , (cVgV_fVd Re eYV ;`h A`_Vd dVX^V_e Z_TcVRdVU !O ^Z]Z`_(`c - " (Rd T`^ aRcVU
 e` eYV T`ccVda`_UZ_X aVcZ`U `W WZdTR] . . . , UcZgV_Sj Xc` heY Z_Tzctf]ReZ`_R_U dfSdTcZaeZ`_cVgV_fVd(aRceZR]]j `WdVe Sj R
 UVT]Z_V_Z acZ_e RUGVceZdZ_X cVgV_fVd* ;ZXZeR] cVgV_fVd Re eYV ;`h A`_Vd dVX^V_e cVAcVdV_eVU 3/ " `W e`eR] cVgV_fVd W`c eYV eYcVV
 ^`_eYd V_UVU JVaeV^SVc /,(. . . , (Rd T`^ aRcVU e` 21 " Z_eYV T`ccVda`_UZ_X aVcZ`U `W WZdTR] . . . , * KYV Z^ aRTe `W W`cVZX_
 TfccV_Tj W]fTeReZ`_d `W eYV L`J* U`]]Rc RXRZ_de]`TR] TfccV_TZVd cVdf]eVU Z_R cVgV_fVd Z_TcVRdV `W !- ^Z]Z`_W`c eYV eYcVV ^`_eYd
 V_UVU JVaeV^SVc /,(. . . , Rd T`^ aRcVU e` eYV T`ccVda`_UZ_X aVcZ`U `W WZdTR] . . . , *

/MVGYP EXMSR ERH WYFWGVMTXMSR VIZIRYTW

%Z_ ^Z]Z`_d(ViTVae " &	;_b dXU dXbUU]_^dXc U^TUT HU`dU] RUB .+'			
	-+--+	-+,4	8XQ^WU	" 8XQ^WU
:ZcTf]ReZ`_R_U dfSdTcZaeZ`_cVgV_fVd6			7UddUb*\$L_bcU%	
:ZcTf]ReZ`_R_U `eYVc	! -54	! -34	! .,	-- "
Gc`WVddZ`_R] Z_W`c^ReZ`_SfdZ_Vdd	--/	---	.	. "
I_dQ\ S]bSe]Qd]`^ Q^T ceRcSbi`d]`^ bUfU^eUc	! .,,	! -34	! --	3 "

:ZcTf]ReZ`_R_U dfSdTcZaeZ`_cVgV_fVd Z_TcVRdVU !. . ^Z]Z`_(`c 4 " (UfcZ_X eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , Rd
 T`^ aRcVU e` eYV T`ccVda`_UZ_X aVcZ`U `W WZdTR] . . . , * :ZcTf]ReZ`_R_U `eYVc cVgV_fVd Z_TcVRdVU !. . ^Z]Z`_(`c -- " (acZ^RcZ]j
 UcZgV_Sj Xc` heY Z_UZXZeR])`_]] dfSdTcZaeZ`_d Re @LI C E P P ?XV I I X 6 S Y V R E P R_U R ! 3 ^Z]Z`_Z_TcVRdV Z_T`_eV_e]ZTV_dZ_X
 cVgV_fVd(aRceZR]]j `WdVe Sj acZ_e g`]f^V UVT]Z_Vd* ; fcZ_X eYV eYcVV ^`_eYd V_UVU

Z^aRTe`W`cVZX_TfccV_Tj W]fTefReZ`_d`W eYV L*J*U`]]Re RXRZ_de]`TR] TfccV_TZVd cVdf]eVU_Z_R cVgV_fV_Z_TcVRdV`W`!-5 ^Z]]Z`_(
`c`."(W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , Rd T`^aRcVU e` eYV T`ccVda`_UZ_X aVcZ`U`W WzdTR] . . . ,*

JVX^V_e<9@K ; 8 Re eYV EVhd DVUZR dVX^V_e UVT]Z_VU !.5 ^Z]]Z`_W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . , Rd
T`^aRcVU e` eYV T`ccVda`_UZ_X aVcZ`U`W WzdTR] . . . ,* KYV UVTcVRdV hRd UfV e` eYV _Ve !-. ^Z]]Z`_Z^aRTe Wc`^ eYV dR]Vd`W
EVhd 8^VcZTR DRc\VeZ_X R_U L_cf]j Z_ WzdTR] . . . , R_U e`]`hVc T`_ecZSfeZ`_d Wc`^ EVhd :`ca 8 fdecR]ZR R_U EVhd LB`W`!-/
^Z]]Z`_R_U !5 ^Z]]Z`_(cVdaVTeZgV]j(acZ^RcZ]j UcZgV_Sj]`hVc cVgV_fVd(aRceZR]]j `WwdVe Sj T`de dRgZ_Xd Z_zeZReZgVd*

: I [W / SVT - YWXVEPME

IVgV_fVd hVcV !. . . ^Z]]Z`_W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. . . ,(R UVTcVRdV`W`!11 ^Z]]Z`_(`c`."(T`^aRcVU e`
cVgV_fVd`W`!.32 ^Z]]Z`_Z_eYV T`ccVda`_UZ_X aVcZ`U`W WzdTR] . . . ,* KYV T]`dfcV`c ecR_dZeZ`_e` UZXZeR]`W cVXZ`_R] R_U
T`^ ^ f_Zej _VhdaRaVcd Z_ 8 fdecR]ZR cVdf]eVU_Z_R cVgV_fV UVTcVRdV`W`!/1 ^Z]]Z`_* 8 UgVceZdZ_X cVgV_fVd UVTcVRdVU !1. ^Z]]Z`_(
acZ^RcZ]j UfV e` eYV T]`dfcV`c ecR_dZeZ`_e` UZXZeR]`W cVXZ`_R] R_U T`^ ^ f_Zej _VhdaRaVcd R_U T`_eZ_fVU hVR_Vdd Z_eYV acZ_e

Tf^SVcd^ ^V UfV e`]`TR] cVXf]ReZ`_d(W`cVZX_ ViTYR_XV T`_ec`]d R_U eRiVd* 8UUZeZ`_R]]j(eYV ecR_dWVc` W`f_Ud Wc` ^` W`cVZX_ [fcZdUZTeZ`_d ^Rj cVdf]e L_ YZYVc VVVVTeZgV eRi cReVd R_U YZYVc TRdY aRZU W`c L_T` ^V eRiVd W`c eYV :` ^`aR_j*

KYV acZ_TZaR] fdVd` W` TRdY eYRe RWWWTe eYV :` ^`aR_jsd]ZbfZUZe] a`dZeZ`_ Z_T]fUV eYV W`]]` hZ_X6` aVcReZ`_R] Vi aV_UZefcVd Z_T]fUZ_X V^a]` jVV T`ded R_U aRaVc afcTYRdVd7 TRaZeR] Vi aV_UZefcVd7 Z_T` ^V eRi aRj ^V_ed7 Z_gVde^V_ed Z_ Rdd`TZReVU V_eZeZVd7 RTbfZdZeZ`_d7 R_U eYV cVaRj ^V_e` W`UVSe R_U cV]ReVU Z_eVcVde* @_ RUUZeZ`_e` eYV RTbfZdZeZ`_d R_U UZda`dZeZ`_d UZdT]`dVU V]dVhYVcV(eYV :` ^`aR_j YRd VgR]fReVU(R_U Vi aVTed e` T`_eZ`_fV e` VgR]fReV(a`ddZS]V W`fefeV RTbfZdZeZ`_d R_U UZda`dZeZ`_d` W`TVceRZ_ SfdZ_VddVd* JfTY ecR_dRTeZ`_d ^Rj SV ^ReVcZr] R_U ^Rj Z_g`]gV TRdY(eYV ZddfR_TV` W` eYV :` ^`aR_jsd dVTfcZeZVd` c` eYV Rddf ^aeZ`_` W`Z_UVSeVU_Vdd*

0LLN?K 6NK=B;L?L H@ . JNCMR 8?=?NKMC?L

KYV :` ^`aR_j UZU`_e afcTYRdV R_j` W`Zed :]Rdd 8 :` ^` ^` ^`_ Je`T\` `c :]Rdd 9 :` ^` ^` ^`_ Je`T\` UfcZ_X eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , R_U . , -5*

- (0C>?G>L

@_ 8 fXfde . . . , (eYV :` ^`aR_jsd 9`RcU` W` ; ZcVTe`cd %qeYV 9`RcU` W` ; ZcVTe`cdr& UVT]RcVU R dV^Z)R__fR] TRdY UzgZUV_U` W` !,*, - , aVc dYRcV W`c :]Rdd 8 :` ^` ^` ^`_ Je`T\` R_U :]Rdd 9 :` ^` ^` ^`_ Je`T\` * KYZd UzgZUV_U hRd aRZU`_ FTe`SVc -O(. . . , e` de`T\Y`]UVcd` W`cVT`cU Rd` W` JVaev^SVc -2(. . . , * KYV eZ^Z_X(UVT]RcReZ`_(R^`f_e R_U aRj ^V_e` W` W`fefeV UzgZUV_Ud e` de`T\Y`]UVcd(ZW R_j(Zd hZeYZ`_eYV UZdTcVeZ`_` W` eYV 9`RcU` W` ; ZcVTe`cd* KYV 9`RcU` W` ; ZcVTe`cds UVTZdZ`_d cVXRcUZ_X eYV aRj ^V_e` W` W`fefeV UzgZUV_Ud hZ]] UVaV_U`_ ^R_j WRTe`cd(Z_T]fUZ_X eYV :` ^`aR_jsd WZ_R_TZR] T`_UZeZ`_(VRc_Z_Xd(TRaZeR] cVbfZcV^V_ed R_U UVSe WRTZ]Ze] T`_gV_R_ed(`eYVc T`_ecRTefR] cVdecZTeZ`_d(Rd hV]] Rd]VXR] cVbfZcV^V_ed(cVXf]Re`cj T`_decRZ_ed(Z_Ufdecj acRTeZTV(^Rc\Ve_g`]ReZ]Ze] R_U` eYVc WRTe`cd eYRe eYV 9`RcU` W` ; ZcVTe`cd UVV^d cV]VgR_e*

8HNK=?L ;G> 9L?L H@ , ;LB U /HK MB? MBK?? FHGMBL ?G>?? 8?I!F<?K (%# '%% 0?KLNL MB? MBK?? FHGMBL ?G>?? 8?I!F<?K (%# '%&)

EVe TRdY ac`gZUVU Sj` aVcReZ_X RTeZgZeZVd W`c eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , R_U . , -5 hRd Rd W`]]` hd %Z_ ^Z]]Z`_d&6 ;_b dXU dXbUU]_`dXc U^TUT HU`dU] RUB .+'

EVe TRdY ac`gZUVU Sj` aVcReZ_X RTeZgZeZVd	! -11 !	-.4
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EVe TRdY ac`gZUVU Sj` aVcReZ_X RTeZgZeZVd Z_TcVRdVU Sj` !-. 4 ^Z]]Z`_ W`c eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , Rd T`^aRcVU e` eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , -5* KYV Z_TcVRdV hRd acZ^RcZ]j UfV e` YZYVc K`eR] JVX^V_e <9@K ; 8 R_U]` hVc h`c`Z_X TRaZeR]*

EVe TRdY fdVU Z_L_gVdeZ_X RTeZgZeZVd W`c eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , R_U . , -5 hRd Rd W`]]` hd %Z_ ^Z]]Z`_d&6 ;_b dXU dXbUU]_`dXc U^TUT HU`dU] RUB .+'

EVe TRdY fdVU Z_L_gVdeZ_X RTeZgZeZVd	! %52& !	% - -4&
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EVe TRdY fdVU Z_L_gVdeZ_X RTeZgZeZVd UVTcVRdVU Sj` !. . ^Z]]Z`_ W`c eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , (Rd T`^aRcVU e` eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , -5* ; fcZ_X eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , (eYV :` ^`aR_j fdVU !5/ ^Z]]Z`_` W` TRdY W`c TRaZeR] Vi aV_UZefcVd(`W` hYZTY !1- ^Z]]Z`_cV]ReVU e` ==`ieV]*

; fcZ_X eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , -5(eYV :` ^`aR_j fdVU !-3 ^Z]]Z`_` W` TRdY W`c TRaZeR] Vi aV_UZefcVd(`W` hYZTY !22 ^Z]]Z`_cV]ReVU e` ==`ieV]*

EVe TRdY fdVU Z_WZ_R_TZ_X RTeZgZeZVd W`c eYV eYcVv ^`_eYd V_UVU JVaev^SVc /,(. . . , R_U . , -5 hRd Rd W`]]` hd %Z_ ^Z]]Z`_d&6

;fcZ_X eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. , -5(eYV :`^aR_j cVaRZU !.5, ^Z]Z`_`W S`cc`hZ_Xd cV]ReVU e` =`ieV] R_U ^RUV UzgzUV_U aRj^V_ed`W !.. ^Z]Z`_e` I<8 >c`fa ^Z`cZej de`T\Y`]UVed* KYV _Ve TRdY fdVU Z_ WZ_R_TZ_X RTeZgZeZVd W`c eYV eYcVV ^`_eYd V_UVU JVaeV^SVc /,(. , -5 hRd aRceZ[R]]j `WwVdVe Sj _Vh S`cc`hZ_Xd cV]ReVU e` =`ieV] `W !-55 ^Z]Z`_R_U eYV _Ve dVee]V^V_e`W YVUXVd `W !13 ^Z]Z`_`*

7?=HG=CEC;MCHG H@ /K?? , ;LB /EHP *0;CE;<E? MH 4?PL , HKIHK;MCHG

=cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_Zd R`_)>8 8G WZ_R_TZR] ^VRdfcV UVWZ_VU Rd_Ve TRdY ac`gzUVU Sj `aVcReZ_X RTeZgZeZVd(]Vdd TRaZeR] Vi aV_UZefcVd %qWcVV TRdY W]`h r&(]Vdd I<8 >c`fa WcVV TRdY W]`h (a]fd TRdY UzgzUV_Ud cVTVZgVU Wc`^ I<8 >c`fa* =cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_dY`f]U SV T`_dZUVcVU Z_ RUUZeZ`_e`(_`e Rd R dfSdeZefV W`c(TRdY W]`h d Wc`^ `aVcReZ`_d R_U `eYVc ^VRdfcVd `W WZ_R_TZR] aVcW`c^R_TV cVa`ceVU Z_ RTT`cUR_TV hZeY >8 8G* =cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_^Rj`_e`SV T`^aRcRS]V e` dZ^Z]Rc]j eZe]VU ^VRdfcVd cVa`ceVU Sj `eYVc T`^aR_ZVd(dZ_TV T`^aR_ZVd R_U Z_gVde`cd ^Rj UVWVc Rd e` hYRe ZeV^d dY`f]U SV Z_T]fUVU Z_ eYV TR]Tf]ReZ`_`W WcVV TRdY W]`h*

KYV :`^aR_j T`_dZUVcVd WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_e` ac`gzUV fdVWf] Z_ W`c^ReZ`_e` ^R_RXV^V_e R_U Z_gVde`cd RS`fe eYV R^`f_e`W TRdY eYRe Zd RgRZ]RS]V e` SV fdVU e` decV_XeYV_eYV :`^aR_jsd SR]R_TV dYVVe R_U W`c decReVXZT `aa`cef_ZeZVd Z_T]fUZ_X(R^`_X`eYVcd(Z_gVdeZ_X Z_ eYV :`^aR_jsd SfdZ_Vdd(decReVXZT RTbfZdZeZ`_d(UzgzUV_U aRj`fed R_U cVafcTYRdZ_X de`T`* KYV :`^aR_j SV]ZVgVd ViT]fUZ_X I<8 >c`fasd WcVV TRdY W]`h R_U Z_T]fUZ_X UzgzUV_Ud cVTVZgVU Wc`^ I<8 >c`fa ac`gzUVd fdVcd `W Zed T`_d`]ZUReVU WZ_R_TZR] deReV^V_ed hZeY R ^VRdfcV `W eYV R^`f_e`W TRdY W]`h eYRe Zd cVRUZ]j RgRZ]RS]V e` eYV :`^aR_j(Rd I<8 >c`fa Zd R dVaRcReV]j]ZdeVU afS]ZT T`^aR_j Z_ 8 fdecR]ZR R_U ^fde UVT]RcV R UzgzUV_U Z_ `cUVc W`c eYV :`^aR_j e` YRgV RTTVdd e` Zed dYRcV `W I<8 >c`fasd TRdY SR]R_TV* KYV :`^aR_j SV]ZVgVd WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_ac`gzUVd R^`cV T`_dVcgReZgV gZVh `W eYV :`^aR_jsd WcVV TRdY W]`h SVTRfdV eYZd acVdV_eReZ`_Z_T]fUVd `_]j eYRe R^`f_e`W TRdY eYV :`^aR_j RTefR]]j cVTVZgVd Wc`^ I<8 >c`fa(hYZTY YRd XV_VcR]]j SVV_]`h Vc eYR_eYV :`^aR_jsd f_RU[fdeVU WcVV TRdY W]`h*

8]Z^ZeReZ`_`W WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_Zd eYRe Ze U`Vd `e`cVacVdV_e eYV e`eR] Z_TcVRdV `c UVTCVRdV Z_ eYV TRdY SR]R_TV W`c eYV aVcZ`U* DR_RXV^V_e T`^aV_dReVd W`c eYV]Z^ZeReZ`_`W WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_Sj R]d`cV]jZ_X`_eYV _Ve TYR_XV Z_ TRdY R_U TRdY VbFZgR]V_ed Rd acVdV_eVU Z_ eYV JeReV^V_ed `W :RdY =]`hd acVaRcVU Z_ RTT`cUR_TV hZeY >8 8G hYZTY Z_T`ca`cReV R]] TRdY ^`gV^V_ed UfcZ_X eYV aVcZ`U*

KYV W`]]`h Z_X eRS]V acVdV_ed R cVT`_TZ]ZReZ`_`W _Ve TRdY ac`gzUVU Sj `aVcReZ_X RTeZgZeZVd e` WcVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_6

	;_b dXU dXbUU]_`dXc U^TUT HU`dU]RUb .+`	
	+++	+,4
	\$Y^]\ Y`^c%	
EVe TRdY ac`gzUVU Sj `aVcReZ_X RTeZgZeZVd	!	-11 ! .3
CVdd6 :RaZeR] Vi aV_UZefcVd		%5/& %--3&
		2. %5,&
CVdd6 I<8 >c`fa WcVV TRdY W]`h		%.5& %.4&
G]fd6 :RdY UzgzUV_Ud cVTVZgVU Wc`^ I<8 >c`fa		/ . /1
=cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_	!	21 ! %4/&

=cVV TRdY W]`h RgRZ]RS]V e` EVhd :`ca`cReZ`_Z_TcVRdVU Sj !-04 ^Z]Z`_Z_ eYV eYcVV

I<8 >c` fa YRd RTTVdd e` R_ 8 ! . , ^Z]]Z` _ `gVcUcRWe WRTZ]Ze j %eYV q. . . , FgVcUcRWe =RTZ]Ze j r&* KYV . . . , FgVcUcRWe =RTZ]Ze j Zd R_ f_T` ^ ^ZeVU WRTZ]Ze j eYRe hZ]] SV cVgZVhVU R__fR]]j Sj eYV JV_UVc R_U SVRcd Z_eVcVde Re R cReV SRdVU ` _ eYV JV_UVcsd SV_TY ^Rc\ S`cc` hZ_X cReV]Vdd R UZdT` f_e `W O* . . " * KYV . . . , FgVcUcRWe =RTZ]Ze j TRccZVd R_ R__fR] WRTZ]Ze j WVV `W ,*-1 " `W eYV 8 ! . , ^Z]]Z` _

>I : B /) 8DCIGDAH 6C9 EGD8 : 9 JG : H

\$Q% 9YcS\cebU 8_^db_\c Q^T Eb_SUTebUc

KYV : ^ aR_jsd ^R_RXV^V_e(hZeY eYV aRceZTzReZ`_ `W eYV : ^ aR_jsd : YZVW <iVTfeZgV FWWWZTVc R_U : YZVW =Z_R_TZR] FWWWZTVc(YRd VgR]fReVU eYV VWWWTeZgV_Vdd `W eYV : ^ aR_jsd UzdT]`dfcV T`_ec`]d R_U ac`TVUfcVd %Rd dfTY eVc^ Zd UVWZ_VU Z_ I f]Vd - /R)- 1%V& R_U - 1%U&)- 1%V& f_UVc eYV JVTfcZeZVd <iTYR_XV 8Te `W -5/O(Rd R^V_UVU %eYV q<iTYR_XV 8Ter&& Rd `W eYV V_U `W eYV aVcZ`U T`gVcVU Sj eYZd bfRceVc]j cVa`ce* 9RdVU ` _ dfTY VgR]fReZ`_(eYV : ^ aR_jsd : YZVW <iVTfeZgV FWWWZTVc R_U : YZVW =Z_R_TZR] FWWWZTVc YRgV T`_T]fUVU eYRe(Rd `W eYV V_U `W dfTY aVcZ`U(eYV : ^ aR_jsd UzdT]`dfcV T`_ec`]d R_U ac`TVUfcVd hVcV VWWWTeZgV Z_ cVT`cUZ_X(ac`TVddZ_X(df^ ^RcZkZ_X R_U cVa`ceZ_X(` _ R eZ^V]j SRdZd(Z_W`c^ReZ`_ cVbfZcVU e` SV UzdT]`dVU Sj eYV : ^ aR_j Z_ eYV cVa`ced eYRe Ze WZ]Vd `c dfS^Zed f_UVc eYV <iTYR_XV 8Te R_U hVcV VWWWTeZgV Z_ V_dfcZ_X eYRe Z_W`c^ReZ`_ cVbfZcVU e` SV UzdT]`dVU Sj eYV : ^ aR_j Z_ eYV cVa`ced Ze WZ]Vd `c dfS^Zed f_UVc eYV <iTYR_XV 8Te Zd RTTf^ f]ReVU R_U T` ^ ^ f_ZTReVU e` eYV : ^ aR_jsd ^R_RXV^V_e(Z_T]fUZ_X eYV : ^ aR_jsd : YZVW <iVTfeZgV FWWWZTVc R_U : YZVW =Z_R_TZR] FWWWZTVc(Rd Raac`acZReV e` R]]` h eZ^V]j UVTZdZ`_d cVXRcUZ_X cVbfZcVU UzdT]`dfcV*

\$R% >^dUb^Q\ 8_^db_\ DfUb ;I^Q^S\Q\ GU`_bdI^W

KYVcV YRd SVV__` TYR_XV Z_ eYV : ^ aR_jsd Z_eVc_R] T`_ec`] `gVc WZ_R_TZR] cVa`ceZ_X %Rd dfTY eVc^ Zd UVWZ_VU Z_ I f]Vd - /R)- 1%W& R_U - 1%U&)- 1%W& f_UVc eYV <iTYR_XV 8Te& UfcZ_X eYV : ^ aR_jsd WZcde bfRceVc `W WzdTR] . . - eYRe YRd ^ReVcZR]]j RWWWTeVU(`c Zd cVRd`_RS]]j]Z[V]j e` ^ReVcZR]]j RWWWTe(eYV : ^ aR_jsd Z_eVc_R] T`_ec`] `gVc WZ_R_TZR] cVa`ceZ_X*

E6GI >>

>I: B ,) A: <6A EGD8 : : 9>C<H

JVV E`ev 5 p : `^ ^Ze^V_ed R_U : ` _eZ_XV_TZVd Z_eYV RTT` ^ aR_jZ_X : ` _d`]ZUReVU =Z_R_TZR] JeReV ^V_ed*

>I: B ,6) G>H@ ; 68 IDGH

KYVcV YRgV SVV_` ^ReVcZR] TYR_XVd e` eYV cZd\ WRTe`cd UVdTcZSVU Z_eYV : ` ^ aR_jsd . . . , =`c^ - ,)B(ViTVae Rd dVe W`ceY SV]` h6

/IVXEMR 2 // >YPIW ERH >IKYPEXMSRW ERH XLI ?ITEVEXMSR ERH OMWXVMFYXMSR -KVIIQIRX 9E] >IWXVIGX XLI /SQTER] 2VSO
-GUYVIVRK SV ; [RMRK /IVXEMR @JTIW SJ -WWWXW MR XLI A%?%

KYV =VUVcR] : ` ^ ^ f_ZTReZ`_d : ` ^ ^ ZddZ`_ %q= : : r& YRd ac` ^ f]XReVU TVceRZ`_cf]Vd R_U cVXf]ReZ`_d eYRe]Z^Ze eYV T` ^ ^ ^`_`
`h_VcdYZa `w cRUZ` R_U eV]VgZdZ`_ Sc` RUTRde deReZ`_d R_U eYV T` ^ ^ ^`_` h_VcdYZa `w Sc` RUTRde deReZ`_d R_U `VhdaRaVcd %eYV
q9c` RUTRde Fh_VcdYZa I f]Vdr& R_U a]RTV T` ^ ^ VcTZR] cVdecZTeZ`_d ` _R TRS]V _Ve h`c\ ac` XcR ^ ^ Vc Z_ hYZTY R TRS]V eV]VgZdZ`_`
`aVcRe`c Y`]ud R_` h_VcdYZa Z_eVcVde %eYV qGc` XcR ^ 8TTVdd I f]Vdr&* @ _E` gV ^SVc . , -3(eYV = : : g`eVU e` VJZ^Z_ReV eYV
9c` RUTRde Fh_VcdYZa I f]Vd(R_U eYV `cUVc SVTR ^V WWWTeZgV Z_ =VScfRc j . , -4* ?` hVgVc(Z_JVaeV ^SVc . , -5(R aR_V] `W eYV L*J*
: `fce `W 8aaVR]d W`c eYV KYZcU : ZcTfZe %eYV qKYZcU : ZcTfZer& ZddfVU R_ FcUVc gRTReZ_X eYV = : : sd `cUVc R_U cVZ_deReZ_X eYV
9c` RUTRde Fh_VcdYZa I f]Vd* KYV = : : sd aVeZeZ`_ W`c V_ SR_T cVgZVh hRd UV_ZVU Z_E` gV ^SVc . , -5(W`]]` hZ_X hYZTY R ^R_UReV
cVZ_deReZ_X eYV 9c` RUTRde Fh_VcdYZa I f]Vd hRd ZddfVU* KYV = : : R_U TVceRZ`_ eYVc aRceZVd W]VU GVeZeZ`_d W`c NcZe `W : VceZ` cRZ
hZeY eYV L*J* J facV ^V : `fce RaaVR]Z_X eYV KYZcU : ZcTfZesd UVTZdZ`_ hYZTY hVcV XcR_eVU Z_ FTe`SVC . . . , *

L_UVc eYV = : : sd cf]Vd W`c UVeVc ^Z_Z_X `h_VcdYZa `w eYV ^VUZR RddVed UVdTcZSVU RS`gV(eYV DfcU`TY =R^Z]j Kcfdesd `h_VcdYZa
Z_eVcVde Z_S`eY eYV : ` ^ aR_j R_U =FO h` f]JU XV_VcR]j] cVdf]e Z_ VRTY T` ^ aR_jsd SfdZ_VddVd R_U RddVed SVZ_X ReecZSfeRS]V e` eYV
DfcU`TY =R^Z]j Kcfde W`c afca`dVd `W UVeVc ^Z_Z_X T` ^ a]ZR_TV hZeY eYV 9c` RUTRde Fh_VcdYZa I f]Vd R_U eYV Gc` XcR ^ 8TTVdd
I f]Vd* : ` _dVbVfV_e]j(eYV : ` ^ aR_j ^Rj SV cVdecZTeVU W`c ^ eR\Z_X RUgR_eRXV `W TVceRZ`_RTbfZdZeZ`_ `c Z_gVde ^V_e `aa`cef_ZeZVd(
Z_T]fUZ_X(W`c ViR^a]V(eYV RTbfZdZeZ`_ `W R_VhdaRaVc Z_eYV dR ^V `]TR] ^Rc\Ve Z_ hYZTY =FO `h_d `c `aVcReVd R eV]VgZdZ`_`
deReZ`_` @ _RUUZeZ`_(eYV : ` ^ aR_j RXcVVU Z_eYV JVaRcReZ`_ R_U ; ZdecZSfeZ`_ 8XcVV ^V_e(Rd R ^V_UVU(eYRe ZW Ze RTbfZcVd
VhdaRaVcd(cRUZ` `c eV]VgZdZ`_ Sc` RUTRde deReZ`_d `c eV]VgZdZ`_ Sc` RUTRde _Ve h`c\ d Z_eYV L*J* R_U dfTY RTbfZdZeZ`_ h` f]JU
Z^ aVUV `c SV cVRd`_RS]j]Z\]V]j e` Z^ aVUV =FOsd SfdZ_Vdd f_UVc eYV 9c` RUTRde Fh_VcdYZa I f]Vd `c R_j `eYVc WUVcR] deRefeV `c
= : : cf]V eYRe]Z^Zed(UZcVTe]j `c Z_UZcVTe]j(eYV `h_VcdYZa `c T`_ec`] `W cRUZ`_ Sc` RUTRde deReZ`_d(eV]VgZdZ`_ Sc` RUTRde deReZ`_d(
_VhdaRaVcd R_U+`c eV]VgZdZ`_ Sc` RUTRde _Ve h`c\ d(Z_T]fUZ_X =FOsd RSZ]Ze j e` `h_R_U `aVcReV Zed eV]VgZdZ`_ deReZ`_d `c
`eYVchZdV T` ^ a]j hZeY dfTY cf]Vd `c deRefeVd(eYV_eYV : ` ^ aR_j hZ] SV cVbfcZVU e` eR\V TVceRZ`_RTeZ`_d(Z_T]fUZ_X UZgVdeZ_X
RddVed(Z_ `cUVc e` aVc ^Ze =FO e` Y`]U Zed ^VUZR Z_eVcVded R_U e` T` ^ a]j hZeY dfTY cf]Vd `c deRefeVd* KYV : ` ^ aR_j R]d` RXcVVU
_`e` RTbfZcV R_Z_eVcVde Z_R ^ f]eZTYR_V] gZUV` ac` XcR ^ ^Z_X UZdecZSfe`c(Z_T]fUZ_X R TRS]V eV]VgZdZ`_ `aVcRe`c(ZW dfTY
RTbfZdZeZ`_ h` f]JU dfS[VTe =FO e` eYV Gc` XcR ^ 8TTVdd I f]Vd e` hYZTY Ze Zd _`e eYV dfS[VTe* KYZd RXcVV ^V_e WWWTeZgV]j]Z^Zed
eYV RTEZgZeZVd `c decReVXZT SfdZ_Vdd R]eVc_ReZgVd RgRZ]RS]V e` eYV : ` ^ aR_j ZW dfTY RTEZgZeZVd `c decReVXZT SfdZ_Vdd R]eVc_ReZgVd
Z^ a]ZTReV eYV 9c` RUTRde Fh_VcdYZa I f]Vd `c Gc` XcR ^ 8TTVdd I f]Vd `c R_j `eYVc WUVcR] deRefeV `c = : : cf]V eYRe]Z^Zed(UZcVTe]j
`c Z_UZcVTe]j(eYV `h_VcdYZa `c T`_ec`] `W cRUZ`_ Sc` RUTRde deReZ`_d(eV]VgZdZ`_ Sc` RUTRde deReZ`_d(_VhdaRaVcd R_U+`c eV]VgZdZ`_`
Sc` RUTRde _Ve h`c\ d(R_U h` f]JU Z^ aVUV `c SV cVRd`_RS]j]Z\]V]j e` Z^ aVUV =FOsd SfdZ_Vdd*

>I: B -) JCG: <>HI : G: 9 H6A: HD; ; FJ>INH: 8JG>I>: H 6C9 JH: D; EGD8 : : 9H

E`_V*

>I: B .) 9 : ; 6JAIH JEDCH: C>DGH: 8JG>I>: H

E`e Raa]ZTRS]V*

>I: B /) B>C: H6; ; IN 9>H8ADHJG: H

E`e Raa]ZTRS]V*

>I: B 0) DI = : G>C; DGB 6I>DC

E`e Raa]ZTRS]V*

>I : B 1) : M=>7>IH

%R& <iYZSZed*

/-*- [:YZVW <iVTfeZgV FWWZTVc : VceZWZTReZ` cVbfZcVU Sj I f\]Vd -/R\)-O R U -1U\)-O f UVc eYV JVTfcZeZVd <iTYR XV 8Te `W -5/O\(Rd R^V UVU*'](#)

/-*. [:YZVW =Z R TZR\] FWWZTVc : VceZWZTReZ` cVbfZcVU Sj I f\]Vd -/R\)-O R U -1U\)-O f UVc eYV JVTfcZeZVd <iTYR XV 8Te `W -5/O\(Rd R^V UVU*'](#)

/.*- [: VceZWZTReZ` `W : YZVW <iVTfeZgV FWWZTVc R U : YZVW =Z R TZR\] FWWZTVc afcdfR e e` -4 L*J*: * JVTeZ` -/1,\(Rd RU` aeVU afcdfR e e` JVTeZ` 5,2 `W JRcSR Vd Fi\]Vj 8Te `W *' '](#)

- , -

H><C6IJG:

GfcdFR_e e` eYV cVbfZcV^V_ed `W eYV JVTfcZeZVd <iTYR_XV 8Te `W -5/0(eYV cVXZdecR_e YRd Uf]j TRfdVU eYZd cVa`ce e` SV dZX_VU ` _Zed SVYR]W Sj eYV f_UVcdZX_VU eYVcVf_e` Uf]j RfeY`czkVU*

E<NJ : FIGFI8K@FE
%IVXZdecR_e&

9j6 +d+ JfdR_ GR_fTTZ`

JfdR_ GR_fTTZ`
: YZVW =Z_R_TZR] FWWZTVc

;ReV6 E`gV^SVc 2(. . . ,