



8SF OBUBMDSF F OJH BOE EJBHOPTUDUFTUJOH QPS GFUBM
DI SPN PTPN BMB OE HF OF UD DPOE JUPOT

7 CKFDUMFT (FTU_ MOY OZ` U UZ` OZPOP` [\Y] bUPO
NPbUQ[Z `TO`OQ] Y Y OZPOP_ O`OZUS NZP
PUMSZ[M



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#ž BMlQZ`_aY Y Me#####&
\$ž EaY Y Me [R'Qq Y Y OZPMUj Z_#####(
%ž 6UQa_ Uj Z NIP ^Qq Y Y OZPMUj Z_#####"
%ž# B^OZMNK`Q`_R` ^OT^Y [_ Y QNlCa\X UPlQ_#####

7bQ'e NNVle TM M_Y NKO TN CO [RTNBUZS MOT^Y [_] Y NX [^SOZO WQ ZPUU Zz B'OZMINX_O'OOZUS R^ ^
_] Y OOT^Y [_] Y NNVIP SOZO WQ ZPUU Z_U [RRO^CP Pa^ZS \^OSZMI Qe^ [\^ bLPO^TQc [Y N c UT
Y [^OZR^ ^Y MU Z MN [a^ TO^aZN [^Z NNVež 3X_aOT^Q_`LZS _] [aP NOVPMOUBSZ NIP [Zx aZPO^MVOZ
c TOZ^TQc [Y N TM NCOZ LZ R^ ^Y CP MN [a^ `TOZMa^Q [R^TQ_O'OOZUS `Q_ f^TQ \ [_UNQ^Q_aX_f NIP
^TQ [\^U Z_NbNKNQO^ [TOž

FTONMlW\^ZOUXQ [R\^OZMINX_O'OOZUS U_ [[RRO^M NIP OROUWONIP MOO_UNQ^Q_`LZ [^PO^ [^
WPOZ^Ue c [Y OZ c UT N LZO^QVCP OTN CO [RTNBUZS MNVle c UT MOT^Y [_] Y NX [^SOZO WQ ZPUU Zz
FTQ_Qc [Y OZ MO^TOZ R^ X^ c CP a\ c UT SOZO WQ aZ_OXZS NIP [RRO^CP PUSZ [_] W^Q_`LZS R^ ^MPCRUO
N c Ož 5a^OZ^X^ [Zx N LZbMlWQ^Q_ /OSZMI ZU OZ^Q_U [^OT [^U ZLWbXa _MI \XZSfION PUSZ [_OM
SOZO WQ [^OT^Y [_] Y NX Q ZPUU Z LZ N aZN [^Z

FTU_`MOY OZ`_aY Y MUQ_`OQ Y Y OZPMUJ Z_R_`^`OZMINX_O`OOZLS R_`^O`^Y [_] Y N`NIP SOZO W
Q ZPUJ Z_R_`^`OSZNI` c [Y OZ NIP`TQ`M ZO`_U`TOSOZON`N\`a`XUJ Z`I [Y OZ c UT N`L U`O`MCP
O`N`OQ [RTN`US MOTU`P c UT MOT`^Y [_] Y N`X [^SOZO WQ ZPUJ Z`/O`S`T`N`U`S`T`N`P`M`N`M`e c UT M
Q ZPUJ Z [^PaQ` [M`R`Y` U`E` TU` [^e [R`M`Q` ZPUJ Z`fi`T [a`P` ^O`O`U`O`Z`P`U`P`a`M`U`CP`Q` a`Z`_O`X`Z`S`R` [Y` M
O`Z`L`O`N`Z` c UT M`^` [^U`M`O`Q`a`N`O`^`U`Q` ^`O`R`O`M`N`X`e`^`U`^` [^`O`S`Z`N`I`O`e`z

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3000`MNDQRA`ŽXZO_0'OOZUS`Q`_RĚ ^OT^Y [_]Y OQ ZPUU Z_Ů _OQ ZP`^Y Q`Q'UZ0&PQ MiiY MOZNX_Q'aY _0'OOZUS/? 3Ě 38BĚj: 59 ĚG7%Ě!Ž;ZTUNZfiNPI NfiOR6@3ŽNMCP_0'OOZUSZ FTOQ[\Ů] Z [ROR6@3ŽNMCP_0'OOZUS M_M_OQ ZPŽ Ľ^`Q` _] [aX NQ PUQa__OP c UT Nxc [Y OZ M	5[Z_OZ_a_ŽNMCP ^OQ Y Y OZPMU Z
: FDPN N FOE BUPO\$	/ SBEF BOE TVOOPSUOH SFGSFOFT

FTOQ[\Ů] Z [ROR6@3ŽNMCP_0'OOZUS M_M_OQ ZPŽ Ľ^`Q` _] [aX NQ
PUQa__OP c UT Nxc [Y OZ M



+BSSFSTDFFOJHQP SJQI FSJIFE HFOFUDEJTPSEFST

/ PPE OSBDJDF OPUF

/ SBEF BOE TVOOPSJQH
SFGSODFT

B'OCQ ZOO\UJ Z _O'OOZUS U \^O'POMMO\ [MZ^OZMINX_O'OOZUS R^ ^
TO'UMMO.SCZO.WOQ ZPUU Z_M\ TU_\ [^OZ^UXK^M^ c_Y [^O[\^U Z_R^ ^
OMM^O^Q a\XQ\ LZ O^PUZS \^OZY \XZ^ MIJ Z SCZO.WOPUSZ[_Už

9[[P\^MO.WOZ[_Q_
^Q Z_OZ_a_žNMOPfi

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MOMORAXRMY U& TU_\ [^e^MVOZ c UT MbO c \ [UPOZ^UeUZS ^OMMUBQ_c UT
TO'UMMO.SCZO.WOPUJ ^PO^žFT[_OUPOZ^UROP c UT MRMV U& TU_\ [^e [RM
_COUPOUZTO'UCP PUJ ^PO^_T [a^P NO [PPOYOP ^O'POMMO\ [MSZO.WO
Q aZ_OXZS_O'bOQ R^UZ R^Y MIJ Z MN [a^ OMM^O^_O'OOZUS MZP \^OZMINX
PUŠZ[_U! \^OZY \XZ^ MIJ Z SCZO.WOPUSZ[_U R^ ^TOQ ZPUU Zž

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^OCQ Y Y OZPMIJ Z

Ž/ , JTDVTTJPO BOE SFDPN N FOE BUJPOT

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3X\ 'OSZM' c [Y OZ _T[aX NQ\ ' bUPCP c UT UZĚ 'Y MUJ Z MIP TMĚO 'U' OĚ MODO _[_O'OOZ UZS ' Q' _RĚ ^RO NĚOT 'Y [_] Y QMIP SOZO ĽO Q ZPUUJ Z ž B' OZMIMX O'OOZ UZS [\ ' UJ Z _T[aX NQPU Ca _OP MIP [RRO'OP UZ 'TORU_ ' 'U' Q' Q' c TOZ QbQ' \ [_UWQž	>CbOX;;ž% 9'NPO5 &

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- %#ž# 3X\ 'OSZM' c [Y OZ _T[aX NQNPBUQP [R'TONBONKNUXe [RUZbQ 'LSMUJ Z _RĚ ^\ 'OZMIMX MIP PUUSZ [_U M QMĚ M \ [_UWQ UZ ' \ 'OSZM' OĚ ' [NĚ c 'U' Q' [PU Ca _TO [\ ' UJ Z _NĚONKNOZMIP RMOXIMOMĚ UZĚ 'Y CP OT [UOž 3Z UZĚ 'Y CP OT [UO U dNMIP [Z 'OObM' VZ [c XPSQ Q Z _U' OZ' c UT 'TOPCOUJ Z Y MŔŔn bNĚQ pž*
- %#ž\$ FTQ [RRO' [R O'OOZ UZS _T[aX NQY NPO' [NĚ Q \ XOU' Q \ COUWO [R'TO OZ UO MĚ \ O'OO \ UJ Z [R c TM 'TOU XVOĚ OT [UO _Y IST' NOž; ' U Q _OZ 'UW TM 'TOc [Y MĚ UJ Z ' PO \ WCP [R'TO [\ \ [^aZUĚ [RZP [a' MM [a' 'TOTQXT [RTO'RO a ž; ' UJ Z ' Q TONĚ [\ ' Q a \ \ [_QMQ a ^Q [R MOUJ Z \ 'U' ^ ['TU UZĚ 'Y MUJ Z NOZS \ 'Y bUPCPž
- %#ž% E [Y Qc [Y OZ Y MĚ Y MŔŔMĚ UZĚ 'Y CP COUJ Z Z [' ' [\ 'Y OOO c UT MĚ 'Q' UZSž 5 [aZ OXZS _T[aX RĚ XĚ c M TMCP COUJ Z ŽY MŔŔSY [POX c TO'OTQXT \ 'Y RO _UJ Z NĚ PU Ca _UZĚ 'Y MUJ Z NMIP [Z 'TOU Qd O' UOMIP 'Q \ CO RĚ ^' TOc [Y MĚ n bNĚQ UZ M'WZS MIM NŠ' OOP Q a ^Q [R MOUJ Zž
- %#ž& ;ZĚ 'Y MUJ Z _T[aX NQ Q' Y Y aZUWIP a UZS OOMĚ 'U' \ XOMIP Q' Z _U' OZ' XĚ SaMSQc TOZ PU Ca _UZS UZbQ 'LSMUJ Z } c UT Q ZR'Y MUJ Z 'TM 'TOUZĚ 'Y MUJ Z TM NCOZ aZPO' _ [[P MIP c UT 'TM aZPO' _ MIPUSP [CaY OZ' CPž
- %#ž' ;ZĚ 'Y MUJ Z _T[aX NQ \ 'Y bUPCP UZ MĚ 'Y M' TM U QMĚ ' [aZPO' _MIP MIP MOO UWO' [\ 'OSZM' c [Y OZ R [Y CaXa' MĚ MIP XZ SaU' WĚ PUbO' QNMVŠ' [aZP _UZ OĚ PUZS ;ZPUSOZ [a_ c [Y OZ fIMIP c [Y OZ c UT MPPUJ Z NĚ COO / aOT M \ Te WĚ OZ ['e [^XOMZ UZS PURROaXUO fž 3Z UZ' O' \ OZS O' bUO _T[aX NQY NPO NĚONKNUQc TO'OU U 'Q' aUCP / CO [3 \ \ OZ Pld 7fž](#)
- %#ž(;ZĚ 'Y MUJ Z _T[aX UZOĚ PO' TORĚ XĚ c UZS.
 M 3 PQ O'U' UJ Z [R'TO Q ZPUUJ Z _TM OMĚ MIP OMZ [' NQPO COOP 'T' [aST 'NPUUJ Z NĚ _O'OOZ UZS \ 'Y OO _Q MIP PQ NĚ [R'TO' Q' UZS \ 'Y OO ž FTU _T[aX UZOĚ POUZĚ 'Y MUJ Z MN [a' \ TOZ ['e \ WbMUMUe [ROT'Y [_] Y MĚ Q ZPUUJ Z _MIP 'TOPURROaXUO UZ NOZS MNO' [\ 'OPIW 'TOQd' OZ' [RORCO [Z M M' WĚ XM NMež
 Nž 3 PU Ca _UJ Z [R'TO PURRO' OZ OO NO c OOZ _O'OOZ UZS MIP PUUSZ [_'W' Q' ž
 Ož 3 PbM' NŠQ MIP PU N PbM' NŠQ [R'TO PURRO' OZ ' e \ Q [R' Q' _ NĚONKNO' MŔŔS UZ [MOQ aZ' 'TOSQ' MUJ Z [R'TO \ 'OSZM' OĚ fž
 Pž B' WĚONM \ CO _ [R' Q' UZS / UZOĚ PUZS 'TO' U' UZS [R' Q' _ MIP 'TOM \ 'Y dY MOQ _ ' _ UZb [XCPž
 Ož FTQ \ [_UWQĚ 'TM 'TO' O'OOZ UZS MIP PUUSZ [_'W' MTc MĚ Y MĚ 'CbQVĚ [Y MĚ ['TO' 'TM 'T [_QO' COOPž
 Rž 6Q NĚ [R a \ \ [^ S' [a \ _MIP _] a' OO [R R a ^ TO' UZĚ 'Y MUJ Z / CO: [c _] P COUPO [Z MĚ OZMIMX Q' _RĚ ^OT'Y [_] Y NĚ MIZ [Y MĚ UO MIP ['TO' Q ZPUUJ Z _MIP [3Z' OZMIMX O'OOZ UZS RĚ ^6 \[c Z eZP' Y OMIP \['TO' Q ZPUUJ Z / @c LOX M Pž](#)

Sz FTOaZPO^_MIPUS`TMI URMOT`Y [_]Y Q[^SOZQWDQ ZPUUJ Z U_PUUSZ[_CP Me [Y MZ
 ONI OT[[_Qc TQTQ^` Q Z`LzaQ [^`OY UZMO`TQ\`OSZNI`GeZl TOQMOQ ZPUUJ Z TM
 NCOZ PUUSZ[_CP \MOZ`__T[aX NOSUWZ_aRRDZ`UZR`Y MIUJ Z `OSMPUS`TOMU`X Set
 M_ QUMUJ Z`MIP UY \XOMUJ Z` [R`TMPUSZ[_U Pa`US \`OSZNI`Ge` TOZQc N[`Z \O`U P
 MIP NGe [ZPI UZ [`PO^` [Y MZO`UZR`Y CP PCOUUJ Z`MM a``TQJ [\`UJ Z`z
 %##Z FTO`O`_T[aX`NONM`M`a`MZO`TM`OSMPXO` [R`TQJ`PCOUUJ Z` c [Y OZ`c`UXNO [RRO`CP
 Q`aZ`OXZS`MIP`^COOUBO [ZS [UZS`OMOMIP`_a\ \ `^z; Z`TQOMQ [RQ Z`LzaUS`TO\`OSZNI`GeZ
 c [Y OZ`MIP`TQJ`M`ZO^`_T[aX`NO\` [bUPC`c`UT`M\` [\`UMONM`OZMN`XOMOC`UT
 UZPUBPaM`XJCP` \`OMM`UJ Z`_R`^N\`T`MIP`ZQ`ZMN`X`M`NSOY`OZ`zFTO [\`UJ Z [RZQ`ZMN`X
 \`M`X`M`BO`OMO`_T[aX`NOPUGa`_CP`R`^Q`ZPUUJ Z`_c`TO`O`TO\` [SZ [_U`U` [[^MIP` \`M`X`UJ Z`U
 M`ON`U`_W [\`UJ Z`z; R`TQe`OT [[_Q`O`Y`UZMIUJ Z`T`Qe`ZCO`P` [VZ [c` `TM`TOY [PQ [R`O`Y`UZMIUJ Z
 Y`M`NO`UZ`R`a`OZCO`P`Ne`SQ`_MIUJ`ZMN`SO`UZ`XZ`O`c`UT`E`MO`X`z`

ZÁ 8SFOBUBMDSFFOJCHUFTUJ QPSGFUBMNI SPN PTPN F BOE HF OF UDDPOEJUJ POT

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EO`OOZUS [^PUUSZ [_W`Q`UZSR`^RO`N`OT`Y [_]Y M`MIP`SOZ`Q`W` Q`ZPUUJ Z`_U`b [XaZ`Me`MIP`_T[aX [Z`X`NOaZPO^`MVOZ`M`M`UZR`Y`CP` PCOUUJ Z`Ne`TO\`OSZNI`c [Y`M`z`	5 [Z`OZ`_a`Z`NMCP` ^OQ`Y`Y`OZ`PMUJ Z`
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;RM`O`OOZUS`Q` `O`aX`UZP`OMQ`_M`UZ`O`OMCP`OT`M`OO [R`MOT`Y [_]Y`Q` [^SOZ`Q`W`Q`ZPUUJ Z`T`Qc [Y`M`_T[aX`TN`OM`OO`_` [SOZ`Q`W` Q`aZ`OXZS`R`^R`^`TO`^`UZR`Y`MIUJ Z`MIP`_a\ \ `^z` FTON`M`M`M`O [\`UJ Z`_R`^`^`OZ`MN`X`PUUSZ [_U`_T[aX`NOPUGa`_CP`MIP` [RRO`CP`z`	5 [Z`OZ`_a`Z`NMCP` ^OQ`Y`Y`OZ`PMUJ Z`
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3OOD`M`MOR`_`Z`ZO`O`OOZUS`Q` `R`^RO`M`OT`Y [_]Y`Q`M`Z [^Y`M`UW` UZ`TOR`_` `^Y`Q`O`^`O`PO`OJ`TO`: M`IQ`Y`M`Z`OP`R`_` `^Y`Q`O`^`O`OOZUS`c`UT`Za`OT`M`^`M`_`Xa`OOZ`Oe`MIP`_O`aY` \`OSZNI`GeZ`M` [OUMCP` \`X`Y`M`^` `OZ`3/B3BBŽ3f`MIP`NO`M`f`aY`M` OT [^U`Z`OS [Z`MIP [^` [\`UJ`/ : 59f`iy`OM`a`OY`OZ`_` AD` @3/or6@3f`Z`NMCP`_O`OOZUS`z` RR`_`XZ`O`O`OOZUS`Q` `c`UX`PO`OZ`P [Z`X`OM`^`O [a`OO`f` [S`M`T`W`f`MIP`UZPUBPaM`X`M`UW` `OT`M`M`O`U`_W`z`	5 [Z`OZ`_a`Z`NMCP` ^OQ`Y`Y`OZ`PMUJ Z`
: FDPN N FOE BUJPO!	/ SBEF BOE TVCOPSJCH SFGSFOFT
B`OZ`Q` `Q`aZ`OXZS`R`^R6@3`Z`NMCP`_O`OOZUS`_T[aX`UZ`O`a`PO`UZR`Y`CP` PCOUUJ Z`Y`M`V`S`^OSMPUS`Q`_UZSR`^RO`N`_Qd`MIP`_Qd`OT`Y [_]Y`Q` M`Z`Ca`X`U`Pe`z`FTO\ [`OZ`UX`R`^ [`TO`a`Z`M`_W`U`MCP`RZ`PUS`_ [R`^O`O`b`M`OO` [` Y`MO`Z`N`X`T`O`N`X`T`UZ`O`a`PUS`Y`MO`Z`M`S`OZ [Y`W`U`Y`N`M`X`OO`f`i`_T[aX`NO` UZ`O`a`PO`UZ`^`OZ`Q` `Q`aZ`OXZS`z`	5 [Z`OZ`_a`Z`NMCP` ^OQ`Y`Y`OZ`PMUJ Z`



3X\ 'OZMNX_O'OOZUS 'Q_aX__T[aXP NOQ Y Y aZ\OMCP` [`TO'ORO'MUSP[O[^MIP\MIOZ` M_] [Z M
 \ [_WQMP U MY MZO` TMOZ_a'Q_OQMaZPO`_MIPUSZFTOMDQ Z` [NO`MVOZ [Z`TONMU [R
 MIZ['Y M'Q_aX_U MPCOUQ Z R` ^`TOQ a\XQ ZOOZCP NMCP [Z`TOUZR` 'Y MIU Z SUBOZ c UT PaX
 Q aZ_OXZS_a\ [^z

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 Y MOZMNSQ aX'M[aZPY QMa'OY OZ` [RRO'NZaOTM' 'M_XaOOZOb MIPY MOZM_Q'aY Y MVO`_ [
 SQO'MQNZ [bO'NKOTMCO [R`U[Y e \$#z5M'aXMIU Z_R` ^`U[Y e #%MIP #+ MQNX [UZQ ^ ['MCP UZ` [
 `TORJ_ ` 'Y Q`Q`Q` Y NUZCP _O'OOZUS MS ['UTY ž58FE U`TO`_MIPMP [ROMOUZ Y [_ PCbOX \CP
 Q aZ` 'U_ PaQ` [U_PaM'NPbM` NSQ_ [RTIST _OZ_UbUe MIP QM% PQ OOU ZžFTO'QMOMX [`TO
 NPPUQ ZM'NPbM` NSQ_ [RM[a`UZQaX'M[aZP QdM' UZMIU Z M##L" k #%&(c OQW UZO&PUZ
 Q ZR'Y MIU Z [RRO'NZaY NO' SQ`MIU Z bUMUJe MIP _`aOa'XPcOX \Y OZ` ž

Uf15OXZR'OO6@3/0R6@3fižNMCP_O'OOZUS a_UZSY MOZM\XMY MONZ NO\O'R` 'Y QP 'OXUMe R[Y #"
 c OQWžFTU _O'OOZUS`Q` NCOM Qc UPOe N'NM'NDQZ 3a_`'VMZ \$" #%MIP TM`TOTISTQ` _OZ_UbUe

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50XR'006@3/0R6@3finNMCP_0'00ZUSI Q'Y Y [Zx6 '0P0'0P' [M_LZ[ZŽzbMlbbQ\ '0ZMNM'Q_ 'UZS/@,BFfi
a_Q_6@3_Q] aOZOZS [^M'Y4 NMCP`00TZ[X] Se` [PQ00 MZCa\X] UPeUZ \XMOZ`MX'U_a_Q_ NeY QMa'UZS
0R6@3UZ`TOY MOZNM\XMY MFTU`Q` U_TISTx6 _OZ_UlBQNZP_TISTx6 _\COBR0R` ^`^U] Y e \$# Na` P[Q_Z[`
TMBQ_aRR00Z` PUSZ[_l0M0Ca`M0e` ['0\XMOUZbMlbbQ`Q_ 'UZS/uzR\XQ\ [_UlBQNZP_R\XQZOSMlbbQ_`UX
[COa'fz;` c M_LZUUX6 bNXPMP MZP_OZL0W6 LY \XOY OZ` CP_M_LZ dN'PbMZCOOP [^_00 ZPMe_0'00ZUS`Q`
R`^c [Y OZ M_LZ0'0MCP_XV0XT [[P [RTNBZS MOTUP c UT MZCa\X] UPeNMCP [Z Y MOZNMNSQ \^U ^
MNZ [^Y MX_0'00ZUS 'Q_aX] aX'M] aZP_U'0SaXMUe [^\^U ^TU [^e [RNVCa\X] UPež 6MIMMOZ [c N0N0MNDQ
[Z_U_a_QUZ`TOSQZ0'NM\ \aXMU] Z] _aSSQ_ 'UZS Q] aMX'Q` \O'R` ^Y MZ00OTMNDQ_U`_l0Z_ OZ_UlBde
NZP_ \COBR0UefiNa` M] c O'0T MZ00 [RNV M'ROOP R0_a_ SUBOZ MZ MNZ [^Y MX_0'00ZUS 'Q_aX
^M\^ dY MO6 & " ff M] c [aX'NOQd\COOP R] Y U_a_QUZ X] c Q'\^CbXOZ00\ \aXMU] Z_ž^!#\$#
6USZ [_l0`Q_ 'UZS c UT M' ZU] 00Z`Q_U [^0T [^U] Zl0bUX6 _M' \XZS_T [aX'NO'00] Y Y OZPCP \^U ^` [
PCRZUlBQY MZNSQY OZ` PC0U] Z_uz_0MQ_ [R_a_ \COOP MZCa\X] UPe [Z 0R6@3ŽNMCP_0'00ZUSž

I [Y OZ_T [aX'MX] NQM: MQ`TMNQ c 00Z #` [(" [R0R6@3`Q_`_MOaZ`Q\ [^MNDZ\$S I [Y OZ c UT
_a0T MbZ [0N]6 'Q_aX M\QM` [TNBOMTISTO`^MO [R0R6MNMZ [^Y MZU0_/0Sž` ^UX] UPeff\$% MZP`TO'0R` 'O
_T [aX'TNBQR] X] c a\ M_Q_ Y OZ` LZ06PUZS PQ'MXCP aX'M] aZP/URZ [`MX0NPe \O'R` ^Y CPfzFT0e_T [aX'
NO [R0'0P`TON0N0MNDQ \^U] Z_ [RPUZS [_l0`Q_ 'UZS I '0\QM 0R6@3`Q_ 'UZS/_a000_ RaxLZ M\^ dY MO6
' "' fi [^M M'XOZMlbbQR` ^Y [R_0'00ZUS _a0T M] Q] Y NIZCP R0_` ^Y Q_`Q_`0'00ZUSž

? [_ 0R6@3_0'00ZUS`Q`_ [R0'0R0M'QdMzP_Qd0T^Y [_] Y QNZCa\X] UPe PQ'00U] ZUZ NPPU] Z` [^U] Y l0_ \$# #+ NZP #%žFTO'QTM] T [c Cb0Y N00Z Z [\^000POZ` R` ^\ \aXMU] Z_0'00ZUS R` ^_0d
0T^Y [_] Y Q0 ZPU] Z_PaQ` [`TQbMUMNDQNZP a_aN]6 Y UP \TOZ [`e\0z0R6@3 NMCP_0'00ZUS R` ^
_0d0T^Y [_] Y Q_U_M] X] X0_ M0Ca`M0`TM R` ^`TOMa` [_] Y Q] LZ0'0MQ_`TORXQ\ [_UlBQ`M0G MZP ONZ
NOQ ZR` aZPCP Ne aZPO'6UZS Y MOZNMNMZP \XMOZ`M'RM0 [^/_a0T M] Y MOZNMNSQž`Q'MCP _] Y Ml0
Y [_NDU] Y MZP Q ZRZCP \XMOZ`M'X [_NDU] Y fž\$& B'0Z`Q` Q` aZ_0XZS R` ^0R6@3_0'00ZUS_T [aX'UZ06PO
UZR` ^Y CP PC0U] Z Y MNZS 'OSMPUZS`Q_ 'UZS R` ^R0M'QdMzP_Qd0T^Y [_] Y QNZCa\X] UPež I [Y OZ

-

/ORk DQPO^I ? 09UW^M 9H I TUQEt : aUž5[Z`QY \[^Me \^OZM^M^M^Ca \X UPe_0^OZLZS \^M^O^O^LZ
3a_ \^M^M^fB 26' /5: #4' &26' 450/4+ 5' %/† . ' 3ž3a_ @L <AN`Q 9eZM^Q X\$" #+ 6A;
#" ž####! M ž\$+%&CBaNM^QNP [R \^L`fž

i ~ / (. <00842 19<, 80?: 64C 48 7? 64 6: <028, 8. 4=

<X JOCSFHOBODFT

<X JOCSFHOBODFT BOE I JH FSPSEFSN V^M^O^M^O^CSFHOBODFT	
: FDPN N FOE BUPO Łfi	/ SBEF BOE TVCOPSJCH SFGSFOFT
8[^M^K^Y aXU^XQ \^OSZM^O^O^R^_`^`^Y Q`Q^aX^M^I aZPM_Q_Y OZ` [R OT [^U ZW^eM^P R^M^Y [^T [X Se M##ž#%c Q^W^U`^O^Y Y OZPOP R^ ^M^K c [Y OZ R^ ^L`Q^ \^O^M^U^Z [R_0^O^O^LZS ^Q_aX_M^P`^W^S^LZS` [M^ \^ [^W^M^O Y [POX [R^M^ \^O^Z^M^M^M^M^M^Q^ \^OSMP^X^_ [R^T^Q^O^T [W^O [R^O^T^Y [_ [Y Q _0^O^O^LZS`Q`ž	5[Z_OZ_a ž^M^O^P ^O^Y Y OZPM^U^Z
: FDPN N FOE BUPO ŁŁ	

+POVFOUPOBMV iCBOEFE° 3BSZPUZQJHk a_Q_GaXa^CP R M X O X ` [\^Q\MO_`N\CPY QMITMO
OT^Y [_Y Q_R ^Y W^_Q \WUZ_\OOU Zz5T^Y [_Y QZaY NO^XZS^T^N\ZPUZS\M^O^Z N\ZP
[^TQ^\Te_W\OTMMO^U^W_MObUaN\K^M_Q_CPNeMOe`[SOZO WJ`ž;` UPOZ`WQ_OTM^SO_UZ
OT^Y [_Y QZaY NO^M_c O^M_aNOT^Y [_Y N^Q^M^ZSOY OZ`_P[c Z ` [' Ž#" Y OSNMMO_UZ
_UQž

: BOJE BOFVOVLEZ UFTUT I G

3.5.1 Population-based reproductive carrier screening

+BSSFSTDSFQOJHGPSJQI FSJLFE HFOFUDEJTPSEFST	
/ PPE OSBUDJF OPUF	/ SBFEF BOE TVCOPSJUH SFGSFODFT
B'OOQ ZOOA`UJ Z _O'OOZUZS U` \^O'QO'NMUO` [MZ`OZMVMK`O'OOZUZS R` ^ TO'UMVMUO`SOZO WOC ZPUUJ Z` M` TU` \ `OZ`UWJk`NJK` c`_Y [^O [`UJ Z` R` ^ OMM'W`O`Q` a` \XQ`] UZO`a`PUZS ` \OZY ` \XZ` MIUJ Z SOZO WOPUWSZ [_Uz	9 [[P` \M'W'OOZ [`Q` /O` Z`_OZ`_a` ŽNMOPfi
: FDPN N FOEBUJPOŁz	/ SBFEF BOE TVCOPSJUH SFGSFODFT
3XKQ` a` \XQ` UZ` OZPUZS ` [TMOOQ'U'P'QZ [^c T [MOV`OSZM` t`_T [aX` TMOO M'OM'Q'a`X'RY` Ue` TU` [^e` M'VOZ` c` UT M'blOc` ` [UPOZ` URe`UZS `O'X'U'UO`_c` UT TO'UMVMUO`SOZO WOPUJ [^PO`_z`FT [_O'UPOZ` UROP` c` UT M'RY` Ue` TU` [^e` [RM` _\CO'U'U'Z`TO'U'CP`PUJ [^PO`_T [aX` NO [RRO'CP` ^O'QO'NMUO` [M'SOZO WOC` aZ` O'XZS` O'b'WOC` R` ^UZ R` ^Y` MIUJ Z MN [a` OMM'W` ^O'OOZUZS MZP ` \OZMVMK` PUSZ [_U! ` \OZY ` \XZ` MIUJ Z SOZO WOPUWSZ [_U R` ^`TOQ` ZPUUJ Zz	5 [Z`_OZ`_a` ŽNMOP` ^OQ` Y` Y` OZPMUJ Z
: FDPN N FOEBUJPOŁ!	/ SBFEF BOE TVCOPSJUH SFGSFODFT
5MM'W` ^O'OOZUZS R` ^`TOY [^OQ` Y` Y [Z` oY [Z [SOZ'W'P`SOZO WOC ZPUUJ Z` /O'Sz`Oe` _\ORNV [_U] ` \ZNMXY` a`_Ca`X`M`M` \Tel` R'NSUOJ` _eZP` ^Y` Q` TMOY` NSX` NUZ [\MTW`_fi`U` M'N'X`M'UO`U` 3a`_` \M'X`M`Z`P`U` @c` L'ON`X`Z`P`U` `TO` \`U'U'UO`_CO [^z`Z`R` ^Y` MIUJ Z [Z` OMM'W` ^O'OOZUZS R` ^`TOY [^OQ` Y` Y [Z` SOZO WOC ZPUUJ Z` _`TM`N'P'CO` O'U'P`^OZ` /O'Sz`Oe` _\ORNV [_U] ` \ZNMXY` a`_Ca`X`M`M` \Tel` R'NSUOJ` _eZP` ^Y` Q` fi`_T [aX` NO [RRO'CP` ` ` NJK` [Y` OZ` \XZ`Z`UZS` M` \^OSZM`Oe` [^Z` _TOR`_ ` ^Y` Q`_O` [R` \^OSZM`Oe` z` I` [Y` MZ` c` MZ` UZS` Y [^O` UZ R` ^Y` MIUJ Z MN [a` OMM'W` ^O'OOZUZS`_T [aX` NO`S'U'COZ` `TO [\ \ [^aZ`Ue` [TMOQMY [^O'QO`M'X`P`U`Ca`_UJ Z MN [a` OMM'W` ^O'OOZUZS` c` UT MZ` UZ R` ^Y` CP` OZ`W'U'U`z`FT`O`NOZ`CRJ` _M`P`XY` U'U'UJ`Z` [R` Q`_UZS`I` MZ`P`M`e`M` [OUM'OP` Q` _` _T [aX` NO`P`U`Ca`_OPz	5 [Z`_OZ`_a` ŽNMOP` ^OQ` Y` Y` OZPMUJ Z
: FDPN N FOEBUJPOŁ"	/ SBFEF BOE TVCOPSJUH SFGSFODFT
3X\` ^OSZM` c [Y` OZ`_T [aX` NO [RRO'CP` NM`W` ^O'OOZUZS R` ^`TM`M`_OY` UM` OMM'W` _`Ma`_Ne` M'Ra`X`N`X` [P` Q`i`V` UZ`MIUJ Z` M` UZ`U'U'X` ^O`OZ` MIUJ Zz` EO'OOZUZS` c` UT _\CO'U'U'Z`M`_R` ^`TMOY [S`X` NUZ [\MTW`_ /_a`O` M` : B>5 [^` 7B9` MZ`P` TMOY [S`X` NUZ [\MTe` SOZO6@3` `Q`_UZS`fi`_T [aX` NO`Q` Z`_UPO'CP` UZ` TIST` ^U`W`O`TZ`W [^\ [\a`X`UJ Z` S [a`_z	9`M`P`O`5

B'OOQ ZOOA`UJ Z [^\ ^OZMVMK`SOZO WOC ^O'OOZUZS [RQ` a` \XQ`_c` U'U'UPOZ` URe` `T [_Qc` UT MZ` UZ`O'Q'U'CP` X'W'OX [[P [R'S'U'UZS` NU`T` [M'OTU'P` c` UT M` \CO'U'U'Z`TO'U'U'U'OPUJ [^PO`z` ;` P [Q`_Z [` ^O'QO` [`Q`_UZS` MZ` UZ`P'U'U'P'a`N`X`c` UT M` _` ^ [Z`S`R`M` Ue` TU` [^e` [RM`V [c` Z [^\ [_`U'U'UO`SOZO WOC ZPUUJ Z` k` `TO`Q` \Q` \XQ`_T [aX` NO [RRO'CP` P'U'CO` ^O'QO'NMUO` [M` \CO'U'U'U` OZ`W'U'U'Z`SOZO WOC O'b'WOCz

; U_Q^LY MQP`TMNKLZPUBPaM^MOQMM^R^AMXQM^T^OOOZLONK^CbO^O^OOO^_bOQOTUP^T [P
PU [^PO^Z^ ? [_ [R^TQ_QMQM^ [_ [Y^N^Y^Q^N^Z^S^URN^T^Y^O^Y^NO^ [R^M^Q^a^X^Q^M^O^Q^M^O^ [R^M
Y^a^M^U^Z^U^Z [Z^O^S^O^Z^O^Q^ \e [R^M^ _C^O^P^O^S^O^Z^O^ \M^H^M^P^URN^T^ _M^ [Z^T^O^Y^a^M^U^Z^T^T^O^ [R^ \^U^Z^c^U^X
P^C^O^X^ \ M^Y^O^P^L^O^N^K^ _S^Z^U^R^O^N^ _S^O^Z^O^W^O^Q^Z^P^U^U^Z^Z^J^Z^X^Z^V^Z^P^ \^O^O^O^_b^O^Q^Z^P^U^U^Z^ [O^C^a^c^T^O^Z^M^c [Y^M^
O^M^O^M^O^M^Y^a^M^U^Z^U^Z^M^S^O^Z^O^ [Z^T^O^J^Z^O^T^Y^ [_ [Y^O^Z^R^T^Q^ _M^_Q^ _T^U^Y^a^M^U^Z^ [Z^ \ [T^O^ \ [Z^T^O^c^U^X
P^C^O^X^ \ M^Y^O^P^L^O^N^K^ _S^Z^U^R^O^N^ _S^O^Z^O^W^O^Q^Z^P^U^U^Z^Z

FTOQMM^O^R^Q^a^O^Z^O^e [R^O^O^ \ M^Z^ \^O^O^O^_b^O^Q^Z^P^U^U^Z^_U^T^I^S^T^O^ \^U^Z^ _C^O^P^O^O^T^Z^I^O^ \ \a^X^M^U^Z^_O^S^Z^O^e^_W
R^M^ [_U^Z^ @ [^T^O^Z^7a^ [_C^M^Z^_M^P^3^_T^V^O^Z^M^U^O^c^ / ^T^M^M^O^Y^U^M^T^M^O^Y [S^X^N^Z^ [_M^T^O^U^Z^E [a^T^Z^M^
3^_U^Z^_ / M^P^F^M^Z^E^M^O^T^_P^U^Q^M^O^U^Z^3^_T^V^O^Z^M^U^O^c^_Z

3ZaY NO^ [R^O^M^O^M^O^ _O^O^O^Z^U^S^ _Q^ _C^O^U^ _c^U^T^U^Z^3a^ \^M^M^U^M^ [^M^O^ \^O^M^P^U^e^M^O^O^_U^W^O^R^ [Y [b^O^ _C^M^f^i^N^a^
G^a^ \^O^Z^ \^e^T^O^Q^O^M^O^S^O^Z^O^M^K^Z [\ R^a^Z^P^O^P^N^e^T^O^ _a^N^X^O^T^O^M^X^T^_e^ _O^Y^ _U^O^Z^M^O^O^_U^W^O^ [Z^e [Z^M^a^_O^ _M^e^
N^M^U^f^z

;Z^R^ \^Y^M^U^Z [Z^O^M^O^M^O^ _O^O^O^Z^U^S^ _R^ \^T^O^Y^ [\^O^Q^Y^Y [Z^S^O^Z^O^W^O^Q^Z^P^U^U^Z^_T^M^N^R^O^O^O^T^U^P^ \^O^Z^ _O^S^Z
O^e^_W^O^R^M^ [_U^ [_U^Z^N^X^Y^a^_G^a^X^M^M^ [\T^e^f^R^N^S^U^O^J^_e^Z^P^ [Y^G^f^_T^ [a^X^N^O^ [R^R^O^P^ [M^K^c [Y^O^Z^ _X^Z^Z^U^S^M
 \^O^S^Z^M^O^e [^U^ _T^O^R^ _ \^Y^_Q^ _O^ [R^ \^O^S^Z^M^O^e^z [_ [Y^M^c^M^ _U^Z^S^Y [\^O^U^Z^R^ \^Y^M^U^Z^M^M^ [a^ _O^M^O^M^O^M^
 _O^O^O^Z^U^S^ _T^ [a^X^N^O^S^U^B^O^Z^ _T^O^ [\ \ [^a^Z^U^e^ _T^M^O^M^Y [\^O^P^O^N^O^P^U^C^a^_U^Z^M^M^ [a^ _O^M^O^M^O^M^O^ _O^O^O^Z^U^S
c^U^T^M^ _U^Z^R^ \^Y^O^P^O^X^Z^U^W^M^Z^F^T^O^N^O^Z^O^R^J^_M^P^X^Y^U^M^U^Z^ [R^ _Q^ _U^S^I^M^P^M^e^M^ [O^M^O^P^Q^ _ _T^ [a^X^N^O
P^U^C^a^_O^P^z

AZ^O^Z^ _O^ _O^O^O^Z^U^S^ _R^ \^O^M^O^M^O^ _M^a^_f^c^T^O^Q^N^ [T^Y^O^Y^N^O^ _ [R^M^Q^a^ _X^Q^M^O^ _Q^ _O^P^ _Y^a^X^M^Q^a^_X^M^P
O^M^O^T^S^U^B^O^Z^ _T^O^ _Q^a^X^N^O^N^O^M^Z^P^U^B^P^a^M^K^e^U^ _ \^O^R^O^M^O^M^Y [\^O^O^M^O^M^O^ _c^U^X^N^O^P^O^O^O^P^M^P^ _T^O^ _Q^a^X^
c^U^X^N^O^N^O^M^O^M^O^U^Z^M^Y [\^O^ _Y^O^e^R^M^T^U^Z^z: [c^O^B^O^f^U^U^ \^O^Q^S^Z^U^O^P^ _T^M^U^U^Y [\^O^O^Q^Z^ [Y^O^N^K^ [
a^Z^P^O^ \^M^O^o^c [Z^ _O^ _O^O^O^Z^U^S^p^k^ _Q^ _ _T^O^R^O^Y^M^O^R^ _M^P^ _T^O^Z [Z^e^ _Q^ _ _T^O^Y^M^O^ _M^Z^O^ _T^ [a^X^ _T^O
N^O^R^e^a^Z^P^ [N^O^M^O^M^O^M^O^ [R^T^O^ _ _C^O^P^O^M^a^ [_ [Y^M^ \^O^O^O^_b^O^Q^Z^P^U^U^Z^ / f^i^N^O^Z^S^ _O^O^O^Z^O^P^R^ \^Z^F^T^O^ _a^Z^Z
M^ [a^Z^P^Z^Y^O^ [R^ _O^O^O^Z^U^S^ _Q^ _M^P^ _T^O^M^ _W^O^M^O^P^S^O^ _M^U^Z^M^N^S^O^M^R^Z^M^P^U^S^Z^ [_U^M^O^Y^ \ [^M^
R^M^ [^ _ [Q^Z^_U^P^O^c^T^O^Z^P^C^O^P^U^Z^S^N^O^c^O^O^Z [Z^O^Z^ _O^ [^c [Z^ _O^ _O^M^O^M^O^ _O^O^O^Z^U^S^z

I^U^T^ _T^O^U^Z^ \^ [P^a^O^U^Z [R^Z^O^c^S^O^Z^ [Y^W^O^_Q^] a^O^Z^O^Z^S^ _O^O^Z^U^] a^O^Z^O^M^O^M^O^ _O^O^O^Z^U^S^ _R^ \^M^Y^a^X^U^a^P^O^ [R
 \^O^O^O^_b^O^Q^Z^P^U^U^Z^_U^Z^ [c^M^N^O^M^O^M^O^R^ \^Q^a^ _X^ _c^T^ [T^M^O^Z^ [R^M^U^e^T^U^ [^e [R^M^S^O^Z^O^W^O^P^U^ [^PO^Z^#^F^T^U
 _ [Z^O^M^O^P^c^O^ _M^P^O^P^O^M^O^M^O^ _O^O^O^Z^U^S^p^_T^ [a^X^ [Z^e^N^O^ [R^R^O^P^U^Z^ _T^O^Q^Z^ _O^f^ [R^c^O^X^P^O^R^Z^O^P^O^X^Z^O^N^K
 _M^T^c^M^_R^ \^ \^O^Z^M^P^ \ [_Z^O^ _S^O^Z^O^W^O^Q^a^Z^_O^X^Z^S^I^M^a^ \ [\$&^ [R^M^P^a^X^_c^U^X^Q^ _ \ [_U^W^O^R^e^M^X^O^M^
 [Z^O^ \^O^O^_b^O^P^U^ [^PO^Z^\$^

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;R^M^c [Y^M^M^M^P^ [^T^O^ _M^Z^O^ _T^M^O^M^R^Y^U^e^T^U^ [^e [R^M^M^ [c^Z [^_a^ _C^O^O^P^S^O^Z^O^W^O^P^U^ [^PO^Y^O^S^Z
R^N^S^U^O^J^_e^Z^P^ [Y^G^f^O^e^_W^O^R^M^ [_U^f^i^ \^O^R^O^ _T^O^Q^a^ _X^ \ [_ _C^O^U^M^U^ _O^Z^L^O^N^K^S^O^Z^O^W^O^ _O^b^W^O^ \^O^R^O^M^M^e
 _U^ \^ [\^O^S^Z^M^O^e^f^i^ [M^_Q^ _O^ \^ [P^a^O^W^O^ _U^W^M^P^ _T^O^M^O^M^O^M^U^O^e [R^S^O^Z^O^W^O^ _U^Z^S^ \ [R^a^ \^T^O^ \^O^R^Z^O
 _O^ \^ [P^a^O^W^O^ _U^W^Z^A^ _U^Z^_R^ \^ \^O^Z^Y^ _X^Z^M^U^Z^S^O^Z^O^W^O^P^U^S^Z^ [_U^M^P^i^ [^ \^O^Z^M^M^P^U^S^Z^ [_U^_T^ [a^X^N^O
P^U^C^a^_O^P^z

I "fii" &<08, > 6/4 289-4 19<2080>4 / 49</0<=>? = 0 >0/ 98 >30-, =4 9110> 6?6< =9?8/
, - 89<7, 640=

B^OZMINXPUSZ[_U_R^AY a`MIJ Z_UZ SOZQ_XZVOP`[_\COJROPU[^PO^_U_Ga^OZ`X NBNKNDQIZ 3a_`^MMUM
R^_Y OSOZQ_a_LZS`^MPUJ ZMX_Q] aOZQZSY OT[P_ž 7dMY \XQ_UZ0&PQ0e_`W0RW[_U_Y a`MIJ Z \NZOX
_O^OZLZSNZP i f'ž SOZQ_Q] aOZQZSR^R^N^OOT[SOZLON[c OX fE fE SOZQ_Q] aOZQZSR^ \[_UNQRO^N^
MOT[ZP^ \X^MUM[^O^MZU_eZ[_[_U^M^P`MSOCP`Q`LZSR^AY a`MIJ Z_UZ SOZQ_OVA_LZS@[[ZN^
_eZP^Y Ož

I UT`TOUZ`^ [PaOU] Z [RZQc SOZ[Y W_Q] aOZQZS`OOTZU] aQ} U U_MZ`W^MCP`TM \^OZMINXPUSZ[_U
R^AY a`MIJ Z_UZ Y aXUXOSOZQ_c U^N^QY [^Q^Q^N^P^U^

4. Governance

žĹ 9VBMIZ) TTVSBODF

/"/. !/?., >98 19<30, 63: <910=48, 6=4@9@0/ 4B: <08, > 6= <00842

: QVXT \^f RQ_U ZNX CMZSR ħ^'OSZM^ c [Y OZ _T[aP aZPO^ MWQ Z^ UZaZS CPaOMU Z 'OSMPUZS
[\^U Z_NBMVMQR ħ^'OZMNX_O'OOZUS MIP PUSZ[_Uf MIP _T[aP.

: N0Qa\ž [žPMQVZ [c XPSOMM[a^`TQCa^OZ` _O'OOZUS Y [PNVUQ_NBMVMQNMIP UZ c TM
_Q^UZS`TQc OMZ NQY \XOY OZ`CPž

4QMMQ [\^f bPQO\^OžMP \[_žQ_ UZ ħ^ Y MU Zf _a\ [^ MIP Q aZ_OXZSI UZOaPUZSc ^U^OZ
^Q [a^Ožž

BM^OYMOUZ Q Z^ UZaZS \^f RQ_U ZNXPcOX \Y OZ` /5B6fiMIP Q a^_Q_`TM \^f bPQCa^OZ`
CbPQOZOMMCP UZ ħ^ Y MU Z [Z \^OZMNX_O'OOZUS MIP PUSZ[_Už

: QVXT \^f RQ_U ZNX \^f bPUZS OMQ [\^'OSZM^ c [Y OZ c UKNQZCRJ R [Y aZPO^ MWZS _Y OY [PaQ_ [R
^TQ@aOTMF^M žOOZQe AZXZO>CMZUS B [S^M /@FA>Bfi [SMZ M aZPO^`MIPUZS [R^TQ Q Y \XduUQ
[R \^OZMNX_O'OOZUS MIP PUSZ[_U UZ `TOR^` MIP _OQ ZP `^Y Q_ O_ [R \^OSZM^Ož EOO
[T \ \ !! OCMZUSZ aOTM^M žCPažM!](#)

/"/. ~ &0<19<7, 8.0; ?, 64C => 8/, <f=, 8/ 7 9849<42: <9.0=0=

+ 3, >, <0>30; ?, 64C => 8/, <f=19<: <08, > 6= <00842: <92< 7 ž

4 \$, -9< >9<, ... <0/4, >98

3XMM [^M [^Q aZPO^ MWZS \^OZMNX_O'OOZUS Y a^` NQMMO'CPUCP Ne`TQ@MU ZNX3_ [OMU Z
[RFQ_UZS 3a`T [^UQ_/@3F3fiUZ 3a^`^MVMIP;Z^OZMU ZNX3OO'CPUMU Z @Q: LQVMIP;/3@LfiUZ
@Q: LQVMIPž

FT [_Qc T [aZPO^ MWQ \^OZMNX_O'UZSI c TQ TQ^MM [^M [^e [^aX^M [aZP aZU_ _T [aP
aZPO^ MWQ [bO^MVMIPU MIP Y [ZU [^ZS [R^TQ \^OZMNX_O'OOZUS \^f S^M _MIP \M^OYMOUZ
Qf OZM] aMDeM a^MCO MOWUQž

3X^MT [X Se MM [^M [^Q_UZ 3a^`^MVM'OOZUS RaZPUZS bUMP O'POMQY a^` NQMMO'CPUCP Ne`TQ
@MU ZNX3_ [OMU Z [RFQ_UZS 3a`T [^UQ_/@3F3fiD5B3 >MM [^M [^e 3OO'CPUMU Z B [S^M ž
FTQe MIPMP_MQ_O Ne`TQ@MU ZNXBMT [X Se 3OO'CPUMU Z 3PbU [^e 5 [aZQX/@B335fiFTQ
E MIPMP_MQNMCP [Z^TOUZ^OZMU ZNX_MIPMP;EA # #+- E MIPMP R ^? O'POM^MM [^M [^Qž
;Z @Q: LQVMIP MM [^M [^Q_MQMMO'CPUCP bUM3@L a_UZS`TQ_MV Q;EA # #+- M^TQ
NMU/T \ \ !! c c c žO_MCPažM! BM^OZ` !>MIZ3OO'CPUMU Z fiž

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\XMQQ Z`M0`TQ? QPUMQ3a_`^MUM [^TQ3a_`^MUM E[Z[S'MITO^300^CPUMIJ Z DCUSU` ež
3X[\Q'M[^_T[aX'NOQO^URCP` [\QF' Y `TQ@F_QM UZ 3a_`^MUMZP\M'UMQIZ 'OSaXM
M'PUZA \Q'M[^_ \QF' Y UZSZM'N[N[ZQ[^PaOa_bOZ[_a_M_Q_Y OZ`_T[aX'NO_aUMN6
`^MURCP M'P OQ^URCP` [\QF' Y `TU_M_Q_Y OZ` /OSzNe \M'UMUZSUZ `TQ@aOMX
F^M_xaOZQe AZXZQ>QMZUSB^ S'MY /@FA>Bfi

5. References

1.

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Ž/ 7U FSTVHFTUFE ŠBEJOH

1. D[eM5[XCSQ[RAN_Q ^WMZ_MIP 9eZMOQ X SU_ž\$" #&ž@[ZŽZbMlbbQB^OZMVMFQ_`LZS R^ ^
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3. 7Pc MP_ <9 8OPY M 9 9[XNO'S d 9^OSS 3DI @ [^ [Z ? 7l D[_O@5l O Mž7d\MIPOP OM^O^
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