Appendix B

Contingency Lists for Outages

Autocon Input Files

APPENDIX B – AUTOCON INPUT FILE

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# PG&E 2004 BASE CASE SERIES - 2008 South Valley Summer Peak Case
# Greater Fresno Area Category "B" Contingencies, Zones 313 and 314
# Bullard Energy Center- 2008 Summer Peak
#
#
# (1)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
 # (2)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30670 30765  "1 "    0     # line from  WESTLEY  230.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (3)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (4)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (5)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (6)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (7)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38615  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00
0
 #
 #
 # (8)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38625  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
0
 #
 #
 # (9)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38625  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
0
 #
 #
 # (10)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==13.50(3.08)
0
 #
# (11)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30835 30830  "1 "    0     # line from  HERNDON  230.00   (3) to BRKR  KEARNEY  230.00
0
#
# (12)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
 #
 #
 # (13)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
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 #
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (14)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (15)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "1 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==1.26(0.29)
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==26.11(5.95)
0
 #
 #
 # (16)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==30.96(7.05)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
0
 #
 #
 # (17)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30805 30806  "1 "    0     # line from  BORDEN   230.00  BRKR to (4)   P0419    230.00
2  30806 34323  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS1  13.80
2  30806 34324  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS2  13.80
2  30806 34325  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS3  13.80
4  34323     0  "SG"    0     # LOAD-DROP    P0419BS1  13.80  LOAD==0.86(0.48)
4  34324     0  "SG"    0     # LOAD-DROP    P0419BS2  13.80  LOAD==0.86(0.48)
4  34325     0  "SG"    0     # LOAD-DROP    P0419BS3  13.80  LOAD==0.86(0.48)
3  34323     0  "1 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "2 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "3 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "4 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "5 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34324     0  "10"    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "6 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "7 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "8 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "9 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34325     0  "11"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "12"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "13"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "14"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "15"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
0
 #
 #
 # (18)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30805 30810  "1 "    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg -Borden line
0
 #
 #
 # (19)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30820  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
3  34600     0  "**"    0      # Drop unit#1 with a loss Helm - Gregg #1 line
0
 #
 #
 # (20)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30820  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Helm - Gregg #2 line
0
 #
 #
 # (21)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
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1  30810 30835  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Herndon #1 line
0
 #
 #
 # (22)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30835  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Herndon #2 line
0
 #
 #
 # (23)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==43.27(9.86)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Figarden line
1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
4 30846      0  "**"    1      # Restore Load at Figarden 2
0
 #
 #
 # (24)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
0
 #
 #
 # (25)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==63.96(14.57)
1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
4 30841      0  "**"    1      # Restore Load at Figarden 1
0
 #
 #
 # (26)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30855 30860  "1 "    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00
2  30855 34610  "1 "    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80
1  30860 30875  "1 "    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00
2  30860 34614  "1 "    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80
3  34610     0  "1 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(11.31)
3  34610     0  "2 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(11.31)
3  34614     0  "1 "    0     # GEN-DROP    BLCH 2-3  13.80  GEN==52.00(8.67)
0
 #
 #
 # (27)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30865 30870  "1 "    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00
2  30865 34612  "1 "    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80
1  30870 30875  "1 "    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00
2  30870 38720  "1 "    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80
3  34612     0  "1 "    0     # GEN-DROP    BLCH 2-2  13.80  GEN==52.00(7.79)
3  38720     0  "1 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.82)
3  38720     0  "2 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.82)
0
 #
 #
 # (28)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
0
 #
 #
 # (29)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
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0
 #
 #
 # (30)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30905  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  TEMPLETN 230.00
0
 #
 #
 # (31)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30915  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  MORROBAY 230.00
0
 #
 #
 # (32)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30935  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  ARCO     230.00
0
 #
 #
 # (33)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30970  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  MIDWAY   230.00
0
 #
 #
 # (34)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  32107 32109  "2 "    0     # line from  CACHSTAP  60.00   (2) to (3)   CACHSLJ2  60.00
1  32107 32113  "2 "    0     # line from  CACHSTAP  60.00   (2) to (3)   BTAV-JCT  60.00
1  32109 32101  "2 "    0     # line from  CACHSLJ2  60.00   (3) to (2)   DIXON-J2  60.00
1  32109 32094  "2 "    0     # line from  CACHSLJ2  60.00   (3) to (2)   VACA-JT2  60.00
1  32113 32111  "2 "    0     # line from  BTAV-JCT  60.00   (3) to (1)   BATAVIA   60.00
1  32113 32114  "2 "    0     # line from  BTAV-JCT  60.00   (3) to (2)   MNPR_JCT  60.00
1  32114 32112  "2 "    0     # line from  MNPR_JCT  60.00   (2) to (1)   MAINE-PR  60.00
1  32101 32100  "2 "    0     # line from  DIXON-J2  60.00   (2) to BRKR  DIXON     60.00
1  32094 32088  "2 "    0     # line from  VACA-JT2  60.00   (2) to BRKR  VACA-DXN  60.00
4  32111     0  "1 "    0     # LOAD-DROP    BATAVIA   60.00  LOAD==0.17(0.04)
4  32112     0  "1 "    0     # LOAD-DROP    MAINE-PR  60.00  LOAD==0.10(0.02)
0
 #
 #
 # (35)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34017 34010  "1 "    0     # line from  CRWS LDG  60.00   (1) to (3)   CRWS LDJ  60.00
1  34010 34006  "1 "    0     # line from  CRWS LDJ  60.00   (3) to BRKR  PATTERSN  60.00
1  34010 34012  "1 "    0     # line from  CRWS LDJ  60.00   (3) to (2)   GUSTN JT  60.00
1  34012 34014  "1 "    0     # line from  GUSTN JT  60.00   (2) to BRKR  NEWMAN    60.00
4  34017     0  "1 "    0     # LOAD-DROP    CRWS LDG  60.00  LOAD==2.50(0.19)
1  34016 34017  "1 "    1      # Switches in Crows Landing SW 57 to transfer load
4  34017     0  "**"    1      # Restore Load at Crows Landing
0
 #
 #
 # (36)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==9.90(6.91)
3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-4.33)
0
 #
 #
 # (37)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 #
 # (38)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34104 34108  "1 "    0     # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00
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1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00
1  34108 34114  "1 "    0     # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00
1  34114 34124  "1 "    0     # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00
2  34114 34332  "1 "    0     # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11
1  34124 34140  "1 "    0     # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00
4  34124     0  "1 "    0     # LOAD-DROP    JR WOOD  115.00  LOAD==11.70(10.32)
4  34140     0  "1 "    0     # LOAD-DROP    CRESSEY  115.00  LOAD==18.86(4.30)
3  34332     0  "1 "    0     # GEN-DROP    JRWCOGEN   9.11  GEN==4.00(4.72)
0
 #
 #
 # (39)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34105 34100  "1 "    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00
1  34105 34121  "1 "    0     # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00
1  34121 34120  "1 "    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00
1  34121 34128  "1 "    0     # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00
1  34128 34126  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00
1  34128 34123  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   K1-JCT   115.00
1  34126 34122  "1 "    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00
1  34123 34358  "2 "    0     # line from  K1-JCT   115.00   (2) to BRKR  KERCKHF2 115.00
4  34120     0  "1 "    0     # LOAD-DROP    SHARON   115.00  LOAD==6.72(4.69)
4  34126     0  "1 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==15.93(3.62)
4  34126     0  "2 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==5.28(1.20)
4  34122     0  "1 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==11.92(2.71)
4  34122     0  "2 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==8.89(2.03)
0
 #
 #
 # (40)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00
1  34110 34130  "1 "    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00
1  34110 34144  "1 "    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00
1  34130 34132  "1 "    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00
4  34130     0  "3 "    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==13.02(2.97)
4  34132     0  "1 "    0     # LOAD-DROP    GALLO    115.00  LOAD==13.40(11.46)
0
 #
 #
 # (41)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34112 34116  "1 "    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00
3  34306     0  "1 "    0      # Exchequer Unit will trip for this outage
4  34228     0  "**"    0      # Mariposa Loads will drop if bus is below 64 kV, this is anticipate
0
 #
 #
 # (42)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34116 34134  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  WILSON A 115.00
0
 #
 #
 # (43)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (44)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.23(1.64)
4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==10.33(2.36)
0
 #
 #
 # (45)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
0
 #
 #
 # (46)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34144  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
0
 #
 #
 # (47)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
0
 #
 #
 # (48)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34136 34144  "2 "    0     # line from  WILSON B 115.00  BRKR to BRKR  MERCED   115.00
0
 #
 #
 # (49)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34141 34148  "1 "    0     # line from  PAN2_TAP 115.00   (2) to (2)   CHENY    115.00
2  34141 34142  "1 "    0     # TRAN from  PAN2_TAP 115.00   (2) to (1)   WHD_PAN2  13.80
1  34148 34149  "1 "    0     # line from  CHENY    115.00   (2) to (3)   CHENYT   115.00
1  34149 34158  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00
1  34149 34354  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00
4  34148     0  "1 "    0     # LOAD-DROP    CHENY    115.00  LOAD==17.32(3.94)
3  34142     0  "1 "    0     # GEN-DROP    WHD_PAN2  13.80  GEN==49.00(2.36)
0
 #
 #
 # (50)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34150 34154  "1 "    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00
1  34150 34178  "1 "    0     # line from  NEWHALL  115.00   (2) to (3)   MADERAPR 115.00
1  34178 34156  "1 "    0     # line from  MADERAPR 115.00   (3) to BRKR  MENDOTA  115.00
2  34178 34179  "1 "    0     # TRAN from  MADERAPR 115.00   (3) to (1)   MADERA_G  13.80
4  34150     0  "2 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==8.76(2.00)
4  34150     0  "3 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==9.67(2.21)
4  34179     0  "SG"    0     # LOAD-DROP    MADERA_G  13.80  LOAD==3.60(1.47)
3  34179     0  "1 "    0     # GEN-DROP    MADERA_G  13.80  GEN==28.00(-0.40)
0
 #
 #
 # (51)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34157 34156  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00
1  34157 34158  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00
3  34186     0  "1 "    0        # DG_PAN Unit will trip for this outage
0
 #
 #
 # (52)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34158 34188  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   P0406    115.00
2  34188 34347  "1 "    0     # TRAN from  P0406    115.00   (2) to (1)   P0406     13.80
4  34347     0  "SG"    0     # LOAD-DROP    P0406     13.80  LOAD==2.70(1.49)
3  34347     0  "1 "    0     # GEN-DROP    P0406     13.80  GEN==102.60(15.64)
0
 #
 #
 # (53)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34158 34350  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00
1  34350 34352  "1 "    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00
1  34352 34432  "1 "    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00
1  34432 34354  "1 "    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00
4  34350     0  "1 "    0     # LOAD-DROP    KAMM     115.00  LOAD==3.96(1.80)
4  34352     0  "1 "    0     # LOAD-DROP    CANTUA   115.00  LOAD==16.05(3.66)
4  34432     0  "16"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)
4  34432     0  "18"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)
0
 #
 #
 # (54)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34159 34158  "1 "    0     # line from  PANOCHEJ 115.00   (3) to BRKR  PANOCHE  115.00
1  34159 34160  "1 "    0     # line from  PANOCHEJ 115.00   (3) to (2)   HAMMONDS 115.00
1  34159 34180  "1 "    0     # line from  PANOCHEJ 115.00   (3) to (3)   OXFRDJCT 115.00
1  34160 34161  "1 "    0     # line from  HAMMONDS 115.00   (2) to (3)   DFSTP    115.00
1  34161 34162  "1 "    0     # line from  DFSTP    115.00   (3) to BRKR  ORO LOMA 115.00
1  34161 34164  "1 "    0     # line from  DFSTP    115.00   (3) to (1)   DFS      115.00
1  34180 34166  "1 "    0     # line from  OXFRDJCT 115.00   (3) to (1)   OXFORD   115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
1  34180 34181  "1 "    0     # line from  OXFRDJCT 115.00   (3) to (3)   WSTLDJCT 115.00
1  34181 34182  "1 "    0     # line from  WSTLDJCT 115.00   (3) to (1)   WSTLD1RA 115.00
1  34181 34183  "1 "    0     # line from  WSTLDJCT 115.00   (3) to (3)   LUISJCT  115.00
1  34183 34163  "1 "    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#3  115.00
1  34183 34165  "1 "    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#5  115.00
4  34160     0  "1 "    0     # LOAD-DROP    HAMMONDS 115.00  LOAD==12.00(2.73)
4  34164     0  "1 "    0     # LOAD-DROP    DFS      115.00  LOAD==3.82(2.96)
4  34166     0  "1 "    0     # LOAD-DROP    OXFORD   115.00  LOAD==3.93(1.79)
4  34182     0  "1 "    0     # LOAD-DROP    WSTLD1RA 115.00  LOAD==2.98(0.80)
4  34163     0  "1 "    0     # LOAD-DROP    LUIS_#3  115.00  LOAD==3.30(0.78)
4  34165     0  "1 "    0     # LOAD-DROP    LUIS_#5  115.00  LOAD==3.40(0.81)
0
 #
 #
 # (55)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (56)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34218  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (2)   DOS PALS  70.00
1  34218 34216  "1 "    0     # line from  DOS PALS  70.00   (2) to BRKR  SNTA RTA  70.00
4  34218     0  "1 "    0     # LOAD-DROP    DOS PALS  70.00  LOAD==9.26(2.11)
0
 #
 #
 # (57)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==9.47(2.16)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.60(1.74)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==7.31(1.66)
0
 #
 #
 # (58)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34234  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (2)   POSO J1   70.00
1  34234 34266  "1 "    0     # line from  POSO J1   70.00   (2) to (2)   FIREBAGH  70.00
1  34266 34267  "1 "    0     # line from  FIREBAGH  70.00   (2) to (2)   TOMATAK   70.00
1  34267 34268  "1 "    0     # line from  TOMATAK   70.00   (2) to BRKR  MENDOTA   70.00
4  34266     0  "1 "    0     # LOAD-DROP    FIREBAGH  70.00  LOAD==12.00(2.73)
4  34267     0  "1 "    0     # LOAD-DROP    TOMATAK   70.00  LOAD==5.50(4.27)
0
 #
 #
 # (59)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34202 34230  "1 "    0     # line from  MERCED    70.00  BRKR to BRKR  MRCDFLLS  70.00
0
 #
 #
 # (60)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34202 34236  "1 "    0     # line from  MERCED    70.00  BRKR to (1)   POSO J2   70.00
0
 #
 #
 # (61)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34204 34212  "1 "    0     # line from  LIVNGSTN  70.00   (1) to (3)   LVNGSTNT  70.00
1  34212 34206  "1 "    0     # line from  LVNGSTNT  70.00   (3) to BRKR  CANAL     70.00
1  34212 34210  "1 "    0     # line from  LVNGSTNT  70.00   (3) to (2)   SNTA NLA  70.00
1  34210 34208  "1 "    0     # line from  SNTA NLA  70.00   (2) to (2)   CHEVPIPE  70.00
1  34208 34214  "1 "    0     # line from  CHEVPIPE  70.00   (2) to BRKR  LOS BANS  70.00
4  34204     0  "2 "    0     # LOAD-DROP    LIVNGSTN  70.00  LOAD==18.02(4.10)
4  34210     0  "1 "    0     # LOAD-DROP    SNTA NLA  70.00  LOAD==14.15(3.22)
4  34208     0  "1 "    0     # LOAD-DROP    CHEVPIPE  70.00  LOAD==1.32(0.89)
0
```

APPENDIX B – AUTOCON INPUT FILE

```
 #
 #
 # (62)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34206 34216  "1 "    0     # line from  CANAL     70.00  BRKR to BRKR  SNTA RTA  70.00
0
 #
 #
 # (63)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34214 34278  "1 "    0     # line from  LOS BANS  70.00  BRKR to (2)   PCHCO PP  70.00
1  34278 34280  "1 "    0     # line from  PCHCO PP  70.00   (2) to (2)   INTL TUR  70.00
2  34280 34342  "1 "    0     # TRAN from  INTL TUR  70.00   (2) to (1)   INT.TURB   9.11
4  34278     0  "1 "    0     # LOAD-DROP    PCHCO PP  70.00  LOAD==18.00(4.10)
3  34342     0  "1 "    0     # GEN-DROP    INT.TURB   9.11  GEN==1.00(0.00)
0
 #
 #
 # (64)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34214 34282  "1 "    0     # line from  LOS BANS  70.00  BRKR to (2)   ONLL PMP  70.00
2  34282 34316  "1 "    0     # TRAN from  ONLL PMP  70.00   (2) to (1)   ONEILPMP   9.11
4  34282     0  "1 "    0     # LOAD-DROP    ONLL PMP  70.00  LOAD==5.89(1.20)
3  34316     0  "1 "    0     # GEN-DROP    ONEILPMP   9.11  GEN==0.50(0.00)
0
 #
 #
 # (65)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34228 34232  "1 "    0     # line from  MARIPOS2  70.00   (1) to BRKR  EXCHEQUR  70.00
4  34228     0  "1 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==6.50(1.48)
4  34228     0  "2 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.17(1.63)
1  34228 34244  "1 "    1      # Switches in Mariposa SW 39 to transfer load
4  34228     0  "**"    1      # Restore Load at Mariposa
0
 #
 #
 # (66)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34232 34242  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (2)   BER VLLY  70.00
1  34242 34244  "1 "    0     # line from  BER VLLY  70.00   (2) to (2)   BRCEBG J  70.00
1  34244 34246  "1 "    0     # line from  BRCEBG J  70.00   (2) to (3)   SAXONCRK  70.00
1  34246 34248  "1 "    0     # line from  SAXONCRK  70.00   (3) to (2)   INDN FLT  70.00
2  34246 34346  "1 "    0     # TRAN from  SAXONCRK  70.00   (3) to (1)   SAXNCK L   4.16
1  34248 34250  "1 "    0     # line from  INDN FLT  70.00   (2) to (1)   YOSEMITE  70.00
4  34242     0  "1 "    0     # LOAD-DROP    BER VLLY  70.00  LOAD==4.36(1.00)
4  34246     0  "1 "    0     # LOAD-DROP    SAXONCRK  70.00  LOAD==1.51(1.09)
4  34248     0  "1 "    0     # LOAD-DROP    INDN FLT  70.00  LOAD==2.62(0.60)
4  34250     0  "1 "    0     # LOAD-DROP    YOSEMITE  70.00  LOAD==2.70(0.00)
0
 #
 #
 # (67)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34237 34255  "1 "    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00
1  34237 34240  "1 "    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00
1  34255 34238  "1 "    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00
1  34255 34254  "1 "    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00
1  34254 34264  "1 "    0     # line from  TRIGO     70.00   (2) to (1)   EL PECO   70.00
4  34237     0  "1 "    0     # LOAD-DROP    CANANDGA  70.00  LOAD==5.52(4.14)
4  34238     0  "1 "    0     # LOAD-DROP    BONITA    70.00  LOAD==10.97(2.50)
4  34264     0  "1 "    0     # LOAD-DROP    EL PECO   70.00  LOAD==7.57(1.73)
1  34238 34236  "1 "    1      # Switches in Bonita SW23 to transfer load
4  34238     0  "1 "    1      # Restore Load at Bonita
0
 #
 #
 # (68)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34240 34252  "1 "    0     # line from  GLASS     70.00  BRKR to BRKR  MADERA    70.00
0
 #
 #
 # (69)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34252 34256  "1 "    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00
0
 #
 #
```

APPENDIX B – AUTOCON INPUT FILE

```
 # (70)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34252 34256  "2 "    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00
0
 #
 #
 # (71)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34256 34262  "1 "    0     # line from  BORDEN    70.00  BRKR to (2)   CASSIDY   70.00
1  34262 34454  "1 "    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00
1  34454 34464  "1 "    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00
4  34262     0  "1 "    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.68(2.43)
4  34454     0  "1 "    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)
0
 #
 #
 # (72)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34259 34261  "1 "    0     # line from  NRTHFORK  70.00   (3) to (2)   SJNO3     70.00
1  34259 34260  "1 "    0     # line from  NRTHFORK  70.00   (3) to (3)   SJNO2     70.00
2  34259 34340  "1 "    0     # TRAN from  NRTHFORK  70.00   (3) to (1)   N.FORK E   9.11
2  34261 34633  "1 "    0     # TRAN from  SJNO3     70.00   (2) to (1)   SJ3GEN     9.11
1  34260 34452  "1 "    0     # line from  SJNO2     70.00   (3) to BRKR  WISHON    70.00
2  34260 34631  "1 "    0     # TRAN from  SJNO2     70.00   (3) to (1)   SJ2GEN     9.11
4  34261     0  "1 "    0     # LOAD-DROP    SJNO3     70.00  LOAD==0.88(0.20)
4  34261     0  "2 "    0     # LOAD-DROP    SJNO3     70.00  LOAD==6.06(1.38)
4  34260     0  "2 "    0     # LOAD-DROP    SJNO2     70.00  LOAD==2.73(0.62)
3  34633     0  "1 "    0     # GEN-DROP    SJ3GEN     9.11  GEN==4.00(0.00)
3  34631     0  "1 "    0     # GEN-DROP    SJ2GEN     9.11  GEN==3.00(0.00)
0
 #
 #
 # (73)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34269 34268  "1 "    0     # line from  BIOMSJCT  70.00   (3) to BRKR  MENDOTA   70.00
1  34269 34270  "1 "    0     # line from  BIOMSJCT  70.00   (3) to (2)   BIOMASS   70.00
1  34269 34271  "1 "    0     # line from  BIOMSJCT  70.00   (3) to (3)   WSTLDJCT  70.00
2  34270 34334  "1 "    0     # TRAN from  BIOMASS   70.00   (2) to (1)   BIO PWR    9.11
1  34271 34172  "1 "    0     # line from  WSTLDJCT  70.00   (3) to (2)   WESTLAND  70.00
1  34271 34469  "1 "    0     # line from  WSTLDJCT  70.00   (3) to (3)   GFFNJCT   70.00
1  34172 34170  "1 "    0     # line from  WESTLAND  70.00   (2) to (1)   WESIX     70.00
1  34469 34470  "1 "    0     # line from  GFFNJCT   70.00   (3) to (1)   GIFFEN    70.00
1  34469 34471  "1 "    0     # line from  GFFNJCT   70.00   (3) to (3)   SNJQJCT   70.00
1  34471 34472  "1 "    0     # line from  SNJQJCT   70.00   (3) to BRKR  SAN JOQN  70.00
1  34471 34474  "1 "    0     # line from  SNJQJCT   70.00   (3) to BRKR  HELM      70.00
4  34172     0  "1 "    0     # LOAD-DROP    WESTLAND  70.00  LOAD==3.20(0.73)
4  34170     0  "1 "    0     # LOAD-DROP    WESIX     70.00  LOAD==1.60(0.36)
4  34470     0  "1 "    0     # LOAD-DROP    GIFFEN    70.00  LOAD==8.74(1.99)
4  34472     0  "1 "    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==8.81(2.01)
4  34472     0  "2 "    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==4.22(0.96)
3  34334     0  "1 "    0     # GEN-DROP    BIO PWR    9.11  GEN==23.00(4.35)
1  34472 34473  "1 "    1      # Switches in San Joaquin CB22 to transfer load
4  34472     0  "**"    1      # Restore Load at San Joaquin
0
 #
 #
 # (74)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34321 34226  "1 "    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00
1  34321 34230  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00
1  34321 34232  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00
2  34226 34320  "1 "    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11
3  34320     0  "1 "    0     # GEN-DROP    MCSWAIN    9.11  GEN==8.00(2.00)
0
 #
 #
 # (75)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34356 34358  "1 "    0     # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00
0
 #
 #
 # (76)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34358 34360  "1 "    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00
1  34360 34414  "1 "    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00
1  34360 34363  "1 "    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00
1  34363 34362  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00
1  34363 34366  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00
```

```
4  34362     0  "1 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==47.04(10.72)
4  34362     0  "2 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==47.16(10.75)
1 34362  34364  "1 "    1      # Switches in Clovis SW 387 to transfer load
4 34362      0  "**"    1      # Restore Load at Clovis 1
0
 #
 #
 # (77)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34364 34365  "1 "    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00
1  34365 34358  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00
1  34365 34366  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00
4  34364     0  "3 "    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==51.43(11.72)
1 34362  34364  "1 "    1      # Switches in Clovis SW 387 to transfer load
4 34364      0  "**"    1      # Restore Load at Clovis 2
0
 #
 #
 # (78)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.55)
0
 #
 #
 # (79)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (80)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "2 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (81)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "3 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (82)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34372  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MALAGA   115.00
0
 #
 #
 # (83)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34389  "1 "    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00
1  34389 34388  "1 "    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBW   115.00
1  34389 34394  "1 "    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00
1  34394 34380  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00
1  34394 34400  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGSRVR1 115.00
4  34388     0  "1 "    0     # LOAD-DROP    RAINBW   115.00  LOAD==12.29(2.80)
0
 #
 #
 # (84)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34396  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00
1  34396 34398  "1 "    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00
2  34398 34624  "1 "    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20
4  34624     0  "1 "    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.32(0.00)
3  34624     0  "1 "    0     # GEN-DROP    BALCH 1   13.20  GEN==27.00(6.98)
0
 #
 #
 # (85)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34408  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00
0
 #
 #
 # (86)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
```

APPENDIX B – AUTOCON INPUT FILE

```
1  34369 34370  "1 "    0     # line from  P0418    115.00   (4) to BRKR  MC CALL  115.00
2  34369 34661  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT1  13.80
2  34369 34663  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT2  13.80
2  34369 34665  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT3  13.80
4  34661     0  "SG"   0     # LOAD-DROP    P0418CT1  13.80  LOAD==2.70(1.49)
4  34663     0  "SG"   0     # LOAD-DROP    P0418CT2  13.80  LOAD==2.70(1.49)
4  34665     0  "SG"   0     # LOAD-DROP    P0418CT3  13.80  LOAD==2.70(1.49)
3  34661     0  "1 "   0     # GEN-DROP    P0418CT1  13.80  GEN==102.60(16.44)
3  34663     0  "1 "   0     # GEN-DROP    P0418CT2  13.80  GEN==102.60(16.44)
3  34665     0  "1 "   0     # GEN-DROP    P0418CT3  13.80  GEN==102.60(16.44)
0
 #
 #
 # (87)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34377  "1 "    0     # line from  MC CALL  115.00  BRKR to (2)   AIRPROD  115.00
1  34377 34375  "1 "    0     # line from  AIRPROD  115.00   (2) to (3)   ULTPWRJ  115.00
1  34375 34379  "1 "    0     # line from  ULTPWRJ  115.00   (3) to (3)   MALAGATP 115.00
2  34375 34640  "1 "    0     # TRAN from  ULTPWRJ  115.00   (3) to (1)   ULTR.PWR   9.11
1  34379 34372  "1 "    0     # line from  MALAGATP 115.00   (3) to BRKR  MALAGA   115.00
1  34379 34373  "1 "    0     # line from  MALAGATP 115.00   (3) to (3)   SCWAXJCT 115.00
1  34373 34371  "1 "    0     # line from  SCWAXJCT 115.00   (3) to (1)   SCWAX    115.00
1  34373 34374  "1 "    0     # line from  SCWAXJCT 115.00   (3) to (1)   RANCHRS  115.00
4  34377     0  "1 "   0     # LOAD-DROP    AIRPROD  115.00  LOAD==5.10(2.02)
4  34371     0  "1 "   0     # LOAD-DROP    SCWAX    115.00  LOAD==2.50(1.42)
4  34374     0  "1 "   0     # LOAD-DROP    RANCHRS  115.00  LOAD==7.05(1.61)
3  34640     0  "1 "   0     # GEN-DROP    ULTR.PWR   9.11  GEN==15.00(13.00)
0
 #
 #
 # (88)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34382  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WAHTOKE  115.00
0
 #
 #
 # (89)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34385  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   KINGS J1 115.00
1  34385 34417  "1 "    0     # line from  KINGS J1 115.00   (3) to (2)   KINGS J2 115.00
1  34385 34418  "1 "    0     # line from  KINGS J1 115.00   (3) to BRKR  KINGSBRG 115.00
1  34417 34425  "1 "    0     # line from  KINGS J2 115.00   (2) to (3)   KCOGNJCT 115.00
1  34425 34387  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (1)   SUNMAID  115.00
1  34425 34427  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (2)   GRDNGLS2 115.00
1  34427 34386  "1 "    0     # line from  GRDNGLS2 115.00   (2) to (2)   KNGSCOGN 115.00
2  34386 34642  "1 "    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11
4  34387     0  "1 "   0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.10(2.99)
3  34642     0  "1 "   0     # GEN-DROP    KINGSBUR   9.11  GEN==34.00(17.30)
0
 #
 #
 # (90)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34402  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  CAL AVE  115.00
0
 #
 #
 # (91)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34404  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00
0
 #
 #
 # (92)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34423  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00
1  34423 34418  "1 "    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00
1  34423 34421  "1 "    0     # line from  GAURD J1 115.00   (3) to (2)   GAURD J2 115.00
1  34421 34424  "1 "    0     # line from  GAURD J2 115.00   (2) to (1)   GRDN GLS 115.00
4  34424     0  "1 "   0     # LOAD-DROP    GRDN GLS 115.00  LOAD==10.05(3.30)
0
 #
 #
 # (93)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34372 34376  "1 "    0     # line from  MALAGA   115.00  BRKR to (1)   PPG      115.00
4  34376     0  "1 "   0     # LOAD-DROP    PPG      115.00  LOAD==4.90(3.04)
0
 #
```

APPENDIX B – AUTOCON INPUT FILE

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 #
 # (94)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34372 34381  "1 "    0     # line from  MALAGA   115.00  BRKR to (3)   KRCDP    115.00
2  34381 34671  "1 "    0     # TRAN from  KRCDP    115.00   (3) to (1)   KRCDPCT1  13.80
2  34381 34672  "1 "    0     # TRAN from  KRCDP    115.00   (3) to (1)   KRCDPCT2  13.80
4  34671     0  "SG"    0     # LOAD-DROP    KRCDPCT1  13.80  LOAD==1.20(0.74)
4  34672     0  "SG"    0     # LOAD-DROP    KRCDPCT2  13.80  LOAD==1.20(0.74)
3  34671     0  "1 "    0     # GEN-DROP    KRCDPCT1  13.80  GEN==49.70(5.63)
3  34672     0  "1 "    0     # GEN-DROP    KRCDPCT2  13.80  GEN==49.70(5.63)
0
 #
 #
 # (95)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34380 34384  "1 "    0     # line from  REEDLEY  115.00  BRKR to (2)   GERAWAN  115.00
1  34384 34382  "1 "    0     # line from  GERAWAN  115.00   (2) to BRKR  WAHTOKE  115.00
0
 #
 #
 # (96)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34390 34402  "1 "    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00
1  34390 34407  "1 "    0     # line from  DANISHCM 115.00   (2) to (2)   WFRES J2 115.00
1  34407 34404  "1 "    0     # line from  WFRES J2 115.00   (2) to BRKR  WST FRSO 115.00
4  34390     0  "1 "    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.85(3.29)
0
 #
 #
 # (97)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34391 34392  "1 "    0     # line from  QUEBECTP 115.00   (3) to (1)   QUEBEC   115.00
1  34391 34420  "1 "    0     # line from  QUEBECTP 115.00   (3) to BRKR  CORCORAN 115.00
1  34391 34426  "1 "    0     # line from  QUEBECTP 115.00   (3) to BRKR  ALPAUGH  115.00
4  34392     0  "1 "    0     # LOAD-DROP    QUEBEC   115.00  LOAD==11.40(7.96)
0
 #
 #
 # (98)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
0
 #
 #
 # (99)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34409 34413  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00
1  34409 34416  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00
1  34409 34412  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00
4  34413     0  "1 "    0     # LOAD-DROP    PNEDLE   115.00  LOAD==21.85(4.98)
1  34411 34413  "1 "    1      # Switches in Pindale CB#12 to transfer load
4  34413     0  "**"    1      # Restore load at Pindale
0
 #
 #
 # (100)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34410 34412  "1 "    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00
0
 #
 #
 # (101)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34411 34416  "1 "    0     # line from  PNDLJ1   115.00   (2) to BRKR  BULLARD  115.00
1  34411 34412  "1 "    0     # line from  PNDLJ1   115.00   (2) to BRKR  HERNDON  115.00
0
 #
 #
 # (102)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34412 34422  "1 "    0     # line from  HERNDON  115.00  BRKR to (2)   CHLDHOSP 115.00
1  34422 34414  "1 "    0     # line from  CHLDHOSP 115.00   (2) to BRKR  WOODWARD 115.00
4  34422     0  "1 "    0     # LOAD-DROP    CHLDHOSP 115.00  LOAD==3.80(1.73)
0
 #
 #
 # (103)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34420  "1 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
0
 #
 #
 # (104)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34420  "2 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
0
 #
 #
 # (105)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34428  "1 "    0     # line from  KINGSBRG 115.00  BRKR to (2)   CONTADNA 115.00
1  34428 34429  "1 "    0     # line from  CONTADNA 115.00   (2) to BRKR  GWF_HEP  115.00
4  34428     0  "1 "    0     # LOAD-DROP    CONTADNA 115.00  LOAD==7.56(5.67)
0
 #
 #
 # (106)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34426 34700  "1 "    0     # line from  ALPAUGH  115.00  BRKR to BRKR  SMYRNA   115.00
0
 #
 #
 # (107)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34430 34521  "1 "    0     # line from  HENRETTA 115.00  BRKR to (2)   LEPRNOFD 115.00
1  34521 34429  "1 "    0     # line from  LEPRNOFD 115.00   (2) to BRKR  GWF_HEP  115.00
4  34521     0  "1 "    0     # LOAD-DROP    LEPRNOFD 115.00  LOAD==14.00(9.41)
0
 #
 #
 # (108)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34452 34491  "1 "    0     # line from  WISHON    70.00  BRKR to (3)   AUBRYTP   70.00
1  34491 34464  "1 "    0     # line from  AUBRYTP   70.00   (3) to BRKR  COPPRMNE  70.00
1  34491 34493  "1 "    0     # line from  AUBRYTP   70.00   (3) to (1)   AUBERRY   70.00
4  34493     0  "1 "    0     # LOAD-DROP    AUBERRY   70.00  LOAD==5.35(1.22)
4  34493     0  "2 "    0     # LOAD-DROP    AUBERRY   70.00  LOAD==6.18(1.41)
0
 #
 #
 # (109)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34456 34458  "1 "    0     # line from  HRDWK TP  70.00   (3) to (1)   HARDWICK  70.00
1  34456 34522  "1 "    0     # line from  HRDWK TP  70.00   (3) to (1)   HNFRD SW  70.00
1  34456 34576  "1 "    0     # line from  HRDWK TP  70.00   (3) to BRKR  KNGLOBUS  70.00
4  34458     0  "1 "    0     # LOAD-DROP    HARDWICK  70.00  LOAD==10.78(2.45)
0
 #
 #
 # (110)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34460 34462  "1 "    0     # line from  GUERNSEY  70.00  BRKR to (3)   GUR3TPT   70.00
1  34462 34542  "1 "    0     # line from  GUR3TPT   70.00   (3) to (2)   JCBSCRNR  70.00
1  34462 34554  "1 "    0     # line from  GUR3TPT   70.00   (3) to BRKR  AMSTG SW  70.00
1  34542 34540  "1 "    0     # line from  JCBSCRNR  70.00   (2) to BRKR  HENRITTA  70.00
4  34460     0  "1 "    0     # LOAD-DROP    GUERNSEY  70.00  LOAD==13.75(3.13)
4  34542     0  "1 "    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==9.94(2.27)
4  34542     0  "2 "    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==10.86(2.47)
1  34528 34460  "1 "    1      # Switches in Guernsey CB52 to transfer load
4  34460     0  "**"    1      # Restore load at Guernsey
1  34554 34522  "1 "    1      # Switches in Armstrong SW37 to transfer load and gen
0
 #
 #
 # (111)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34464 34478  "1 "    0     # line from  COPPRMNE  70.00  BRKR to BRKR  TVY VLLY  70.00
0
 #
 #
 # (112)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34466 34482  "1 "    0     # line from  BIOLA     70.00  BRKR to BRKR  OLDKERN   70.00
4  34466     0  "1 "    0     # LOAD-DROP    BIOLA     70.00  LOAD==15.41(3.51)
0
 #
 #
 # (113)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
 #
1  34468 34482  "1 "    0     # line from  BOWLES    70.00   (1) to BRKR  OLDKERN   70.00
4  34468     0  "1 "    0     # LOAD-DROP    BOWLES    70.00  LOAD==17.53(3.99)
0
 #
 #
 # (114)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34473 34475  "1 "    0     # line from  SNJQTP    70.00   (2) to (3)   AGRCJCT   70.00
1  34473 34474  "1 "    0     # line from  SNJQTP    70.00   (2) to BRKR  HELM      70.00
1  34475 34476  "1 "    0     # line from  AGRCJCT   70.00   (3) to (2)   AGRICO    70.00
1  34475 34484  "1 "    0     # line from  AGRCJCT   70.00   (3) to BRKR  KERMAN    70.00
2  34476 34608  "1 "    0     # TRAN from  AGRICO    70.00   (2) to (2)   AGRICO    13.80
1  34608 34609  "1 "    0     # line from  AGRICO    13.80   (2) to (1)   FRESNOCG  13.80
4  34484     0  "1 "    0     # LOAD-DROP    KERMAN    70.00  LOAD==14.43(3.28)
4  34484     0  "2 "    0     # LOAD-DROP    KERMAN    70.00  LOAD==10.42(2.38)
3  34608     0  "2 "    0     # GEN-DROP    AGRICO    13.80  GEN==7.50(-0.86)
3  34608     0  "3 "    0     # GEN-DROP    AGRICO    13.80  GEN==18.00(-2.07)
3  34609     0  "4 "    0     # GEN-DROP    FRESNOCG  13.80  GEN==25.50(0.00)
0
 #
 #
 # (115)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34474 34556  "1 "    0     # line from  HELM      70.00  BRKR to BRKR  STRD JCT  70.00
0
 #
 #
 # (116)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34474 34568  "1 "    0     # line from  HELM      70.00  BRKR to BRKR  VLY NTRN  70.00
4  34568     0  "1 "    0     # LOAD-DROP    VLY NTRN  70.00  LOAD==0.95(0.76)
0
 #
 #
 # (117)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34478 34492  "1 "    0     # line from  TVY VLLY  70.00  BRKR to BRKR  REEDLEY   70.00
0
 #
 #
 # (118)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34482  "1 "    0     # line from  KEARNEY   70.00  BRKR to (3)   OLDKERN   70.00
1  34482 34466  "1 "    0     # line from  OLDKERN   70.00  BRKR to BRKR  BIOLA     70.00
1  34482 34468  "1 "    0     # line from  OLDKERN   70.00  BRKR to (1)   BOWLES    70.00
4  34482     0  "1 "    0     # LOAD-DROP    OLDKERN   70.00  LOAD==12.02(2.74)
4  34482     0  "3 "    0     # LOAD-DROP    OLDKERN   70.00  LOAD==8.55(1.95)
4  34466     0  "1 "    0     # LOAD-DROP    BIOLA     70.00  LOAD==15.41(3.51)
4  34468     0  "1 "    0     # LOAD-DROP    BOWLES    70.00  LOAD==17.53(3.99)
0
 #
 #
 # (119)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34512  "1 "    0     # line from  KEARNEY   70.00  BRKR to BRKR  CARUTHRS  70.00
4  34512     0  "1 "    0     # LOAD-DROP    CARUTHRS  70.00  LOAD==16.96(3.86)
0
 #
 #
 # (120)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34487 34489  "1 "    0     # line from  SNGRJCT   70.00   (3) to (2)   SNGRCOGN  70.00
1  34487 34490  "1 "    0     # line from  SNGRJCT   70.00   (3) to (2)   PARLIER   70.00
1  34487 34488  "1 "    0     # line from  SNGRJCT   70.00   (3) to BRKR  SANGER    70.00
2  34489 34646  "1 "    0     # TRAN from  SNGRCOGN  70.00   (2) to (1)   SANGERCO   9.11
1  34490 34492  "1 "    0     # line from  PARLIER   70.00   (2) to BRKR  REEDLEY   70.00
4  34490     0  "1 "    0     # LOAD-DROP    PARLIER   70.00  LOAD==14.89(3.40)
3  34646     0  "1 "    0     # GEN-DROP    SANGERCO   9.11  GEN==38.00(-5.16)
0
 #
 #
 # (121)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34492 34497  "1 "    0     # line from  REEDLEY   70.00  BRKR to (3)   DNUBAJCT  70.00
1  34497 34499  "1 "    0     # line from  DNUBAJCT  70.00   (3) to (2)   DNUBAEGY  70.00
1  34497 34500  "1 "    0     # line from  DNUBAJCT  70.00   (3) to BRKR  DINUBA    70.00
2  34499 34648  "1 "    0     # TRAN from  DNUBAEGY  70.00   (2) to (1)   DINUBA E  13.80
4  34648     0  "1 "    0     # LOAD-DROP    DINUBA E  13.80  LOAD==1.00(0.86)
```

```
3  34648     0  "1 "    0     # GEN-DROP    DINUBA E  13.80  GEN==12.00(7.00)
0
 #
 #
 # (122)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34492 34526  "1 "    0     # line from  REEDLEY   70.00  BRKR to (3)   ORSI JCT  70.00
1  34526 34495  "1 "    0     # line from  ORSI JCT  70.00   (3) to (2)   SANDCRK   70.00
1  34526 34502  "1 "    0     # line from  ORSI JCT  70.00   (3) to BRKR  OROSI     70.00
1  34495 34494  "1 "    0     # line from  SANDCRK   70.00   (2) to (1)   DUNLAP    70.00
4  34495     0  "1 "    0     # LOAD-DROP    SANDCRK   70.00  LOAD==1.88(0.43)
4  34494     0  "1 "    0     # LOAD-DROP    DUNLAP    70.00  LOAD==4.25(0.97)
0
 #
 #
 # (123)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34496 34498  "1 "    0     # line from  STCRRL J  70.00   (3) to (1)   STONCRRL  70.00
1  34496 34500  "1 "    0     # line from  STCRRL J  70.00   (3) to BRKR  DINUBA    70.00
1  34496 34502  "1 "    0     # line from  STCRRL J  70.00   (3) to (2)   OROSI     70.00
1  34502 34526  "1 "    0     # line from  OROSI     70.00  BRKR to (1)   ORSI JCT  70.00
4  34498     0  "2 "    0     # LOAD-DROP    STONCRRL  70.00  LOAD==2.89(0.66)
4  34498     0  "3 "    0     # LOAD-DROP    STONCRRL  70.00  LOAD==2.89(0.66)
4  34502     0  "1 "    0     # LOAD-DROP    OROSI     70.00  LOAD==6.26(1.43)
4  34502     0  "2 "    0     # LOAD-DROP    OROSI     70.00  LOAD==6.06(1.38)
0
 #
 #
 # (124)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34508 34510  "1 "    0     # line from  CAMDEN    70.00   (2) to (1)   CMDN JCT  70.00
1  34508 34576  "1 "    0     # line from  CAMDEN    70.00   (2) to BRKR  KNGLOBUS  70.00
4  34508     0  "1 "    0     # LOAD-DROP    CAMDEN    70.00  LOAD==8.71(1.99)
4  34508     0  "2 "    0     # LOAD-DROP    CAMDEN    70.00  LOAD==8.40(1.91)
0
 #
 #
 # (125)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34514 34540  "1 "    0     # line from  MUSLSLGH  70.00   (1) to BRKR  HENRITTA  70.00
4  34514     0  "1 "    0     # LOAD-DROP    MUSLSLGH  70.00  LOAD==22.00(13.63)
0
 #
 #
 # (126)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34516 34520  "1 "    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00
1  34520 34518  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00
1  34520 34524  "1 "    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00
1  34520 34540  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00
4  34516     0  "1 "    0     # LOAD-DROP    LEPRINO   70.00  LOAD==6.58(3.73)
4  34518     0  "1 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==25.50(5.81)
4  34518     0  "2 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==12.85(2.93)
0
 #
 #
 # (127)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34528 34530  "1 "    0     # line from  CORCORAN  70.00  BRKR to (3)   BSWLL TP  70.00
1  34530 34536  "1 "    0     # line from  BSWLL TP  70.00   (3) to (1)   ANGIOLA   70.00
1  34530 34538  "1 "    0     # line from  BSWLL TP  70.00   (3) to (1)   BOSWELL   70.00
4  34536     0  "1 "    0     # LOAD-DROP    ANGIOLA   70.00  LOAD==8.72(1.99)
4  34538     0  "1 "    0     # LOAD-DROP    BOSWELL   70.00  LOAD==0.94(0.61)
0
 #
 #
 # (128)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34532 34554  "1 "    0     # line from  ARMSTRNG  70.00   (1) to (4)   AMSTG SW  70.00
1  34554 34462  "1 "    0     # line from  AMSTG SW  70.00  BRKR to (1)   GUR3TPT   70.00
1  34554 34534  "1 "    0     # line from  AMSTG SW  70.00   (4) to (1)   RESERVE   70.00
2  34554 34650  "1 "    0     # TRAN from  AMSTG SW  70.00  BRKR to (1)   GWF-PWR.  13.80
4  34534     0  "1 "    0     # LOAD-DROP    RESERVE   70.00  LOAD==2.08(0.48)
3  34650     0  "1 "    0     # GEN-DROP    GWF-PWR.  13.80  GEN==23.00(2.61)
0
 #
 #
 # (129)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
```

```
1  34537 34540  "1 "    0     # line from  GWF_HENR  70.00   (3) to BRKR  HENRITTA  70.00
2  34537 34539  "1 "    0     # TRAN from  GWF_HENR  70.00   (3) to (1)   GWF_GT1   13.80
2  34537 34541  "1 "    0     # TRAN from  GWF_HENR  70.00   (3) to (1)   GWF_GT2   13.80
3  34539     0  "1 "    0     # GEN-DROP    GWF_GT1   13.80  GEN==49.00(-18.00)
3  34541     0  "1 "    0     # GEN-DROP    GWF_GT2   13.80  GEN==49.00(-18.00)
0
 #
 #
 # (130)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34544 34550  "1 "    0     # line from  TLRE LKE  70.00  BRKR to (2)   CHEVPLIN  70.00
1  34550 34546  "1 "    0     # line from  CHEVPLIN  70.00   (2) to (2)   AVENAL    70.00
1  34546 34548  "1 "    0     # line from  AVENAL    70.00   (2) to BRKR  KETTLEMN  70.00
4  34544     0  "1 "    0     # LOAD-DROP    TLRE LKE  70.00  LOAD==7.53(1.72)
4  34550     0  "1 "    0     # LOAD-DROP    CHEVPLIN  70.00  LOAD==2.12(1.53)
4  34546     0  "1 "    0     # LOAD-DROP    AVENAL    70.00  LOAD==9.15(2.29)
0
 #
 #
 # (131)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34548 34552  "1 "    0     # line from  KETTLEMN  70.00   (2) to BRKR  GATES     70.00
1  34548 34546  "1 "    0     # line from  KETTLEMN  70.00  BRKR to (1)   AVENAL    70.00
4  34548     0  "1 "    0     # LOAD-DROP    KETTLEMN  70.00  LOAD==4.04(0.92)
0
 #
 #
 # (132)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34558  "1 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
0
 #
 #
 # (133)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34558  "2 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
1  34558 34560  "1 "    0     # Trip line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00
1  34560 34562  "1 "    0     # Trip line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00
4  34560     0  "1 "    0     # LOAD-DROP    CALFLAX   70.00  LOAD==8.74(1.99)
0
 #
 #
 # (134)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.25(2.86)
0
 #
 #
 # (135)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34556 34562  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00
0
 #
 #
 # (136)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34556 34564  "1 "    0     # line from  STRD JCT  70.00   (3) to BRKR  STROUD    70.00
1  34556 34474  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  HELM      70.00
1  34556 34562  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00
4  34564     0  "1 "    0     # LOAD-DROP    STROUD    70.00  LOAD==9.19(2.09)
0
 #
 #
 # (137)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34562 34566  "1 "    0     # line from  SCHLNDLR  70.00  BRKR to (2)   PLSNTVLY  70.00
1  34566 34570  "1 "    0     # line from  PLSNTVLY  70.00   (2) to BRKR  COLNGA 2  70.00
4  34566     0  "1 "    0     # LOAD-DROP    PLSNTVLY  70.00  LOAD==10.00(2.51)
0
 #
 #
 # (138)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34570 34572  "1 "    0     # line from  COLNGA 2  70.00  BRKR to (3)   TORNADO   70.00
1  34572 34574  "1 "    0     # line from  TORNADO   70.00   (3) to BRKR  COLNGA 1  70.00
2  34572 34654  "1 "    0     # TRAN from  TORNADO   70.00   (3) to (1)   COLNGAGN   9.11
4  34572     0  "1 "    0     # LOAD-DROP    TORNADO   70.00  LOAD==1.86(1.54)
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3  34654     0  "1 "    0     # GEN-DROP    COLNGAGN   9.11  GEN==34.00(-13.50)
2  34570 34652  "1 "    0      # Must include Colinga2 - Chv.coal in this outage - modeled on bus,
3  34652     0  "**"    0      # Drops units on Derrick Sub
4  34652     0  "**"    0      # Drops load at Derrick Sub
0
 #
 #
 # (139)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  36354 34574  "1 "    0     # line from  SAN MIGL  70.00  BRKR to BRKR  COLNGA 1  70.00
0
 #
 #
 # (140)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (141)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (142)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30765 30069  "1 "    0     # TRAN from  LOSBANOS 230.00  BRKR to (3)   L.BANS M 500.00
2  30069 30050  "1 "    0     # TRAN from  L.BANS M 500.00   (3) to BRKR  LOSBANOS 500.00
2  30069 34302  "1 "    0     # TRAN from  L.BANS M 500.00   (3) to (1)   L.BANS T  13.80
0
 #
 #
 # (143)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (144)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34214 30765  "4 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (145)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34134 30800  "1 "    0     # TRAN from  WILSON A 115.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (146)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34136 30800  "2 "    0     # TRAN from  WILSON B 115.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (147)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34256 30805  "1 "    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00
0
 #
 #
 # (148)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34256 30805  "2 "    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00
0
 #
 #
 # (149)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34600 30820  "1 "    0     # TRAN from  HELMS 1   18.00   (1) to BRKR  HELMS PP 230.00
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  GEN==310.00(70.55)
0
 #
 #
 # (150)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34602 30820  "1 "    0     # TRAN from  HELMS 2   18.00   (1) to BRKR  HELMS PP 230.00
```

```
3  34602     0  "1 "    0     # GEN-DROP    HELMS 2   18.00  GEN==310.00(70.74)
0
 #
 #
 # (151)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34604 30820  "1 "    0     # TRAN from  HELMS 3   18.00   (1) to BRKR  HELMS PP 230.00
3  34604     0  "1 "    0     # GEN-DROP    HELMS 3   18.00  GEN==310.00(70.70)
0
 #
 #
 # (152)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34480 30830  "2 "    0     # TRAN from  KEARNEY   70.00  BRKR to BRKR  KEARNEY  230.00
0
 #
 #
 # (153)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34474 30873  "1 "    0     # TRAN from  HELM      70.00  BRKR to BRKR  HELM     230.00
0
 #
 #
 # (154)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34540 30881  "2 "    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00
0
 #
 #
 # (155)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30055 30900  "11"    0     # TRAN from  GATES    500.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (156)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4  34378     0  "3 "    0     # Drop Gates Bank #3
0
 #
 #
 # (157)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
#      **** 3-WINDING TRANSFORMER  34268  (34174)  34156  34314 :
 2  34268 34156  "1 "    0     # TRAN from  MENDOTA   70.00  BRKR to (3)   MENDOTA  115.00
 1  34156 34178  "1 "    0     # line from  MENDOTA  115.00  BRKR to (1)   MADERAPR 115.00
 1  34156 34157  "1 "    0     # line from  MENDOTA  115.00  BRKR to (1)   PANOCHET 115.00
 0
  #
  #
  # (158)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30790  (30791)  34158  34310 :
 2  30790 34158  "1 "    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00
 0
  #
  #
  # (159)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30790  (30792)  34158  34311 :
 2  30790 34158  "2 "    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00
 0
  #
  #
  # (160)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34186 34158  "1 "    0     # TRAN from  DG_PAN1   13.80   (1) to BRKR  PANOCHE  115.00
 3  34186     0  "1 "    0     # GEN-DROP    DG_PAN1   13.80  GEN==49.00(2.80)
 0
  #
  #
  # (161)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34200 34162  "2 "    0     # TRAN from  ORO LOMA  70.00  BRKR to (3)   ORO LOMA 115.00
 1  34162 34161  "1 "    0     # line from  ORO LOMA 115.00  BRKR to (1)   DFSTP    115.00
 1  34162 34168  "1 "    0     # line from  ORO LOMA 115.00  BRKR to (1)   EL NIDO  115.00
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APPENDIX B – AUTOCON INPUT FILE

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 0
  #
  #
  # (162)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34112 34176  "1 "    0     # TRAN from  EXCHEQUR 115.00  BRKR to (3)   EXCHQRTP 115.00
 2  34176 34232  "1 "    0     # TRAN from  EXCHQRTP 115.00   (3) to (4)   EXCHEQUR  70.00
 2  34176 34306  "1 "    0     # TRAN from  EXCHQRTP 115.00   (3) to (1)   EXCHQUER  13.80
 1  34232 34228  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MARIPOS2  70.00
 1  34232 34242  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   BER VLLY  70.00
 1  34232 34321  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MCSWAINJ  70.00
 4  34228     0  "1 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==6.50(1.48)
 4  34228     0  "2 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.17(1.63)
 3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==75.00(10.27)
 1  34228 34244  "1 "    1      # Switches in Mariposa SW 39 to transfer load
 4  34228     0  "**"    1      # Restore Load at Mariposa
 0
  #
  #
  # (163)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  34144  (34146)  34202  34312 :
 2  34144 34202  "2 "    0     # TRAN from  MERCED   115.00  BRKR to (1)   MERCED    70.00
 0
  #
  #
  # (164)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34322 34230  "1 "    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00
 2  34322 34230  "2 "    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00
 3  34322     0  "1 "    0     # GEN-DROP    MERCEDFL   9.11  GEN==3.00(2.00)
 0
  #
  #
  # (165)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34358 34308  "1 "    0     # TRAN from  KERCKHF2 115.00  BRKR to (1)   KERCKHOF  13.80
 3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  GEN==129.00(16.00)
 0
  #
  #
  # (166)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34356 34344  "1 "    0     # TRAN from  KERCKHF1 115.00  BRKR to (1)   KERCKHOF   6.60
 4  34344     0  "4 "    0     # LOAD-DROP    KERCKHOF   6.60  LOAD==3.19(0.73)
 0
  #
  #
  # (167)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34562 34354  "1 "    0     # TRAN from  SCHLNDLR  70.00  BRKR to (3)   SCHINDLR 115.00
 1  34354 34149  "1 "    0     # line from  SCHINDLR 115.00  BRKR to (1)   CHENYT   115.00
 1  34354 34432  "1 "    0     # line from  SCHINDLR 115.00  BRKR to (1)   WESTLNDS 115.00
 0
  #
  #
  # (168)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30876)  34370  34618 :
 2  30875 34370  "1 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (169)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30877)  34370  34620 :
 2  30875 34370  "2 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (170)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30878)  34370  34621 :
 2  30875 34370  "3 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (171)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
```

```
 2  34552 34378  "2 "    0     # TRAN from  GATES     70.00  BRKR to BRKR  GATES    115.00
 0
  #
  #
  # (172)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34492 34380  "1 "    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00
 0
  #
  #
  # (173)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34492 34380  "2 "    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00
 0
  #
  #
  # (174)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30835  (30882)  34412  34630 :
 2  30835 34412  "1 "    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00
 0
  #
  #
  # (175)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30835  (30883)  34412  34632 :
 2  30835 34412  "2 "    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00
 0
  #
  #
  # (176)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34528 34420  "2 "    0     # TRAN from  CORCORAN  70.00  BRKR to BRKR  CORCORAN 115.00
 0
  #
  #
  # (177)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  30881 34430  "3 "    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00
 0
  #
  #
  # (178)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34658 34452  "1 "    0     # TRAN from  WISHON     2.30   (1) to BRKR  WISHON    70.00
 3  34658     0  "3 "    0     # GEN-DROP    WISHON     2.30  GEN==4.30(1.00)
 3  34658     0  "4 "    0     # GEN-DROP    WISHON     2.30  GEN==4.30(1.00)
 0
  #
  #
  # (179)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34636 34464  "1 "    0     # TRAN from  FRIANTDM   6.60   (1) to BRKR  COPPRMNE  70.00
 3  34636     0  "1 "    0     # GEN-DROP    FRIANTDM   6.60  GEN==24.00(13.57)
 0
  #
  #
  # (180)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34366 34488  "2 "    0     # TRAN from  SANGER   115.00  BRKR to BRKR  SANGER    70.00
 0
  #
  #
  # (181)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34590 34488  "1 "    0     # TRAN from  SANGR3T  115.00   (2) to BRKR  SANGER    70.00
 2  34590 34366  "1 "    0     # TRAN from  SANGR3T  115.00   (2) to BRKR  SANGER   115.00
 4  34590     0  "3 "    0     # LOAD-DROP    SANGR3T  115.00  LOAD==13.97(3.18)
 0
  #
  #
  # (182)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34650 34554  "1 "    0     # TRAN from  GWF-PWR.  13.80   (1) to BRKR  AMSTG SW  70.00
 3  34650     0  "1 "    0     # GEN-DROP    GWF-PWR.  13.80  GEN==23.00(2.61)
 0
  #
  #
  # (183)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
```

```
 #
2  34652 34570  "1 "    0     # TRAN from  CHV.COAL   9.11   (1) to BRKR  COLNGA 2  70.00
4  34652     0  "SG"    0     # LOAD-DROP    CHV.COAL   9.11  LOAD==1.40(0.68)
3  34652     0  "1 "    0     # GEN-DROP    CHV.COAL   9.11  GEN==2.50(8.30)
3  34652     0  "2 "    0     # GEN-DROP    CHV.COAL   9.11  GEN==8.00(4.00)
0
 #
 #
 # (184)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34418 34576  "2 "    0     # TRAN from  KINGSBRG 115.00  BRKR to BRKR  KNGLOBUS  70.00
4  34418     0  "3 "    0      # Drop Kingsburg Bk#3 (modeled as load on Kingburg 115kV bus)
0
 #
 #
 # (185)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34400 34616  "1 "    0     # TRAN from  KNGSRVR1 115.00  BRKR to (1)   KINGSRIV  13.80
3  34616     0  "1 "    0     # GEN-DROP    KINGSRIV  13.80  GEN==47.00(9.00)
0
 #
 #
 # (186)  B1 GENERATOR OUTAGE
 #
3  34323     0  "1"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (187)  B1 GENERATOR OUTAGE
 #
3  34323     0  "2"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (188)  B1 GENERATOR OUTAGE
 #
3  34323     0  "3"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (189)  B1 GENERATOR OUTAGE
 #
3  34323     0  "4"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (190)  B1 GENERATOR OUTAGE
 #
3  34323     0  "5"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (191)  B1 GENERATOR OUTAGE
 #
3  34324     0  "10"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (192)  B1 GENERATOR OUTAGE
 #
3  34324     0  "6"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (193)  B1 GENERATOR OUTAGE
 #
3  34324     0  "7"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (194)  B1 GENERATOR OUTAGE
 #
3  34324     0  "8"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (195)  B1 GENERATOR OUTAGE
 #
3  34324     0  "9"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
```

```
0
 #
 #
 # (196)  B1 GENERATOR OUTAGE
 #
3  34325     0  "11"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (197)  B1 GENERATOR OUTAGE
 #
3  34325     0  "12"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (198)  B1 GENERATOR OUTAGE
 #
3  34325     0  "13"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (199)  B1 GENERATOR OUTAGE
 #
3  34325     0  "14"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (200)  B1 GENERATOR OUTAGE
 #
3  34325     0  "15"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (201)  B1 GENERATOR OUTAGE
 #
3  34347     0  "1"     0     # P0406     13.80       PGEN=102.60  QGEN=15.64
0
 #
 #
 # (202)  B1 GENERATOR OUTAGE
 #
3  34605     0  "1"     0     # P0429     13.80       PGEN=102.60  QGEN=11.75
0
 #
 #
 # (203)  B1 GENERATOR OUTAGE
 #
3  34605     0  "2"     0     # P0429     13.80       PGEN=102.60  QGEN=11.75
0
 #
 #
 # (204)  B1 GENERATOR OUTAGE
 #
3  34609     0  "4"     0     # FRESNOCG  13.80       PGEN=25.50  QGEN=0.00
0
 #
 #
 # (205)  B1 GENERATOR OUTAGE
 #
3  34661     0  "1"     0     # P0418CT1  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (206)  B1 GENERATOR OUTAGE
 #
3  34663     0  "1"     0     # P0418CT2  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (207)  B1 GENERATOR OUTAGE
 #
3  34665     0  "1"     0     # P0418CT3  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (208)  B1 GENERATOR OUTAGE
 #
3  34671     0  "1"     0     # KRCDPCT1  13.80       PGEN=49.70  QGEN=5.63
0
```

```
 #
 #
 # (209)  B1 GENERATOR OUTAGE
 #
3  34672     0  "1"     0     # KRCDPCT2  13.80       PGEN=49.70  QGEN=5.63
0
 #
 # (210)  B1 GENERATOR OUTAGE
 #
3  34142     0  "1"     0     # WHD_PAN2  13.80       PGEN=49.00  QGEN=-18.25
0
 #
 #
 # (211)  B1 GENERATOR OUTAGE
 #
3  34179     0  "1"     0     # MADERA_G  13.80       PGEN=28.00  QGEN=-6.72
0
 #
 #
 # (212)  B1 GENERATOR OUTAGE
 #
3  34186     0  "1"     0     # DG_PAN1   13.80       PGEN=49.00  QGEN=-13.81
0
 #
 #
 # (213)  B1 GENERATOR OUTAGE
 #
3  34301     0  "1"     0     # CHOWCOGN  13.80       PGEN=50.00  QGEN=-1.93
0
 #
 #
 # (214)  B1 GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=75.00  QGEN=11.97
0
 #
 #
 # (215)  B1 GENERATOR OUTAGE
 #
3  34316     0  "1"     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00
0
 #
 #
 # (216)  B1 GENERATOR OUTAGE
 #
3  34320     0  "1"     0     # MCSWAIN    9.11       PGEN=8.00  QGEN=2.00
0
 #
 #
 # (217)  B1 GENERATOR OUTAGE
 #
3  34322     0  "1"     0     # MERCEDFL   9.11       PGEN=3.00  QGEN=2.00
0
 #
 #
 # (218)  B1 GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.00  QGEN=5.40
0
 #
 #
 # (219)  B1 GENERATOR OUTAGE
 #
3  34334     0  "1"     0     # BIO PWR    9.11       PGEN=23.00  QGEN=7.28
0
 #
 #
 # (220)  B1 GENERATOR OUTAGE
 #
3  34342     0  "1"     0     # INT.TURB   9.11       PGEN=1.00  QGEN=0.00
0
 #
 #
 # (221)  B1 GENERATOR OUTAGE
 #
3  34631     0  "1"     0     # SJ2GEN     9.11       PGEN=3.00  QGEN=0.00
0
 #
 #
```

```
 # (222)  B1 GENERATOR OUTAGE
 #
3  34633     0  "1"     0     # SJ3GEN     9.11       PGEN=4.00  QGEN=0.00
0
 #
 #
 # (223)  B1 GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=129.00  QGEN=16.00
0
 #
 #
 # (224)  B1 GENERATOR OUTAGE
 #
3  34344     0  "2"     0     # KERCKHOF   6.60       PGEN=0.00  QGEN=-4.00
0
 #
 #
 # (225)  B1 GENERATOR OUTAGE
 #
3  34431     0  "1"     0     # GWF_HEP1  13.80       PGEN=49.50  QGEN=20.53
0
 #
 #
 # (226)  B1 GENERATOR OUTAGE
 #
3  34433     0  "1"     0     # GWF_HEP2  13.80       PGEN=49.50  QGEN=20.53
0
 #
 #
 # (227)  B1 GENERATOR OUTAGE
 #
3  34539     0  "1"     0     # GWF_GT1   13.80       PGEN=49.00  QGEN=-6.72
0
 #
 #
 # (228)  B1 GENERATOR OUTAGE
 #
3  34541     0  "1"     0     # GWF_GT2   13.80       PGEN=49.00  QGEN=-6.72
0
 #
 #
 # (229)  B1 GENERATOR OUTAGE
 #
3  34553     0  "1"     0     # WHD_GAT2  13.80       PGEN=49.00  QGEN=-25.30
0
 #
 #
 # (230)  B1 GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.00  QGEN=76.05
0
 #
 #
 # (231)  B1 GENERATOR OUTAGE
 #
3  34602     0  "1"     0     # HELMS 2   18.00       PGEN=310.00  QGEN=76.26
0
 #
 #
 # (232)  B1 GENERATOR OUTAGE
 #
3  34604     0  "1"     0     # HELMS 3   18.00       PGEN=310.00  QGEN=76.22
0
 #
 #
 # (233)  B1 GENERATOR OUTAGE
 #
3  34608     0  "2"     0     # AGRICO    13.80       PGEN=18.00  QGEN=8.83
0
 #
 #
 # (234)  B1 GENERATOR OUTAGE
 #
3  34610     0  "1"     0     # HAAS      13.80       PGEN=69.00  QGEN=15.65
0
 #
 #
 # (235)  B1 GENERATOR OUTAGE
```

```
 #
3  34610     0  "2"     0     # HAAS      13.80       PGEN=69.00  QGEN=15.65
0
 #
 #
 # (236)  B1 GENERATOR OUTAGE
 #
3  34612     0  "1"     0     # BLCH 2-2  13.80       PGEN=52.00  QGEN=10.97
0
 #
 #
 # (237)  B1 GENERATOR OUTAGE
 #
3  34614     0  "1"     0     # BLCH 2-3  13.80       PGEN=52.00  QGEN=11.86
0
 #
 #
 # (238)  B1 GENERATOR OUTAGE
 #
3  34616     0  "1"     0     # KINGSRIV  13.80       PGEN=47.00  QGEN=9.00
0
 #
 #
 # (239)  B1 GENERATOR OUTAGE
 #
3  34618     0  "1"     0     # MCCALL1T  13.20       PGEN=0.00  QGEN=12.39
0
 #
 #
 # (240)  B1 GENERATOR OUTAGE
 #
3  34621     0  "1"     0     # MCCALL3T  13.20       PGEN=0.00  QGEN=9.63
0
 #
 #
 # (241)  B1 GENERATOR OUTAGE
 #
3  34622     0  "1"     0     # GATES 1T  13.20       PGEN=0.00  QGEN=-15.00
0
 #
 #
 # (242)  B1 GENERATOR OUTAGE
 #
3  34624     0  "1"     0     # BALCH 1   13.20       PGEN=27.00  QGEN=10.00
0
 #
 #
 # (243)  B1 GENERATOR OUTAGE
 #
3  34630     0  "1"     0     # HERNDN1T  13.20       PGEN=0.00  QGEN=12.86
0
 #
 #
 # (244)  B1 GENERATOR OUTAGE
 #
3  34632     0  "1"     0     # HERNDN2T  13.20       PGEN=0.00  QGEN=17.89
0
 #
 # (245)  B1 GENERATOR OUTAGE
 #
3  34636     0  "1"     0     # FRIANTDM   6.60       PGEN=24.00  QGEN=15.00
0
 #
 #
 # (246)  B1 GENERATOR OUTAGE
 #
3  34640     0  "1"     0     # ULTR.PWR   9.11       PGEN=15.00  QGEN=13.00
0
 #
 #
 # (247)  B1 GENERATOR OUTAGE
 #
3  34642     0  "1"     0     # KINGSBUR   9.11       PGEN=34.00  QGEN=17.30
0
 #
 #
 # (248)  B1 GENERATOR OUTAGE
 #
3  34646     0  "1"     0     # SANGERCO   9.11       PGEN=38.00  QGEN=-0.82
```

```
0
 #
 #
 # (249)  B1 GENERATOR OUTAGE
 #
3  34648     0  "1"     0     # DINUBA E  13.80       PGEN=12.00  QGEN=7.00
0
 #
 #
 # (250)  B1 GENERATOR OUTAGE
 #
3  34650     0  "1"     0     # GWF-PWR.  13.80       PGEN=23.00  QGEN=11.75
0
 #
 #
 # (251)  B1 GENERATOR OUTAGE
 #
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=2.50  QGEN=8.30
0
 #
 #
 # (252)  B1 GENERATOR OUTAGE
 #
3  34652     0  "2"     0     # CHV.COAL   9.11       PGEN=8.00  QGEN=4.00
0
 #
 #
 # (253)  B1 GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.00  QGEN=-13.50
0
 #
 #
 # (254)  B1 GENERATOR OUTAGE
 #
3  34658     0  "3"     0     # WISHON     2.30       PGEN=4.30  QGEN=1.00
0
 #
 #
 # (255)  B1 GENERATOR OUTAGE
 #
3  34658     0  "4"     0     # WISHON     2.30       PGEN=4.30  QGEN=1.00
0
 #
 #
 # (256)  B1 GENERATOR OUTAGE
 #
3  38720     0  "1"     0     # PINE FLT  13.80       PGEN=49.00  QGEN=11.23
0
 #
 #
 # (257)  B1 GENERATOR OUTAGE
 #
3  38720     0  "2"     0     # PINE FLT  13.80       PGEN=49.00  QGEN=11.23
0
 #
 #
 # (258)  B1 GENERATOR OUTAGE
 #
3  38720     0  "3"     0     # PINE FLT  13.80       PGEN=0.00  QGEN=22.91
0
##############################################################################################
#
#  L-1/G-1 Contingencies
#
##############################################################################################
#
# (259)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)
```

```
3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)
0
 #
 # (260)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34105 34100  "1 "    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00
1  34105 34121  "1 "    0     # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00
1  34121 34120  "1 "    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00
1  34121 34128  "1 "    0     # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00
1  34128 34126  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00
1  34128 34123  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   K1-JCT   115.00
1  34126 34122  "1 "    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00
1  34123 34358  "2 "    0     # line from  K1-JCT   115.00   (2) to BRKR  KERCKHF2 115.00
4  34120     0  "1 "    0     # LOAD-DROP    SHARON   115.00  LOAD==6.80(4.75)
4  34126     0  "1 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==10.12(2.11)
4  34126     0  "2 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==6.17(0.00)
4  34122     0  "1 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==12.05(4.92)
4  34122     0  "2 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==8.39(-1.42)
0
 #
 #
 # (261)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=75.00  QGEN=40.00
 #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 # (262)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34104 34108  "1 "    0     # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00
1  34108 34114  "1 "    0     # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00
1  34114 34124  "1 "    0     # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00
2  34114 34332  "1 "    0     # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11
1  34124 34140  "1 "    0     # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00
4  34124     0  "1 "    0     # LOAD-DROP    JR WOOD  115.00  LOAD==13.77(12.14)
4  34140     0  "1 "    0     # LOAD-DROP    CRESSEY  115.00  LOAD==20.80(3.20)
3  34332     0  "1 "    0     # GEN-DROP    JRWCOGEN   9.11  GEN==4.38(5.40)
0
 #
 #
 # (263)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00
1  34110 34130  "1 "    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00
1  34110 34144  "1 "    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00
1  34130 34132  "1 "    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00
4  34130     0  "3 "    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==22.10(5.44)
4  34132     0  "1 "    0     # LOAD-DROP    GALLO    115.00  LOAD==5.77(5.56)
0
 #
 #
 # (264)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (265)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.97(0.00)
4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==12.15(-3.95)
0
 #
```

```
 # (266)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
0
 #
 # (267)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34150 34154  "1 "    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00
1  34150 34178  "1 "    0     # line from  NEWHALL  115.00   (2) to (2)   CAPCOTAP 115.00
1  34178 34156  "1 "    0     # line from  CAPCOTAP 115.00   (2) to BRKR  MENDOTA  115.00
4  34150     0  "2 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==6.08(1.50)
4  34150     0  "3 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==8.30(1.64)
0
 #
 # (268)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34157 34156  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00
1  34157 34158  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00
3  34186     0  "1 "    0       # DG_PAN Unit will trip for this outage
0
 #
 #
 # (269)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40
 #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 #
 # (270)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40
 #
1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
0
 #
 #
 # (271)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (272)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76
#
1  34112 34116  "1 "    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00
3  34306     0  "1 "    0      # Exchequer Unit will trip for this outage
4  34228     0  "**"    0      # Mariposa Loads will drop if bus is below 64 kV, this is anticipate
0
 #
 #
 # (273)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76
 #
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)
3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)
0
 #
 #
```

```
 # (274)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34237 34255  "1 "    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00
1  34237 34240  "1 "    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00
1  34255 34238  "1 "    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00
1  34255 34254  "1 "    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00
1  34254 34264  "1 "    0     # line from  TRIGO     70.00   (2) to (1)   EL PECO   70.00
4  34237     0  "1 "    0     # LOAD-DROP    CANANDGA  70.00  LOAD==6.74(5.06)
4  34238     0  "1 "    0     # LOAD-DROP    BONITA    70.00  LOAD==12.84(1.29)
4  34264     0  "1 "    0     # LOAD-DROP    EL PECO   70.00  LOAD==8.08(0.00)
1  34238 34236  "1 "    1      # Switches in Bonita SW23 to transfer load
4  34238     0  "1 "    1      # Restore Load at Bonita
0
 #
 #
 # (275)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34321 34226  "1 "    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00
1  34321 34230  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00
1  34321 34232  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00
2  34226 34320  "1 "    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11
3  34320     0  "1 "    0     # GEN-DROP    MCSWAIN    9.11  GEN==6.80(-1.00)
0
 #
 #
 # (276)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)
0
#
# (277)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34316     0  "1"     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00
#
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)
0
#
#
# (278) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 # (279) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
```

```
 #
 # (280) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (281) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
  #
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (282)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (283)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (284)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (285)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (286)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (287)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (288)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (289)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
```

APPENDIX B – AUTOCON INPUT FILE

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 # (290)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 #
 # (291)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
 #
 #
 # (292)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
 #
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (293)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
#
# (294) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
#
# (295) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.25  QGEN=78.75
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
#
# (296) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
#
#
# (297) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
#
```

```
# (298) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (299) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (300)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (301)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (302)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (303)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (304)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (305)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (306)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
# (307)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
#
#
```

```
# (308)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (309)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
#
# (310)  C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
#
# (311) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=155  QGEN=42.76
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
#
# (312) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
# (313)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
#
# (314) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (315) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (316)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
# (317)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
```

```
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
# (318)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (319)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (320)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (321)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (322)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (323)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (324)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (325)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
 #
 #
 # (326)  B4 GENERATOR OUTAGE & TRANSFORMER OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
 #
 #
 # (327) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
```

```
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (328)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 #
 # (329)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 # (330)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=131.99  QGEN=42.76
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
#
# (331)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
#
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=89.95  QGEN=18.49
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
#
# (332)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
#
# (333)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15
#
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
#
# (334)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
```

APPENDIX B – AUTOCON INPUT FILE

```
# (335) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=17.00  QGEN=8.30
  #
  #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (336) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=17.00  QGEN=8.30
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0
0
 #
 #
 # (337) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.22  QGEN=-13.50
 #
 #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (338) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.22  QGEN=-13.50
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0
0
 #
 # (339)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34636     0  "1"     0     # FRIANTDM   9.11       PGEN=19.96  QGEN=-1.14
 #
1  34262 34454  "1 "    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00
1  34262 34256  "1 "    0     # line from  CASSIDY   70.00   (2) to BRKR  BORDEN    70.00
1  34454 34464  "1 "    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00
4  34262     0  "1 "    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.36(0.80)
4  34454     0  "1 "    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)
0
 #
 #
 # (340) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34650     0  "1"     0     # GWF-PWR.   9.11       PGEN=23.00  QGEN=5.92
#
1  34516 34520  "1 "    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00
1  34520 34518  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00
1  34520 34524  "1 "    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00
1  34520 34540  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00
4  34516     0  "1 "    0     # LOAD-DROP    LEPRINO   70.00  LOAD==5.84(3.31)
4  34518     0  "1 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==25.58(8.22)
4  34518     0  "2 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==10.28(2.53)
4  34524     0  "1 "    0     # LOAD-DROP    CANDLEWK  70.00  LOAD==2.93(2.66)
0
#
# (341)  B CAPACITOR OUTAGE
#
6  30810     0  "v"     0     # drop Gregg 230 kV shunt Caps
0
#
# (342)  B CAPACITOR OUTAGE
#
6  30875     0  "v"     0     # drop McCall 230 kV shunt Caps
0
#
```

APPENDIX B – AUTOCON INPUT FILE

```
##########################################################################################
#
# PROJECT CONTINGENCIES
#
##########################################################################################
#
# (343)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
0
#
# (344)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
0
#
# (345)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
0
#######################################################################################
#
# PROJECT G-1/L-1 Contingencies
#
#######################################################################################
#
# (346) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 # (347)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
 #
 # (348) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (349) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
  #
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (350)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (351)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
```

APPENDIX B – AUTOCON INPUT FILE

```
#
#
# (352)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (353)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (354)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (355)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (356)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (357)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (358)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (359)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
# (360)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
# (361)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
```

APPENDIX B – AUTOCON INPUT FILE

```
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
# (362) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
# (363) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
-1
# EOF
```

APPENDIX B – AUTOCON INPUT FILE

```
# PG&E 2004 BASE CASE SERIES - 2008 Valley South Summer Peak Case
# Greater Fresno Area Category "C" Contingencies, Zones 313 and 314
# Bullard Energy Center- 2008 Summer Peak
#
#
##########################################################################################
  #
  #   70 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##########################################################################################
  #
#(1) Gates-Schindler and Gates-Huron
  #
 1  34558 34560  "1 "    0     # line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00
 1  34560 34562  "1 "    0     # line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00
 4  34560     0  "1 "    0     # LOAD-DROP    CALFLAX   70.00  LOAD==8.58(1.95)
 1  34552 34558  "2 "    0      # Must include Gates - Huron in this outage
 #
 1  34552 34558  "1 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
 0
#
##########################################################################################
  #
  #   115 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##########################################################################################
  #
#(2) Wilson-Atwater and El Capitan-Wilson
  #
 1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
 #
 1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
 0
  #
#(3) Wilson-Atwater and Atwater-El Capitan
  #
 1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
 #
 1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
 1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
 0
  #
#(4) Wilson-Merced #2 and Wilson-Oro Loma
  #
 1  34134 34144  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00
 #
 1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
 1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
 1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
 4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.10(1.61)
 4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==10.14(2.31)
 0
  #
#(5) Panoche-Schindler #1 and #2
  #
 1  34158 34350  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00
 1  34350 34352  "1 "    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00
 1  34352 34432  "1 "    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00
 1  34432 34354  "1 "    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00
 4  34350     0  "1 "    0     # LOAD-DROP    KAMM     115.00  LOAD==3.96(1.80)
 4  34352     0  "1 "    0     # LOAD-DROP    CANTUA   115.00  LOAD==15.77(3.59)
 4  34432     0  "16"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)
 4  34432     0  "18"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)
 #
 1  34141 34148  "1 "    0     # line from  PAN2_TAP 115.00   (2) to (2)   CHENY    115.00
 2  34141 34142  "1 "    0     # TRAN from  PAN2_TAP 115.00   (2) to (1)   WHD_PAN2  13.80
 1  34148 34149  "1 "    0     # line from  CHENY    115.00   (2) to (3)   CHENYT   115.00
 1  34149 34158  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00
 1  34149 34354  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00
 4  34148     0  "1 "    0     # LOAD-DROP    CHENY    115.00  LOAD==16.99(3.87)
 3  34142     0  "1 "    0     # GEN-DROP    WHD_PAN2  13.80  GEN==49.00(-0.53)
 0
#
#
#(6) Barton-Sanger and Manchester-Sanger
#
 1  34366 34408  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00
#
 1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
 4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.55)
 0
#
#(7) Herndon-Barton and Herndon-Manchester
#
 1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
#
 1  34410 34412  "1 "    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00
 0
#
#(8) Herndon-Barton and Manchester-Sanger
#
 1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
#
 1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
 1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
 4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.55)
 0
#
#(9) Herndon-Bullard #1 and #2
#
 1  34409 34413  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00
 1  34409 34416  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00
 1  34409 34412  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00
#
 1  34411 34413  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  PNEDLE   115.00
 1  34411 34416  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  BULLARD  115.00
 1  34411 34412  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  HERNDON  115.00
 0
#
#(10) Kerckhoff-Clovis-Sanger #1 and #2
#
 1  34358 34360  "1 "    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00
 1  34360 34414  "1 "    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00
 1  34360 34363  "1 "    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00
 1  34363 34362  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00
 1  34363 34366  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00
 4  34362     0  "1 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==46.20(10.53)
 4  34362     0  "2 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==46.31(10.55)
 #
 1  34364 34365  "1 "    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00
 1  34365 34358  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00
 1  34365 34366  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00
 4  34364     0  "3 "    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==50.50(11.51)
 0
#
#(11) Kingburg-Corcoran #1 and #2
#
 1  34418 34420  "1 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
 1  34418 34420  "2 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
 0
#
#(12) Kings River-Sanger-Reedley and Balch-Sanger
#
 1  34366 34389  "1 "    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00
 1  34389 34388  "1 "    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBW   115.00
 1  34389 34394  "1 "    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00
 1  34394 34380  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00
 1  34394 34400  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGSRVR1 115.00
 4  34388     0  "1 "    0     # LOAD-DROP    RAINBW   115.00  LOAD==12.06(2.75)
 #
 1  34366 34396  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00
 1  34396 34398  "1 "    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00
 2  34398 34624  "1 "    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20
 4  34624     0  "1 "    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.31(0.00)
 3  34624     0  "1 "    0     # GEN-DROP    BALCH 1   13.20  GEN==27.00(6.65)
 0
#
#(13) McCall-Kingsburg #1 and #2
#
 1  34370 34385  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   KINGS J1 115.00
 1  34385 34417  "1 "    0     # line from  KINGS J1 115.00   (3) to (2)   KINGS J2 115.00
 1  34385 34418  "1 "    0     # line from  KINGS J1 115.00   (3) to BRKR  KINGSBRG 115.00
 1  34417 34425  "1 "    0     # line from  KINGS J2 115.00   (2) to (3)   KCOGNJCT 115.00
 1  34425 34387  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (1)   SUNMAID  115.00
 1  34425 34427  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (2)   GRDNGLS2 115.00
 1  34427 34386  "1 "    0     # line from  GRDNGLS2 115.00   (2) to (2)   KNGSCOGN 115.00
 2  34386 34642  "1 "    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11
```

```
 4  34387     0  "1 "    0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.10(2.99)
 3  34642     0  "1 "    0     # GEN-DROP    KINGSBUR   9.11  GEN==34.00(17.30)
 #
 1  34370 34423  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00
 1  34423 34418  "1 "    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00
 1  34423 34421  "1 "    0     # line from  GAURD J1 115.00   (3) to (2)   GAURD J2 115.00
 1  34421 34424  "1 "    0     # line from  GAURD J2 115.00   (2) to (1)   GRDN GLS 115.00
 4  34424     0  "1 "    0     # LOAD-DROP    GRDN GLS 115.00  LOAD==10.05(3.30)
 0
#
#(14) McCall-Sanger #1 and #2
#
 1  34366 34370  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
 1  34366 34370  "2 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
 0
#
#(15) McCall-West Fresno #1 and #2
#
 1  34390 34402  "1 "    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00
 1  34390 34407  "1 "    0     # line from  DANISHCM 115.00   (2) to (2)   WFRES J2 115.00
 1  34407 34404  "1 "    0     # line from  WFRES J2 115.00   (2) to BRKR  WST FRSO 115.00
 4  34390     0  "1 "    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.85(3.29)
 #
 1  34370 34404  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00
 0
#
#################################################################################################
  #
  #   230 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
#################################################################################################
 #
 #
 #(16) Gates-Panoche #1 and #2
 #
 1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
 #
 1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
 0
 #
 #(17) Los Banos-Panoche and Los Banos-Dos Amigos
 #
 1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
 #
 1  30765 38615  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00
 0
 #
 #(18) Los Banos-Panoche and Dos Amigos-Panoche
 #
 1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
 #
 1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
 0
 #
 #(19) Los Banos - San Luis PGP #1 and #2
 #
 1  30765 38625  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
 #
 1  30765 38625  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
 0
 #
 #(20) Wilson-Borden and Wilson-Gregg
 #
 1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
 1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
 4  30795     0  "1 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==1.23(0.29)
 4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==25.62(5.84)
 #
 1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
 1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
 4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==30.38(6.92)
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
 0
 #
 #(21) Borden-Gregg and Wilson-Gregg
 #
 1  30805 30810  "1 "    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg -Borden line
 #
```

```
 1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
 1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
 4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==30.38(6.92)
 0
 #
 #(22) Bellota-Melones and Warnerville-Wilson
 #
 1  30500 38206  "1 "    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00
 1  38206 37563  "1 "    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00
 4  38206     0  "1 "    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)
# 3  34604     0  "**"    0     # Drop Helms unit#3 with a loss Bellota-Melones line
 #
 1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
 0
 #
 #(23) Bellota-Melones and Bellota-Warnerville
 #
 1  30500 38206  "1 "    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00
 1  38206 37563  "1 "    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00
 4  38206     0  "1 "    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)
# 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Bellota-Melones line
 #
 1  30500 38208  "1 "    0     # line from  BELLOTA  230.00  BRKR to (3)   COTTLE B 230.00
 1  38208 30515  "1 "    0     # line from  COTTLE B 230.00   (3) to BRKR  WARNERVL 230.00
 4  38208     0  "2 "    0     # LOAD-DROP    COTTLE B 230.00  LOAD==21.32(7.38)
 0
 #
 #(24) Melones-Wilson and Warnervile-Wilson
 #
 1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
 #
 1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
 0
#
#
#(25) Gates-Gregg and Gates-McCall
#
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 #
 1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
 1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
 2  34540 30881  "2 "    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00 RAS Scheme for
this DCTL outage
 2  30881 34430  "3 "    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00 RAS Scheme for
this DCTL outage
 0
#
#(26) Panoche-Kearney and Gates-Gregg
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP  MCMULLN1 230.00  LOAD==13.26(3.02)
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
3  34604     0  "**"    0     # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line
0
#
#(27) Panoche-Kearney and Panoche-Helm
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP  MCMULLN1 230.00  LOAD==13.26(3.02)
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#(28) Panoche-Kearney and Helm-McCall
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==13.26(3.02)
#
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
```

APPENDIX B – AUTOCON INPUT FILE

```
0
#
#(29) Helm-McCall and Gates-McCall
#
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
#(30) Helms-Gregg #1 and #2
  #
 1  30810 30820  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
 #
 1  30810 30820  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
 0
  #
#(31) Gregg-Herndon #1 and #2
  #
 1  30810 30835  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
 #
 1  30810 30835  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Gregg - Herndon Tap line
 0
  #
#(32) Herndon-Kearney (Bullard Energy Center) and Herndon-Ashlan
  #
 1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841     0  "**"    1      # Restore Load at Figarden 1
 0
#
#(33) (Bullard Energy Center) Herndon-Kearney and Herndon-Ashlan
#
 1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841     0  "**"    1      # Restore Load at Figarden 1
 0
#
#(34) Bullard Energy Center and Herndon-Ashlan
#
 2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
 4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
 3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841     0  "**"    1      # Restore Load at Figarden 1
 0
#
#(35) (Bullard Energy Center) Herndon-Kearney and Gates-Gregg
#
 1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(36) Herndon-Kearney (Bullard Energy Center) and Gates-Gregg
#
 1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
 #
```

```
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(37) Bullard Energy Center and Gates-Gregg
  #
 2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
 4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
 3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(38) Gates-Gregg and Gregg-Ashlan
#
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line
 #
 1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
 1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
 1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
 4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==48.05(0.00)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30846     0  "**"    1      # Restore Load at Figarden 2
 0
  #
#(39) Herndon-Ashlan and Gregg-Ashlan
  #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 #
 1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
 1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
 1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
 4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==42.49(9.68)
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Figarden line
 0
  #
#(40) Haas-McCall and Balch-McCall
  #
 1  30855 30860  "1 "    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00
 2  30855 34610  "1 "    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80
 1  30860 30875  "1 "    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00
 2  30860 34614  "1 "    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80
 3  34610     0  "1 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(10.96)
 3  34610     0  "2 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(10.96)
 3  34614     0  "1 "    0     # GEN-DROP    BLCH 2-3  13.80  GEN==52.00(8.41)
 #
 1  30865 30870  "1 "    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00
 2  30865 34612  "1 "    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80
 1  30870 30875  "1 "    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00
 2  30870 38720  "1 "    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80
 3  34612     0  "1 "    0     # GEN-DROP    BLCH 2-2  13.80  GEN==52.00(7.53)
 3  38720     0  "1 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.55)
 3  38720     0  "2 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.55)
 0
#
#
##########################################################################################
  #
  # BUS FAULT CONTINGENCIES
  #
##########################################################################################
#
# (41) BUS FAULT  30765  "LOSBANOS BUS 1"
 1  30765  30670  "1"    0     # LINE from  LOSBANOS 230.00  to  WESTLEY  230.00
 1  30765  30790  "2"    0     # LINE from  LOSBANOS 230.00  to  PANOCHE  230.00
```

```
 1  30765  38625  "1"    0     # LINE from  LOSBANOS 230.00  to  SN LS PP 230.00
 1  30765  38625  "2"    0     # LINE from  LOSBANOS 230.00  to  SN LS PP 230.00
 2  30765  34214  "4"    0     # TRAN from  LOSBANOS 230.00  to  LOS BANS  70.00
 6  30765      0  "v"    0     # SHUNT Capacitors at Los Banos
 0
#
# (42) BUS FAULT  30765  "LOSBANOS BUS 2"
 1  30765  30790  "1"    0     # LINE from  LOSBANOS 230.00  to  PANOCHE  230.00
 1  30765  38615  "1"    0     # LINE from  LOSBANOS 230.00  to  DS AMIGO 230.00
 2  30765  34214  "3"    0     # TRAN from  LOSBANOS 230.00  to  LOS BANS  70.00
 0
#
# (43) BUS FAULT  30790  "PANOCHE BUS 1"
 1  30790  30760  "1"    0     # LINE from  PANOCHE  230.00  to  COBURN   230.00
 1  30790  30765  "1"    0     # LINE from  PANOCHE  230.00  to  LOSBANOS 230.00
 1  30790  30765  "2"    0     # LINE from  PANOCHE  230.00  to  LOSBANOS 230.00
 1  30790  30825  "1"    0     # LINE from  PANOCHE  230.00  to  MCMULLN1 230.00
 1  30790  30900  "1"    0     # LINE from  PANOCHE  230.00  to  GATES    230.00
 2  30790  30791  "1"    0     # TRAN from  PANOCHE  230.00  to  PNCHE 1M 230.00
 0
#
# (44) BUS FAULT  30790  "PANOCHE BUS 2"
 1  30790  30750  "1"    0     # LINE from  PANOCHE  230.00  to  MOSSLND2 230.00
 1  30790  30873  "1"    0     # LINE from  PANOCHE  230.00  to  HELM     230.00
 1  30790  30900  "2"    0     # LINE from  PANOCHE  230.00  to  GATES    230.00
 1  30790  38615  "1"    0     # LINE from  PANOCHE  230.00  to  DS AMIGO 230.00
 2  30790  30792  "2"    0     # TRAN from  PANOCHE  230.00  to  PNCHE 2M 230.00
 0
#
# (45) BUS FAULT  30835  "HERNDON BUS 1"
 1  30835  30810  "1"    0     # LINE from  HERNDON  230.00  to  GREGG    230.00
 1  30835  30829  "1"    0     # LINE from  HERNDON  230.00  to  P0429    230.00
 2  30835  30882  "1"    0     # TRAN from  HERNDON  230.00  to  HERNDN1M 115.00
 0
#
# (46) BUS FAULT  30835  "HERNDON BUS 2"
 1  30835  30810  "2"    0     # LINE from  HERNDON  230.00  to  GREGG    230.00
 1  30835  30840  "1"    0     # LINE from  HERNDON  230.00  to  FGRDN T1 230.00
 2  30835  30883  "2"    0     # TRAN from  HERNDON  230.00  to  HERNDN2M 115.00
 0
#
# (47) BUS FAULT  30875  "MC CALL BUS 1"
 1  30875  30870  "1"    0     # LINE from  MC CALL  230.00  to  PINE FLT 230.00
 1  30875  30880  "1"    0     # LINE from  MC CALL  230.00  to  HENTAP2  230.00
 2  30875  30877  "2"    0     # TRAN from  MC CALL  230.00  to  MCCALL2M 115.00
 6  30875      0  "v"    0     # SHUNT Capacitors at Mc Call
 0
# (48) BUS FAULT  30875  "MC CALL BUS 2"
 1  30875  30860  "1"    0     # LINE from  MC CALL  230.00  to  BALCH3TP 230.00
 1  30875  30873  "1"    0     # LINE from  MC CALL  230.00  to  HELM     230.00
 2  30875  30876  "1"    0     # TRAN from  MC CALL  230.00  to  MCCALL1M 115.00
 2  30875  30878  "3"    0     # TRAN from  MC CALL  230.00  to  MCCALL3M 115.00
 0
#
# (49) BUS FAULT  30900  "GATES BUS D1"
 1  30900  30790  "1"    0     # LINE from  GATES    230.00  to  PANOCHE  230.00
 1  30900  30905  "1"    0     # LINE from  GATES    230.00  to  TEMPLETN 230.00
 2  30900  30901  "1"    0     # TRAN from  GATES    230.00  to  GATES 1M 230.00
 6  30900      0  "v"    0     # SHUNT Capacitors at Gates
 0
#
# (50) BUS FAULT  30900  "GATES BUS D2"
 1  30900  30790  "2"    0     # LINE from  GATES    230.00  to  PANOCHE  230.00
 1  30900  30915  "1"    0     # LINE from  GATES    230.00  to  MORROBAY 230.00
 0
#
# (51) BUS FAULT  30900  "GATES BUS E1"
 1  30900  30879  "1"    0     # LINE from  GATES    230.00  to  HENTAP1  230.00
 1  30900  30935  "1"    0     # LINE from  GATES    230.00  to  ARCO     230.00
 0
#
# (52) BUS FAULT  30900  "GATES BUS E2"
 1  30900  30880  "1"    0     # LINE from  GATES    230.00  to  HENTAP2  230.00
 1  30900  30970  "1"    0     # LINE from  GATES    230.00  to  MIDWAY   230.00
 0
#
# (53) BUS FAULT  34134  "WILSON A"
 1  34134  34116  "1"    0     # LINE from  WILSON A 115.00  to  LE GRAND 115.00
 1  34134  34104  "1"    0     # LINE from  WILSON A 115.00  to  ATWATER  115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 1  34134  34144  "1"    0     # LINE from  WILSON A 115.00  to  MERCED   115.00
 2  34134  30800  "1"    0     # TRAN from  WILSON A 115.00  to  WILSON   230.00
 1  34134 34136  "1 "    0     # LINE from  WILSON A 115.00  to  WILSON B 115.00
 4  34134     0  "3 "    0     # LOAD-DROP    WILSON A 115.00  LOAD==26.66(6.08)
 6  34134     0  "v"    0     # SHUNT Capacitors at Wilson A Bus
 0
#
# (54) BUS FAULT  34136  "WILSON B"
 1  34136  34118  "1"    0     # LINE from  WILSON B 115.00  to  LE GRNDJ 115.00
 1  34136  34138  "1"    0     # LINE from  WILSON B 115.00  to  EL CAPTN 115.00
 1  34136  34144  "2"    0     # LINE from  WILSON B 115.00  to  MERCED   115.00
 2  34136  30800  "2"    0     # TRAN from  WILSON B 115.00  to  WILSON   230.00
 1  34134 34136  "1 "    0     # LINE from  WILSON A 115.00  to  WILSON B 115.00
 0
#
# (55) BUS FAULT  34158  "PANOCHE BUS 1"
 1  34158  34157  "1"    0     # LINE from  PANOCHE  115.00  to  PANOCHET 115.00
 1  34158  34188  "1"    0     # LINE from  PANOCHE  115.00  to  P0406    115.00
 1  34158  34350  "1"    0     # LINE from  PANOCHE  115.00  to  KAMM     115.00
 2  34158  34186  "1"    0     # TRAN from  PANOCHE  115.00  to  DG_PAN1   13.80
 2  34158  30791  "1"    0     # TRAN from  PANOCHE  115.00  to  PNCHE 1M 230.00
 0
#
# (56) BUS FAULT  34158  "PANOCHE BUS 2"
 1  34158  34149  "1"    0     # LINE from  PANOCHE  115.00  to  CHENYT   115.00
 1  34158  34159  "1"    0     # LINE from  PANOCHE  115.00  to  PANOCHEJ 115.00
 2  34158  30792  "2"    0     # TRAN from  PANOCHE  115.00  to  PNCHE 2M 230.00
 0
#
# (57) BUS FAULT  34370  "MC CALL BUS D1"
 1  34370  34385  "1"    0     # LINE from  MC CALL  115.00  to  KINGS J1 115.00
 1  34370  34402  "1"    0     # LINE from  MC CALL  115.00  to  CAL AVE  115.00
 2  34370  30878  "3"    0     # TRAN from  MC CALL  115.00  to  MCCALL3M 115.00
 4  34370     0  "4 "    0     # LOAD-DROP    MC CALL  115.00  LOAD==23.23(5.29)
 4  34370     0  "5 "    0     # LOAD-DROP    MC CALL  115.00  LOAD==28.28(6.45)
 0
#
# (58) BUS FAULT  34370  "MC CALL BUS D2"
 1  34370  34404  "1"    0     # LINE from  MC CALL  115.00  to  WST FRSO 115.00
 1  34370  34369  "1"    0     # LINE from  MC CALL  115.00  to  P0418    115.00
 0
#
# (59) BUS FAULT  34370  "MC CALL BUS E1"
 1  34370  34366  "1"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34366  "3"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34382  "1"    0     # LINE from  MC CALL  115.00  to  WAHTOKE  115.00
 0
#
# (60) BUS FAULT  34370  "MC CALL BUS E2"
 1  34370  34366  "2"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34377  "1"    0     # LINE from  MC CALL  115.00  to  AIRPROD  115.00
 1  34370  34423  "1"    0     # LINE from  MC CALL  115.00  to  GAURD J1 115.00
 2  34370  30876  "1"    0     # TRAN from  MC CALL  115.00  to  MCCALL1M 115.00
 0
#
# (61) BUS FAULT  34412  "HERNDON BUS 1"
 1  34412  34408  "1"    0     # LINE from  HERNDON  115.00  to  BARTON   115.00
 1  34412  34411  "1"    0     # LINE from  HERNDON  115.00  to  PNDLJ1   115.00
 0
#
# (62) BUS FAULT  34412  "HERNDON BUS 2"
 1  34412  34410  "1"    0     # LINE from  HERNDON  115.00  to  MANCHSTR 115.00
 1  34412  34409  "1"    0     # LINE from  HERNDON  115.00  to  PNDLJ2   115.00
 1  34412  34422  "1"    0     # LINE from  HERNDON  115.00  to  CHLDHOSP 115.00
 2  34412  30882  "1"    0     # TRAN from  HERNDON  115.00  to  HERNDN1M 115.00
 0
#
#
-1
# EOF
```

APPENDIX B – AUTOCON INPUT FILE

```
# PG&E 2004 BASE CASE SERIES - 2008 South Valley Summer Off-Peak Case
# Greater Fresno Area Category "B" Contingencies, Zones 313 and 314
# Bullard Energy Center- 2008 Summer Off-Peak
#
#
# (1)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
 # (2)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30670 30765  "1 "    0     # line from  WESTLEY  230.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (3)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (4)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (5)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (6)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (7)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38615  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00
0
 #
 #
 # (8)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38625  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
0
 #
 #
 # (9)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38625  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
0
 #
 #
 # (10)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==5.77(1.32)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
 #
# (11)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30835 30830  "1 "    0     # line from  HERNDON  230.00   (3) to BRKR  KEARNEY  230.00
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
#
# (12)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
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 #
 #
 # (13)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (14)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (15)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "1 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==0.52(0.12)
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==10.73(2.44)
0
 #
 #
 # (16)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==12.72(2.90)
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
0
 #
 #
 # (17)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30805 30806  "1 "    0     # line from  BORDEN   230.00  BRKR to (4)   P0419    230.00
2  30806 34323  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS1  13.80
2  30806 34324  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS2  13.80
2  30806 34325  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS3  13.80
4  34323     0  "SG"    0     # LOAD-DROP    P0419BS1  13.80  LOAD==0.86(0.48)
4  34324     0  "SG"    0     # LOAD-DROP    P0419BS2  13.80  LOAD==0.86(0.48)
4  34325     0  "SG"    0     # LOAD-DROP    P0419BS3  13.80  LOAD==0.86(0.48)
3  34323     0  "1 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "2 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "3 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "4 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "5 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34324     0  "10"    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "6 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "7 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "8 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "9 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34325     0  "11"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "12"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "13"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "14"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "15"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
0
 #
 #
 # (18)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30805 30810  "1 "    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg -Borden line
0
 #
 #
 # (19)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30820  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
3  34600     0  "**"    0      # Drop unit#1 with a loss Helm - Gregg #1 line
0
 #
 #
 # (20)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30820  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
3  34602     0  "**"    0     # Drop unit#2 with a loss Helm - Gregg #2 line
0
 #
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APPENDIX B – AUTOCON INPUT FILE

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 #
 # (21)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30835  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Herndon #1 line
0
 #
 #
 # (22)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30835  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Herndon #2 line
0
 #
 #
 # (23)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==18.89(4.30)
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Figarden line
1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
4 30846      0  "**"    1      # Restore Load at Figarden 2
0
 #
 #
 # (24)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
 #
 #
 # (25)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==27.92(6.36)
1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
4 30841      0  "**"    1      # Restore Load at Figarden 1
0
 #
 #
 # (26)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30855 30860  "1 "    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00
2  30855 34610  "1 "    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80
1  30860 30875  "1 "    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00
2  30860 34614  "1 "    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80
3  34610     0  "1 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(11.31)
3  34610     0  "2 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(11.31)
3  34614     0  "1 "    0     # GEN-DROP    BLCH 2-3  13.80  GEN==52.00(8.67)
0
 #
 #
 # (27)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30865 30870  "1 "    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00
2  30865 34612  "1 "    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80
1  30870 30875  "1 "    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00
2  30870 38720  "1 "    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80
3  34612     0  "1 "    0     # GEN-DROP    BLCH 2-2  13.80  GEN==52.00(7.79)
3  38720     0  "1 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.82)
3  38720     0  "2 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.82)
0
 #
 #
 # (28)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
0
 #
 #
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 # (29)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
 #
 #
 # (30)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30905  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  TEMPLETN 230.00
0
 #
 #
 # (31)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30915  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  MORROBAY 230.00
0
 #
 #
 # (32)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30935  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  ARCO     230.00
0
 #
 #
 # (33)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30970  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  MIDWAY   230.00
0
 #
 #
  # (34)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
1  32107 32109  "2 "    0     # line from  CACHSTAP  60.00   (2) to (3)   CACHSLJ2  60.00
1  32107 32113  "2 "    0     # line from  CACHSTAP  60.00   (2) to (3)   BTAV-JCT  60.00
1  32109 32101  "2 "    0     # line from  CACHSLJ2  60.00   (3) to (2)   DIXON-J2  60.00
1  32109 32094  "2 "    0     # line from  CACHSLJ2  60.00   (3) to (2)   VACA-JT2  60.00
1  32113 32111  "2 "    0     # line from  BTAV-JCT  60.00   (3) to (1)   BATAVIA   60.00
1  32113 32114  "2 "    0     # line from  BTAV-JCT  60.00   (3) to (2)   MNPR_JCT  60.00
1  32114 32112  "2 "    0     # line from  MNPR_JCT  60.00   (2) to (1)   MAINE-PR  60.00
1  32101 32100  "2 "    0     # line from  DIXON-J2  60.00   (2) to BRKR  DIXON     60.00
1  32094 32088  "2 "    0     # line from  VACA-JT2  60.00   (2) to BRKR  VACA-DXN  60.00
4  32111     0  "1 "    0     # LOAD-DROP    BATAVIA   60.00  LOAD==0.12(0.03)
4  32112     0  "1 "    0     # LOAD-DROP    MAINE-PR  60.00  LOAD==0.07(0.02)
0
  #
  #
  # (35)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
1  34017 34010  "1 "    0     # line from  CRWS LDG  60.00   (1) to (3)   CRWS LDJ  60.00
1  34010 34006  "1 "    0     # line from  CRWS LDJ  60.00   (3) to BRKR  PATTERSN  60.00
1  34010 34012  "1 "    0     # line from  CRWS LDJ  60.00   (3) to (2)   GUSTN JT  60.00
1  34012 34014  "1 "    0     # line from  GUSTN JT  60.00   (2) to BRKR  NEWMAN    60.00
4  34017     0  "1 "    0     # LOAD-DROP    CRWS LDG  60.00  LOAD==1.20(0.09)
1  34016 34017  "1 "    1      # Switches in Crows Landing SW 57 to transfer load
4  34017     0  "**"    1      # Restore Load at Crows Landing
0
  #
  #
  # (36)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==9.90(6.91)
3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.90)
0
  #
  #
  # (37)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
  #
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 #
 # (38)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34104 34108  "1 "    0     # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00
1  34108 34114  "1 "    0     # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00
1  34114 34124  "1 "    0     # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00
2  34114 34332  "1 "    0     # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11
1  34124 34140  "1 "    0     # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00
4  34124     0  "1 "    0     # LOAD-DROP    JR WOOD  115.00  LOAD==11.70(10.32)
4  34140     0  "1 "    0     # LOAD-DROP    CRESSEY  115.00  LOAD==7.78(1.77)
3  34332     0  "1 "    0     # GEN-DROP    JRWCOGEN   9.11  GEN==4.00(-3.50)
0
 #
 #
 # (39)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34105 34100  "1 "    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00
1  34105 34121  "1 "    0     # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00
1  34121 34120  "1 "    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00
1  34121 34128  "1 "    0     # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00
1  34128 34126  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00
1  34128 34123  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   K1-JCT   115.00
1  34126 34122  "1 "    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00
1  34123 34358  "2 "    0     # line from  K1-JCT   115.00   (2) to BRKR  KERCKHF2 115.00
4  34120     0  "1 "    0     # LOAD-DROP    SHARON   115.00  LOAD==6.72(4.69)
4  34126     0  "1 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==6.51(1.48)
4  34126     0  "2 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==2.16(0.49)
4  34122     0  "1 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==4.87(1.11)
4  34122     0  "2 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==3.63(0.83)
0
 #
 #
 # (40)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00
1  34110 34130  "1 "    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00
1  34110 34144  "1 "    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00
1  34130 34132  "1 "    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00
4  34130     0  "3 "    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==5.37(1.22)
4  34132     0  "1 "    0     # LOAD-DROP    GALLO    115.00  LOAD==13.40(11.46)
0
 #
 #
 # (41)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34112 34116  "1 "    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00
3  34306     0  "1 "    0      # Exchequer Unit will trip for this outage
4  34228     0  "**"    0      # Mariposa Loads will drop if bus is below 64 kV, this is anticipate
0
 #
 #
 # (42)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34116 34134  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  WILSON A 115.00
0
 #
 #
 # (43)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (44)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==3.03(0.69)
4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==4.32(0.99)
0
 #
 #
 # (45)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
0
 #
```

```
 #
 # (46)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34136  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  WILSON B 115.00
0
 #
 #
 # (47)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34144  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00
0
 #
 #
 # (48)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
0
 #
 #
 # (49)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34136 34144  "2 "    0     # line from  WILSON B 115.00  BRKR to BRKR  MERCED   115.00
0
 #
 #
 # (50)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34141 34148  "1 "    0     # line from  PAN2_TAP 115.00   (2) to (2)   CHENY    115.00
2  34141 34142  "1 "    0     # TRAN from  PAN2_TAP 115.00   (2) to (1)   WHD_PAN2  13.80
1  34148 34149  "1 "    0     # line from  CHENY    115.00   (2) to (3)   CHENYT   115.00
1  34149 34158  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00
1  34149 34354  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00
4  34148     0  "1 "    0     # LOAD-DROP    CHENY    115.00  LOAD==7.08(1.62)
3  34142     0  "1 "    0     # GEN-DROP    WHD_PAN2  13.80  GEN==49.00(0.15)
0
 #
 #
 # (51)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34150 34154  "1 "    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00
1  34150 34178  "1 "    0     # line from  NEWHALL  115.00   (2) to (3)   MADERAPR 115.00
1  34178 34156  "1 "    0     # line from  MADERAPR 115.00   (3) to BRKR  MENDOTA  115.00
2  34178 34179  "1 "    0     # TRAN from  MADERAPR 115.00   (3) to (1)   MADERA_G  13.80
4  34150     0  "2 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==3.50(0.80)
4  34150     0  "3 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==3.86(0.88)
4  34179     0  "SG"    0     # LOAD-DROP    MADERA_G  13.80  LOAD==3.60(1.47)
3  34179     0  "1 "    0     # GEN-DROP    MADERA_G  13.80  GEN==27.60(-4.81)
0
 #
 #
 # (52)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34157 34156  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00
1  34157 34158  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00
3  34186     0  "1 "    0       # DG_PAN Unit will trip for this outage
0
 #
 #
 # (53)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34158 34188  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   P0406    115.00
2  34188 34347  "1 "    0     # TRAN from  P0406    115.00   (2) to (1)   P0406     13.80
4  34347     0  "SG"    0     # LOAD-DROP    P0406     13.80  LOAD==2.70(1.49)
3  34347     0  "1 "    0     # GEN-DROP    P0406     13.80  GEN==102.60(14.15)
0
 #
 #
 # (54)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34158 34350  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00
1  34350 34352  "1 "    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00
1  34352 34432  "1 "    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00
1  34432 34354  "1 "    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00
4  34350     0  "1 "    0     # LOAD-DROP    KAMM     115.00  LOAD==3.96(1.80)
4  34352     0  "1 "    0     # LOAD-DROP    CANTUA   115.00  LOAD==6.87(1.57)
4  34432     0  "16"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)
4  34432     0  "18"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)
0
 #
```

```
 #
 # (55)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34159 34158  "1 "    0     # line from  PANOCHEJ 115.00   (3) to BRKR  PANOCHE  115.00
1  34159 34160  "1 "    0     # line from  PANOCHEJ 115.00   (3) to (2)   HAMMONDS 115.00
1  34159 34180  "1 "    0     # line from  PANOCHEJ 115.00   (3) to (3)   OXFRDJCT 115.00
1  34160 34161  "1 "    0     # line from  HAMMONDS 115.00   (2) to (3)   DFSTP    115.00
1  34161 34162  "1 "    0     # line from  DFSTP    115.00   (3) to BRKR  ORO LOMA 115.00
1  34161 34164  "1 "    0     # line from  DFSTP    115.00   (3) to (1)   DFS      115.00
1  34180 34166  "1 "    0     # line from  OXFRDJCT 115.00   (3) to (1)   OXFORD   115.00
1  34180 34181  "1 "    0     # line from  OXFRDJCT 115.00   (3) to (3)   WSTLDJCT 115.00
1  34181 34182  "1 "    0     # line from  WSTLDJCT 115.00   (3) to (1)   WSTLD1RA 115.00
1  34181 34183  "1 "    0     # line from  WSTLDJCT 115.00   (3) to (3)   LUISJCT  115.00
1  34183 34163  "1 "    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#3  115.00
1  34183 34165  "1 "    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#5  115.00
4  34160     0  "1 "    0     # LOAD-DROP    HAMMONDS 115.00  LOAD==4.91(1.12)
4  34164     0  "1 "    0     # LOAD-DROP    DFS      115.00  LOAD==3.82(2.96)
4  34166     0  "1 "    0     # LOAD-DROP    OXFORD   115.00  LOAD==3.93(1.79)
4  34182     0  "1 "    0     # LOAD-DROP    WSTLD1RA 115.00  LOAD==2.98(0.80)
4  34163     0  "1 "    0     # LOAD-DROP    LUIS_#3  115.00  LOAD==3.30(0.78)
4  34165     0  "1 "    0     # LOAD-DROP    LUIS_#5  115.00  LOAD==3.40(0.81)
0
 #
 #
 # (56)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (57)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34218  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (2)   DOS PALS  70.00
1  34218 34216  "1 "    0     # line from  DOS PALS  70.00   (2) to BRKR  SNTA RTA  70.00
4  34218     0  "1 "    0     # LOAD-DROP    DOS PALS  70.00  LOAD==3.46(0.79)
0
 #
 #
 # (58)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==3.91(0.89)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.60(1.74)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==3.02(0.69)
0
 #
 #
 # (59)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34234  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (2)   POSO J1   70.00
1  34234 34266  "1 "    0     # line from  POSO J1   70.00   (2) to (2)   FIREBAGH  70.00
1  34266 34267  "1 "    0     # line from  FIREBAGH  70.00   (2) to (2)   TOMATAK   70.00
1  34267 34268  "1 "    0     # line from  TOMATAK   70.00   (2) to BRKR  MENDOTA   70.00
4  34266     0  "1 "    0     # LOAD-DROP    FIREBAGH  70.00  LOAD==4.91(1.12)
4  34267     0  "1 "    0     # LOAD-DROP    TOMATAK   70.00  LOAD==5.50(4.27)
0
 #
 #
 # (60)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34202 34230  "1 "    0     # line from  MERCED    70.00  BRKR to BRKR  MRCDFLLS  70.00
0
 #
 #
 # (61)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34202 34236  "1 "    0     # line from  MERCED    70.00  BRKR to (1)   POSO J2   70.00
0
 #
 #
 # (62)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
 #
1  34204 34212  "1 "    0     # line from  LIVNGSTN  70.00   (1) to (3)   LVNGSTNT  70.00
1  34212 34206  "1 "    0     # line from  LVNGSTNT  70.00   (3) to BRKR  CANAL     70.00
1  34212 34210  "1 "    0     # line from  LVNGSTNT  70.00   (3) to (2)   SNTA NLA  70.00
1  34210 34208  "1 "    0     # line from  SNTA NLA  70.00   (2) to (2)   CHEVPIPE  70.00
1  34208 34214  "1 "    0     # line from  CHEVPIPE  70.00   (2) to BRKR  LOS BANS  70.00
4  34204     0  "2 "    0     # LOAD-DROP    LIVNGSTN  70.00  LOAD==7.43(1.69)
4  34210     0  "1 "    0     # LOAD-DROP    SNTA NLA  70.00  LOAD==5.81(1.32)
4  34208     0  "1 "    0     # LOAD-DROP    CHEVPIPE  70.00  LOAD==1.32(0.89)
0
 #
 #
 # (63)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34206 34216  "1 "    0     # line from  CANAL     70.00  BRKR to BRKR  SNTA RTA  70.00
0
 #
 #
 # (64)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34214 34278  "1 "    0     # line from  LOS BANS  70.00  BRKR to (2)   PCHCO PP  70.00
1  34278 34280  "1 "    0     # line from  PCHCO PP  70.00   (2) to (2)   INTL TUR  70.00
2  34280 34342  "1 "    0     # TRAN from  INTL TUR  70.00   (2) to (1)   INT.TURB   9.11
4  34278     0  "1 "    0     # LOAD-DROP    PCHCO PP  70.00  LOAD==18.00(4.10)
3  34342     0  "1 "    0     # GEN-DROP    INT.TURB   9.11  GEN==1.10(0.00)
0
 #
 #
 # (65)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34214 34282  "1 "    0     # line from  LOS BANS  70.00  BRKR to (2)   ONLL PMP  70.00
2  34282 34316  "1 "    0     # TRAN from  ONLL PMP  70.00   (2) to (1)   ONEILPMP   9.11
4  34282     0  "1 "    0     # LOAD-DROP    ONLL PMP  70.00  LOAD==6.00(1.20)
0
 #
 #
 # (66)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34228 34232  "1 "    0     # line from  MARIPOS2  70.00   (1) to BRKR  EXCHEQUR  70.00
4  34228     0  "1 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==2.55(0.58)
4  34228     0  "2 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==2.82(0.64)
1  34228 34244  "1 "    1      # Switches in Mariposa SW 39 to transfer load
4  34228     0  "**"    1      # Restore Load at Mariposa
0
 #
 #
 # (67)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34232 34242  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (2)   BER VLLY  70.00
1  34242 34244  "1 "    0     # line from  BER VLLY  70.00   (2) to (2)   BRCEBG J  70.00
1  34244 34246  "1 "    0     # line from  BRCEBG J  70.00   (2) to (3)   SAXONCRK  70.00
1  34246 34248  "1 "    0     # line from  SAXONCRK  70.00   (3) to (2)   INDN FLT  70.00
2  34246 34346  "1 "    0     # TRAN from  SAXONCRK  70.00   (3) to (1)   SAXNCK L   4.16
1  34248 34250  "1 "    0     # line from  INDN FLT  70.00   (2) to (1)   YOSEMITE  70.00
4  34242     0  "1 "    0     # LOAD-DROP    BER VLLY  70.00  LOAD==1.71(0.39)
4  34246     0  "1 "    0     # LOAD-DROP    SAXONCRK  70.00  LOAD==1.51(1.09)
4  34248     0  "1 "    0     # LOAD-DROP    INDN FLT  70.00  LOAD==1.07(0.24)
4  34250     0  "1 "    0     # LOAD-DROP    YOSEMITE  70.00  LOAD==2.70(0.00)
0
 #
 #
 # (68)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34237 34255  "1 "    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00
1  34237 34240  "1 "    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00
1  34255 34238  "1 "    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00
1  34255 34254  "1 "    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00
1  34254 34264  "1 "    0     # line from  TRIGO     70.00   (2) to (1)   EL PECO   70.00
4  34237     0  "1 "    0     # LOAD-DROP    CANANDGA  70.00  LOAD==5.52(4.14)
4  34238     0  "1 "    0     # LOAD-DROP    BONITA    70.00  LOAD==4.51(1.03)
4  34264     0  "1 "    0     # LOAD-DROP    EL PECO   70.00  LOAD==3.11(0.71)
1  34238 34236  "1 "    1      # Switches in Bonita SW23 to transfer load
4  34238     0  "1 "    1      # Restore Load at Bonita
0
 #
 #
 # (69)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34240 34252  "1 "    0     # line from  GLASS     70.00  BRKR to BRKR  MADERA    70.00
```

APPENDIX B – AUTOCON INPUT FILE

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0
 #
 #
 # (70)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34252 34256  "1 "    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00
0
 #
 #
 # (71)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34252 34256  "2 "    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00
0
 #
 #
 # (72)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34256 34262  "1 "    0     # line from  BORDEN    70.00  BRKR to (2)   CASSIDY   70.00
1  34262 34454  "1 "    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00
1  34454 34464  "1 "    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00
4  34262     0  "1 "    0     # LOAD-DROP    CASSIDY   70.00  LOAD==4.39(1.00)
4  34454     0  "1 "    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)
0
 #
 #
 # (73)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34259 34261  "1 "    0     # line from  NRTHFORK  70.00   (3) to (2)   SJNO3     70.00
1  34259 34260  "1 "    0     # line from  NRTHFORK  70.00   (3) to (3)   SJNO2     70.00
2  34259 34340  "1 "    0     # TRAN from  NRTHFORK  70.00   (3) to (1)   N.FORK E   9.11
2  34261 34633  "1 "    0     # TRAN from  SJNO3     70.00   (2) to (1)   SJ3GEN     9.11
1  34260 34452  "1 "    0     # line from  SJNO2     70.00   (3) to BRKR  WISHON    70.00
2  34260 34631  "1 "    0     # TRAN from  SJNO2     70.00   (3) to (1)   SJ2GEN     9.11
4  34261     0  "1 "    0     # LOAD-DROP    SJNO3     70.00  LOAD==0.36(0.08)
4  34261     0  "2 "    0     # LOAD-DROP    SJNO3     70.00  LOAD==2.47(0.56)
4  34260     0  "2 "    0     # LOAD-DROP    SJNO2     70.00  LOAD==1.12(0.25)
3  34631     0  "1 "    0     # GEN-DROP    SJ2GEN     9.11  GEN==1.00(0.00)
0
 #
 #
 # (74)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34269 34268  "1 "    0     # line from  BIOMSJCT  70.00   (3) to BRKR  MENDOTA   70.00
1  34269 34270  "1 "    0     # line from  BIOMSJCT  70.00   (3) to (2)   BIOMASS   70.00
1  34269 34271  "1 "    0     # line from  BIOMSJCT  70.00   (3) to (3)   WSTLDJCT  70.00
2  34270 34334  "1 "    0     # TRAN from  BIOMASS   70.00   (2) to (1)   BIO PWR    9.11
1  34271 34172  "1 "    0     # line from  WSTLDJCT  70.00   (3) to (2)   WESTLAND  70.00
1  34271 34469  "1 "    0     # line from  WSTLDJCT  70.00   (3) to (3)   GFFNJCT   70.00
1  34172 34170  "1 "    0     # line from  WESTLAND  70.00   (2) to (1)   WESIX     70.00
1  34469 34470  "1 "    0     # line from  GFFNJCT   70.00   (3) to (1)   GIFFEN    70.00
1  34469 34471  "1 "    0     # line from  GFFNJCT   70.00   (3) to (3)   SNJQJCT   70.00
1  34471 34472  "1 "    0     # line from  SNJQJCT   70.00   (3) to BRKR  SAN JOQN  70.00
1  34471 34474  "1 "    0     # line from  SNJQJCT   70.00   (3) to BRKR  HELM      70.00
4  34172     0  "1 "    0     # LOAD-DROP    WESTLAND  70.00  LOAD==3.20(0.73)
4  34170     0  "1 "    0     # LOAD-DROP    WESIX     70.00  LOAD==1.60(0.36)
4  34470     0  "1 "    0     # LOAD-DROP    GIFFEN    70.00  LOAD==3.74(0.85)
4  34472     0  "1 "    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==3.77(0.86)
4  34472     0  "2 "    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==1.80(0.41)
3  34334     0  "1 "    0     # GEN-DROP    BIO PWR    9.11  GEN==23.00(0.07)
1  34472 34473  "1 "    1      # Switches in San Joaquin CB22 to transfer load
4  34472     0  "**"    1      # Restore Load at San Joaquin
0
 #
 #
 # (75)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34321 34226  "1 "    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00
1  34321 34230  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00
1  34321 34232  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00
2  34226 34320  "1 "    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11
0
 #
 #
 # (76)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34356 34358  "1 "    0     # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00
0
 #
 #
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 # (77)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34358 34360  "1 "    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00
1  34360 34414  "1 "    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00
1  34360 34363  "1 "    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00
1  34363 34362  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00
1  34363 34366  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00
4  34362     0  "1 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==20.85(4.75)
4  34362     0  "2 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==20.90(4.76)
1 34362  34364  "1 "    1      # Switches in Clovis SW 387 to transfer load
4 34362      0  "**"    1      # Restore Load at Clovis 1
0
 #
 #
 # (78)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34364 34365  "1 "    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00
1  34365 34358  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00
1  34365 34366  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00
4  34364     0  "3 "    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==22.77(5.19)
1 34362  34364  "1 "    1      # Switches in Clovis SW 387 to transfer load
4 34364      0  "**"    1      # Restore Load at Clovis 2
0
 #
 #
 # (79)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.54)
0
 #
 #
 # (80)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (81)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "2 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (82)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "3 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (83)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34372  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MALAGA   115.00
0
 #
 #
 # (84)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34389  "1 "    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00
1  34389 34388  "1 "    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBW   115.00
1  34389 34394  "1 "    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00
1  34394 34380  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00
1  34394 34400  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGSRVR1 115.00
4  34388     0  "1 "    0     # LOAD-DROP    RAINBW   115.00  LOAD==5.10(1.16)
0
 #
 #
 # (85)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34396  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00
1  34396 34398  "1 "    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00
2  34398 34624  "1 "    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20
0
 #
 #
 # (86)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34408  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00
```

```
0
 #
 #
 # (87)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34369 34370  "1 "    0     # line from  P0418    115.00   (4) to BRKR  MC CALL  115.00
2  34369 34661  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT1  13.80
2  34369 34663  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT2  13.80
2  34369 34665  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT3  13.80
4  34661     0  "SG"   0     # LOAD-DROP    P0418CT1  13.80  LOAD==2.70(1.49)
4  34663     0  "SG"   0     # LOAD-DROP    P0418CT2  13.80  LOAD==2.70(1.49)
4  34665     0  "SG"   0     # LOAD-DROP    P0418CT3  13.80  LOAD==2.70(1.49)
3  34661     0  "1 "   0     # GEN-DROP    P0418CT1  13.80  GEN==102.60(8.66)
3  34663     0  "1 "   0     # GEN-DROP    P0418CT2  13.80  GEN==102.60(8.66)
3  34665     0  "1 "   0     # GEN-DROP    P0418CT3  13.80  GEN==102.60(8.66)
0
 #
 #
 # (88)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34377  "1 "    0     # line from  MC CALL  115.00  BRKR to (2)   AIRPROD  115.00
1  34377 34375  "1 "    0     # line from  AIRPROD  115.00   (2) to (3)   ULTPWRJ  115.00
1  34375 34379  "1 "    0     # line from  ULTPWRJ  115.00   (3) to (3)   MALAGATP 115.00
2  34375 34640  "1 "    0     # TRAN from  ULTPWRJ  115.00   (3) to (1)   ULTR.PWR   9.11
1  34379 34372  "1 "    0     # line from  MALAGATP 115.00   (3) to BRKR  MALAGA   115.00
1  34379 34373  "1 "    0     # line from  MALAGATP 115.00   (3) to (3)   SCWAXJCT 115.00
1  34373 34371  "1 "    0     # line from  SCWAXJCT 115.00   (3) to (1)   SCWAX    115.00
1  34373 34374  "1 "    0     # line from  SCWAXJCT 115.00   (3) to (1)   RANCHRS  115.00
4  34377     0  "1 "   0     # LOAD-DROP    AIRPROD  115.00  LOAD==5.10(2.02)
4  34371     0  "1 "   0     # LOAD-DROP    SCWAX    115.00  LOAD==2.50(1.42)
4  34374     0  "1 "   0     # LOAD-DROP    RANCHRS  115.00  LOAD==3.07(0.70)
3  34640     0  "1 "   0     # GEN-DROP    ULTR.PWR   9.11  GEN==15.00(13.00)
0
 #
 #
 # (89)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34382  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WAHTOKE  115.00
0
 #
 #
 # (90)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34385  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   KINGS J1 115.00
1  34385 34417  "1 "    0     # line from  KINGS J1 115.00   (3) to (2)   KINGS J2 115.00
1  34385 34418  "1 "    0     # line from  KINGS J1 115.00   (3) to BRKR  KINGSBRG 115.00
1  34417 34425  "1 "    0     # line from  KINGS J2 115.00   (2) to (3)   KCOGNJCT 115.00
1  34425 34387  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (1)   SUNMAID  115.00
1  34425 34427  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (2)   GRDNGLS2 115.00
1  34427 34386  "1 "    0     # line from  GRDNGLS2 115.00   (2) to (2)   KNGSCOGN 115.00
2  34386 34642  "1 "    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11
4  34387     0  "1 "   0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.10(2.99)
0
 #
 #
 # (91)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34402  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  CAL AVE  115.00
0
 #
 #
 # (92)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34404  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00
0
 #
 #
 # (93)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34423  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00
1  34423 34418  "1 "    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00
1  34423 34421  "1 "    0     # line from  GAURD J1 115.00   (3) to (2)   GAURD J2 115.00
1  34421 34424  "1 "    0     # line from  GAURD J2 115.00   (2) to (1)   GRDN GLS 115.00
4  34424     0  "1 "   0     # LOAD-DROP    GRDN GLS 115.00  LOAD==10.05(3.30)
0
 #
 #
 # (94)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
```

APPENDIX B – AUTOCON INPUT FILE

```
1  34372 34376  "1 "    0     # line from  MALAGA   115.00  BRKR to (1)   PPG      115.00
4  34376     0  "1 "    0     # LOAD-DROP    PPG      115.00  LOAD==4.90(3.04)
0
 #
 #
 # (95)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34372 34381  "1 "    0     # line from  MALAGA   115.00  BRKR to (3)   KRCDP    115.00
2  34381 34671  "1 "    0     # TRAN from  KRCDP    115.00   (3) to (1)   KRCDPCT1  13.80
2  34381 34672  "1 "    0     # TRAN from  KRCDP    115.00   (3) to (1)   KRCDPCT2  13.80
4  34671     0  "SG"    0     # LOAD-DROP    KRCDPCT1  13.80  LOAD==1.20(0.74)
4  34672     0  "SG"    0     # LOAD-DROP    KRCDPCT2  13.80  LOAD==1.20(0.74)
3  34671     0  "1 "    0     # GEN-DROP    KRCDPCT1  13.80  GEN==49.70(-2.58)
3  34672     0  "1 "    0     # GEN-DROP    KRCDPCT2  13.80  GEN==49.70(-2.58)
0
 #
 #
 # (96)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34380 34384  "1 "    0     # line from  REEDLEY  115.00  BRKR to (2)   GERAWAN  115.00
1  34384 34382  "1 "    0     # line from  GERAWAN  115.00   (2) to BRKR  WAHTOKE  115.00
0
 #
 #
 # (97)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34390 34402  "1 "    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00
1  34390 34407  "1 "    0     # line from  DANISHCM 115.00   (2) to (2)   WFRES J2 115.00
1  34407 34404  "1 "    0     # line from  WFRES J2 115.00   (2) to BRKR  WST FRSO 115.00
4  34390     0  "1 "    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.85(3.29)
0
 #
 #
 # (98)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34391 34392  "1 "    0     # line from  QUEBECTP 115.00   (2) to (1)   QUEBEC   115.00
1  34391 34426  "1 "    0     # line from  QUEBECTP 115.00   (2) to BRKR  ALPAUGH  115.00
4  34392     0  "1 "    0     # LOAD-DROP    QUEBEC   115.00  LOAD==11.40(7.96)
0
 #
 #
 # (99)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
0
 #
 #
 # (100)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34409 34413  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00
1  34409 34416  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00
1  34409 34412  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00
4  34413     0  "1 "    0     # LOAD-DROP    PNEDLE   115.00  LOAD==9.67(2.20)
1  34411 34413  "1 "    1      # Switches in Pinedale CB#12 to transfer load
4  34413     0  "**"    1      # Restore load at Pinedale
0
 #
 #
 # (101)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34410 34412  "1 "    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00
0
 #
 #
 # (102)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34411 34416  "1 "    0     # line from  PNDLJ1   115.00   (2) to BRKR  BULLARD  115.00
1  34411 34412  "1 "    0     # line from  PNDLJ1   115.00   (2) to BRKR  HERNDON  115.00
0
 #
 #
 # (103)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34412 34422  "1 "    0     # line from  HERNDON  115.00  BRKR to (2)   CHLDHOSP 115.00
1  34422 34414  "1 "    0     # line from  CHLDHOSP 115.00   (2) to BRKR  WOODWARD 115.00
4  34422     0  "1 "    0     # LOAD-DROP    CHLDHOSP 115.00  LOAD==3.80(1.73)
0
 #
 #
```

```
 # (104)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34420  "1 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
0
 #
 #
 # (105)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34420  "2 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
0
 #
 #
 # (106)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34428  "1 "    0     # line from  KINGSBRG 115.00  BRKR to (2)   CONTADNA 115.00
1  34428 34429  "1 "    0     # line from  CONTADNA 115.00   (2) to BRKR  GWF_HEP  115.00
4  34428     0  "1 "    0     # LOAD-DROP    CONTADNA 115.00  LOAD==7.56(5.67)
0
 #
 #
 # (107)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34426 34700  "1 "    0     # line from  ALPAUGH  115.00  BRKR to BRKR  SMYRNA   115.00
0
 #
 #
 # (108)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34430 34521  "1 "    0     # line from  HENRETTA 115.00  BRKR to (2)   LEPRNOFD 115.00
1  34521 34429  "1 "    0     # line from  LEPRNOFD 115.00   (2) to BRKR  GWF_HEP  115.00
4  34521     0  "1 "    0     # LOAD-DROP    LEPRNOFD 115.00  LOAD==14.00(9.41)
0
 #
 #
 # (109)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34452 34491  "1 "    0     # line from  WISHON    70.00  BRKR to (3)   AUBRYTP   70.00
1  34491 34464  "1 "    0     # line from  AUBRYTP   70.00   (3) to BRKR  COPPRMNE  70.00
1  34491 34493  "1 "    0     # line from  AUBRYTP   70.00   (3) to (1)   AUBERRY   70.00
4  34493     0  "1 "    0     # LOAD-DROP    AUBERRY   70.00  LOAD==2.31(0.52)
4  34493     0  "2 "    0     # LOAD-DROP    AUBERRY   70.00  LOAD==2.66(0.61)
0
 #
 #
 # (110)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34456 34458  "1 "    0     # line from  HRDWK TP  70.00   (3) to (1)   HARDWICK  70.00
1  34456 34522  "1 "    0     # line from  HRDWK TP  70.00   (3) to (1)   HNFRD SW  70.00
1  34456 34576  "1 "    0     # line from  HRDWK TP  70.00   (3) to BRKR  KNGLOBUS  70.00
4  34458     0  "1 "    0     # LOAD-DROP    HARDWICK  70.00  LOAD==4.73(1.08)
0
 #
 #
 # (111)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34460 34462  "1 "    0     # line from  GUERNSEY  70.00  BRKR to (3)   GUR3TPT   70.00
1  34462 34542  "1 "    0     # line from  GUR3TPT   70.00   (3) to (2)   JCBSCRNR  70.00
1  34462 34554  "1 "    0     # line from  GUR3TPT   70.00   (3) to BRKR  AMSTG SW  70.00
1  34542 34540  "1 "    0     # line from  JCBSCRNR  70.00   (2) to BRKR  HENRITTA  70.00
4  34460     0  "1 "    0     # LOAD-DROP    GUERNSEY  70.00  LOAD==5.98(1.36)
4  34542     0  "1 "    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==4.32(0.98)
4  34542     0  "2 "    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==4.72(1.08)
1  34528 34460  "1 "    1      # Switches in Guernsey CB52 to transfer load
4  34460     0  "**"    1      # Restore load at Guernsey
1  34554 34522  "1 "    1      # Switches in Armstrong SW37 to transfer load and gen
0
 #
 #
 # (112)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34464 34478  "1 "    0     # line from  COPPRMNE  70.00  BRKR to BRKR  TVY VLLY  70.00
0
 #
 #
 # (113)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34466 34482  "1 "    0     # line from  BIOLA     70.00  BRKR to BRKR  OLDKERN   70.00
4  34466     0  "1 "    0     # LOAD-DROP    BIOLA     70.00  LOAD==6.43(1.46)
0
```

```
 #
 #
 # (114)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34468 34482  "1 "    0     # line from  BOWLES    70.00   (1) to BRKR  OLDKERN   70.00
4  34468     0  "1 "    0     # LOAD-DROP    BOWLES    70.00  LOAD==7.49(1.71)
0
 #
 #
 # (115)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34473 34475  "1 "    0     # line from  SNJQTP    70.00   (2) to (3)   AGRCJCT   70.00
1  34473 34474  "1 "    0     # line from  SNJQTP    70.00   (2) to BRKR  HELM      70.00
1  34475 34476  "1 "    0     # line from  AGRCJCT   70.00   (3) to (2)   AGRICO    70.00
1  34475 34484  "1 "    0     # line from  AGRCJCT   70.00   (3) to BRKR  KERMAN    70.00
2  34476 34608  "1 "    0     # TRAN from  AGRICO    70.00   (2) to (2)   AGRICO    13.80
1  34608 34609  "1 "    0     # line from  AGRICO    13.80   (2) to (1)   FRESNOCG  13.80
4  34484     0  "1 "    0     # LOAD-DROP    KERMAN    70.00  LOAD==6.02(1.37)
4  34484     0  "2 "    0     # LOAD-DROP    KERMAN    70.00  LOAD==4.35(0.99)
3  34608     0  "2 "    0     # GEN-DROP    AGRICO    13.80  GEN==7.50(-2.06)
3  34608     0  "3 "    0     # GEN-DROP    AGRICO    13.80  GEN==18.00(-4.94)
3  34609     0  "4 "    0     # GEN-DROP    FRESNOCG  13.80  GEN==25.50(0.00)
0
 #
 #
 # (116)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34474 34556  "1 "    0     # line from  HELM      70.00  BRKR to BRKR  STRD JCT  70.00
0
 #
 #
 # (117)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34474 34568  "1 "    0     # line from  HELM      70.00  BRKR to BRKR  VLY NTRN  70.00
4  34568     0  "1 "    0     # LOAD-DROP    VLY NTRN  70.00  LOAD==0.95(0.76)
0
 #
 #
 # (118)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34478 34492  "1 "    0     # line from  TVY VLLY  70.00  BRKR to BRKR  REEDLEY   70.00
0
 #
 #
 # (119)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34482  "1 "    0     # line from  KEARNEY   70.00  BRKR to (3)   OLDKERN   70.00
1  34482 34466  "1 "    0     # line from  OLDKERN   70.00  BRKR to BRKR  BIOLA     70.00
1  34482 34468  "1 "    0     # line from  OLDKERN   70.00  BRKR to (1)   BOWLES    70.00
4  34482     0  "1 "    0     # LOAD-DROP    OLDKERN   70.00  LOAD==5.02(1.14)
4  34482     0  "3 "    0     # LOAD-DROP    OLDKERN   70.00  LOAD==3.57(0.81)
4  34466     0  "1 "    0     # LOAD-DROP    BIOLA     70.00  LOAD==6.43(1.46)
4  34468     0  "1 "    0     # LOAD-DROP    BOWLES    70.00  LOAD==7.49(1.71)
0
 #
 #
 # (120)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34512  "1 "    0     # line from  KEARNEY   70.00  BRKR to BRKR  CARUTHRS  70.00
4  34512     0  "1 "    0     # LOAD-DROP    CARUTHRS  70.00  LOAD==7.25(1.65)
0
 #
 #
 # (121)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34487 34489  "1 "    0     # line from  SNGRJCT   70.00   (3) to (2)   SNGRCOGN  70.00
1  34487 34490  "1 "    0     # line from  SNGRJCT   70.00   (3) to (2)   PARLIER   70.00
1  34487 34488  "1 "    0     # line from  SNGRJCT   70.00   (3) to BRKR  SANGER    70.00
2  34489 34646  "1 "    0     # TRAN from  SNGRCOGN  70.00   (2) to (1)   SANGERCO   9.11
1  34490 34492  "1 "    0     # line from  PARLIER   70.00   (2) to BRKR  REEDLEY   70.00
4  34490     0  "1 "    0     # LOAD-DROP    PARLIER   70.00  LOAD==6.55(1.49)
0
 #
 #
 # (122)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34492 34497  "1 "    0     # line from  REEDLEY   70.00  BRKR to (3)   DNUBAJCT  70.00
1  34497 34499  "1 "    0     # line from  DNUBAJCT  70.00   (3) to (2)   DNUBAEGY  70.00
1  34497 34500  "1 "    0     # line from  DNUBAJCT  70.00   (3) to BRKR  DINUBA    70.00
```

```
2  34499 34648  "1 "    0     # TRAN from  DNUBAEGY  70.00   (2) to (1)   DINUBA E  13.80
4  34648     0  "1 "    0     # LOAD-DROP    DINUBA E  13.80  LOAD==1.00(0.85)
0
 #
 #
 # (123)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34492 34526  "1 "    0     # line from  REEDLEY   70.00  BRKR to (3)   ORSI JCT  70.00
1  34526 34495  "1 "    0     # line from  ORSI JCT  70.00   (3) to (2)   SANDCRK   70.00
1  34526 34502  "1 "    0     # line from  ORSI JCT  70.00   (3) to BRKR  OROSI     70.00
1  34495 34494  "1 "    0     # line from  SANDCRK   70.00   (2) to (1)   DUNLAP    70.00
4  34495     0  "1 "    0     # LOAD-DROP    SANDCRK   70.00  LOAD==0.80(0.18)
4  34494     0  "1 "    0     # LOAD-DROP    DUNLAP    70.00  LOAD==1.82(0.42)
0
 #
 #
 # (124)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34496 34498  "1 "    0     # line from  STCRRL J  70.00   (3) to (1)   STONCRRL  70.00
1  34496 34500  "1 "    0     # line from  STCRRL J  70.00   (3) to BRKR  DINUBA    70.00
1  34496 34502  "1 "    0     # line from  STCRRL J  70.00   (3) to (2)   OROSI     70.00
1  34502 34526  "1 "    0     # line from  OROSI     70.00  BRKR to (1)   ORSI JCT  70.00
4  34498     0  "2 "    0     # LOAD-DROP    STONCRRL  70.00  LOAD==1.18(0.27)
4  34498     0  "3 "    0     # LOAD-DROP    STONCRRL  70.00  LOAD==1.18(0.27)
4  34502     0  "1 "    0     # LOAD-DROP    OROSI     70.00  LOAD==2.69(0.61)
4  34502     0  "2 "    0     # LOAD-DROP    OROSI     70.00  LOAD==2.60(0.59)
0
 #
 #
 # (125)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34508 34510  "1 "    0     # line from  CAMDEN    70.00   (2) to (1)   CMDN JCT  70.00
1  34508 34576  "1 "    0     # line from  CAMDEN    70.00   (2) to BRKR  KNGLOBUS  70.00
4  34508     0  "1 "    0     # LOAD-DROP    CAMDEN    70.00  LOAD==3.82(0.87)
4  34508     0  "2 "    0     # LOAD-DROP    CAMDEN    70.00  LOAD==3.69(0.84)
0
 #
 #
 # (126)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34514 34540  "1 "    0     # line from  MUSLSLGH  70.00   (1) to BRKR  HENRITTA  70.00
4  34514     0  "1 "    0     # LOAD-DROP    MUSLSLGH  70.00  LOAD==22.00(13.63)
0
 #
 #
 # (127)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34516 34520  "1 "    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00
1  34520 34518  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00
1  34520 34524  "1 "    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00
1  34520 34540  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00
4  34516     0  "1 "    0     # LOAD-DROP    LEPRINO   70.00  LOAD==6.58(3.73)
4  34518     0  "1 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==11.19(2.55)
4  34518     0  "2 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==5.64(1.28)
0
 #
 #
 # (128)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34528 34530  "1 "    0     # line from  CORCORAN  70.00  BRKR to (3)   BSWLL TP  70.00
1  34530 34536  "1 "    0     # line from  BSWLL TP  70.00   (3) to (1)   ANGIOLA   70.00
1  34530 34538  "1 "    0     # line from  BSWLL TP  70.00   (3) to (1)   BOSWELL   70.00
4  34536     0  "1 "    0     # LOAD-DROP    ANGIOLA   70.00  LOAD==3.70(0.84)
4  34538     0  "1 "    0     # LOAD-DROP    BOSWELL   70.00  LOAD==0.94(0.61)
0
 #
 #
 # (129)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34532 34554  "1 "    0     # line from  ARMSTRNG  70.00   (1) to (4)   AMSTG SW  70.00
1  34554 34462  "1 "    0     # line from  AMSTG SW  70.00  BRKR to (1)   GUR3TPT   70.00
1  34554 34534  "1 "    0     # line from  AMSTG SW  70.00   (4) to (1)   RESERVE   70.00
2  34554 34650  "1 "    0     # TRAN from  AMSTG SW  70.00  BRKR to (1)   GWF-PWR.  13.80
4  34534     0  "1 "    0     # LOAD-DROP    RESERVE   70.00  LOAD==0.90(0.21)
3  34650     0  "1 "    0     # GEN-DROP    GWF-PWR.  13.80  GEN==23.00(6.65)
0
 #
 #
 # (130)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
 #
1  34537 34540  "1 "    0     # line from  GWF_HENR  70.00   (3) to BRKR  HENRITTA  70.00
2  34537 34539  "1 "    0     # TRAN from  GWF_HENR  70.00   (3) to (1)   GWF_GT1   13.80
2  34537 34541  "1 "    0     # TRAN from  GWF_HENR  70.00   (3) to (1)   GWF_GT2   13.80
4  34539     0  "1 "    0     # LOAD-DROP    GWF_GT1   13.80  LOAD==1.10(0.25)
4  34541     0  "1 "    0     # LOAD-DROP    GWF_GT2   13.80  LOAD==1.10(0.25)
3  34539     0  "1 "    0     # GEN-DROP    GWF_GT1   13.80  GEN==49.00(1.04)
3  34541     0  "1 "    0     # GEN-DROP    GWF_GT2   13.80  GEN==49.00(1.04)
0
 #
 #
 # (131)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34544 34550  "1 "    0     # line from  TLRE LKE  70.00  BRKR to (2)   CHEVPLIN  70.00
1  34550 34546  "1 "    0     # line from  CHEVPLIN  70.00   (2) to (2)   AVENAL    70.00
1  34546 34548  "1 "    0     # line from  AVENAL    70.00   (2) to BRKR  KETTLEMN  70.00
4  34544     0  "1 "    0     # LOAD-DROP    TLRE LKE  70.00  LOAD==3.14(0.72)
4  34550     0  "1 "    0     # LOAD-DROP    CHEVPLIN  70.00  LOAD==2.12(1.53)
4  34546     0  "1 "    0     # LOAD-DROP    AVENAL    70.00  LOAD==9.15(2.29)
0
 #
 #
 # (132)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34548 34552  "1 "    0     # line from  KETTLEMN  70.00   (2) to BRKR  GATES     70.00
1  34548 34546  "1 "    0     # line from  KETTLEMN  70.00  BRKR to (1)   AVENAL    70.00
4  34548     0  "1 "    0     # LOAD-DROP    KETTLEMN  70.00  LOAD==1.69(0.38)
0
 #
 #
 # (133)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34558  "1 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
0
 #
 #
 # (134)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34558  "2 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
1  34558 34560  "1 "    0     # Trip line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00
1  34560 34562  "1 "    0     # Trip line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00
4  34560     0  "1 "    0     # LOAD-DROP    CALFLAX   70.00  LOAD==8.74(1.99)
0
 #
 #
 # (135)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.25(2.86)
0
 #
 #
 # (136)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34556 34562  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00
0
 #
 #
 # (137)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34556 34564  "1 "    0     # line from  STRD JCT  70.00   (3) to BRKR  STROUD    70.00
1  34556 34474  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  HELM      70.00
1  34556 34562  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00
4  34564     0  "1 "    0     # LOAD-DROP    STROUD    70.00  LOAD==3.93(0.90)
0
 #
 #
 # (138)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34562 34566  "1 "    0     # line from  SCHLNDLR  70.00  BRKR to (2)   PLSNTVLY  70.00
1  34566 34570  "1 "    0     # line from  PLSNTVLY  70.00   (2) to BRKR  COLNGA 2  70.00
4  34566     0  "1 "    0     # LOAD-DROP    PLSNTVLY  70.00  LOAD==10.00(2.51)
0
 #
 #
 # (139)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34570 34572  "1 "    0     # line from  COLNGA 2  70.00  BRKR to (3)   TORNADO   70.00
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APPENDIX B – AUTOCON INPUT FILE

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 1  34572 34574  "1 "    0     # line from  TORNADO   70.00   (3) to BRKR  COLNGA 1  70.00
 2  34572 34654  "1 "    0     # TRAN from  TORNADO   70.00   (3) to (1)   COLNGAGN   9.11
 4  34572     0  "1 "    0     # LOAD-DROP    TORNADO   70.00  LOAD==1.86(1.54)
 3  34654     0  "1 "    0     # GEN-DROP    COLNGAGN   9.11  GEN==36.00(-13.50)
 2  34570 34652  "1 "    0      # Must include Colinga2 - Chv.coal in this outage - modeled on bus,
 3  34652     0  "**"    0      # Drops units on Derrick Sub
 4  34652     0  "**"    0      # Drops load at Derrick Sub
 0
  #
  #
  # (140)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
 1  36354 34574  "1 "    0     # line from  SAN MIGL  70.00  BRKR to BRKR  COLNGA 1  70.00
 0
  #
  #
  # (141)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
 1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
 0
  #
  #
  # (142)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
  #
 1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
 0
 #
 # (143)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30765 30069  "1 "    0     # TRAN from  LOSBANOS 230.00  BRKR to (3)   L.BANS M 500.00
2  30069 30050  "1 "    0     # TRAN from  L.BANS M 500.00   (3) to BRKR  LOSBANOS 500.00
2  30069 34302  "1 "    0     # TRAN from  L.BANS M 500.00   (3) to (1)   L.BANS T  13.80
0
 #
 #
 # (144)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (145)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34214 30765  "4 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (146)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34134 30800  "1 "    0     # TRAN from  WILSON A 115.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (147)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34136 30800  "2 "    0     # TRAN from  WILSON B 115.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (148)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34256 30805  "1 "    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00
0
 #
 #
 # (149)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34256 30805  "2 "    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00
0
 #
 #
  # (150)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34600 30820  "1 "    0     # TRAN from  HELMS 1   18.00   (1) to BRKR  HELMS PP 230.00
 3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  GEN==-310.00(86.96)
 0
  #
  #
  # (151)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
```

```
  #
 2  34602 30820  "1 "    0     # TRAN from  HELMS 2   18.00   (1) to BRKR  HELMS PP 230.00
 3  34602     0  "1 "    0     # GEN-DROP    HELMS 2   18.00  GEN==-310.00(87.23)
 0
  #
  #
  # (152)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34604 30820  "1 "    0     # TRAN from  HELMS 3   18.00   (1) to BRKR  HELMS PP 230.00
 0
 #
 #
 # (153)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34480 30830  "2 "    0     # TRAN from  KEARNEY   70.00  BRKR to BRKR  KEARNEY  230.00
0
 #
 #
 # (154)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34474 30873  "1 "    0     # TRAN from  HELM      70.00  BRKR to BRKR  HELM     230.00
0
 #
 #
 # (155)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34540 30881  "2 "    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00
0
 #
 #
 # (156)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30055 30900  "11"    0     # TRAN from  GATES    500.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (157)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4  34378     0  "3 "    0     # Drop Gates Bank #3
0
 #
 #
  # (158)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  34268  (34174)  34156  34314 :
 2  34268 34156  "1 "    0     # TRAN from  MENDOTA   70.00  BRKR to (3)   MENDOTA  115.00
 1  34156 34178  "1 "    0     # line from  MENDOTA  115.00  BRKR to (1)   MADERAPR 115.00
 1  34156 34157  "1 "    0     # line from  MENDOTA  115.00  BRKR to (1)   PANOCHET 115.00
 0
  #
  #
  # (159)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30790  (30791)  34158  34310 :
 2  30790 34158  "1 "    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00
 0
  #
  #
  # (160)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30790  (30792)  34158  34311 :
 2  30790 34158  "2 "    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00
 0
  #
  #
  # (161)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34186 34158  "1 "    0     # TRAN from  DG_PAN1   13.80   (1) to BRKR  PANOCHE  115.00
 3  34186     0  "1 "    0     # GEN-DROP    DG_PAN1   13.80  GEN==49.00(1.73)
 0
  #
  #
  # (162)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34200 34162  "2 "    0     # TRAN from  ORO LOMA  70.00  BRKR to (3)   ORO LOMA 115.00
 1  34162 34161  "1 "    0     # line from  ORO LOMA 115.00  BRKR to (1)   DFSTP    115.00
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```
 1  34162 34168  "1 "    0     # line from  ORO LOMA 115.00  BRKR to (1)   EL NIDO  115.00
 0
  #
  #
  # (163)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34112 34176  "1 "    0     # TRAN from  EXCHEQUR 115.00  BRKR to (3)   EXCHQRTP 115.00
 2  34176 34232  "1 "    0     # TRAN from  EXCHQRTP 115.00   (3) to (4)   EXCHEQUR  70.00
 2  34176 34306  "1 "    0     # TRAN from  EXCHQRTP 115.00   (3) to (1)   EXCHQUER  13.80
 1  34232 34228  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MARIPOS2  70.00
 1  34232 34242  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   BER VLLY  70.00
 1  34232 34321  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MCSWAINJ  70.00
 4  34228     0  "1 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==2.55(0.58)
 4  34228     0  "2 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==2.82(0.64)
 1  34228 34244  "1 "    1      # Switches in Mariposa SW 39 to transfer load
 4  34228     0  "**"    1      # Restore Load at Mariposa
 0
  #
  #
  # (164)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  34144  (34146)  34202  34312 :
 2  34144 34202  "2 "    0     # TRAN from  MERCED   115.00  BRKR to (1)   MERCED    70.00
 0
  #
  #
  # (165)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34322 34230  "1 "    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00
 2  34322 34230  "2 "    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00
 0
  #
  #
  # (166)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34358 34308  "1 "    0     # TRAN from  KERCKHF2 115.00  BRKR to (1)   KERCKHOF  13.80
 0
  #
  #
  # (167)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34356 34344  "1 "    0     # TRAN from  KERCKHF1 115.00  BRKR to (1)   KERCKHOF   6.60
 4  34344     0  "4 "    0     # LOAD-DROP    KERCKHOF   6.60  LOAD==1.37(0.31)
 0
  #
  #
  # (168)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34562 34354  "1 "    0     # TRAN from  SCHLNDLR  70.00  BRKR to (3)   SCHINDLR 115.00
 1  34354 34149  "1 "    0     # line from  SCHINDLR 115.00  BRKR to (1)   CHENYT   115.00
 1  34354 34432  "1 "    0     # line from  SCHINDLR 115.00  BRKR to (1)   WESTLNDS 115.00
 0
  #
  #
  # (169)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30876)  34370  34618 :
 2  30875 34370  "1 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (170)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30877)  34370  34620 :
 2  30875 34370  "2 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (171)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30878)  34370  34621 :
 2  30875 34370  "3 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (172)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34552 34378  "2 "    0     # TRAN from  GATES     70.00  BRKR to BRKR  GATES    115.00
 0
```

```
  #
  #
  # (173)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34492 34380  "1 "    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00
 0
  #
  #
  # (174)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34492 34380  "2 "    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00
 0
  #
  #
  # (175)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30835  (30882)  34412  34630 :
 2  30835 34412  "1 "    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00
 0
  #
  #
  # (176)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30835  (30883)  34412  34632 :
 2  30835 34412  "2 "    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00
 0
  #
  #
  # (177)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34528 34420  "2 "    0     # TRAN from  CORCORAN  70.00  BRKR to BRKR  CORCORAN 115.00
 0
  #
  #
  # (178)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  30881 34430  "3 "    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00
 0
  #
  #
  # (179)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34658 34452  "1 "    0     # TRAN from  WISHON     2.30   (1) to BRKR  WISHON    70.00
 0
  #
  #
  # (180)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34636 34464  "1 "    0     # TRAN from  FRIANTDM   6.60   (1) to BRKR  COPPRMNE  70.00
 3  34636     0  "1 "    0     # GEN-DROP    FRIANTDM   6.60  GEN==23.00(7.42)
 0
  #
  #
  # (181)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34366 34488  "2 "    0     # TRAN from  SANGER   115.00  BRKR to BRKR  SANGER    70.00
 0
  #
  #
  # (182)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34590 34488  "1 "    0     # TRAN from  SANGR3T  115.00   (2) to BRKR  SANGER    70.00
 2  34590 34366  "1 "    0     # TRAN from  SANGR3T  115.00   (2) to BRKR  SANGER   115.00
 4  34590     0  "3 "    0     # LOAD-DROP    SANGR3T  115.00  LOAD==5.80(1.32)
 0
  #
  #
  # (183)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34650 34554  "1 "    0     # TRAN from  GWF-PWR.  13.80   (1) to BRKR  AMSTG SW  70.00
 3  34650     0  "1 "    0     # GEN-DROP    GWF-PWR.  13.80  GEN==23.00(6.65)
 0
  #
  #
  # (184)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34652 34570  "1 "    0     # TRAN from  CHV.COAL   9.11   (1) to BRKR  COLNGA 2  70.00
 4  34652     0  "SG"    0     # LOAD-DROP    CHV.COAL   9.11  LOAD==1.40(0.68)
 3  34652     0  "1 "    0     # GEN-DROP    CHV.COAL   9.11  GEN==3.00(1.43)
```

```
3  34652     0  "2 "    0     # GEN-DROP    CHV.COAL   9.11  GEN==8.00(3.81)
0
 #
 #
 # (185)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34418 34576  "2 "    0     # TRAN from  KINGSBRG 115.00  BRKR to BRKR  KNGLOBUS  70.00
4  34418     0  "3 "    0      # Drop Kingsburg Bk#3 (modeled as load on Kingburg 115kV bus)
0
 #
 #
 # (186)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34400 34616  "1 "    0     # TRAN from  KNGSRVR1 115.00  BRKR to (1)   KINGSRIV  13.80
0
 #
 #
 # (187)  B1 GENERATOR OUTAGE
 #
3  34323     0  "1"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (188)  B1 GENERATOR OUTAGE
 #
3  34323     0  "2"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (189)  B1 GENERATOR OUTAGE
 #
3  34323     0  "3"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (190)  B1 GENERATOR OUTAGE
 #
3  34323     0  "4"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (191)  B1 GENERATOR OUTAGE
 #
3  34323     0  "5"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (192)  B1 GENERATOR OUTAGE
 #
3  34324     0  "10"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (193)  B1 GENERATOR OUTAGE
 #
3  34324     0  "6"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (194)  B1 GENERATOR OUTAGE
 #
3  34324     0  "7"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (195)  B1 GENERATOR OUTAGE
 #
3  34324     0  "8"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (196)  B1 GENERATOR OUTAGE
 #
3  34324     0  "9"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (197)  B1 GENERATOR OUTAGE
 #
```

```
3  34325     0  "11"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (198)  B1 GENERATOR OUTAGE
 #
3  34325     0  "12"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (199)  B1 GENERATOR OUTAGE
 #
3  34325     0  "13"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (200)  B1 GENERATOR OUTAGE
 #
3  34325     0  "14"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (201)  B1 GENERATOR OUTAGE
 #
3  34325     0  "15"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (202)  B1 GENERATOR OUTAGE
 #
3  34347     0  "1"      0     # P0406     13.80       PGEN=102.60  QGEN=15.64
0
 #
 #
 # (203)  B1 GENERATOR OUTAGE
 #
3  34605     0  "1"      0     # P0429     13.80       PGEN=102.60  QGEN=11.75
0
 #
 #
 # (204)  B1 GENERATOR OUTAGE
 #
3  34605     0  "2"      0     # P0429     13.80       PGEN=102.60  QGEN=11.75
0
 #
 #
 # (205)  B1 GENERATOR OUTAGE
 #
3  34609     0  "4"      0     # FRESNOCG  13.80       PGEN=25.50  QGEN=0.00
0
 #
 #
 # (206)  B1 GENERATOR OUTAGE
 #
3  34661     0  "1"      0     # P0418CT1  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (207)  B1 GENERATOR OUTAGE
 #
3  34663     0  "1"      0     # P0418CT2  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (208)  B1 GENERATOR OUTAGE
 #
3  34665     0  "1"      0     # P0418CT3  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (209)  B1 GENERATOR OUTAGE
 #
3  34671     0  "1"      0     # KRCDPCT1  13.80       PGEN=49.70  QGEN=5.63
0
 #
 #
 # (210)  B1 GENERATOR OUTAGE
 #
3  34672     0  "1"      0     # KRCDPCT2  13.80       PGEN=49.70  QGEN=5.63
```

```
0
 #
 # (211)  B1 GENERATOR OUTAGE
 #
3  34142     0  "1"     0     # WHD_PAN2  13.80       PGEN=49.00  QGEN=-18.25
0
 #
 #
 # (212)  B1 GENERATOR OUTAGE
 #
3  34179     0  "1"     0     # MADERA_G  13.80       PGEN=28.00  QGEN=-6.72
0
 #
 #
 # (213)  B1 GENERATOR OUTAGE
 #
3  34186     0  "1"     0     # DG_PAN1   13.80       PGEN=49.00  QGEN=-13.81
0
 #
 #
 # (214)  B1 GENERATOR OUTAGE
 #
3  34301     0  "1"     0     # CHOWCOGN  13.80       PGEN=50.00  QGEN=-1.93
0
 #
 #
 # (215)  B1 GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=75.00  QGEN=11.97
0
 #
 #
 # (216)  B1 GENERATOR OUTAGE
 #
3  34316     0  "1"     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00
0
 #
 #
 # (217)  B1 GENERATOR OUTAGE
 #
3  34320     0  "1"     0     # MCSWAIN    9.11       PGEN=8.00  QGEN=2.00
0
 #
 #
 # (218)  B1 GENERATOR OUTAGE
 #
3  34322     0  "1"     0     # MERCEDFL   9.11       PGEN=3.00  QGEN=2.00
0
 #
 #
 # (219)  B1 GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.00  QGEN=5.40
0
 #
 #
 # (220)  B1 GENERATOR OUTAGE
 #
3  34334     0  "1"     0     # BIO PWR    9.11       PGEN=23.00  QGEN=7.28
0
 #
 #
 # (221)  B1 GENERATOR OUTAGE
 #
3  34342     0  "1"     0     # INT.TURB   9.11       PGEN=1.00  QGEN=0.00
0
 #
 #
 # (222)  B1 GENERATOR OUTAGE
 #
3  34631     0  "1"     0     # SJ2GEN     9.11       PGEN=3.00  QGEN=0.00
0
 #
 #
 # (223)  B1 GENERATOR OUTAGE
 #
3  34633     0  "1"     0     # SJ3GEN     9.11       PGEN=4.00  QGEN=0.00
0
 #
```

```
 #
 # (224)  B1 GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=129.00  QGEN=16.00
0
 #
 #
 # (225)  B1 GENERATOR OUTAGE
 #
3  34344     0  "2"     0     # KERCKHOF   6.60       PGEN=0.00  QGEN=-4.00
0
 #
 #
 # (226)  B1 GENERATOR OUTAGE
 #
3  34431     0  "1"     0     # GWF_HEP1  13.80       PGEN=49.50  QGEN=20.53
0
 #
 #
 # (227)  B1 GENERATOR OUTAGE
 #
3  34433     0  "1"     0     # GWF_HEP2  13.80       PGEN=49.50  QGEN=20.53
0
 #
 #
 # (228)  B1 GENERATOR OUTAGE
 #
3  34539     0  "1"     0     # GWF_GT1   13.80       PGEN=49.00  QGEN=-6.72
0
 #
 #
 # (229)  B1 GENERATOR OUTAGE
 #
3  34541     0  "1"     0     # GWF_GT2   13.80       PGEN=49.00  QGEN=-6.72
0
 #
 #
 # (230)  B1 GENERATOR OUTAGE
 #
3  34553     0  "1"     0     # WHD_GAT2  13.80       PGEN=49.00  QGEN=-25.30
0
 #
 #
 # (231)  B1 GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
 #
 #
 # (232)  B1 GENERATOR OUTAGE
 #
3  34602     0  "1 "    0     # HELMS 2   18.00  PGEN=-310.0    QGEN = 87.23
0
 #
 #
 # (233)  B1 GENERATOR OUTAGE
 #
3  34604     0  "1"     0     # HELMS 3   18.00       PGEN= 0.00  QGEN = 0.0
0
 #
 #
 # (234)  B1 GENERATOR OUTAGE
 #
3  34608     0  "2"     0     # AGRICO    13.80       PGEN=18.00  QGEN=8.83
0
 #
 #
 # (235)  B1 GENERATOR OUTAGE
 #
3  34610     0  "1"     0     # HAAS      13.80       PGEN=69.00  QGEN=15.65
0
 #
 #
 # (236)  B1 GENERATOR OUTAGE
 #
3  34610     0  "2"     0     # HAAS      13.80       PGEN=69.00  QGEN=15.65
0
 #
 #
```

```
 # (237)  B1 GENERATOR OUTAGE
 #
3  34612     0  "1"     0     # BLCH 2-2  13.80       PGEN=52.00  QGEN=10.97
0
 #
 #
 # (238)  B1 GENERATOR OUTAGE
 #
3  34614     0  "1"     0     # BLCH 2-3  13.80       PGEN=52.00  QGEN=11.86
0
 #
 #
 # (239)  B1 GENERATOR OUTAGE
 #
3  34616     0  "1"     0     # KINGSRIV  13.80       PGEN=47.00  QGEN=9.00
0
 #
 #
 # (240)  B1 GENERATOR OUTAGE
 #
3  34618     0  "1"     0     # MCCALL1T  13.20       PGEN=0.00  QGEN=12.39
0
 #
 #
 # (241)  B1 GENERATOR OUTAGE
 #
3  34621     0  "1"     0     # MCCALL3T  13.20       PGEN=0.00  QGEN=9.63
0
 #
 #
 # (242)  B1 GENERATOR OUTAGE
 #
3  34622     0  "1"     0     # GATES 1T  13.20       PGEN=0.00  QGEN=-15.00
0
 #
 #
 # (243)  B1 GENERATOR OUTAGE
 #
3  34624     0  "1"     0     # BALCH 1   13.20       PGEN=27.00  QGEN=10.00
0
 #
 #
 # (244)  B1 GENERATOR OUTAGE
 #
3  34630     0  "1"     0     # HERNDN1T  13.20       PGEN=0.00  QGEN=12.86
0
 #
 #
 # (245)  B1 GENERATOR OUTAGE
 #
3  34632     0  "1"     0     # HERNDN2T  13.20       PGEN=0.00  QGEN=17.89
0
 #
 # (246)  B1 GENERATOR OUTAGE
 #
3  34636     0  "1"     0     # FRIANTDM   6.60       PGEN=24.00  QGEN=15.00
0
 #
 #
 # (247)  B1 GENERATOR OUTAGE
 #
3  34640     0  "1"     0     # ULTR.PWR   9.11       PGEN=15.00  QGEN=13.00
0
 #
 #
 # (248)  B1 GENERATOR OUTAGE
 #
3  34642     0  "1"     0     # KINGSBUR   9.11       PGEN=34.00  QGEN=17.30
0
 #
 #
 # (249)  B1 GENERATOR OUTAGE
 #
3  34646     0  "1"     0     # SANGERCO   9.11       PGEN=38.00  QGEN=-0.82
0
 #
 #
 # (250)  B1 GENERATOR OUTAGE
 #
```

```
3  34648     0  "1"     0     # DINUBA E  13.80       PGEN=12.00  QGEN=7.00
0
 #
 #
 # (251)  B1 GENERATOR OUTAGE
 #
3  34650     0  "1"     0     # GWF-PWR.  13.80       PGEN=23.00  QGEN=11.75
0
 #
 #
 # (252)  B1 GENERATOR OUTAGE
 #
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=2.50  QGEN=8.30
0
 #
 #
 # (253)  B1 GENERATOR OUTAGE
 #
3  34652     0  "2"     0     # CHV.COAL   9.11       PGEN=8.00  QGEN=4.00
0
 #
 #
 # (254)  B1 GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.00  QGEN=-13.50
0
 #
 #
 # (255)  B1 GENERATOR OUTAGE
 #
3  34658     0  "3"     0     # WISHON     2.30       PGEN=4.30  QGEN=1.00
0
 #
 #
 # (256)  B1 GENERATOR OUTAGE
 #
3  34658     0  "4"     0     # WISHON     2.30       PGEN=4.30  QGEN=1.00
0
 #
 #
 # (257)  B1 GENERATOR OUTAGE
 #
3  38720     0  "1"     0     # PINE FLT  13.80       PGEN=49.00  QGEN=11.23
0
 #
 #
 # (258)  B1 GENERATOR OUTAGE
 #
3  38720     0  "2"     0     # PINE FLT  13.80       PGEN=49.00  QGEN=11.23
0
 #
 #
 # (259)  B1 GENERATOR OUTAGE
 #
3  38720     0  "3"     0     # PINE FLT  13.80       PGEN=0.00  QGEN=22.91
0
##############################################################################################
#
#  L-1/G-1 Contingencies
#
##############################################################################################
#
# (260)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (261)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  34112 34116  "1 "    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00
3  34306     0  "1 "    0      # Exchequer Unit will trip for this outage
4  34228     0  "**"    0      # Mariposa Loads will drop if bus is below 64 kV, this is anticipate
0
 #
```

```
  #
  # (262)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
  #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
  #
 1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
 1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
 1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
 1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
 1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
 1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
 2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
 4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)
 3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)
 0
 #
 # (263) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (264) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
  #
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (265)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (266)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (267)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (268)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (269)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (270)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
```

```
 #
 # (271)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (272)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 # (273)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 #
 # (274)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
 #
 #
 # (275)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (276)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
#
# (277)  C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
#
# (278) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
#
# (279)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN = 100.0  QGEN = -20.15
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
```

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```
0
#
#
# (280)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN = 100.0  QGEN = -20.15
#
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
# 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
#
# (281)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN = 100.0  QGEN = -20.15
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (282)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN = 4.0  QGEN = -3.50
#
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 #
 # (283) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN = 4.0  QGEN = -3.50
 #
1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
0
 #
 #
#
# (284) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN= 3.00  QGEN= 1.40
  #
  #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (285) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN= 3.00  QGEN= 1.40
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0
0
 #
 #
 # (286) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=36.0  QGEN=-13.50
 #
 #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (287) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=36.0  QGEN=-13.50
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
```

```
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0
0
 #
 # (288)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34636     0  "1"     0     # FRIANTDM   9.11       PGEN=23.0  QGEN= 7.4
 #
1  34262 34454  "1 "    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00
1  34262 34256  "1 "    0     # line from  CASSIDY   70.00   (2) to BRKR  BORDEN    70.00
1  34454 34464  "1 "    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00
4  34262     0  "1 "    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.36(0.80)
4  34454     0  "1 "    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)
0
 #
 #
 # (289) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34650     0  "1"     0     # GWF-PWR.   9.11       PGEN=23.00  QGEN=6.6
#
1  34516 34520  "1 "    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00
1  34520 34518  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00
1  34520 34524  "1 "    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00
1  34520 34540  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00
4  34516     0  "1 "    0     # LOAD-DROP    LEPRINO   70.00  LOAD==5.84(3.31)
4  34518     0  "1 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==25.58(8.22)
4  34518     0  "2 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==10.28(2.53)
4  34524     0  "1 "    0     # LOAD-DROP    CANDLEWK  70.00  LOAD==2.93(2.66)
0
#
# (290)  B CAPACITOR OUTAGE
#
6  30810     0  "v"     0     # drop Gregg 230 kV shunt Caps
0
#
# (291)  B CAPACITOR OUTAGE
#
6  30875     0  "v"     0     # drop McCall 230 kV shunt Caps
0
#
##########################################################################################
#
# PROJECT CONTINGENCIES
#
##########################################################################################
#
# (292)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
0
#
# (293)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
#
# (294)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
#########################################################################################
#
# PROJECT G-1/L-1 Contingencies
#
#########################################################################################
#
# (295) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
```

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```
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
 #
 # (296)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
0
 #
 # (297) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (298) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
  #
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (299)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (300)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (301)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (302)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (303)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (304)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
```

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```
 #
 # (305)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (306)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (307)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (308)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
# (309)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
# 3  34604     0  "**"    0     # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
# (310)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
# (311) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4  34378     0  "3 "    0      # Drop Gates Bank #3
0
#
# (312) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
-1
# EOF
```

APPENDIX B – AUTOCON INPUT FILE

```
# PG&E 2004 BASE CASE SERIES - 2008 Valley South Summer Off-Peak Case
# Greater Fresno Area Category "C" Contingencies, Zones 313 and 314
# Bullard Energy Center- 2008 Summer Off-Peak
#
#
##########################################################################################
  #
  #   70 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##########################################################################################
  #
#(1) Gates-Schindler and Gates-Huron
  #
 1  34558 34560  "1 "    0     # line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00
 1  34560 34562  "1 "    0     # line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00
 4  34560     0  "1 "    0     # LOAD-DROP    CALFLAX   70.00  LOAD==8.74(1.99)
 1  34552 34558  "2 "    0      # Must include Gates - Huron in this outage
 #
 1  34552 34558  "1 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
 0
#
##########################################################################################
  #
  #   115 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##########################################################################################
  #
#(2) Wilson-Atwater and El Capitan-Wilson
  #
 1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
 #
 1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
 0
  #
#(3) Wilson-Atwater and Atwater-El Capitan
  #
 1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
 #
 1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
 1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
 0
  #
#(4) Wilson-Merced #2 and Wilson-Oro Loma
 #
 1  34134 34144  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00
 #
 1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
 1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
 1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
 4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==3.03(0.69)
 4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==4.32(0.99)
 0
  #
#(5) Panoche-Schindler #1 and #2
  #
 1  34158 34350  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00
 1  34350 34352  "1 "    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00
 1  34352 34432  "1 "    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00
 1  34432 34354  "1 "    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00
 4  34350     0  "1 "    0     # LOAD-DROP    KAMM     115.00  LOAD==3.96(1.80)
 4  34352     0  "1 "    0     # LOAD-DROP    CANTUA   115.00  LOAD==6.87(1.57)
 4  34432     0  "16"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)
 4  34432     0  "18"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)
 #
 1  34141 34148  "1 "    0     # line from  PAN2_TAP 115.00   (2) to (2)   CHENY    115.00
 2  34141 34142  "1 "    0     # TRAN from  PAN2_TAP 115.00   (2) to (1)   WHD_PAN2  13.80
 1  34148 34149  "1 "    0     # line from  CHENY    115.00   (2) to (3)   CHENYT   115.00
 1  34149 34158  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00
 1  34149 34354  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00
 4  34148     0  "1 "    0     # LOAD-DROP    CHENY    115.00  LOAD==7.08(1.62)
 3  34142     0  "1 "    0     # GEN-DROP    WHD_PAN2  13.80  GEN==49.00(0.15)
 0
#
#
#(6) Barton-Sanger and Manchester-Sanger
#
 1  34366 34408  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00
#
 1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
 4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.54)
 0
#
#(7) Herndon-Barton and Herndon-Manchester
#
 1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
#
 1  34410 34412  "1 "    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00
 0
#
#(8) Herndon-Barton and Manchester-Sanger
#
 1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
#
 1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
 1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
 4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.54)
 0
#
#(9) Herndon-Bullard #1 and #2
#
 1  34409 34413  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00
 1  34409 34416  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00
 1  34409 34412  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00
#
 1  34411 34413  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  PNEDLE   115.00
 1  34411 34416  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  BULLARD  115.00
 1  34411 34412  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  HERNDON  115.00
 0
#
#(10) Kerckhoff-Clovis-Sanger #1 and #2
#
 1  34358 34360  "1 "    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00
 1  34360 34414  "1 "    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00
 1  34360 34363  "1 "    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00
 1  34363 34362  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00
 1  34363 34366  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00
 4  34362     0  "1 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==20.85(4.75)
 4  34362     0  "2 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==20.90(4.76)
 #
 1  34364 34365  "1 "    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00
 1  34365 34358  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00
 1  34365 34366  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00
 4  34364     0  "3 "    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==22.77(5.19)
 0
#
#(11) Kingburg-Corcoran #1 and #2
#
 1  34418 34420  "1 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
 1  34418 34420  "2 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
 0
#
#(12) Kings River-Sanger-Reedley and Balch-Sanger
#
 1  34366 34389  "1 "    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00
 1  34389 34388  "1 "    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBW   115.00
 1  34389 34394  "1 "    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00
 1  34394 34380  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00
 1  34394 34400  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGSRVR1 115.00
 4  34388     0  "1 "    0     # LOAD-DROP    RAINBW   115.00  LOAD==5.10(1.16)
 #
 1  34366 34396  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00
 1  34396 34398  "1 "    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00
 2  34398 34624  "1 "    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20
 4  34624     0  "1 "    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.31(0.00)
 3  34624     0  "1 "    0     # GEN-DROP    BALCH 1   13.20  GEN==27.00(6.65)
 0
#
#(13) McCall-Kingsburg #1 and #2
#
 1  34370 34385  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   KINGS J1 115.00
 1  34385 34417  "1 "    0     # line from  KINGS J1 115.00   (3) to (2)   KINGS J2 115.00
 1  34385 34418  "1 "    0     # line from  KINGS J1 115.00   (3) to BRKR  KINGSBRG 115.00
 1  34417 34425  "1 "    0     # line from  KINGS J2 115.00   (2) to (3)   KCOGNJCT 115.00
 1  34425 34387  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (1)   SUNMAID  115.00
 1  34425 34427  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (2)   GRDNGLS2 115.00
 1  34427 34386  "1 "    0     # line from  GRDNGLS2 115.00   (2) to (2)   KNGSCOGN 115.00
 2  34386 34642  "1 "    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11
```

```
 4  34387     0  "1 "    0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.10(2.99)
 #
 1  34370 34423  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00
 1  34423 34418  "1 "    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00
 1  34423 34421  "1 "    0     # line from  GAURD J1 115.00   (3) to (2)   GAURD J2 115.00
 1  34421 34424  "1 "    0     # line from  GAURD J2 115.00   (2) to (1)   GRDN GLS 115.00
 4  34424     0  "1 "    0     # LOAD-DROP    GRDN GLS 115.00  LOAD==10.05(3.30)
 0
#
#(14) McCall-Sanger #1 and #2
#
 1  34366 34370  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
 1  34366 34370  "2 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
 0
#
#(15) McCall-West Fresno #1 and #2
#
 1  34390 34402  "1 "    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00
 1  34390 34407  "1 "    0     # line from  DANISHCM 115.00   (2) to (2)   WFRES J2 115.00
 1  34407 34404  "1 "    0     # line from  WFRES J2 115.00   (2) to BRKR  WST FRSO 115.00
 4  34390     0  "1 "    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.85(3.29)
 #
 1  34370 34404  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00
 0
#
#################################################################################################
  #
  #   230 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
#################################################################################################
 #
 #
 #(16) Gates-Panoche #1 and #2
 #
 1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
 #
 1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
 0
 #
 #(17) Los Banos-Panoche and Los Banos-Dos Amigos
 #
 1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
 #
 1  30765 38615  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00
 0
 #
 #(18) Los Banos-Panoche and Dos Amigos-Panoche
 #
 1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
 #
 1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
 0
 #
 #(19) Los Banos - San Luis PGP #1 and #2
 #
 1  30765 38625  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
 #
 1  30765 38625  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
 0
 #
 #(20) Wilson-Borden and Wilson-Gregg
 #
 1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
 1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
 4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
 #
 1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
 1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
 4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==12.72(2.90)
 # 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
 0
 #
 #(21) Borden-Gregg and Wilson-Gregg
 #
 1  30805 30810  "1 "    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00
 # 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg -Borden line
 #
 1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
 1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
```

```
 4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==12.72(2.90)
 # 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
 0
 #
 #(22) Bellota-Melones and Warnerville-Wilson
 #
 1  30500 38206  "1 "    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00
 1  38206 37563  "1 "    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00
 4  38206     0  "1 "    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)
 # 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Bellota-Melones line
 #
 1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
 0
 #
 #(23) Bellota-Melones and Bellota-Warnerville
 #
 1  30500 38206  "1 "    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00
 1  38206 37563  "1 "    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00
 4  38206     0  "1 "    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)
 # 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Bellota-Melones line
 #
 1  30500 38208  "1 "    0     # line from  BELLOTA  230.00  BRKR to (3)   COTTLE B 230.00
 1  38208 30515  "1 "    0     # line from  COTTLE B 230.00   (3) to BRKR  WARNERVL 230.00
 4  38208     0  "2 "    0     # LOAD-DROP    COTTLE B 230.00  LOAD==21.32(7.38)
 0
 #
 #(24) Melones-Wilson and Warnervile-Wilson
 #
 1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
 #
 1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
 0
#
#
#(25) Gates-Gregg and Gates-McCall
#
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
 1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
 1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
 2  34540 30881  "2 "    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00 RAS Scheme for
this DCTL outage
 2  30881 34430  "3 "    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00 RAS Scheme for
this DCTL outage
 0
#
#(26) Panoche-Kearney and Gates-Gregg
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP  MCMULLN1 230.00  LOAD==13.26(3.02)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
# 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line
0
#
#(27) Panoche-Kearney and Panoche-Helm
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP  MCMULLN1 230.00  LOAD==13.26(3.02)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#(28) Panoche-Kearney and Helm-McCall
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
```

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```
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==13.26(3.02)
#  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
#
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
0
#
#(29) Helm-McCall and Gates-McCall
#
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
#(30) Helms-Gregg #1 and #2
  #
 1  30810 30820  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
 #
 1  30810 30820  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
 0
  #
#(31) Gregg-Herndon #1 and #2
  #
 1  30810 30835  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
 #
 1  30810 30835  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
 # 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Gregg - Herndon Tap line
 0
  #
#(32) Herndon-Kearney (Bullard Energy Center) and Herndon-Ashlan
  #
 1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841      0  "**"    1      # Restore Load at Figarden 1
 0
#
#(33) (Bullard Energy Center) Herndon-Kearney and Herndon-Ashlan
#
 1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841      0  "**"    1      # Restore Load at Figarden 1
 0
#
#(34) Bullard Energy Center and Herndon-Ashlan
#
 2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
 4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
 3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841      0  "**"    1      # Restore Load at Figarden 1
 0
#
#(35) (Bullard Energy Center) Herndon-Kearney and Gates-Gregg
#
 1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
```

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```
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 # 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(36) Herndon-Kearney (Bullard Energy Center) and Gates-Gregg
#
 1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(37) Bullard Energy Center and Gates-Gregg
  #
 2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
 4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
 3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 0
#
#(38) Gates-Gregg and Gregg-Ashlan
#
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 #  HTT/RAS - 2 Pump Operation - Trip Helms Unit 1 pump
 3  34600     0  "1 "    0     # HELMS 1   18.00  PGEN = -310.0  QGEN = 86.96
 #
 1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
 1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
 1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
 4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==48.05(0.00)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30846     0  "**"    1      # Restore Load at Figarden 2
 0
  #
#(39) Herndon-Ashlan and Gregg-Ashlan
  #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 #
 1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
 1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
 1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
 4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==42.49(9.68)
 # 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Figarden line
 0
  #
#(40) Haas-McCall and Balch-McCall
  #
 1  30855 30860  "1 "    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00
 2  30855 34610  "1 "    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80
 1  30860 30875  "1 "    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00
 2  30860 34614  "1 "    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80
 3  34610     0  "1 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(10.96)
 3  34610     0  "2 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(10.96)
 3  34614     0  "1 "    0     # GEN-DROP    BLCH 2-3  13.80  GEN==52.00(8.41)
 #
 1  30865 30870  "1 "    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00
 2  30865 34612  "1 "    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80
 1  30870 30875  "1 "    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00
 2  30870 38720  "1 "    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80
```

```
 3  34612     0  "1 "    0     # GEN-DROP    BLCH 2-2  13.80  GEN==52.00(7.53)
 3  38720     0  "1 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.55)
 3  38720     0  "2 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.55)
 0
#
#
##########################################################################################
  #
  # BUS FAULT CONTINGENCIES
  #
##########################################################################################
#
# (41) BUS FAULT  30765  "LOSBANOS BUS 1"
 1  30765  30670  "1"    0     # LINE from  LOSBANOS 230.00  to  WESTLEY  230.00
 1  30765  30790  "2"    0     # LINE from  LOSBANOS 230.00  to  PANOCHE  230.00
 1  30765  38625  "1"    0     # LINE from  LOSBANOS 230.00  to  SN LS PP 230.00
 1  30765  38625  "2"    0     # LINE from  LOSBANOS 230.00  to  SN LS PP 230.00
 2  30765  34214  "4"    0     # TRAN from  LOSBANOS 230.00  to  LOS BANS  70.00
 6  30765      0  "v"    0     # SHUNT Capacitors at Los Banos
 0
#
# (42) BUS FAULT  30765  "LOSBANOS BUS 2"
 1  30765  30790  "1"    0     # LINE from  LOSBANOS 230.00  to  PANOCHE  230.00
 1  30765  38615  "1"    0     # LINE from  LOSBANOS 230.00  to  DS AMIGO 230.00
 2  30765  34214  "3"    0     # TRAN from  LOSBANOS 230.00  to  LOS BANS  70.00
 0
#
# (43) BUS FAULT  30790  "PANOCHE BUS 1"
 1  30790  30760  "1"    0     # LINE from  PANOCHE  230.00  to  COBURN   230.00
 1  30790  30765  "1"    0     # LINE from  PANOCHE  230.00  to  LOSBANOS 230.00
 1  30790  30765  "2"    0     # LINE from  PANOCHE  230.00  to  LOSBANOS 230.00
 1  30790  30825  "1"    0     # LINE from  PANOCHE  230.00  to  MCMULLN1 230.00
 1  30790  30900  "1"    0     # LINE from  PANOCHE  230.00  to  GATES    230.00
 2  30790  30791  "1"    0     # TRAN from  PANOCHE  230.00  to  PNCHE 1M 230.00
 0
#
# (44) BUS FAULT  30790  "PANOCHE BUS 2"
 1  30790  30750  "1"    0     # LINE from  PANOCHE  230.00  to  MOSSLND2 230.00
 1  30790  30873  "1"    0     # LINE from  PANOCHE  230.00  to  HELM     230.00
 1  30790  30900  "2"    0     # LINE from  PANOCHE  230.00  to  GATES    230.00
 1  30790  38615  "1"    0     # LINE from  PANOCHE  230.00  to  DS AMIGO 230.00
 2  30790  30792  "2"    0     # TRAN from  PANOCHE  230.00  to  PNCHE 2M 230.00
 0
#
# (45) BUS FAULT  30835  "HERNDON BUS 1"
 1  30835  30810  "1"    0     # LINE from  HERNDON  230.00  to  GREGG    230.00
 1  30835  30829  "1"    0     # LINE from  HERNDON  230.00  to  P0429    230.00
 2  30835  30882  "1"    0     # TRAN from  HERNDON  230.00  to  HERNDN1M 115.00
 0
#
# (46) BUS FAULT  30835  "HERNDON BUS 2"
 1  30835  30810  "2"    0     # LINE from  HERNDON  230.00  to  GREGG    230.00
 1  30835  30840  "1"    0     # LINE from  HERNDON  230.00  to  FGRDN T1 230.00
 2  30835  30883  "2"    0     # TRAN from  HERNDON  230.00  to  HERNDN2M 115.00
 0
#
# (47) BUS FAULT  30875  "MC CALL BUS 1"
 1  30875  30870  "1"    0     # LINE from  MC CALL  230.00  to  PINE FLT 230.00
 1  30875  30880  "1"    0     # LINE from  MC CALL  230.00  to  HENTAP2  230.00
 2  30875  30877  "2"    0     # TRAN from  MC CALL  230.00  to  MCCALL2M 115.00
 6  30875      0  "v"    0     # SHUNT Capacitors at Mc Call
 0
# (48) BUS FAULT  30875  "MC CALL BUS 2"
 1  30875  30860  "1"    0     # LINE from  MC CALL  230.00  to  BALCH3TP 230.00
 1  30875  30873  "1"    0     # LINE from  MC CALL  230.00  to  HELM     230.00
 2  30875  30876  "1"    0     # TRAN from  MC CALL  230.00  to  MCCALL1M 115.00
 2  30875  30878  "3"    0     # TRAN from  MC CALL  230.00  to  MCCALL3M 115.00
 0
#
# (49) BUS FAULT  30900  "GATES BUS D1"
 1  30900  30790  "1"    0     # LINE from  GATES    230.00  to  PANOCHE  230.00
 1  30900  30905  "1"    0     # LINE from  GATES    230.00  to  TEMPLETN 230.00
 2  30900  30901  "1"    0     # TRAN from  GATES    230.00  to  GATES 1M 230.00
 6  30900      0  "v"    0     # SHUNT Capacitors at Gates
 0
#
# (50) BUS FAULT  30900  "GATES BUS D2"
 1  30900  30790  "2"    0     # LINE from  GATES    230.00  to  PANOCHE  230.00
 1  30900  30915  "1"    0     # LINE from  GATES    230.00  to  MORROBAY 230.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 0
#
# (51) BUS FAULT  30900  "GATES BUS E1"
 1  30900  30879  "1"    0     # LINE from  GATES    230.00  to  HENTAP1  230.00
 1  30900  30935  "1"    0     # LINE from  GATES    230.00  to  ARCO     230.00
 0
#
# (52) BUS FAULT  30900  "GATES BUS E2"
 1  30900  30880  "1"    0     # LINE from  GATES    230.00  to  HENTAP2  230.00
 1  30900  30970  "1"    0     # LINE from  GATES    230.00  to  MIDWAY   230.00
 0
#
# (53) BUS FAULT  34134  "WILSON A"
 1  34134  34116  "1"    0     # LINE from  WILSON A 115.00  to  LE GRAND 115.00
 1  34134  34104  "1"    0     # LINE from  WILSON A 115.00  to  ATWATER  115.00
 1  34134  34144  "1"    0     # LINE from  WILSON A 115.00  to  MERCED   115.00
 2  34134  30800  "1"    0     # TRAN from  WILSON A 115.00  to  WILSON   230.00
 1  34134 34136  "1 "    0     # LINE from  WILSON A 115.00  to  WILSON B 115.00
 4  34134     0  "3 "    0     # LOAD-DROP    WILSON A 115.00  LOAD==26.66(6.08)
 6  34134     0  "v"    0     # SHUNT Capacitors at Wilson A Bus
 0
#
# (54) BUS FAULT  34136  "WILSON B"
 1  34136  34118  "1"    0     # LINE from  WILSON B 115.00  to  LE GRNDJ 115.00
 1  34136  34138  "1"    0     # LINE from  WILSON B 115.00  to  EL CAPTN 115.00
 1  34136  34144  "2"    0     # LINE from  WILSON B 115.00  to  MERCED   115.00
 2  34136  30800  "2"    0     # TRAN from  WILSON B 115.00  to  WILSON   230.00
 1  34134 34136  "1 "    0     # LINE from  WILSON A 115.00  to  WILSON B 115.00
 0
#
# (55) BUS FAULT  34158  "PANOCHE BUS 1"
 1  34158  34157  "1"    0     # LINE from  PANOCHE  115.00  to  PANOCHET 115.00
 1  34158  34188  "1"    0     # LINE from  PANOCHE  115.00  to  P0406    115.00
 1  34158  34350  "1"    0     # LINE from  PANOCHE  115.00  to  KAMM     115.00
 2  34158  34186  "1"    0     # TRAN from  PANOCHE  115.00  to  DG_PAN1   13.80
 2  34158  30791  "1"    0     # TRAN from  PANOCHE  115.00  to  PNCHE 1M 230.00
 0
#
# (56) BUS FAULT  34158  "PANOCHE BUS 2"
 1  34158  34149  "1"    0     # LINE from  PANOCHE  115.00  to  CHENYT   115.00
 1  34158  34159  "1"    0     # LINE from  PANOCHE  115.00  to  PANOCHEJ 115.00
 2  34158  30792  "2"    0     # TRAN from  PANOCHE  115.00  to  PNCHE 2M 230.00
 0
#
# (57) BUS FAULT  34370  "MC CALL BUS D1"
 1  34370  34385  "1"    0     # LINE from  MC CALL  115.00  to  KINGS J1 115.00
 1  34370  34402  "1"    0     # LINE from  MC CALL  115.00  to  CAL AVE  115.00
 2  34370  30878  "3"    0     # TRAN from  MC CALL  115.00  to  MCCALL3M 115.00
 4  34370     0  "4 "    0     # LOAD-DROP    MC CALL  115.00  LOAD==23.23(5.29)
 4  34370     0  "5 "    0     # LOAD-DROP    MC CALL  115.00  LOAD==28.28(6.45)
 0
#
# (58) BUS FAULT  34370  "MC CALL BUS D2"
 1  34370  34404  "1"    0     # LINE from  MC CALL  115.00  to  WST FRSO 115.00
 1  34370  34369  "1"    0     # LINE from  MC CALL  115.00  to  P0418    115.00
 0
#
# (59) BUS FAULT  34370  "MC CALL BUS E1"
 1  34370  34366  "1"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34366  "3"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34382  "1"    0     # LINE from  MC CALL  115.00  to  WAHTOKE  115.00
 0
#
# (60) BUS FAULT  34370  "MC CALL BUS E2"
 1  34370  34366  "2"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34377  "1"    0     # LINE from  MC CALL  115.00  to  AIRPROD  115.00
 1  34370  34423  "1"    0     # LINE from  MC CALL  115.00  to  GAURD J1 115.00
 2  34370  30876  "1"    0     # TRAN from  MC CALL  115.00  to  MCCALL1M 115.00
 0
#
# (61) BUS FAULT  34412  "HERNDON BUS 1"
 1  34412  34408  "1"    0     # LINE from  HERNDON  115.00  to  BARTON   115.00
 1  34412  34411  "1"    0     # LINE from  HERNDON  115.00  to  PNDLJ1   115.00
 0
#
# (62) BUS FAULT  34412  "HERNDON BUS 2"
 1  34412  34410  "1"    0     # LINE from  HERNDON  115.00  to  MANCHSTR 115.00
 1  34412  34409  "1"    0     # LINE from  HERNDON  115.00  to  PNDLJ2   115.00
 1  34412  34422  "1"    0     # LINE from  HERNDON  115.00  to  CHLDHOSP 115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 2  34412  30882  "1"    0     # TRAN from  HERNDON  115.00  to  HERNDN1M 115.00
 0
#
#
-1
# EOF
```

APPENDIX B – AUTOCON INPUT FILE

```
# PG&E 2004 BASE CASE SERIES - 2009 South Valley Spring Peak Case
# Greater Fresno Area Category "B" Contingencies, Zones 313 and 314
# Bullard Energy Center- 2009 Spring Peak
#
#
# (1)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
 # (2)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30670 30765  "1 "    0     # line from  WESTLEY  230.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (3)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (4)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (5)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (6)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (7)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38615  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00
0
 #
 #
 # (8)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38625  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
0
 #
 #
 # (9)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30765 38625  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
0
 #
 #
 # (10)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==10.98(2.50)
0
 #
# (11)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30835 30830  "1 "    0     # line from  HERNDON  230.00   (3) to BRKR  KEARNEY  230.00
0
#
# (12)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
 #
 #
 # (13)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
```

APPENDIX B – AUTOCON INPUT FILE

```
0
 #
 #
 # (14)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (15)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "1 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==1.00(0.23)
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==20.82(4.74)
0
 #
 #
 # (16)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==30.96(7.05)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
0
 #
 #
 # (17)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30805 30806  "1 "    0     # line from  BORDEN   230.00  BRKR to (4)   P0419    230.00
2  30806 34323  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS1  13.80
2  30806 34324  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS2  13.80
2  30806 34325  "1 "    0     # TRAN from  P0419    230.00   (4) to (1)   P0419BS3  13.80
4  34323     0  "SG"    0     # LOAD-DROP    P0419BS1  13.80  LOAD==0.86(0.48)
4  34324     0  "SG"    0     # LOAD-DROP    P0419BS2  13.80  LOAD==0.86(0.48)
4  34325     0  "SG"    0     # LOAD-DROP    P0419BS3  13.80  LOAD==0.86(0.48)
3  34323     0  "1 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "2 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "3 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "4 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34323     0  "5 "    0     # GEN-DROP    P0419BS1  13.80  GEN==8.44(0.40)
3  34324     0  "10"    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "6 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "7 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "8 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34324     0  "9 "    0     # GEN-DROP    P0419BS2  13.80  GEN==8.44(0.40)
3  34325     0  "11"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "12"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "13"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "14"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
3  34325     0  "15"    0     # GEN-DROP    P0419BS3  13.80  GEN==8.44(0.40)
0
 #
 #
 # (18)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30805 30810  "1 "    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg -Borden line
0
 #
 #
 # (19)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30820  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
3  34600     0  "**"    0      # Drop unit#1 with a loss Helm - Gregg #1 line
0
 #
 #
 # (20)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30820  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Helm - Gregg #2 line
0
 #
 #
 # (21)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30835  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Herndon #1 line
```

APPENDIX B – AUTOCON INPUT FILE

```
0
 #
 #
 # (22)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30835  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Herndon #2 line
0
 #
 #
 # (23)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==35.02(7.98)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Figarden line
1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
4 30846      0  "**"    1      # Restore Load at Figarden 2
0
 #
 #
 # (24)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
0
 #
 #
 # (25)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==51.78(11.80)
1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
4 30841      0  "**"    1      # Restore Load at Figarden 1
0
 #
 #
 # (26)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30855 30860  "1 "    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00
2  30855 34610  "1 "    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80
1  30860 30875  "1 "    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00
2  30860 34614  "1 "    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80
3  34610     0  "1 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(11.31)
3  34610     0  "2 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(11.31)
3  34614     0  "1 "    0     # GEN-DROP    BLCH 2-3  13.80  GEN==52.00(8.67)
0
 #
 #
 # (27)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30865 30870  "1 "    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00
2  30865 34612  "1 "    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80
1  30870 30875  "1 "    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00
2  30870 38720  "1 "    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80
3  34612     0  "1 "    0     # GEN-DROP    BLCH 2-2  13.80  GEN==52.00(7.79)
3  38720     0  "1 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.82)
3  38720     0  "2 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.82)
0
 #
 #
 # (28)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
0
 #
 #
 # (29)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
 #
```

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 #
 # (30)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30905  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  TEMPLETN 230.00
0
 #
 #
 # (31)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30915  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  MORROBAY 230.00
0
 #
 #
 # (32)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30935  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  ARCO     230.00
0
 #
 #
 # (33)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  30900 30970  "1 "    0     # line from  GATES    230.00  BRKR to BRKR  MIDWAY   230.00
0
 #
 #
 # (34)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  32107 32109  "2 "    0     # line from  CACHSTAP  60.00   (2) to (3)   CACHSLJ2  60.00
1  32107 32113  "2 "    0     # line from  CACHSTAP  60.00   (2) to (3)   BTAV-JCT  60.00
1  32109 32101  "2 "    0     # line from  CACHSLJ2  60.00   (3) to (2)   DIXON-J2  60.00
1  32109 32094  "2 "    0     # line from  CACHSLJ2  60.00   (3) to (2)   VACA-JT2  60.00
1  32113 32111  "2 "    0     # line from  BTAV-JCT  60.00   (3) to (1)   BATAVIA   60.00
1  32113 32114  "2 "    0     # line from  BTAV-JCT  60.00   (3) to (2)   MNPR_JCT  60.00
1  32114 32112  "2 "    0     # line from  MNPR_JCT  60.00   (2) to (1)   MAINE-PR  60.00
1  32101 32100  "2 "    0     # line from  DIXON-J2  60.00   (2) to BRKR  DIXON     60.00
1  32094 32088  "2 "    0     # line from  VACA-JT2  60.00   (2) to BRKR  VACA-DXN  60.00
4  32111     0  "1 "    0     # LOAD-DROP    BATAVIA   60.00  LOAD==0.17(0.04)
4  32112     0  "1 "    0     # LOAD-DROP    MAINE-PR  60.00  LOAD==0.10(0.02)
0
 #
 #
 # (35)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34017 34010  "1 "    0     # line from  CRWS LDG  60.00   (1) to (3)   CRWS LDJ  60.00
1  34010 34006  "1 "    0     # line from  CRWS LDJ  60.00   (3) to BRKR  PATTERSN  60.00
1  34010 34012  "1 "    0     # line from  CRWS LDJ  60.00   (3) to (2)   GUSTN JT  60.00
1  34012 34014  "1 "    0     # line from  GUSTN JT  60.00   (2) to BRKR  NEWMAN    60.00
4  34017     0  "1 "    0     # LOAD-DROP    CRWS LDG  60.00  LOAD==2.14(0.16)
1  34016 34017  "1 "    1      # Switches in Crows Landing SW 57 to transfer load
4  34017     0  "**"    1      # Restore Load at Crows Landing
0
 #
 #
 # (36)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==9.90(6.91)
3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-6.95)
0
 #
 #
 # (37)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 #
 # (38)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34104 34108  "1 "    0     # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00
1  34108 34114  "1 "    0     # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00
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1  34114 34124  "1 "    0     # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00
2  34114 34332  "1 "    0     # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11
1  34124 34140  "1 "    0     # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00
4  34124     0  "1 "    0     # LOAD-DROP    JR WOOD  115.00  LOAD==11.70(10.32)
4  34140     0  "1 "    0     # LOAD-DROP    CRESSEY  115.00  LOAD==14.84(3.39)
3  34332     0  "1 "    0     # GEN-DROP    JRWCOGEN   9.11  GEN==3.77(1.03)
0
 #
 #
 # (39)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34105 34100  "1 "    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00
1  34105 34121  "1 "    0     # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00
1  34121 34120  "1 "    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00
1  34121 34128  "1 "    0     # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00
1  34128 34126  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00
1  34128 34123  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   K1-JCT   115.00
1  34126 34122  "1 "    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00
1  34123 34358  "2 "    0     # line from  K1-JCT   115.00   (2) to BRKR  KERCKHF2 115.00
4  34120     0  "1 "    0     # LOAD-DROP    SHARON   115.00  LOAD==6.72(4.69)
4  34126     0  "1 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==12.60(2.87)
4  34126     0  "2 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==4.18(0.95)
4  34122     0  "1 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==9.43(2.15)
4  34122     0  "2 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==7.03(1.60)
0
 #
 #
 # (40)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00
1  34110 34130  "1 "    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00
1  34110 34144  "1 "    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00
1  34130 34132  "1 "    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00
4  34130     0  "3 "    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==10.25(2.34)
4  34132     0  "1 "    0     # LOAD-DROP    GALLO    115.00  LOAD==13.40(11.46)
0
 #
 #
 # (41)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34112 34116  "1 "    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00
3  34306     0  "1 "    0      # Exchequer Unit will trip for this outage
4  34228     0  "**"    0      # Mariposa Loads will drop if bus is below 64 kV, this is anticipate
0
 #
 #
 # (42)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34116 34134  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  WILSON A 115.00
0
 #
 #
 # (43)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (44)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==5.56(1.26)
4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.94(1.81)
0
 #
 #
 # (45)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
0
 #
 #
 # (46)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34136  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  WILSON B 115.00
0
 #
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```
 #
 # (47)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34134 34144  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00
0
 #
 #
 # (48)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
0
 #
 #
 # (49)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34136 34144  "2 "    0     # line from  WILSON B 115.00  BRKR to BRKR  MERCED   115.00
0
 #
 #
 # (50)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34141 34148  "1 "    0     # line from  PAN2_TAP 115.00   (2) to (2)   CHENY    115.00
2  34141 34142  "1 "    0     # TRAN from  PAN2_TAP 115.00   (2) to (1)   WHD_PAN2  13.80
1  34148 34149  "1 "    0     # line from  CHENY    115.00   (2) to (3)   CHENYT   115.00
1  34149 34158  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00
1  34149 34354  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00
4  34148     0  "1 "    0     # LOAD-DROP    CHENY    115.00  LOAD==13.74(3.13)
3  34142     0  "1 "    0     # GEN-DROP    WHD_PAN2  13.80  GEN==49.00(3.41)
0
 #
 #
 # (51)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34150 34154  "1 "    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00
1  34150 34178  "1 "    0     # line from  NEWHALL  115.00   (2) to (3)   MADERAPR 115.00
1  34178 34156  "1 "    0     # line from  MADERAPR 115.00   (3) to BRKR  MENDOTA  115.00
2  34178 34179  "1 "    0     # TRAN from  MADERAPR 115.00   (3) to (1)   MADERA_G  13.80
4  34150     0  "2 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==7.15(1.63)
4  34150     0  "3 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==7.89(1.80)
4  34179     0  "SG"    0     # LOAD-DROP    MADERA_G  13.80  LOAD==3.60(1.47)
3  34179     0  "1 "    0     # GEN-DROP    MADERA_G  13.80  GEN==27.60(-0.99)
0
 #
 #
 # (52)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34157 34156  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00
1  34157 34158  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00
3  34186     0  "1 "    0       # DG_PAN Unit will trip for this outage
0
 #
 #
 # (53)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34158 34188  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   P0406    115.00
2  34188 34347  "1 "    0     # TRAN from  P0406    115.00   (2) to (1)   P0406     13.80
4  34347     0  "SG"    0     # LOAD-DROP    P0406     13.80  LOAD==2.70(1.49)
3  34347     0  "1 "    0     # GEN-DROP    P0406     13.80  GEN==102.60(17.10)
0
 #
 #
 # (54)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34158 34350  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00
1  34350 34352  "1 "    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00
1  34352 34432  "1 "    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00
1  34432 34354  "1 "    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00
4  34350     0  "1 "    0     # LOAD-DROP    KAMM     115.00  LOAD==3.96(1.80)
4  34352     0  "1 "    0     # LOAD-DROP    CANTUA   115.00  LOAD==13.04(2.97)
4  34432     0  "16"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)
4  34432     0  "18"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)
0
 #
 #
 # (55)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34159 34158  "1 "    0     # line from  PANOCHEJ 115.00   (3) to BRKR  PANOCHE  115.00
1  34159 34160  "1 "    0     # line from  PANOCHEJ 115.00   (3) to (2)   HAMMONDS 115.00
1  34159 34180  "1 "    0     # line from  PANOCHEJ 115.00   (3) to (3)   OXFRDJCT 115.00
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1  34160 34161  "1 "    0     # line from  HAMMONDS 115.00   (2) to (3)   DFSTP    115.00
1  34161 34162  "1 "    0     # line from  DFSTP    115.00   (3) to BRKR  ORO LOMA 115.00
1  34161 34164  "1 "    0     # line from  DFSTP    115.00   (3) to (1)   DFS      115.00
1  34180 34166  "1 "    0     # line from  OXFRDJCT 115.00   (3) to (1)   OXFORD   115.00
1  34180 34181  "1 "    0     # line from  OXFRDJCT 115.00   (3) to (3)   WSTLDJCT 115.00
1  34181 34182  "1 "    0     # line from  WSTLDJCT 115.00   (3) to (1)   WSTLD1RA 115.00
1  34181 34183  "1 "    0     # line from  WSTLDJCT 115.00   (3) to (3)   LUISJCT  115.00
1  34183 34163  "1 "    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#3  115.00
1  34183 34165  "1 "    0     # line from  LUISJCT  115.00   (3) to (1)   LUIS_#5  115.00
4  34160     0  "1 "    0     # LOAD-DROP    HAMMONDS 115.00  LOAD==9.52(2.17)
4  34164     0  "1 "    0     # LOAD-DROP    DFS      115.00  LOAD==3.82(2.97)
4  34166     0  "1 "    0     # LOAD-DROP    OXFORD   115.00  LOAD==3.93(1.79)
4  34182     0  "1 "    0     # LOAD-DROP    WSTLD1RA 115.00  LOAD==2.98(0.80)
4  34163     0  "1 "    0     # LOAD-DROP    LUIS_#3  115.00  LOAD==3.30(0.78)
4  34165     0  "1 "    0     # LOAD-DROP    LUIS_#5  115.00  LOAD==3.40(0.81)
0
 #
 #
 # (56)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (57)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34218  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (2)   DOS PALS  70.00
1  34218 34216  "1 "    0     # line from  DOS PALS  70.00   (2) to BRKR  SNTA RTA  70.00
4  34218     0  "1 "    0     # LOAD-DROP    DOS PALS  70.00  LOAD==8.36(1.91)
0
 #
 #
 # (58)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==7.43(1.69)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.60(1.74)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==5.73(1.31)
0
 #
 #
 # (59)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34200 34234  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (2)   POSO J1   70.00
1  34234 34266  "1 "    0     # line from  POSO J1   70.00   (2) to (2)   FIREBAGH  70.00
1  34266 34267  "1 "    0     # line from  FIREBAGH  70.00   (2) to (2)   TOMATAK   70.00
1  34267 34268  "1 "    0     # line from  TOMATAK   70.00   (2) to BRKR  MENDOTA   70.00
4  34266     0  "1 "    0     # LOAD-DROP    FIREBAGH  70.00  LOAD==9.52(2.17)
4  34267     0  "1 "    0     # LOAD-DROP    TOMATAK   70.00  LOAD==5.50(4.27)
0
 #
 #
 # (60)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34202 34230  "1 "    0     # line from  MERCED    70.00  BRKR to BRKR  MRCDFLLS  70.00
0
 #
 #
 # (61)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34202 34236  "1 "    0     # line from  MERCED    70.00  BRKR to (2)   POSO J2   70.00
1  34236 34238  "1 "    0     # line from  POSO J2   70.00   (2) to BRKR  BONITA    70.00
0
 #
 #
 # (62)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34204 34212  "1 "    0     # line from  LIVNGSTN  70.00   (1) to (3)   LVNGSTNT  70.00
1  34212 34206  "1 "    0     # line from  LVNGSTNT  70.00   (3) to BRKR  CANAL     70.00
1  34212 34210  "1 "    0     # line from  LVNGSTNT  70.00   (3) to (2)   SNTA NLA  70.00
1  34210 34208  "1 "    0     # line from  SNTA NLA  70.00   (2) to (2)   CHEVPIPE  70.00
```

```
1  34208 34214  "1 "    0     # line from  CHEVPIPE  70.00   (2) to BRKR  LOS BANS  70.00
4  34204     0  "2 "    0     # LOAD-DROP    LIVNGSTN  70.00  LOAD==14.19(3.23)
4  34210     0  "1 "    0     # LOAD-DROP    SNTA NLA  70.00  LOAD==11.19(2.55)
4  34208     0  "1 "    0     # LOAD-DROP    CHEVPIPE  70.00  LOAD==1.32(0.89)
0
 #
 #
 # (63)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34206 34216  "1 "    0     # line from  CANAL     70.00  BRKR to BRKR  SNTA RTA  70.00
0
 #
 #
 # (64)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34214 34278  "1 "    0     # line from  LOS BANS  70.00  BRKR to (2)   PCHCO PP  70.00
1  34278 34280  "1 "    0     # line from  PCHCO PP  70.00   (2) to (2)   INTL TUR  70.00
2  34280 34342  "1 "    0     # TRAN from  INTL TUR  70.00   (2) to (1)   INT.TURB   9.11
4  34278     0  "1 "    0     # LOAD-DROP    PCHCO PP  70.00  LOAD==18.00(4.10)
3  34342     0  "1 "    0     # GEN-DROP    INT.TURB   9.11  GEN==1.08(0.00)
0
 #
 #
 # (65)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34214 34282  "1 "    0     # line from  LOS BANS  70.00  BRKR to (2)   ONLL PMP  70.00
2  34282 34316  "1 "    0     # TRAN from  ONLL PMP  70.00   (2) to (1)   ONEILPMP   9.11
4  34282     0  "1 "    0     # LOAD-DROP    ONLL PMP  70.00  LOAD==6.00(1.20)
3  34316     0  "1 "    0     # GEN-DROP    ONEILPMP   9.11  GEN==0.52(0.00)
0
 #
 #
 # (66)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34228 34232  "1 "    0     # line from  MARIPOS2  70.00   (1) to BRKR  EXCHEQUR  70.00
4  34228     0  "1 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==5.45(1.24)
4  34228     0  "2 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==6.03(1.37)
1  34228 34244  "1 "    1      # Switches in Mariposa SW 39 to transfer load
4  34228     0  "**"    1      # Restore Load at Mariposa
0
 #
 #
 # (67)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34232 34242  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (2)   BER VLLY  70.00
1  34242 34244  "1 "    0     # line from  BER VLLY  70.00   (2) to (2)   BRCEBG J  70.00
1  34244 34246  "1 "    0     # line from  BRCEBG J  70.00   (2) to (3)   SAXONCRK  70.00
1  34246 34248  "1 "    0     # line from  SAXONCRK  70.00   (3) to (2)   INDN FLT  70.00
2  34246 34346  "1 "    0     # TRAN from  SAXONCRK  70.00   (3) to (1)   SAXNCK L   4.16
1  34248 34250  "1 "    0     # line from  INDN FLT  70.00   (2) to (1)   YOSEMITE  70.00
4  34242     0  "1 "    0     # LOAD-DROP    BER VLLY  70.00  LOAD==3.66(0.84)
4  34246     0  "1 "    0     # LOAD-DROP    SAXONCRK  70.00  LOAD==1.51(1.09)
4  34248     0  "1 "    0     # LOAD-DROP    INDN FLT  70.00  LOAD==2.05(0.47)
4  34250     0  "1 "    0     # LOAD-DROP    YOSEMITE  70.00  LOAD==2.70(0.00)
0
 #
 #
 # (68)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34237 34255  "1 "    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00
1  34237 34240  "1 "    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00
1  34255 34238  "1 "    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00
1  34255 34254  "1 "    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00
1  34254 34264  "1 "    0     # line from  TRIGO     70.00   (2) to (2)   EL PECO   70.00
1  34264 34466  "1 "    0     # line from  EL PECO   70.00   (2) to BRKR  BIOLA     70.00
4  34237     0  "1 "    0     # LOAD-DROP    CANANDGA  70.00  LOAD==5.52(4.14)
4  34264     0  "1 "    0     # LOAD-DROP    EL PECO   70.00  LOAD==6.04(1.38)
1  34238 34236  "1 "    1      # Switches in Bonita SW23 to transfer load
4  34238     0  "1 "    1      # Restore Load at Bonita
0
 #
 #
 # (69)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34240 34252  "1 "    0     # line from  GLASS     70.00  BRKR to BRKR  MADERA    70.00
0
 #
 #
 # (70)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
 #
1  34252 34256  "1 "    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00
0
 #
 #
 # (71)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34252 34256  "2 "    0     # line from  MADERA    70.00  BRKR to BRKR  BORDEN    70.00
0
 #
 #
 # (72)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34256 34262  "1 "    0     # line from  BORDEN    70.00  BRKR to (2)   CASSIDY   70.00
1  34262 34454  "1 "    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00
1  34454 34464  "1 "    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00
4  34262     0  "1 "    0     # LOAD-DROP    CASSIDY   70.00  LOAD==8.51(1.94)
4  34454     0  "1 "    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)
0
 #
 #
 # (73)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34259 34261  "1 "    0     # line from  NRTHFORK  70.00   (3) to (2)   SJNO3     70.00
1  34259 34260  "1 "    0     # line from  NRTHFORK  70.00   (3) to (3)   SJNO2     70.00
2  34259 34340  "1 "    0     # TRAN from  NRTHFORK  70.00   (3) to (1)   N.FORK E   9.11
2  34261 34633  "1 "    0     # TRAN from  SJNO3     70.00   (2) to (1)   SJ3GEN     9.11
1  34260 34452  "1 "    0     # line from  SJNO2     70.00   (3) to BRKR  WISHON    70.00
2  34260 34631  "1 "    0     # TRAN from  SJNO2     70.00   (3) to (1)   SJ2GEN     9.11
4  34261     0  "1 "    0     # LOAD-DROP    SJNO3     70.00  LOAD==0.70(0.16)
4  34261     0  "2 "    0     # LOAD-DROP    SJNO3     70.00  LOAD==4.79(1.10)
4  34260     0  "2 "    0     # LOAD-DROP    SJNO2     70.00  LOAD==2.16(0.49)
3  34633     0  "1 "    0     # GEN-DROP    SJ3GEN     9.11  GEN==1.00(0.00)
3  34631     0  "1 "    0     # GEN-DROP    SJ2GEN     9.11  GEN==2.05(0.00)
0
 #
 #
 # (74)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34269 34268  "1 "    0     # line from  BIOMSJCT  70.00   (3) to BRKR  MENDOTA   70.00
1  34269 34270  "1 "    0     # line from  BIOMSJCT  70.00   (3) to (2)   BIOMASS   70.00
1  34269 34271  "1 "    0     # line from  BIOMSJCT  70.00   (3) to (3)   WSTLDJCT  70.00
2  34270 34334  "1 "    0     # TRAN from  BIOMASS   70.00   (2) to (1)   BIO PWR    9.11
1  34271 34172  "1 "    0     # line from  WSTLDJCT  70.00   (3) to (2)   WESTLAND  70.00
1  34271 34469  "1 "    0     # line from  WSTLDJCT  70.00   (3) to (3)   GFFNJCT   70.00
1  34172 34170  "1 "    0     # line from  WESTLAND  70.00   (2) to (1)   WESIX     70.00
1  34469 34470  "1 "    0     # line from  GFFNJCT   70.00   (3) to (1)   GIFFEN    70.00
1  34469 34471  "1 "    0     # line from  GFFNJCT   70.00   (3) to (3)   SNJQJCT   70.00
1  34471 34472  "1 "    0     # line from  SNJQJCT   70.00   (3) to BRKR  SAN JOQN  70.00
1  34471 34474  "1 "    0     # line from  SNJQJCT   70.00   (3) to BRKR  HELM      70.00
4  34172     0  "1 "    0     # LOAD-DROP    WESTLAND  70.00  LOAD==3.20(0.73)
4  34170     0  "1 "    0     # LOAD-DROP    WESIX     70.00  LOAD==1.60(0.36)
4  34470     0  "1 "    0     # LOAD-DROP    GIFFEN    70.00  LOAD==7.10(1.62)
4  34472     0  "1 "    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==7.17(1.64)
4  34472     0  "2 "    0     # LOAD-DROP    SAN JOQN  70.00  LOAD==3.43(0.78)
3  34334     0  "1 "    0     # GEN-DROP    BIO PWR    9.11  GEN==21.88(2.97)
1  34472 34473  "1 "    1      # Switches in San Joaquin CB22 to transfer load
4  34472     0  "**"    1      # Restore Load at San Joaquin
0
 #
 #
 # (75)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34321 34226  "1 "    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00
1  34321 34230  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00
1  34321 34232  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00
2  34226 34320  "1 "    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11
3  34320     0  "1 "    0     # GEN-DROP    MCSWAIN    9.11  GEN==8.00(2.00)
0
 #
 #
 # (76)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34356 34358  "1 "    0     # line from  KERCKHF1 115.00  BRKR to BRKR  KERCKHF2 115.00
0
 #
 #
 # (77)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
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APPENDIX B – AUTOCON INPUT FILE

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1  34358 34360  "1 "    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00
1  34360 34414  "1 "    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00
1  34360 34363  "1 "    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00
1  34363 34362  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00
1  34363 34366  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00
4  34362     0  "1 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==37.16(8.47)
4  34362     0  "2 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==37.24(8.49)
1 34362  34364  "1 "    1      # Switches in Clovis SW 387 to transfer load
4 34362      0  "**"    1      # Restore Load at Clovis 1
0
 #
 #
 # (78)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34364 34365  "1 "    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00
1  34365 34358  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00
1  34365 34366  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00
4  34364     0  "3 "    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==40.42(9.21)
1 34362  34364  "1 "    1      # Switches in Clovis SW 387 to transfer load
4 34364      0  "**"    1      # Restore Load at Clovis 2
0
 #
 #
 # (79)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.54)
0
 #
 #
 # (80)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (81)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "2 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (82)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34370  "3 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
0
 #
 #
 # (83)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34372  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MALAGA   115.00
0
 #
 #
 # (84)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34389  "1 "    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00
1  34389 34388  "1 "    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBW   115.00
1  34389 34394  "1 "    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00
1  34394 34380  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00
1  34394 34400  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGSRVR1 115.00
4  34388     0  "1 "    0     # LOAD-DROP    RAINBW   115.00  LOAD==10.36(2.36)
0
 #
 #
 # (85)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34396  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00
1  34396 34398  "1 "    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00
2  34398 34624  "1 "    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20
4  34624     0  "1 "    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.26(0.00)
3  34624     0  "1 "    0     # GEN-DROP    BALCH 1   13.20  GEN==27.50(5.22)
0
 #
 #
 # (86)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34366 34408  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00
```

APPENDIX B – AUTOCON INPUT FILE

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0
 #
 #
 # (87)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34369 34370  "1 "    0     # line from  P0418    115.00   (4) to BRKR  MC CALL  115.00
2  34369 34661  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT1  13.80
2  34369 34663  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT2  13.80
2  34369 34665  "1 "    0     # TRAN from  P0418    115.00   (4) to (1)   P0418CT3  13.80
4  34661     0  "SG"   0     # LOAD-DROP    P0418CT1  13.80  LOAD==2.70(1.49)
4  34663     0  "SG"   0     # LOAD-DROP    P0418CT2  13.80  LOAD==2.70(1.49)
4  34665     0  "SG"   0     # LOAD-DROP    P0418CT3  13.80  LOAD==2.70(1.49)
3  34661     0  "1 "   0     # GEN-DROP    P0418CT1  13.80  GEN==102.60(12.07)
3  34663     0  "1 "   0     # GEN-DROP    P0418CT2  13.80  GEN==102.60(12.07)
3  34665     0  "1 "   0     # GEN-DROP    P0418CT3  13.80  GEN==102.60(12.07)
0
 #
 #
 # (88)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34377  "1 "    0     # line from  MC CALL  115.00  BRKR to (2)   AIRPROD  115.00
1  34377 34375  "1 "    0     # line from  AIRPROD  115.00   (2) to (3)   ULTPWRJ  115.00
1  34375 34379  "1 "    0     # line from  ULTPWRJ  115.00   (3) to (3)   MALAGATP 115.00
2  34375 34640  "1 "    0     # TRAN from  ULTPWRJ  115.00   (3) to (1)   ULTR.PWR   9.11
1  34379 34372  "1 "    0     # line from  MALAGATP 115.00   (3) to BRKR  MALAGA   115.00
1  34379 34373  "1 "    0     # line from  MALAGATP 115.00   (3) to (3)   SCWAXJCT 115.00
1  34373 34371  "1 "    0     # line from  SCWAXJCT 115.00   (3) to (1)   SCWAX    115.00
1  34373 34374  "1 "    0     # line from  SCWAXJCT 115.00   (3) to (1)   RANCHRS  115.00
4  34377     0  "1 "   0     # LOAD-DROP    AIRPROD  115.00  LOAD==5.10(2.02)
4  34371     0  "1 "   0     # LOAD-DROP    SCWAX    115.00  LOAD==2.50(1.42)
4  34374     0  "1 "   0     # LOAD-DROP    RANCHRS  115.00  LOAD==5.74(1.31)
3  34640     0  "1 "   0     # GEN-DROP    ULTR.PWR   9.11  GEN==14.46(13.00)
0
 #
 #
 # (89)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34382  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WAHTOKE  115.00
0
 #
 #
 # (90)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34385  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   KINGS J1 115.00
1  34385 34417  "1 "    0     # line from  KINGS J1 115.00   (3) to (2)   KINGS J2 115.00
1  34385 34418  "1 "    0     # line from  KINGS J1 115.00   (3) to BRKR  KINGSBRG 115.00
1  34417 34425  "1 "    0     # line from  KINGS J2 115.00   (2) to (3)   KCOGNJCT 115.00
1  34425 34387  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (1)   SUNMAID  115.00
1  34425 34427  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (2)   GRDNGLS2 115.00
1  34427 34386  "1 "    0     # line from  GRDNGLS2 115.00   (2) to (2)   KNGSCOGN 115.00
2  34386 34642  "1 "    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11
4  34387     0  "1 "   0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.10(2.99)
3  34642     0  "1 "   0     # GEN-DROP    KINGSBUR   9.11  GEN==34.00(17.30)
0
 #
 #
 # (91)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34402  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  CAL AVE  115.00
0
 #
 #
 # (92)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34404  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00
0
 #
 #
 # (93)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34370 34423  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00
1  34423 34418  "1 "    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00
1  34423 34421  "1 "    0     # line from  GAURD J1 115.00   (3) to (2)   GAURD J2 115.00
1  34421 34424  "1 "    0     # line from  GAURD J2 115.00   (2) to (1)   GRDN GLS 115.00
4  34424     0  "1 "   0     # LOAD-DROP    GRDN GLS 115.00  LOAD==10.05(3.30)
0
 #
 #
 # (94)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
```

```
 #
1  34372 34376  "1 "    0     # line from  MALAGA   115.00  BRKR to (1)   PPG      115.00
4  34376     0  "1 "    0     # LOAD-DROP    PPG      115.00  LOAD==4.90(3.04)
0
 #
 #
 # (95)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34372 34381  "1 "    0     # line from  MALAGA   115.00  BRKR to (3)   KRCDP    115.00
2  34381 34671  "1 "    0     # TRAN from  KRCDP    115.00   (3) to (1)   KRCDPCT1  13.80
2  34381 34672  "1 "    0     # TRAN from  KRCDP    115.00   (3) to (1)   KRCDPCT2  13.80
4  34671     0  "SG"    0     # LOAD-DROP    KRCDPCT1  13.80  LOAD==1.20(0.74)
4  34672     0  "SG"    0     # LOAD-DROP    KRCDPCT2  13.80  LOAD==1.20(0.74)
3  34671     0  "1 "    0     # GEN-DROP    KRCDPCT1  13.80  GEN==49.70(2.20)
3  34672     0  "1 "    0     # GEN-DROP    KRCDPCT2  13.80  GEN==49.70(2.20)
0
 #
 #
 # (96)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34380 34384  "1 "    0     # line from  REEDLEY  115.00  BRKR to (2)   GERAWAN  115.00
1  34384 34382  "1 "    0     # line from  GERAWAN  115.00   (2) to BRKR  WAHTOKE  115.00
0
 #
 #
 # (97)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34390 34402  "1 "    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00
1  34390 34407  "1 "    0     # line from  DANISHCM 115.00   (2) to (2)   WFRES J2 115.00
1  34407 34404  "1 "    0     # line from  WFRES J2 115.00   (2) to BRKR  WST FRSO 115.00
4  34390     0  "1 "    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.85(3.29)
0
 #
 #
 # (98)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34391 34392  "1 "    0     # line from  QUEBECTP 115.00   (3) to (1)   QUEBEC   115.00
1  34391 34420  "1 "    0     # line from  QUEBECTP 115.00   (3) to BRKR  CORCORAN 115.00
1  34391 34426  "1 "    0     # line from  QUEBECTP 115.00   (3) to BRKR  ALPAUGH  115.00
4  34392     0  "1 "    0     # LOAD-DROP    QUEBEC   115.00  LOAD==11.40(7.96)
0
 #
 #
 # (99)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
0
 #
 #
 # (100)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34409 34413  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00
1  34409 34416  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00
1  34409 34412  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00
4  34413     0  "1 "    0     # LOAD-DROP    PNEDLE   115.00  LOAD==17.17(3.92)
1  34411 34413  "1 "    1      # Switches in Pinedale CB#12 to transfer load
4  34413     0  "**"    1      # Restore load at Pinedale
0
 #
 #
 # (101)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34410 34412  "1 "    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00
0
 #
 #
 # (102)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34411 34416  "1 "    0     # line from  PNDLJ1   115.00   (2) to BRKR  BULLARD  115.00
1  34411 34412  "1 "    0     # line from  PNDLJ1   115.00   (2) to BRKR  HERNDON  115.00
0
 #
 #
 # (103)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34412 34422  "1 "    0     # line from  HERNDON  115.00  BRKR to (2)   CHLDHOSP 115.00
1  34422 34414  "1 "    0     # line from  CHLDHOSP 115.00   (2) to BRKR  WOODWARD 115.00
4  34422     0  "1 "    0     # LOAD-DROP    CHLDHOSP 115.00  LOAD==3.80(1.73)
0
```

APPENDIX B – AUTOCON INPUT FILE

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 #
 #
 # (104)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34420  "1 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
0
 #
 #
 # (105)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34420  "2 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
0
 #
 #
 # (106)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34418 34428  "1 "    0     # line from  KINGSBRG 115.00  BRKR to (2)   CONTADNA 115.00
1  34428 34429  "1 "    0     # line from  CONTADNA 115.00   (2) to BRKR  GWF_HEP  115.00
4  34428     0  "1 "    0     # LOAD-DROP    CONTADNA 115.00  LOAD==7.56(5.67)
0
 #
 #
 # (107)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34426 34700  "1 "    0     # line from  ALPAUGH  115.00  BRKR to BRKR  SMYRNA   115.00
0
 #
 #
 # (108)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34430 34521  "1 "    0     # line from  HENRETTA 115.00  BRKR to (2)   LEPRNOFD 115.00
1  34521 34429  "1 "    0     # line from  LEPRNOFD 115.00   (2) to BRKR  GWF_HEP  115.00
4  34521     0  "1 "    0     # LOAD-DROP    LEPRNOFD 115.00  LOAD==14.00(9.41)
0
 #
 #
 # (109)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34452 34491  "1 "    0     # line from  WISHON    70.00  BRKR to (3)   AUBRYTP   70.00
1  34491 34464  "1 "    0     # line from  AUBRYTP   70.00   (3) to BRKR  COPPRMNE  70.00
1  34491 34493  "1 "    0     # line from  AUBRYTP   70.00   (3) to (1)   AUBERRY   70.00
4  34493     0  "1 "    0     # LOAD-DROP    AUBERRY   70.00  LOAD==4.24(0.97)
4  34493     0  "2 "    0     # LOAD-DROP    AUBERRY   70.00  LOAD==4.89(1.12)
0
 #
 #
 # (110)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34456 34458  "1 "    0     # line from  HRDWK TP  70.00   (3) to (1)   HARDWICK  70.00
1  34456 34522  "1 "    0     # line from  HRDWK TP  70.00   (3) to (2)   HNFRD SW  70.00
1  34456 34576  "1 "    0     # line from  HRDWK TP  70.00   (3) to BRKR  KNGLOBUS  70.00
1  34522 34518  "1 "    0     # line from  HNFRD SW  70.00   (2) to BRKR  LEMOORE   70.00
4  34458     0  "1 "    0     # LOAD-DROP    HARDWICK  70.00  LOAD==8.50(1.94)
0
 #
 #
 # (111)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34460 34462  "1 "    0     # line from  GUERNSEY  70.00  BRKR to (3)   GUR3TPT   70.00
1  34462 34542  "1 "    0     # line from  GUR3TPT   70.00   (3) to (2)   JCBSCRNR  70.00
1  34462 34554  "1 "    0     # line from  GUR3TPT   70.00   (3) to BRKR  AMSTG SW  70.00
1  34542 34540  "1 "    0     # line from  JCBSCRNR  70.00   (2) to BRKR  HENRITTA  70.00
4  34460     0  "1 "    0     # LOAD-DROP    GUERNSEY  70.00  LOAD==10.88(2.48)
4  34542     0  "1 "    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==7.86(1.79)
4  34542     0  "2 "    0     # LOAD-DROP    JCBSCRNR  70.00  LOAD==8.59(1.96)
1  34528 34460  "1 "    1      # Switches in Guernsey CB52 to transfer load
4  34460     0  "**"    1      # Restore load at Guernsey
1  34554 34522  "1 "    1      # Switches in Armstrong SW37 to transfer load and gen
0
 #
 #
 # (112)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34464 34478  "1 "    0     # line from  COPPRMNE  70.00  BRKR to BRKR  TVY VLLY  70.00
0
 #
 #
 # (113)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
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```
1  34466 34482  "1 "    0     # line from  BIOLA     70.00  BRKR to BRKR  OLDKERN   70.00
0
 #
 #
 # (114)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34468 34482  "1 "    0     # line from  BOWLES    70.00   (1) to BRKR  OLDKERN   70.00
4  34468     0  "1 "    0     # LOAD-DROP    BOWLES    70.00  LOAD==14.26(3.25)
0
 #
 #
 # (115)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34473 34475  "1 "    0     # line from  SNJQTP    70.00   (2) to (3)   AGRCJCT   70.00
1  34473 34474  "1 "    0     # line from  SNJQTP    70.00   (2) to BRKR  HELM      70.00
1  34475 34476  "1 "    0     # line from  AGRCJCT   70.00   (3) to (2)   AGRICO    70.00
1  34475 34484  "1 "    0     # line from  AGRCJCT   70.00   (3) to BRKR  KERMAN    70.00
2  34476 34608  "1 "    0     # TRAN from  AGRICO    70.00   (2) to (2)   AGRICO    13.80
1  34608 34609  "1 "    0     # line from  AGRICO    13.80   (2) to (1)   FRESNOCG  13.80
3  34608     0  "2 "    0     # GEN-DROP    AGRICO    13.80  GEN==7.50(-0.27)
3  34608     0  "3 "    0     # GEN-DROP    AGRICO    13.80  GEN==18.00(-0.66)
3  34609     0  "4 "    0     # GEN-DROP    FRESNOCG  13.80  GEN==25.50(0.00)
0
 #
 #
 # (116)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34474 34556  "1 "    0     # line from  HELM      70.00  BRKR to BRKR  STRD JCT  70.00
0
 #
 #
 # (117)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34474 34568  "1 "    0     # line from  HELM      70.00  BRKR to BRKR  VLY NTRN  70.00
4  34568     0  "1 "    0     # LOAD-DROP    VLY NTRN  70.00  LOAD==0.95(0.76)
0
 #
 #
 # (118)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34478 34492  "1 "    0     # line from  TVY VLLY  70.00  BRKR to BRKR  REEDLEY   70.00
0
 #
 #
 # (119)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34482  "1 "    0     # line from  KEARNEY   70.00  BRKR to (3)   OLDKERN   70.00
1  34482 34466  "1 "    0     # line from  OLDKERN   70.00  BRKR to BRKR  BIOLA     70.00
1  34482 34468  "1 "    0     # line from  OLDKERN   70.00  BRKR to (1)   BOWLES    70.00
4  34482     0  "1 "    0     # LOAD-DROP    OLDKERN   70.00  LOAD==10.07(2.30)
4  34482     0  "3 "    0     # LOAD-DROP    OLDKERN   70.00  LOAD==7.16(1.63)
4  34468     0  "1 "    0     # LOAD-DROP    BOWLES    70.00  LOAD==14.26(3.25)
0
 #
 #
 # (120)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34484  "1 "    0     # line from  KEARNEY   70.00  BRKR to BRKR  KERMAN    70.00
0
 #
 #
 # (121)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34480 34512  "1 "    0     # line from  KEARNEY   70.00  BRKR to BRKR  CARUTHRS  70.00
0
 #
 #
 # (122)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34487 34489  "1 "    0     # line from  SNGRJCT   70.00   (3) to (2)   SNGRCOGN  70.00
1  34487 34490  "1 "    0     # line from  SNGRJCT   70.00   (3) to (2)   PARLIER   70.00
1  34487 34488  "1 "    0     # line from  SNGRJCT   70.00   (3) to BRKR  SANGER    70.00
2  34489 34646  "1 "    0     # TRAN from  SNGRCOGN  70.00   (2) to (1)   SANGERCO   9.11
1  34490 34492  "1 "    0     # line from  PARLIER   70.00   (2) to BRKR  REEDLEY   70.00
4  34490     0  "1 "    0     # LOAD-DROP    PARLIER   70.00  LOAD==11.77(2.68)
3  34646     0  "1 "    0     # GEN-DROP    SANGERCO   9.11  GEN==37.50(-7.89)
0
 #
 #
```

```
 # (123)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34492 34497  "1 "    0     # line from  REEDLEY   70.00  BRKR to (3)   DNUBAJCT  70.00
1  34497 34499  "1 "    0     # line from  DNUBAJCT  70.00   (3) to (2)   DNUBAEGY  70.00
1  34497 34500  "1 "    0     # line from  DNUBAJCT  70.00   (3) to BRKR  DINUBA    70.00
2  34499 34648  "1 "    0     # TRAN from  DNUBAEGY  70.00   (2) to (1)   DINUBA E  13.80
4  34648     0  "1 "    0     # LOAD-DROP    DINUBA E  13.80  LOAD==1.00(0.86)
3  34648     0  "1 "    0     # GEN-DROP    DINUBA E  13.80  GEN==12.50(7.00)
0
 #
 #
 # (124)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34492 34526  "1 "    0     # line from  REEDLEY   70.00  BRKR to (3)   ORSI JCT  70.00
1  34526 34495  "1 "    0     # line from  ORSI JCT  70.00   (3) to (2)   SANDCRK   70.00
1  34526 34502  "1 "    0     # line from  ORSI JCT  70.00   (3) to BRKR  OROSI     70.00
1  34495 34494  "1 "    0     # line from  SANDCRK   70.00   (2) to (1)   DUNLAP    70.00
4  34495     0  "1 "    0     # LOAD-DROP    SANDCRK   70.00  LOAD==1.51(0.34)
4  34494     0  "1 "    0     # LOAD-DROP    DUNLAP    70.00  LOAD==3.43(0.78)
0
 #
 #
 # (125)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34496 34498  "1 "    0     # line from  STCRRL J  70.00   (3) to (1)   STONCRRL  70.00
1  34496 34500  "1 "    0     # line from  STCRRL J  70.00   (3) to BRKR  DINUBA    70.00
1  34496 34502  "1 "    0     # line from  STCRRL J  70.00   (3) to (2)   OROSI     70.00
1  34502 34526  "1 "    0     # line from  OROSI     70.00  BRKR to (1)   ORSI JCT  70.00
4  34498     0  "2 "    0     # LOAD-DROP    STONCRRL  70.00  LOAD==2.53(0.57)
4  34498     0  "3 "    0     # LOAD-DROP    STONCRRL  70.00  LOAD==2.53(0.57)
4  34502     0  "1 "    0     # LOAD-DROP    OROSI     70.00  LOAD==5.09(1.16)
4  34502     0  "2 "    0     # LOAD-DROP    OROSI     70.00  LOAD==4.93(1.12)
0
 #
 #
 # (126)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34508 34510  "1 "    0     # line from  CAMDEN    70.00   (2) to (2)   CMDN JCT  70.00
1  34508 34576  "1 "    0     # line from  CAMDEN    70.00   (2) to BRKR  KNGLOBUS  70.00
1  34510 34512  "1 "    0     # line from  CMDN JCT  70.00   (2) to BRKR  CARUTHRS  70.00
4  34508     0  "1 "    0     # LOAD-DROP    CAMDEN    70.00  LOAD==6.86(1.57)
4  34508     0  "2 "    0     # LOAD-DROP    CAMDEN    70.00  LOAD==6.61(1.50)
0
 #
 #
 # (127)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34514 34540  "1 "    0     # line from  MUSLSLGH  70.00   (1) to BRKR  HENRITTA  70.00
4  34514     0  "1 "    0     # LOAD-DROP    MUSLSLGH  70.00  LOAD==22.00(13.63)
0
 #
 #
 # (128)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34516 34520  "1 "    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00
1  34520 34518  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00
1  34520 34524  "1 "    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00
1  34520 34540  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00
4  34516     0  "1 "    0     # LOAD-DROP    LEPRINO   70.00  LOAD==6.58(3.73)
0
 #
 #
 # (129)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34528 34530  "1 "    0     # line from  CORCORAN  70.00  BRKR to (3)   BSWLL TP  70.00
1  34530 34536  "1 "    0     # line from  BSWLL TP  70.00   (3) to (1)   ANGIOLA   70.00
1  34530 34538  "1 "    0     # line from  BSWLL TP  70.00   (3) to (1)   BOSWELL   70.00
4  34536     0  "1 "    0     # LOAD-DROP    ANGIOLA   70.00  LOAD==7.16(1.63)
4  34538     0  "1 "    0     # LOAD-DROP    BOSWELL   70.00  LOAD==0.94(0.61)
0
 #
 #
 # (130)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34532 34554  "1 "    0     # line from  ARMSTRNG  70.00   (1) to (4)   AMSTG SW  70.00
1  34554 34462  "1 "    0     # line from  AMSTG SW  70.00  BRKR to (1)   GUR3TPT   70.00
1  34554 34534  "1 "    0     # line from  AMSTG SW  70.00   (4) to (1)   RESERVE   70.00
2  34554 34650  "1 "    0     # TRAN from  AMSTG SW  70.00  BRKR to (1)   GWF-PWR.  13.80
4  34534     0  "1 "    0     # LOAD-DROP    RESERVE   70.00  LOAD==1.64(0.37)
```

```
3  34650     0  "1 "    0     # GEN-DROP    GWF-PWR.  13.80  GEN==23.00(12.00)
0
 #
 #
 # (131)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34537 34540  "1 "    0     # line from  GWF_HENR  70.00   (3) to BRKR  HENRITTA  70.00
2  34537 34539  "1 "    0     # TRAN from  GWF_HENR  70.00   (3) to (1)   GWF_GT1   13.80
2  34537 34541  "1 "    0     # TRAN from  GWF_HENR  70.00   (3) to (1)   GWF_GT2   13.80
4  34539     0  "1 "    0     # LOAD-DROP    GWF_GT1   13.80  LOAD==1.10(0.25)
4  34541     0  "1 "    0     # LOAD-DROP    GWF_GT2   13.80  LOAD==1.10(0.25)
3  34539     0  "1 "    0     # GEN-DROP    GWF_GT1   13.80  GEN==49.00(3.54)
3  34541     0  "1 "    0     # GEN-DROP    GWF_GT2   13.80  GEN==49.00(3.54)
0
 #
 #
 # (132)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34544 34550  "1 "    0     # line from  TLRE LKE  70.00  BRKR to (2)   CHEVPLIN  70.00
1  34550 34546  "1 "    0     # line from  CHEVPLIN  70.00   (2) to (2)   AVENAL    70.00
1  34546 34548  "1 "    0     # line from  AVENAL    70.00   (2) to BRKR  KETTLEMN  70.00
4  34544     0  "1 "    0     # LOAD-DROP    TLRE LKE  70.00  LOAD==6.31(1.44)
4  34550     0  "1 "    0     # LOAD-DROP    CHEVPLIN  70.00  LOAD==2.12(1.53)
4  34546     0  "1 "    0     # LOAD-DROP    AVENAL    70.00  LOAD==9.15(2.29)
0
 #
 #
 # (133)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34548 34552  "1 "    0     # line from  KETTLEMN  70.00   (2) to BRKR  GATES     70.00
1  34548 34546  "1 "    0     # line from  KETTLEMN  70.00  BRKR to (1)   AVENAL    70.00
4  34548     0  "1 "    0     # LOAD-DROP    KETTLEMN  70.00  LOAD==3.39(0.78)
0
 #
 #
 # (134)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34558  "1 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
0
 #
 #
 # (135)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34558  "2 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
1  34558 34560  "1 "    0     # Trip line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00
1  34560 34562  "1 "    0     # Trip line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00
4  34560     0  "1 "    0     # LOAD-DROP    CALFLAX   70.00  LOAD==8.74(1.99)
0
 #
 #
 # (136)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.25(2.86)
0
 #
 #
 # (137)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34556 34562  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00
0
 #
 #
 # (138)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34556 34564  "1 "    0     # line from  STRD JCT  70.00   (3) to BRKR  STROUD    70.00
1  34556 34474  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  HELM      70.00
1  34556 34562  "1 "    0     # line from  STRD JCT  70.00  BRKR to BRKR  SCHLNDLR  70.00
4  34564     0  "1 "    0     # LOAD-DROP    STROUD    70.00  LOAD==7.47(1.71)
0
 #
 #
 # (139)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34562 34566  "1 "    0     # line from  SCHLNDLR  70.00  BRKR to (2)   PLSNTVLY  70.00
1  34566 34570  "1 "    0     # line from  PLSNTVLY  70.00   (2) to BRKR  COLNGA 2  70.00
4  34566     0  "1 "    0     # LOAD-DROP    PLSNTVLY  70.00  LOAD==10.00(2.51)
0
```

```
 #
 #
 # (140)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  34570 34572  "1 "    0     # line from  COLNGA 2  70.00  BRKR to (3)   TORNADO   70.00
1  34572 34574  "1 "    0     # line from  TORNADO   70.00   (3) to BRKR  COLNGA 1  70.00
2  34572 34654  "1 "    0     # TRAN from  TORNADO   70.00   (3) to (1)   COLNGAGN   9.11
4  34572     0  "1 "    0     # LOAD-DROP    TORNADO   70.00  LOAD==1.86(1.54)
3  34654     0  "1 "    0     # GEN-DROP    COLNGAGN   9.11  GEN==34.21(-13.50)
2  34570 34652  "1 "    0      # Must include Colinga2 - Chv.coal in this outage - modeled on bus,
3  34652     0  "**"    0      # Drops units on Derrick Sub
4  34652     0  "**"    0      # Drops load at Derrick Sub
0
 #
 #
 # (141)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  36354 34574  "1 "    0     # line from  SAN MIGL  70.00  BRKR to BRKR  COLNGA 1  70.00
0
 #
 #
 # (142)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (143)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (144)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30765 30069  "1 "    0     # TRAN from  LOSBANOS 230.00  BRKR to (3)   L.BANS M 500.00
2  30069 30050  "1 "    0     # TRAN from  L.BANS M 500.00   (3) to BRKR  LOSBANOS 500.00
2  30069 34302  "1 "    0     # TRAN from  L.BANS M 500.00   (3) to (1)   L.BANS T  13.80
0
 #
 #
 # (145)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (146)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34214 30765  "4 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (147)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34134 30800  "1 "    0     # TRAN from  WILSON A 115.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (148)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34136 30800  "2 "    0     # TRAN from  WILSON B 115.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (149)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34256 30805  "1 "    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00
0
 #
 #
 # (150)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34256 30805  "2 "    0     # TRAN from  BORDEN    70.00  BRKR to BRKR  BORDEN   230.00
0
 #
 #
 # (151)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34600 30820  "1 "    0     # TRAN from  HELMS 1   18.00   (1) to BRKR  HELMS PP 230.00
```

```
 3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  GEN==400.00(107.41)
 0
  #
  #
  # (152)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34602 30820  "1 "    0     # TRAN from  HELMS 2   18.00   (1) to BRKR  HELMS PP 230.00
 3  34602     0  "1 "    0     # GEN-DROP    HELMS 2   18.00  GEN==400.00(107.67)
 0
  #
  #
  # (153)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34604 30820  "1 "    0     # TRAN from  HELMS 3   18.00   (1) to BRKR  HELMS PP 230.00
 3  34604     0  "1 "    0     # GEN-DROP    HELMS 3   18.00  GEN==400.00(107.63)
 0
  #
  #
 #
 # (154)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34480 30830  "2 "    0     # TRAN from  KEARNEY   70.00  BRKR to BRKR  KEARNEY  230.00
0
 #
 #
 # (155)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34474 30873  "1 "    0     # TRAN from  HELM      70.00  BRKR to BRKR  HELM     230.00
0
 #
 #
 # (156)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34540 30881  "2 "    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00
0
 #
 #
 # (157)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30055 30900  "11"    0     # TRAN from  GATES    500.00  BRKR to BRKR  GATES    230.00
0
 #
 #
 # (158)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4  34378     0  "3 "    0     # Drop Gates Bank #3
0
 #
 #
 # (159)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
#      **** 3-WINDING TRANSFORMER  34268  (34174)  34156  34314 :
 2  34268 34156  "1 "    0     # TRAN from  MENDOTA   70.00  BRKR to (3)   MENDOTA  115.00
 1  34156 34178  "1 "    0     # line from  MENDOTA  115.00  BRKR to (1)   MADERAPR 115.00
 1  34156 34157  "1 "    0     # line from  MENDOTA  115.00  BRKR to (1)   PANOCHET 115.00
 0
  #
  #
  # (160)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30790  (30791)  34158  34310 :
 2  30790 34158  "1 "    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00
 0
  #
  #
  # (161)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30790  (30792)  34158  34311 :
 2  30790 34158  "2 "    0     # TRAN from  PANOCHE  230.00  BRKR to (1)   PANOCHE  115.00
 0
  #
  #
  # (162)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34186 34158  "1 "    0     # TRAN from  DG_PAN1   13.80   (1) to BRKR  PANOCHE  115.00
 3  34186     0  "1 "    0     # GEN-DROP    DG_PAN1   13.80  GEN==49.00(2.80)
```

```
 0
  #
  #
  # (163)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34200 34162  "2 "    0     # TRAN from  ORO LOMA  70.00  BRKR to (3)   ORO LOMA 115.00
 1  34162 34161  "1 "    0     # line from  ORO LOMA 115.00  BRKR to (1)   DFSTP    115.00
 1  34162 34168  "1 "    0     # line from  ORO LOMA 115.00  BRKR to (1)   EL NIDO  115.00
 0
  #
  #
  # (164)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34112 34176  "1 "    0     # TRAN from  EXCHEQUR 115.00  BRKR to (3)   EXCHQRTP 115.00
 2  34176 34232  "1 "    0     # TRAN from  EXCHQRTP 115.00   (3) to (4)   EXCHEQUR  70.00
 2  34176 34306  "1 "    0     # TRAN from  EXCHQRTP 115.00   (3) to (1)   EXCHQUER  13.80
 1  34232 34228  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MARIPOS2  70.00
 1  34232 34242  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   BER VLLY  70.00
 1  34232 34321  "1 "    0     # line from  EXCHEQUR  70.00  BRKR to (1)   MCSWAINJ  70.00
 4  34228     0  "1 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==6.50(1.48)
 4  34228     0  "2 "    0     # LOAD-DROP    MARIPOS2  70.00  LOAD==7.17(1.63)
 3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==75.00(10.27)
 1  34228 34244  "1 "    1      # Switches in Mariposa SW 39 to transfer load
 4  34228     0  "**"    1      # Restore Load at Mariposa
 0
  #
  #
  # (165)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  34144  (34146)  34202  34312 :
 2  34144 34202  "2 "    0     # TRAN from  MERCED   115.00  BRKR to (1)   MERCED    70.00
 0
  #
  #
  # (166)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34322 34230  "1 "    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00
 2  34322 34230  "2 "    0     # TRAN from  MERCEDFL   9.11   (2) to BRKR  MRCDFLLS  70.00
 3  34322     0  "1 "    0     # GEN-DROP    MERCEDFL   9.11  GEN==3.00(2.00)
 0
  #
  #
  # (167)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34358 34308  "1 "    0     # TRAN from  KERCKHF2 115.00  BRKR to (1)   KERCKHOF  13.80
 3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  GEN==129.00(16.00)
 0
  #
  #
  # (168)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34356 34344  "1 "    0     # TRAN from  KERCKHF1 115.00  BRKR to (1)   KERCKHOF   6.60
 4  34344     0  "4 "    0     # LOAD-DROP    KERCKHOF   6.60  LOAD==3.19(0.73)
 0
  #
  #
  # (169)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34562 34354  "1 "    0     # TRAN from  SCHLNDLR  70.00  BRKR to (3)   SCHINDLR 115.00
 1  34354 34149  "1 "    0     # line from  SCHINDLR 115.00  BRKR to (1)   CHENYT   115.00
 1  34354 34432  "1 "    0     # line from  SCHINDLR 115.00  BRKR to (1)   WESTLNDS 115.00
 0
  #
  #
  # (170)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30876)  34370  34618 :
 2  30875 34370  "1 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (171)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30875  (30877)  34370  34620 :
 2  30875 34370  "2 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (172)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
```

```
  #
#      **** 3-WINDING TRANSFORMER  30875  (30878)  34370  34621 :
 2  30875 34370  "3 "    0     # TRAN from  MC CALL  230.00  BRKR to (1)   MC CALL  115.00
 0
  #
  #
  # (173)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34552 34378  "2 "    0     # TRAN from  GATES     70.00  BRKR to BRKR  GATES    115.00
 0
  #
  #
  # (174)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34492 34380  "1 "    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00
 0
  #
  #
  # (175)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34492 34380  "2 "    0     # TRAN from  REEDLEY   70.00  BRKR to BRKR  REEDLEY  115.00
 0
  #
  #
  # (176)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30835  (30882)  34412  34630 :
 2  30835 34412  "1 "    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00
 0
  #
  #
  # (177)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
#      **** 3-WINDING TRANSFORMER  30835  (30883)  34412  34632 :
 2  30835 34412  "2 "    0     # TRAN from  HERNDON  230.00  BRKR to (1)   HERNDON  115.00
 0
  #
  #
  # (178)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34528 34420  "2 "    0     # TRAN from  CORCORAN  70.00  BRKR to BRKR  CORCORAN 115.00
 0
  #
  #
  # (179)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  30881 34430  "3 "    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00
 0
  #
  #
  # (180)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34658 34452  "1 "    0     # TRAN from  WISHON     2.30   (1) to BRKR  WISHON    70.00
 3  34658     0  "3 "    0     # GEN-DROP    WISHON     2.30  GEN==4.30(1.00)
 3  34658     0  "4 "    0     # GEN-DROP    WISHON     2.30  GEN==4.30(1.00)
 0
  #
  #
  # (181)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34636 34464  "1 "    0     # TRAN from  FRIANTDM   6.60   (1) to BRKR  COPPRMNE  70.00
 3  34636     0  "1 "    0     # GEN-DROP    FRIANTDM   6.60  GEN==24.00(13.57)
 0
  #
  #
  # (182)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34366 34488  "2 "    0     # TRAN from  SANGER   115.00  BRKR to BRKR  SANGER    70.00
 0
  #
  #
  # (183)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
  #
 2  34590 34488  "1 "    0     # TRAN from  SANGR3T  115.00   (2) to BRKR  SANGER    70.00
 2  34590 34366  "1 "    0     # TRAN from  SANGR3T  115.00   (2) to BRKR  SANGER   115.00
 4  34590     0  "3 "    0     # LOAD-DROP    SANGR3T  115.00  LOAD==13.97(3.18)
 0
  #
  #
```

```
 # (184)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34650 34554  "1 "    0     # TRAN from  GWF-PWR.  13.80   (1) to BRKR  AMSTG SW  70.00
3  34650     0  "1 "    0     # GEN-DROP    GWF-PWR.  13.80  GEN==23.00(2.61)
0
 #
 #
 # (185)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34652 34570  "1 "    0     # TRAN from  CHV.COAL   9.11   (1) to BRKR  COLNGA 2  70.00
4  34652     0  "SG"    0     # LOAD-DROP    CHV.COAL   9.11  LOAD==1.40(0.68)
3  34652     0  "1 "    0     # GEN-DROP    CHV.COAL   9.11  GEN==2.50(8.30)
3  34652     0  "2 "    0     # GEN-DROP    CHV.COAL   9.11  GEN==8.00(4.00)
0
 #
 #
 # (186)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34418 34576  "2 "    0     # TRAN from  KINGSBRG 115.00  BRKR to BRKR  KNGLOBUS  70.00
4  34418     0  "3 "    0      # Drop Kingsburg Bk#3 (modeled as load on Kingburg 115kV bus)
0
 #
 #
 # (187)  B3 TRANSFORMER OUTAGE (BREAKER-TO-BREAKER)
 #
2  34400 34616  "1 "    0     # TRAN from  KNGSRVR1 115.00  BRKR to (1)   KINGSRIV  13.80
3  34616     0  "1 "    0     # GEN-DROP    KINGSRIV  13.80  GEN==47.00(9.00)
0
 #
 #
 # (188)  B1 GENERATOR OUTAGE
 #
3  34323     0  "1"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (189)  B1 GENERATOR OUTAGE
 #
3  34323     0  "2"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (190)  B1 GENERATOR OUTAGE
 #
3  34323     0  "3"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (191)  B1 GENERATOR OUTAGE
 #
3  34323     0  "4"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (192)  B1 GENERATOR OUTAGE
 #
3  34323     0  "5"     0     # P0419BS1  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (193)  B1 GENERATOR OUTAGE
 #
3  34324     0  "10"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (194)  B1 GENERATOR OUTAGE
 #
3  34324     0  "6"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (195)  B1 GENERATOR OUTAGE
 #
3  34324     0  "7"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (196)  B1 GENERATOR OUTAGE
```

```
 #
3  34324     0  "8"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (197)  B1 GENERATOR OUTAGE
 #
3  34324     0  "9"     0     # P0419BS2  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (198)  B1 GENERATOR OUTAGE
 #
3  34325     0  "11"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (199)  B1 GENERATOR OUTAGE
 #
3  34325     0  "12"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (200)  B1 GENERATOR OUTAGE
 #
3  34325     0  "13"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (201)  B1 GENERATOR OUTAGE
 #
3  34325     0  "14"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (202)  B1 GENERATOR OUTAGE
 #
3  34325     0  "15"     0     # P0419BS3  13.80       PGEN=8.44  QGEN=0.40
0
 #
 #
 # (203)  B1 GENERATOR OUTAGE
 #
3  34347     0  "1"     0     # P0406     13.80       PGEN=102.60  QGEN=15.64
0
 #
 #
 # (204)  B1 GENERATOR OUTAGE
 #
3  34605     0  "1"     0     # P0429     13.80       PGEN=102.60  QGEN=11.75
0
 #
 #
 # (205)  B1 GENERATOR OUTAGE
 #
3  34605     0  "2"     0     # P0429     13.80       PGEN=102.60  QGEN=11.75
0
 #
 #
 # (206)  B1 GENERATOR OUTAGE
 #
3  34609     0  "4"     0     # FRESNOCG  13.80       PGEN=25.50  QGEN=0.00
0
 #
 #
 # (207)  B1 GENERATOR OUTAGE
 #
3  34661     0  "1"     0     # P0418CT1  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (208)  B1 GENERATOR OUTAGE
 #
3  34663     0  "1"     0     # P0418CT2  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (209)  B1 GENERATOR OUTAGE
 #
```

```
3  34665     0  "1"     0     # P0418CT3  13.80       PGEN=102.60  QGEN=16.44
0
 #
 #
 # (210)  B1 GENERATOR OUTAGE
 #
3  34671     0  "1"     0     # KRCDPCT1  13.80       PGEN=49.70  QGEN=5.63
0
 #
 #
 # (211)  B1 GENERATOR OUTAGE
 #
3  34672     0  "1"     0     # KRCDPCT2  13.80       PGEN=49.70  QGEN=5.63
0
 #
 # (212)  B1 GENERATOR OUTAGE
 #
3  34142     0  "1"     0     # WHD_PAN2  13.80       PGEN=49.00  QGEN=-18.25
0
 #
 #
 # (213)  B1 GENERATOR OUTAGE
 #
3  34179     0  "1"     0     # MADERA_G  13.80       PGEN=28.00  QGEN=-6.72
0
 #
 #
 # (214)  B1 GENERATOR OUTAGE
 #
3  34186     0  "1"     0     # DG_PAN1   13.80       PGEN=49.00  QGEN=-13.81
0
 #
 #
 # (215)  B1 GENERATOR OUTAGE
 #
3  34301     0  "1"     0     # CHOWCOGN  13.80       PGEN=50.00  QGEN=-1.93
0
 #
 #
 # (216)  B1 GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=75.00  QGEN=11.97
0
 #
 #
 # (217)  B1 GENERATOR OUTAGE
 #
3  34316     0  "1"     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00
0
 #
 #
 # (218)  B1 GENERATOR OUTAGE
 #
3  34320     0  "1"     0     # MCSWAIN    9.11       PGEN=8.00  QGEN=2.00
0
 #
 #
 # (219)  B1 GENERATOR OUTAGE
 #
3  34322     0  "1"     0     # MERCEDFL   9.11       PGEN=3.00  QGEN=2.00
0
 #
 #
 # (220)  B1 GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.00  QGEN=5.40
0
 #
 #
 # (221)  B1 GENERATOR OUTAGE
 #
3  34334     0  "1"     0     # BIO PWR    9.11       PGEN=23.00  QGEN=7.28
0
 #
 #
 # (222)  B1 GENERATOR OUTAGE
 #
3  34342     0  "1"     0     # INT.TURB   9.11       PGEN=1.00  QGEN=0.00
0
```

```
 #
 #
 # (223)  B1 GENERATOR OUTAGE
 #
3  34631     0  "1"     0     # SJ2GEN     9.11       PGEN=3.00  QGEN=0.00
0
 #
 #
 # (224)  B1 GENERATOR OUTAGE
 #
3  34633     0  "1"     0     # SJ3GEN     9.11       PGEN=4.00  QGEN=0.00
0
 #
 #
 # (225)  B1 GENERATOR OUTAGE
 #
3  34308     0  "1"     0     # KERCKHOF  13.80       PGEN=129.00  QGEN=16.00
0
 #
 #
 # (226)  B1 GENERATOR OUTAGE
 #
3  34344     0  "2"     0     # KERCKHOF   6.60       PGEN=0.00  QGEN=-4.00
0
 #
 #
 # (227)  B1 GENERATOR OUTAGE
 #
3  34431     0  "1"     0     # GWF_HEP1  13.80       PGEN=49.50  QGEN=20.53
0
 #
 #
 # (228)  B1 GENERATOR OUTAGE
 #
3  34433     0  "1"     0     # GWF_HEP2  13.80       PGEN=49.50  QGEN=20.53
0
 #
 #
 # (229)  B1 GENERATOR OUTAGE
 #
3  34539     0  "1"     0     # GWF_GT1   13.80       PGEN=49.00  QGEN=-6.72
0
 #
 #
 # (230)  B1 GENERATOR OUTAGE
 #
3  34541     0  "1"     0     # GWF_GT2   13.80       PGEN=49.00  QGEN=-6.72
0
 #
 #
 # (231)  B1 GENERATOR OUTAGE
 #
3  34553     0  "1"     0     # WHD_GAT2  13.80       PGEN=49.00  QGEN=-25.30
0
 #
 #
 # (232)  B1 GENERATOR OUTAGE
 #
3  34600     0  "1"     0     # HELMS 1   18.00       PGEN=310.00  QGEN=76.05
0
 #
 #
 # (233)  B1 GENERATOR OUTAGE
 #
3  34602     0  "1"     0     # HELMS 2   18.00       PGEN=310.00  QGEN=76.26
0
 #
 #
 # (234)  B1 GENERATOR OUTAGE
 #
3  34604     0  "1"     0     # HELMS 3   18.00       PGEN=310.00  QGEN=76.22
0
 #
 #
 # (235)  B1 GENERATOR OUTAGE
 #
3  34608     0  "2"     0     # AGRICO    13.80       PGEN=18.00  QGEN=8.83
0
 #
```

```
 #
 # (236)  B1 GENERATOR OUTAGE
 #
3  34610     0  "1"     0     # HAAS      13.80       PGEN=69.00  QGEN=15.65
0
 #
 #
 # (237)  B1 GENERATOR OUTAGE
 #
3  34610     0  "2"     0     # HAAS      13.80       PGEN=69.00  QGEN=15.65
0
 #
 #
 # (238)  B1 GENERATOR OUTAGE
 #
3  34612     0  "1"     0     # BLCH 2-2  13.80       PGEN=52.00  QGEN=10.97
0
 #
 #
 # (239)  B1 GENERATOR OUTAGE
 #
3  34614     0  "1"     0     # BLCH 2-3  13.80       PGEN=52.00  QGEN=11.86
0
 #
 #
 # (240)  B1 GENERATOR OUTAGE
 #
3  34616     0  "1"     0     # KINGSRIV  13.80       PGEN=47.00  QGEN=9.00
0
 #
 #
 # (241)  B1 GENERATOR OUTAGE
 #
3  34618     0  "1"     0     # MCCALL1T  13.20       PGEN=0.00  QGEN=12.39
0
 #
 #
 # (242)  B1 GENERATOR OUTAGE
 #
3  34621     0  "1"     0     # MCCALL3T  13.20       PGEN=0.00  QGEN=9.63
0
 #
 #
 # (243)  B1 GENERATOR OUTAGE
 #
3  34622     0  "1"     0     # GATES 1T  13.20       PGEN=0.00  QGEN=-15.00
0
 #
 #
 # (244)  B1 GENERATOR OUTAGE
 #
3  34624     0  "1"     0     # BALCH 1   13.20       PGEN=27.00  QGEN=10.00
0
 #
 #
 # (245)  B1 GENERATOR OUTAGE
 #
3  34630     0  "1"     0     # HERNDN1T  13.20       PGEN=0.00  QGEN=12.86
0
 #
 #
 # (246)  B1 GENERATOR OUTAGE
 #
3  34632     0  "1"     0     # HERNDN2T  13.20       PGEN=0.00  QGEN=17.89
0
 #
 # (247)  B1 GENERATOR OUTAGE
 #
3  34636     0  "1"     0     # FRIANTDM   6.60       PGEN=24.00  QGEN=15.00
0
 #
 #
 # (248)  B1 GENERATOR OUTAGE
 #
3  34640     0  "1"     0     # ULTR.PWR   9.11       PGEN=15.00  QGEN=13.00
0
 #
 #
 # (249)  B1 GENERATOR OUTAGE
```

```
 #
3  34642     0  "1"     0     # KINGSBUR   9.11       PGEN=34.00  QGEN=17.30
0
 #
 #
 # (250)  B1 GENERATOR OUTAGE
 #
3  34646     0  "1"     0     # SANGERCO   9.11       PGEN=38.00  QGEN=-0.82
0
 #
 #
 # (251)  B1 GENERATOR OUTAGE
 #
3  34648     0  "1"     0     # DINUBA E  13.80       PGEN=12.00  QGEN=7.00
0
 #
 #
 # (252)  B1 GENERATOR OUTAGE
 #
3  34650     0  "1"     0     # GWF-PWR.  13.80       PGEN=23.00  QGEN=11.75
0
 #
 #
 # (253)  B1 GENERATOR OUTAGE
 #
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=2.50  QGEN=8.30
0
 #
 #
 # (254)  B1 GENERATOR OUTAGE
 #
3  34652     0  "2"     0     # CHV.COAL   9.11       PGEN=8.00  QGEN=4.00
0
 #
 #
 # (255)  B1 GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.00  QGEN=-13.50
0
 #
 #
 # (256)  B1 GENERATOR OUTAGE
 #
3  34658     0  "3"     0     # WISHON     2.30       PGEN=4.30  QGEN=1.00
0
 #
 #
 # (257)  B1 GENERATOR OUTAGE
 #
3  34658     0  "4"     0     # WISHON     2.30       PGEN=4.30  QGEN=1.00
0
 #
 #
 # (258)  B1 GENERATOR OUTAGE
 #
3  38720     0  "1"     0     # PINE FLT  13.80       PGEN=49.00  QGEN=11.23
0
 #
 #
 # (259)  B1 GENERATOR OUTAGE
 #
3  38720     0  "2"     0     # PINE FLT  13.80       PGEN=49.00  QGEN=11.23
0
 #
 #
 # (260)  B1 GENERATOR OUTAGE
 #
3  38720     0  "3"     0     # PINE FLT  13.80       PGEN=0.00  QGEN=22.91
0
##############################################################################################
#
#  L-1/G-1 Contingencies
#
##############################################################################################
#
# (261)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
#
```

APPENDIX B – AUTOCON INPUT FILE

```
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)
3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)
0
 #
 # (262)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34105 34100  "1 "    0     # line from  CERTANJ1 115.00   (2) to BRKR  CHWCHLLA 115.00
1  34105 34121  "1 "    0     # line from  CERTANJ1 115.00   (2) to (3)   SHARON T 115.00
1  34121 34120  "1 "    0     # line from  SHARON T 115.00   (3) to (1)   SHARON   115.00
1  34121 34128  "1 "    0     # line from  SHARON T 115.00   (3) to (3)   OAKH_JCT 115.00
1  34128 34126  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   CORSGOLD 115.00
1  34128 34123  "1 "    0     # line from  OAKH_JCT 115.00   (3) to (2)   K1-JCT   115.00
1  34126 34122  "1 "    0     # line from  CORSGOLD 115.00   (2) to (1)   OAKHURST 115.00
1  34123 34358  "2 "    0     # line from  K1-JCT   115.00   (2) to BRKR  KERCKHF2 115.00
4  34120     0  "1 "    0     # LOAD-DROP    SHARON   115.00  LOAD==6.80(4.75)
4  34126     0  "1 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==10.12(2.11)
4  34126     0  "2 "    0     # LOAD-DROP    CORSGOLD 115.00  LOAD==6.17(0.00)
4  34122     0  "1 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==12.05(4.92)
4  34122     0  "2 "    0     # LOAD-DROP    OAKHURST 115.00  LOAD==8.39(-1.42)
0
 #
 #
 # (263)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1"     0     # EXCHQUER  13.80       PGEN=75.00  QGEN=40.00
 #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 # (264)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34104 34108  "1 "    0     # line from  ATWATER  115.00  BRKR to (3)   CRESEY T 115.00
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (1)   ATWATR J 115.00
1  34108 34114  "1 "    0     # line from  CRESEY T 115.00   (3) to (3)   JRWD GEN 115.00
1  34114 34124  "1 "    0     # line from  JRWD GEN 115.00   (3) to (2)   JR WOOD  115.00
2  34114 34332  "1 "    0     # TRAN from  JRWD GEN 115.00   (3) to (1)   JRWCOGEN   9.11
1  34124 34140  "1 "    0     # line from  JR WOOD  115.00   (2) to (1)   CRESSEY  115.00
4  34124     0  "1 "    0     # LOAD-DROP    JR WOOD  115.00  LOAD==13.77(12.14)
4  34140     0  "1 "    0     # LOAD-DROP    CRESSEY  115.00  LOAD==20.80(3.20)
3  34332     0  "1 "    0     # GEN-DROP    JRWCOGEN   9.11  GEN==4.38(5.40)
0
 #
 #
 # (265)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34108 34110  "1 "    0     # line from  CRESEY T 115.00  BRKR to (3)   ATWATR J 115.00
1  34110 34130  "1 "    0     # line from  ATWATR J 115.00   (3) to (2)   LIVNGSTN 115.00
1  34110 34144  "1 "    0     # line from  ATWATR J 115.00   (3) to BRKR  MERCED   115.00
1  34130 34132  "1 "    0     # line from  LIVNGSTN 115.00   (2) to (1)   GALLO    115.00
4  34130     0  "3 "    0     # LOAD-DROP    LIVNGSTN 115.00  LOAD==22.10(5.44)
4  34132     0  "1 "    0     # LOAD-DROP    GALLO    115.00  LOAD==5.77(5.56)
0
 #
 #
 # (266)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (267)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
```

```
 #
1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.97(0.00)
4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==12.15(-3.95)
0
 #
 # (268)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
0
 #
 # (269)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34150 34154  "1 "    0     # line from  NEWHALL  115.00   (2) to BRKR  DAIRYLND 115.00
1  34150 34178  "1 "    0     # line from  NEWHALL  115.00   (2) to (2)   CAPCOTAP 115.00
1  34178 34156  "1 "    0     # line from  CAPCOTAP 115.00   (2) to BRKR  MENDOTA  115.00
4  34150     0  "2 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==6.08(1.50)
4  34150     0  "3 "    0     # LOAD-DROP    NEWHALL  115.00  LOAD==8.30(1.64)
0
 #
 # (270)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
 #
1  34157 34156  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  MENDOTA  115.00
1  34157 34158  "1 "    0     # line from  PANOCHET 115.00   (2) to BRKR  PANOCHE  115.00
3  34186     0  "1 "    0       # DG_PAN Unit will trip for this outage
0
 #
 #
 # (271)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40
 #
1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
0
 #
 #
 # (272)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34332     0  "1"     0     # JRWCOGEN   9.11       PGEN=4.38  QGEN=5.40
 #
1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
0
 #
 #
 # (273)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  PGEN = 145.0  QGEN=16.0
 #
1  34116 34154  "1 "    0     # line from  LE GRAND 115.00  BRKR to BRKR  DAIRYLND 115.00
0
 #
 #
 # (274)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  PGEN = 145.0  QGEN=16.0
#
1  34112 34116  "1 "    0     # line from  EXCHEQUR 115.00  BRKR to BRKR  LE GRAND 115.00
3  34306     0  "1 "    0      # Exchequer Unit will trip for this outage
4  34228     0  "**"    0      # Mariposa Loads will drop if bus is below 64 kV, this is anticipate
0
 #
 #
 # (275)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  PGEN = 145.0  QGEN=16.0
 #
1  34100 34101  "1 "    0     # line from  CHWCHLLA 115.00  BRKR to (3)   CERTAN T 115.00
1  34101 34116  "1 "    0     # line from  CERTAN T 115.00   (3) to BRKR  LE GRAND 115.00
1  34101 34107  "1 "    0     # line from  CERTAN T 115.00   (3) to (2)   CERTANJ2 115.00
1  34107 34103  "1 "    0     # line from  CERTANJ2 115.00   (2) to (3)   CHWCGNJT 115.00
```

```
 1  34103 34102  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (1)   CERTTEED 115.00
 1  34103 34109  "1 "    0     # line from  CHWCGNJT 115.00   (3) to (2)   CHWCGN   115.00
 2  34109 34301  "1 "    0     # TRAN from  CHWCGN   115.00   (2) to (1)   CHOWCOGN  13.80
 4  34102     0  "1 "    0     # LOAD-DROP    CERTTEED 115.00  LOAD==10.65(7.43)
 3  34301     0  "1 "    0     # GEN-DROP    CHOWCOGN  13.80  GEN==50.00(-9.31)
 0
  #
  #
  # (276)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
  #
 3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
  #
 1  34237 34255  "1 "    0     # line from  CANANDGA  70.00   (2) to (3)   TRIGO J   70.00
 1  34237 34240  "1 "    0     # line from  CANANDGA  70.00   (2) to BRKR  GLASS     70.00
 1  34255 34238  "1 "    0     # line from  TRIGO J   70.00   (3) to BRKR  BONITA    70.00
 1  34255 34254  "1 "    0     # line from  TRIGO J   70.00   (3) to (2)   TRIGO     70.00
 1  34254 34264  "1 "    0     # line from  TRIGO     70.00   (2) to (1)   EL PECO   70.00
 4  34237     0  "1 "    0     # LOAD-DROP    CANANDGA  70.00  LOAD==6.74(5.06)
 4  34238     0  "1 "    0     # LOAD-DROP    BONITA    70.00  LOAD==12.84(1.29)
 4  34264     0  "1 "    0     # LOAD-DROP    EL PECO   70.00  LOAD==8.08(0.00)
 1  34238 34236  "1 "    1      # Switches in Bonita SW23 to transfer load
 4  34238     0  "1 "    1      # Restore Load at Bonita
 0
  #
  #
  # (277)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
  #
 3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  GEN==90.00(5.78)
  #
 1  34321 34226  "1 "    0     # line from  MCSWAINJ  70.00   (3) to (2)   MC SWAIN  70.00
 1  34321 34230  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  MRCDFLLS  70.00
 1  34321 34232  "1 "    0     # line from  MCSWAINJ  70.00   (3) to BRKR  EXCHEQUR  70.00
 2  34226 34320  "1 "    0     # TRAN from  MC SWAIN  70.00   (2) to (1)   MCSWAIN    9.11
 3  34320     0  "1 "    0     # GEN-DROP    MCSWAIN    9.11  GEN==6.80(-1.00)
0
 #
 #
 # (278)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)
0
#
# (279)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34316     0  "1"     0     # ONEILPMP   9.11       PGEN=0.52  QGEN=0.00
#
1  34200 34222  "1 "    0     # line from  ORO LOMA  70.00  BRKR to (3)   MRCYSPRS  70.00
1  34222 34220  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ORTIGA    70.00
1  34222 34224  "1 "    0     # line from  MRCYSPRS  70.00   (3) to (2)   ARBURUA   70.00
1  34220 34206  "1 "    0     # line from  ORTIGA    70.00   (2) to BRKR  CANAL     70.00
1  34224 34272  "1 "    0     # line from  ARBURUA   70.00   (2) to (2)   WRGHT PP  70.00
1  34272 34214  "1 "    0     # line from  WRGHT PP  70.00   (2) to BRKR  LOS BANS  70.00
4  34220     0  "1 "    0     # LOAD-DROP    ORTIGA    70.00  LOAD==5.24(0.47)
4  34224     0  "1 "    0     # LOAD-DROP    ARBURUA   70.00  LOAD==3.51(1.70)
4  34272     0  "1 "    0     # LOAD-DROP    WRGHT PP  70.00  LOAD==10.38(1.15)
0
#
#
# (280) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
```

```
 # (281)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
 #
 # (282) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (283) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
  #
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (284)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (285)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (286)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (287)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (288)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (289)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (290)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
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 #
 # (291)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 # (292)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 #
 # (293)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
 #
 #
 # (294)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
 #
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (295)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
#
# (296)  C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
#
# (297)  C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34600     0  "1 "    0     # GEN-DROP    HELMS 1   18.00  PGEN = 400.0  QGEN = 107.4
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
#
# (298) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
#
#
# (299) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
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1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
#
# (300) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (301) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (302)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (303)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (304)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (305)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (306)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (307)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
#
#
# (308)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
#
```

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```
# (309)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (310)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (311)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
#
# (312)  C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
#
# (313)  C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80   PGEN=145.0  QGEN = 16.0
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
#
# (314) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
# (315)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
#
# (316) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (317) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
```

APPENDIX B – AUTOCON INPUT FILE

```
# (318)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
# (319)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
# (320)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (321)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (322)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (323)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (324)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (325)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (326)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (327)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
 #
 #
 # (328)  B2 GENERATOR OUTAGE & TRANSFORMER OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
```

APPENDIX B – AUTOCON INPUT FILE

```
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
 #
 #
 # (329) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
 #
 #
 # (330)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 #
 # (331)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  PGEN = 145.0  QGEN=16.0
 #
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 # (332)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
 #
3  34308     0  "1 "    0     # GEN-DROP    KERCKHOF  13.80  PGEN = 145.0  QGEN=16.0
 #
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
#
# (333)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
#
3  34306     0  "1 "    0     # GEN-DROP    EXCHQUER  13.80  PGEN = 90.0  QGEN=5.78
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
#
# (334)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
#
# (335)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15
#
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
#
#
```

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```
# (336)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  37561     0  "1"     0     # MELONE1   13.80       PGEN=127.05  QGEN=35.15
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (337) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=17.00  QGEN=8.30
  #
  #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (338) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34652     0  "1"     0     # CHV.COAL   9.11       PGEN=17.00  QGEN=8.30
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0
0
 #
 #
 # (339) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.22  QGEN=-13.50
 #
 #
1  34184 34570  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  COLNGA 2  70.00
1  34184 34552  "1 "    0     # line from  GATS2_TP  70.00   (3) to BRKR  GATES     70.00
2  34184 34553  "1 "    0     # TRAN from  GATS2_TP  70.00   (3) to (1)   WHD_GAT2  13.80
3  34553     0  "1 "    0     # GEN-DROP    WHD_GAT2  13.80  GEN==49.00(-25.30)
0
 #
 #
 # (340) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34654     0  "1"     0     # COLNGAGN   9.11       PGEN=34.22  QGEN=-13.50
 #
1  34552 34578  "1 "    0     # line from  GATES     70.00  BRKR to (2)   JACALITO  70.00
1  34578 34574  "1 "    0     # line from  JACALITO  70.00   (2) to BRKR  COLNGA 1  70.00
4  34578     0  "1 "    0     # LOAD-DROP    JACALITO  70.00  LOAD==4.03(2.5) 0
0
 #
 # (341)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34636     0  "1"     0     # FRIANTDM   9.11       PGEN=19.96  QGEN=-1.14
 #
1  34262 34454  "1 "    0     # line from  CASSIDY   70.00   (2) to (2)   RIVERROC  70.00
1  34262 34256  "1 "    0     # line from  CASSIDY   70.00   (2) to BRKR  BORDEN    70.00
1  34454 34464  "1 "    0     # line from  RIVERROC  70.00   (2) to BRKR  COPPRMNE  70.00
4  34262     0  "1 "    0     # LOAD-DROP    CASSIDY   70.00  LOAD==10.36(0.80)
4  34454     0  "1 "    0     # LOAD-DROP    RIVERROC  70.00  LOAD==2.21(2.01)
0
 #
 #
 # (342) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34650     0  "1"     0     # GWF-PWR.   9.11       PGEN=23.00  QGEN=5.92
#
1  34516 34520  "1 "    0     # line from  LEPRINO   70.00   (1) to (4)   LPRNO TP  70.00
1  34520 34518  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  LEMOORE   70.00
1  34520 34524  "1 "    0     # line from  LPRNO TP  70.00   (4) to (1)   CANDLEWK  70.00
1  34520 34540  "1 "    0     # line from  LPRNO TP  70.00   (4) to BRKR  HENRITTA  70.00
4  34516     0  "1 "    0     # LOAD-DROP    LEPRINO   70.00  LOAD==5.84(3.31)
4  34518     0  "1 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==25.58(8.22)
4  34518     0  "2 "    0     # LOAD-DROP    LEMOORE   70.00  LOAD==10.28(2.53)
4  34524     0  "1 "    0     # LOAD-DROP    CANDLEWK  70.00  LOAD==2.93(2.66)
0
#
# (343)  B CAPACITOR OUTAGE
#
```

```
6  30810     0  "v"     0     # drop Gregg 230 kV shunt Caps
0
#
# (344)  B CAPACITOR OUTAGE
#
6  30875     0  "v"     0     # drop McCall 230 kV shunt Caps
0
#
##########################################################################################
#
# PROJECT CONTINGENCIES
#
##########################################################################################
#
# (345)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
0
#
# (346)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
0
#
# (347)  B2 LINE OUTAGE (BREAKER-TO-BREAKER)
#
1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
0
#######################################################################################
#
# PROJECT G-1/L-1 Contingencies
#
#######################################################################################
#
# (348) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
0
 #
 # (349)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==11.510623(2.627622)
0
 #
 # (350) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
# (351) B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
  #
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#
# (352)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
```

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```
#
#
# (353)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
0
#
#
# (354)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30765 30790  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (355)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (356)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30750 30790  "1 "    0     # line from  MOSSLND2 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (357)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  30760 30790  "1 "    0     # line from  COBURN   230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 #
 # (358)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
0
 #
 # (359)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
0
 #
 #
 # (360)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
 #
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
0
#
#
# (361)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  34774 34746  "1 "    0     # line from  MIDWAY   115.00  BRKR to BRKR  GANSO    115.00
0
#
# (362)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==25.16(0.00)
3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap line
```

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```
0
#
#
# (363)  B4 LINE OUTAGE (BREAKER-TO-BREAKER) AND GENERATOR OUTAGE
#
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==24.12(5.49)
0
#
# (364) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
2  30900 30901  "1 "    0     # TRAN from  GATES    230.00  BRKR to (3)   GATES 1M 230.00
2  30901 34378  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to BRKR  GATES    115.00
2  30901 34622  "1 "    0     # TRAN from  GATES 1M 230.00   (3) to (1)   GATES 1T  13.20
4 34378      0  "3 "    0      # Drop Gates Bank #3
0
#
# (365) C3 GENERATOR OUTAGE &  TRANSFORMER OUTAGE
#
3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
#
2  34214 30765  "3 "    0     # TRAN from  LOS BANS  70.00  BRKR to BRKR  LOSBANOS 230.00
0
#
-1
# EOF
```

APPENDIX B – AUTOCON INPUT FILE

```
# PG&E 2004 BASE CASE SERIES - 2009 Valley South Spring Peak Case
# Greater Fresno Area Category "C" Contingencies, Zones 313 and 314
# Bullard Energy Center- 2009 Spring Peak
#
#
##########################################################################################
  #
  #   70 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##########################################################################################
  #
#(1) Gates-Schindler and Gates-Huron
  #
 1  34558 34560  "1 "    0     # line from  HURON     70.00  BRKR to (2)   CALFLAX   70.00
 1  34560 34562  "1 "    0     # line from  CALFLAX   70.00   (2) to BRKR  SCHLNDLR  70.00
 4  34560     0  "1 "    0     # LOAD-DROP    CALFLAX   70.00  LOAD==8.74(1.99)
 1  34552 34558  "2 "    0      # Must include Gates - Huron in this outage
 #
 1  34552 34558  "1 "    0     # line from  GATES     70.00  BRKR to BRKR  HURON     70.00
 0
#
##########################################################################################
  #
  #   115 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##########################################################################################
  #
#(2) Wilson-Atwater and El Capitan-Wilson
  #
 1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
 #
 1  34136 34138  "1 "    0     # line from  WILSON B 115.00  BRKR to BRKR  EL CAPTN 115.00
 0
  #
#(3) Wilson-Atwater and Atwater-El Capitan
  #
 1  34134 34104  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  ATWATER  115.00
 #
 1  34104 34106  "1 "    0     # line from  ATWATER  115.00  BRKR to (2)   CASTLE   115.00
 1  34106 34138  "1 "    0     # line from  CASTLE   115.00   (2) to BRKR  EL CAPTN 115.00
 0
  #
#(4) Wilson-Merced #2 and Wilson-Oro Loma
  #
 1  34134 34144  "1 "    0     # line from  WILSON A 115.00  BRKR to BRKR  MERCED   115.00
 #
 1  34118 34136  "1 "    0     # line from  LE GRNDJ 115.00   (2) to BRKR  WILSON B 115.00
 1  34118 34168  "1 "    0     # line from  LE GRNDJ 115.00   (2) to (2)   EL NIDO  115.00
 1  34168 34162  "1 "    0     # line from  EL NIDO  115.00   (2) to BRKR  ORO LOMA 115.00
 4  34168     0  "1 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==7.10(1.61)
 4  34168     0  "2 "    0     # LOAD-DROP    EL NIDO  115.00  LOAD==10.14(2.31)
 0
  #
#(5) Panoche-Schindler #1 and #2
  #
 1  34158 34350  "1 "    0     # line from  PANOCHE  115.00  BRKR to (2)   KAMM     115.00
 1  34350 34352  "1 "    0     # line from  KAMM     115.00   (2) to (2)   CANTUA   115.00
 1  34352 34432  "1 "    0     # line from  CANTUA   115.00   (2) to (2)   WESTLNDS 115.00
 1  34432 34354  "1 "    0     # line from  WESTLNDS 115.00   (2) to BRKR  SCHINDLR 115.00
 4  34350     0  "1 "    0     # LOAD-DROP    KAMM     115.00  LOAD==3.96(1.80)
 4  34352     0  "1 "    0     # LOAD-DROP    CANTUA   115.00  LOAD==13.04(2.97)
 4  34432     0  "16"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==0.94(0.23)
 4  34432     0  "18"    0     # LOAD-DROP    WESTLNDS 115.00  LOAD==1.21(0.32)
 #
 1  34141 34148  "1 "    0     # line from  PAN2_TAP 115.00   (2) to (2)   CHENY    115.00
 2  34141 34142  "1 "    0     # TRAN from  PAN2_TAP 115.00   (2) to (1)   WHD_PAN2  13.80
 1  34148 34149  "1 "    0     # line from  CHENY    115.00   (2) to (3)   CHENYT   115.00
 1  34149 34158  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  PANOCHE  115.00
 1  34149 34354  "1 "    0     # line from  CHENYT   115.00   (3) to BRKR  SCHINDLR 115.00
 4  34148     0  "1 "    0     # LOAD-DROP    CHENY    115.00  LOAD==13.74(3.13)
 3  34142     0  "1 "    0     # GEN-DROP    WHD_PAN2  13.80  GEN==49.00(3.41)
 0
#
#
#(6) Barton-Sanger and Manchester-Sanger
#
 1  34366 34408  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  BARTON   115.00
#
 1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
 4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.54)
 0
#
#(7) Herndon-Barton and Herndon-Manchester
#
 1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
#
 1  34410 34412  "1 "    0     # line from  MANCHSTR 115.00  BRKR to BRKR  HERNDON  115.00
 0
#
#(8) Herndon-Barton and Manchester-Sanger
#
 1  34408 34412  "1 "    0     # line from  BARTON   115.00  BRKR to BRKR  HERNDON  115.00
#
 1  34366 34368  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   LASPALMS 115.00
 1  34368 34410  "1 "    0     # line from  LASPALMS 115.00   (2) to BRKR  MANCHSTR 115.00
 4  34368     0  "1 "    0     # LOAD-DROP    LASPALMS 115.00  LOAD==13.50(11.54)
 0
#
#(9) Herndon-Bullard #1 and #2
#
 1  34409 34413  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  PNEDLE   115.00
 1  34409 34416  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  BULLARD  115.00
 1  34409 34412  "1 "    0     # line from  PNDLJ2   115.00   (3) to BRKR  HERNDON  115.00
#
 1  34411 34413  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  PNEDLE   115.00
 1  34411 34416  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  BULLARD  115.00
 1  34411 34412  "1 "    0     # line from  PNDLJ1   115.00   (3) to BRKR  HERNDON  115.00
 0
#
#(10) Kerckhoff-Clovis-Sanger #1 and #2
#
 1  34358 34360  "1 "    0     # line from  KERCKHF2 115.00  BRKR to (3)   WWARD JT 115.00
 1  34360 34414  "1 "    0     # line from  WWARD JT 115.00   (3) to BRKR  WOODWARD 115.00
 1  34360 34363  "1 "    0     # line from  WWARD JT 115.00   (3) to (3)   CLOVISJ1 115.00
 1  34363 34362  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  CLOVIS-1 115.00
 1  34363 34366  "1 "    0     # line from  CLOVISJ1 115.00   (3) to BRKR  SANGER   115.00
 4  34362     0  "1 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==37.16(8.47)
 4  34362     0  "2 "    0     # LOAD-DROP    CLOVIS-1 115.00  LOAD==37.24(8.49)
 #
 1  34364 34365  "1 "    0     # line from  CLOVIS-2 115.00  BRKR to (3)   CLOVISJ2 115.00
 1  34365 34358  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  KERCKHF2 115.00
 1  34365 34366  "1 "    0     # line from  CLOVISJ2 115.00   (3) to BRKR  SANGER   115.00
 4  34364     0  "3 "    0     # LOAD-DROP    CLOVIS-2 115.00  LOAD==40.42(9.21)
 0
#
#(11) Kingburg-Corcoran #1 and #2
#
 1  34418 34420  "1 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
 1  34418 34420  "2 "    0     # line from  KINGSBRG 115.00  BRKR to BRKR  CORCORAN 115.00
 0
#
#(12) Kings River-Sanger-Reedley and Balch-Sanger
#
 1  34366 34389  "1 "    0     # line from  SANGER   115.00  BRKR to (3)   RAINBWTP 115.00
 1  34389 34388  "1 "    0     # line from  RAINBWTP 115.00   (3) to (1)   RAINBW   115.00
 1  34389 34394  "1 "    0     # line from  RAINBWTP 115.00   (3) to (3)   PIEDRA 1 115.00
 1  34394 34380  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  REEDLEY  115.00
 1  34394 34400  "1 "    0     # line from  PIEDRA 1 115.00   (3) to BRKR  KNGSRVR1 115.00
 4  34388     0  "1 "    0     # LOAD-DROP    RAINBW   115.00  LOAD==10.36(2.36)
 #
 1  34366 34396  "1 "    0     # line from  SANGER   115.00  BRKR to (2)   PIEDRA 2 115.00
 1  34396 34398  "1 "    0     # line from  PIEDRA 2 115.00   (2) to (2)   BALCH    115.00
 2  34398 34624  "1 "    0     # TRAN from  BALCH    115.00   (2) to (1)   BALCH 1   13.20
 4  34624     0  "1 "    0     # LOAD-DROP    BALCH 1   13.20  LOAD==0.26(0.00)
 3  34624     0  "1 "    0     # GEN-DROP    BALCH 1   13.20  GEN==27.50(5.22)
 0
#
#(13) McCall-Kingsburg #1 and #2
#
 1  34370 34385  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   KINGS J1 115.00
 1  34385 34417  "1 "    0     # line from  KINGS J1 115.00   (3) to (2)   KINGS J2 115.00
 1  34385 34418  "1 "    0     # line from  KINGS J1 115.00   (3) to BRKR  KINGSBRG 115.00
 1  34417 34425  "1 "    0     # line from  KINGS J2 115.00   (2) to (3)   KCOGNJCT 115.00
 1  34425 34387  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (1)   SUNMAID  115.00
 1  34425 34427  "1 "    0     # line from  KCOGNJCT 115.00   (3) to (2)   GRDNGLS2 115.00
 1  34427 34386  "1 "    0     # line from  GRDNGLS2 115.00   (2) to (2)   KNGSCOGN 115.00
 2  34386 34642  "1 "    0     # TRAN from  KNGSCOGN 115.00   (2) to BRKR  KINGSBUR   9.11
```

```
 4  34387     0  "1 "    0     # LOAD-DROP    SUNMAID  115.00  LOAD==3.10(2.99)
 3  34642     0  "1 "    0     # GEN-DROP    KINGSBUR   9.11  GEN==34.00(17.30)
 #
 1  34370 34423  "1 "    0     # line from  MC CALL  115.00  BRKR to (3)   GAURD J1 115.00
 1  34423 34418  "1 "    0     # line from  GAURD J1 115.00   (3) to BRKR  KINGSBRG 115.00
 1  34423 34421  "1 "    0     # line from  GAURD J1 115.00   (3) to (2)   GAURD J2 115.00
 1  34421 34424  "1 "    0     # line from  GAURD J2 115.00   (2) to (1)   GRDN GLS 115.00
 4  34424     0  "1 "    0     # LOAD-DROP    GRDN GLS 115.00  LOAD==10.05(3.30)
 0
#
#(14) McCall-Sanger #1 and #2
#
 1  34366 34370  "1 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
 1  34366 34370  "2 "    0     # line from  SANGER   115.00  BRKR to BRKR  MC CALL  115.00
 0
#
#(15) McCall-West Fresno #1 and #2
#
 1  34390 34402  "1 "    0     # line from  DANISHCM 115.00   (2) to BRKR  CAL AVE  115.00
 1  34390 34407  "1 "    0     # line from  DANISHCM 115.00   (2) to (2)   WFRES J2 115.00
 1  34407 34404  "1 "    0     # line from  WFRES J2 115.00   (2) to BRKR  WST FRSO 115.00
 4  34390     0  "1 "    0     # LOAD-DROP    DANISHCM 115.00  LOAD==3.85(3.29)
 #
 1  34370 34404  "1 "    0     # line from  MC CALL  115.00  BRKR to BRKR  WST FRSO 115.00
 0
#
##################################################################################################
  #
  #   230 KV SYSTEM  C5 DOUBLE CKT TOWER LINE OUTAGES
  #
##################################################################################################
 #
 #
 #(16) Gates-Panoche #1 and #2
 #
 1  30790 30900  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
 #
 1  30790 30900  "2 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  GATES    230.00
 0
 #
 #(17) Los Banos-Panoche and Los Banos-Dos Amigos
 #
 1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
 #
 1  30765 38615  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  DS AMIGO 230.00
 0
 #
 #(18) Los Banos-Panoche and Dos Amigos-Panoche
 #
 1  30765 30790  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  PANOCHE  230.00
 #
 1  38615 30790  "1 "    0     # line from  DS AMIGO 230.00  BRKR to BRKR  PANOCHE  230.00
 0
 #
 #(19) Los Banos - San Luis PGP #1 and #2
 #
 1  30765 38625  "1 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
 #
 1  30765 38625  "2 "    0     # line from  LOSBANOS 230.00  BRKR to BRKR  SN LS PP 230.00
 0
 #
 #(20) Wilson-Borden and Wilson-Gregg
 #
 1  30795 30805  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  BORDEN   230.00
 1  30795 30800  "1 "    0     # line from  STOREY 2 230.00   (2) to BRKR  WILSON   230.00
 4  30795     0  "1 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==1.00(0.23)
 4  30795     0  "2 "    0     # LOAD-DROP    STOREY 2 230.00  LOAD==20.82(4.74)
 #
 1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
 1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
 4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==30.96(7.05)
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Wilson line
 0
 #
 #(21) Borden-Gregg and Wilson-Gregg
 #
 1  30805 30810  "1 "    0     # line from  BORDEN   230.00  BRKR to BRKR  GREGG    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg -Borden line
 #
```

```
 1  30796 30800  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  WILSON   230.00
 1  30796 30810  "1 "    0     # line from  STOREY 1 230.00   (2) to BRKR  GREGG    230.00
 4  30796     0  "1 "    0     # LOAD-DROP    STOREY 1 230.00  LOAD==30.96(7.05)
 0
 #
 #(22) Bellota-Melones and Warnerville-Wilson
 #
 1  30500 38206  "1 "    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00
 1  38206 37563  "1 "    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00
 4  38206     0  "1 "    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)
# 3  34604     0  "**"    0     # Drop Helms unit#3 with a loss Bellota-Melones line
 #
 1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
 0
 #
 #(23) Bellota-Melones and Bellota-Warnerville
 #
 1  30500 38206  "1 "    0     # line from  BELLOTA  230.00  BRKR to (2)   COTTLE A 230.00
 1  38206 37563  "1 "    0     # line from  COTTLE A 230.00   (2) to BRKR  MELONES  230.00
 4  38206     0  "1 "    0     # LOAD-DROP    COTTLE A 230.00  LOAD==19.23(0.00)
# 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Bellota-Melones line
 #
 1  30500 38208  "1 "    0     # line from  BELLOTA  230.00  BRKR to (3)   COTTLE B 230.00
 1  38208 30515  "1 "    0     # line from  COTTLE B 230.00   (3) to BRKR  WARNERVL 230.00
 4  38208     0  "2 "    0     # LOAD-DROP    COTTLE B 230.00  LOAD==21.32(7.38)
 0
 #
 #(24) Melones-Wilson and Warnervile-Wilson
 #
 1  37563 30800  "1 "    0     # line from  MELONES  230.00  BRKR to BRKR  WILSON   230.00
 #
 1  30515 30800  "1 "    0     # line from  WARNERVL 230.00  BRKR to BRKR  WILSON   230.00
 0
#
#
#(25) Gates-Gregg and Gates-McCall
#
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 #
 1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
 1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
 2  34540 30881  "2 "    0     # TRAN from  HENRITTA  70.00  BRKR to BRKR  HENRIETA 230.00 RAS Scheme for
this DCTL outage
 2  30881 34430  "3 "    0     # TRAN from  HENRIETA 230.00  BRKR to BRKR  HENRETTA 115.00 RAS Scheme for
this DCTL outage
 0
#
#(26) Panoche-Kearney and Gates-Gregg
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP  MCMULLN1 230.00  LOAD==13.26(3.02)
#
1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
3  34604     0  "**"    0     # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line
0
#
#(27) Panoche-Kearney and Panoche-Helm
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP  MCMULLN1 230.00  LOAD==13.26(3.02)
#
1  30790 30873  "1 "    0     # line from  PANOCHE  230.00  BRKR to BRKR  HELM     230.00
0
#
#(28) Panoche-Kearney and Helm-McCall
#
1  30790 30825  "1 "    0     # line from  PANOCHE  230.00  BRKR to (2)   MCMULLN1 230.00
1  30825 30830  "1 "    0     # line from  MCMULLN1 230.00   (2) to BRKR  KEARNEY  230.00
4  30825     0  "1 "    0     # LOAD-DROP    MCMULLN1 230.00  LOAD==13.26(3.02)
#
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
```

APPENDIX B – AUTOCON INPUT FILE

```
0
#
#(29) Helm-McCall and Gates-McCall
#
1  30873 30875  "1 "    0     # line from  HELM     230.00  BRKR to BRKR  MC CALL  230.00
#
1  30875 30880  "1 "    0     # line from  MC CALL  230.00  BRKR to (2)   HENTAP2  230.00
1  30880 30900  "1 "    0     # line from  HENTAP2  230.00   (2) to BRKR  GATES    230.00
0
#
#(30) Helms-Gregg #1 and #2
  #
 1  30810 30820  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
 #
 1  30810 30820  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HELMS PP 230.00
 0
  #
#(31) Gregg-Herndon #1 and #2
  #
 1  30810 30835  "1 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
 #
 1  30810 30835  "2 "    0     # line from  GREGG    230.00  BRKR to BRKR  HERNDON  230.00
 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Gregg - Herndon Tap line
 0
  #
#(32) Herndon-Kearney (Bullard Energy Center) and Herndon-Ashlan
  #
 1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==51.78(11.80)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841     0  "**"    1      # Restore Load at Figarden 1
 0
#
#(33) (Bullard Energy Center) Herndon-Kearney and Herndon-Ashlan
#
 1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==51.78(11.80)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841     0  "**"    1      # Restore Load at Figarden 1
 0
#
#(34) Bullard Energy Center and Herndon-Ashlan
#
 2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
 4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
 3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==51.78(11.80)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30841     0  "**"    1      # Restore Load at Figarden 1
 0
#
#(35) (Bullard Energy Center) Herndon-Kearney and Gates-Gregg
#
 1  30829 30835  "1 "    0     # line from  P0429    230.00   (3) to BRKR  HERNDON  230.00
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(36) Herndon-Kearney (Bullard Energy Center) and Gates-Gregg
#
 1  30829 30830  "1 "    0     # line from  P0429    230.00   (3) to BRKR  KEARNEY  230.00
 #
```

```
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(37) Bullard Energy Center and Gates-Gregg
  #
 2  30829 34605  "1 "    0     # TRAN from  P0429    230.00   (3) to (1)   P0429     13.80
 4  34605     0  "SG"    0     # LOAD-DROP    P0429     13.80  LOAD==5.20(2.88)
 3  34605     0  "1 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 3  34605     0  "2 "    0     # GEN-DROP    P0429     13.80  GEN==102.60(11.75)
 #
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Henrietta Tap 1 line
 1  30880 30881  "1 "    1      # Henrietta flip flop (Henrietta CB 222)
 0
#
#(38) Gates-Gregg and Gregg-Ashlan
#
 1  30810 30879  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   HENTAP1  230.00
 1  30879 30881  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  HENRIETA 230.00
 1  30879 30900  "1 "    0     # line from  HENTAP1  230.00   (3) to BRKR  GATES    230.00
 3  34604     0  "**"    0      # Drop Helms unit#3 with a loss Gregg - Henrietta Tap line
 #
 1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
 1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
 1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
 4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==48.05(0.00)
 1 30841  30846  "1 "    1      # Switches in Figarden SW 286 to transfer load
 4 30846     0  "**"    1      # Restore Load at Figarden 2
 0
  #
#(39) Herndon-Ashlan and Gregg-Ashlan
  #
 1  30835 30840  "1 "    0     # line from  HERNDON  230.00  BRKR to (3)   FGRDN T1 230.00
 1  30840 30841  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  FIGRDN 1 230.00
 1  30840 30850  "1 "    0     # line from  FGRDN T1 230.00   (3) to BRKR  ASHLAN   230.00
 4  30841     0  "1 "    0     # LOAD-DROP    FIGRDN 1 230.00  LOAD==62.81(14.31)
 #
 1  30810 30845  "1 "    0     # line from  GREGG    230.00  BRKR to (3)   FGRDN T2 230.00
 1  30845 30846  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  FIGRDN 2 230.00
 1  30845 30850  "1 "    0     # line from  FGRDN T2 230.00   (3) to BRKR  ASHLAN   230.00
 4  30846     0  "2 "    0     # LOAD-DROP    FIGRDN 2 230.00  LOAD==42.49(9.68)
 3  34604     0  "**"    0      # Drop unit#3 with a loss Gregg - Figarden line
 0
  #
#(40) Haas-McCall and Balch-McCall
  #
 1  30855 30860  "1 "    0     # line from  HAAS     230.00   (2) to (3)   BALCH3TP 230.00
 2  30855 34610  "1 "    0     # TRAN from  HAAS     230.00   (2) to (1)   HAAS      13.80
 1  30860 30875  "1 "    0     # line from  BALCH3TP 230.00   (3) to BRKR  MC CALL  230.00
 2  30860 34614  "1 "    0     # TRAN from  BALCH3TP 230.00   (3) to (1)   BLCH 2-3  13.80
 3  34610     0  "1 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(10.96)
 3  34610     0  "2 "    0     # GEN-DROP    HAAS      13.80  GEN==69.00(10.96)
 3  34614     0  "1 "    0     # GEN-DROP    BLCH 2-3  13.80  GEN==52.00(8.41)
 #
 1  30865 30870  "1 "    0     # line from  BALCH    230.00   (2) to (3)   PINE FLT 230.00
 2  30865 34612  "1 "    0     # TRAN from  BALCH    230.00   (2) to (1)   BLCH 2-2  13.80
 1  30870 30875  "1 "    0     # line from  PINE FLT 230.00   (3) to BRKR  MC CALL  230.00
 2  30870 38720  "1 "    0     # TRAN from  PINE FLT 230.00   (3) to (1)   PINE FLT  13.80
 3  34612     0  "1 "    0     # GEN-DROP    BLCH 2-2  13.80  GEN==52.00(7.53)
 3  38720     0  "1 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.55)
 3  38720     0  "2 "    0     # GEN-DROP    PINE FLT  13.80  GEN==49.00(7.55)
 0
#
#
##########################################################################################
  #
  # BUS FAULT CONTINGENCIES
  #
##########################################################################################
#
# (41) BUS FAULT  30765  "LOSBANOS BUS 1"
 1  30765  30670  "1"    0     # LINE from  LOSBANOS 230.00  to  WESTLEY  230.00
 1  30765  30790  "2"    0     # LINE from  LOSBANOS 230.00  to  PANOCHE  230.00
```

```
 1  30765  38625  "1"    0     # LINE from  LOSBANOS 230.00  to  SN LS PP 230.00
 1  30765  38625  "2"    0     # LINE from  LOSBANOS 230.00  to  SN LS PP 230.00
 2  30765  34214  "4"    0     # TRAN from  LOSBANOS 230.00  to  LOS BANS  70.00
 6  30765      0  "v"    0     # SHUNT Capacitors at Los Banos
 0
#
# (42) BUS FAULT  30765  "LOSBANOS BUS 2"
 1  30765  30790  "1"    0     # LINE from  LOSBANOS 230.00  to  PANOCHE  230.00
 1  30765  38615  "1"    0     # LINE from  LOSBANOS 230.00  to  DS AMIGO 230.00
 2  30765  34214  "3"    0     # TRAN from  LOSBANOS 230.00  to  LOS BANS  70.00
 0
#
# (43) BUS FAULT  30790  "PANOCHE BUS 1"
 1  30790  30760  "1"    0     # LINE from  PANOCHE  230.00  to  COBURN   230.00
 1  30790  30765  "1"    0     # LINE from  PANOCHE  230.00  to  LOSBANOS 230.00
 1  30790  30765  "2"    0     # LINE from  PANOCHE  230.00  to  LOSBANOS 230.00
 1  30790  30825  "1"    0     # LINE from  PANOCHE  230.00  to  MCMULLN1 230.00
 1  30790  30900  "1"    0     # LINE from  PANOCHE  230.00  to  GATES    230.00
 2  30790  30791  "1"    0     # TRAN from  PANOCHE  230.00  to  PNCHE 1M 230.00
 0
#
# (44) BUS FAULT  30790  "PANOCHE BUS 2"
 1  30790  30750  "1"    0     # LINE from  PANOCHE  230.00  to  MOSSLND2 230.00
 1  30790  30873  "1"    0     # LINE from  PANOCHE  230.00  to  HELM     230.00
 1  30790  30900  "2"    0     # LINE from  PANOCHE  230.00  to  GATES    230.00
 1  30790  38615  "1"    0     # LINE from  PANOCHE  230.00  to  DS AMIGO 230.00
 2  30790  30792  "2"    0     # TRAN from  PANOCHE  230.00  to  PNCHE 2M 230.00
 0
#
# (45) BUS FAULT  30835  "HERNDON BUS 1"
 1  30835  30810  "1"    0     # LINE from  HERNDON  230.00  to  GREGG    230.00
 1  30835  30829  "1"    0     # LINE from  HERNDON  230.00  to  P0429    230.00
 2  30835  30882  "1"    0     # TRAN from  HERNDON  230.00  to  HERNDN1M 115.00
 0
#
# (46) BUS FAULT  30835  "HERNDON BUS 2"
 1  30835  30810  "2"    0     # LINE from  HERNDON  230.00  to  GREGG    230.00
 1  30835  30840  "1"    0     # LINE from  HERNDON  230.00  to  FGRDN T1 230.00
 2  30835  30883  "2"    0     # TRAN from  HERNDON  230.00  to  HERNDN2M 115.00
 0
#
# (47) BUS FAULT  30875  "MC CALL BUS 1"
 1  30875  30870  "1"    0     # LINE from  MC CALL  230.00  to  PINE FLT 230.00
 1  30875  30880  "1"    0     # LINE from  MC CALL  230.00  to  HENTAP2  230.00
 2  30875  30877  "2"    0     # TRAN from  MC CALL  230.00  to  MCCALL2M 115.00
 6  30875      0  "v"    0     # SHUNT Capacitors at Mc Call
 0
# (48) BUS FAULT  30875  "MC CALL BUS 2"
 1  30875  30860  "1"    0     # LINE from  MC CALL  230.00  to  BALCH3TP 230.00
 1  30875  30873  "1"    0     # LINE from  MC CALL  230.00  to  HELM     230.00
 2  30875  30876  "1"    0     # TRAN from  MC CALL  230.00  to  MCCALL1M 115.00
 2  30875  30878  "3"    0     # TRAN from  MC CALL  230.00  to  MCCALL3M 115.00
 0
#
# (49) BUS FAULT  30900  "GATES BUS D1"
 1  30900  30790  "1"    0     # LINE from  GATES    230.00  to  PANOCHE  230.00
 1  30900  30905  "1"    0     # LINE from  GATES    230.00  to  TEMPLETN 230.00
 2  30900  30901  "1"    0     # TRAN from  GATES    230.00  to  GATES 1M 230.00
 6  30900      0  "v"    0     # SHUNT Capacitors at Gates
 0
#
# (50) BUS FAULT  30900  "GATES BUS D2"
 1  30900  30790  "2"    0     # LINE from  GATES    230.00  to  PANOCHE  230.00
 1  30900  30915  "1"    0     # LINE from  GATES    230.00  to  MORROBAY 230.00
 0
#
# (51) BUS FAULT  30900  "GATES BUS E1"
 1  30900  30879  "1"    0     # LINE from  GATES    230.00  to  HENTAP1  230.00
 1  30900  30935  "1"    0     # LINE from  GATES    230.00  to  ARCO     230.00
 0
#
# (52) BUS FAULT  30900  "GATES BUS E2"
 1  30900  30880  "1"    0     # LINE from  GATES    230.00  to  HENTAP2  230.00
 1  30900  30970  "1"    0     # LINE from  GATES    230.00  to  MIDWAY   230.00
 0
#
# (53) BUS FAULT  34134  "WILSON A"
 1  34134  34116  "1"    0     # LINE from  WILSON A 115.00  to  LE GRAND 115.00
 1  34134  34104  "1"    0     # LINE from  WILSON A 115.00  to  ATWATER  115.00
```

APPENDIX B – AUTOCON INPUT FILE

```
 1  34134  34144  "1"    0     # LINE from  WILSON A 115.00  to  MERCED   115.00
 2  34134  30800  "1"    0     # TRAN from  WILSON A 115.00  to  WILSON   230.00
 1  34134 34136  "1 "    0     # LINE from  WILSON A 115.00  to  WILSON B 115.00
 4  34134     0  "3 "    0     # LOAD-DROP    WILSON A 115.00  LOAD==26.66(6.08)
 6  34134     0  "v"    0     # SHUNT Capacitors at Wilson A Bus
 0
#
# (54) BUS FAULT  34136  "WILSON B"
 1  34136  34118  "1"    0     # LINE from  WILSON B 115.00  to  LE GRNDJ 115.00
 1  34136  34138  "1"    0     # LINE from  WILSON B 115.00  to  EL CAPTN 115.00
 1  34136  34144  "2"    0     # LINE from  WILSON B 115.00  to  MERCED   115.00
 2  34136  30800  "2"    0     # TRAN from  WILSON B 115.00  to  WILSON   230.00
 1  34134 34136  "1 "    0     # LINE from  WILSON A 115.00  to  WILSON B 115.00
 0
#
# (55) BUS FAULT  34158  "PANOCHE BUS 1"
 1  34158  34157  "1"    0     # LINE from  PANOCHE  115.00  to  PANOCHET 115.00
 1  34158  34188  "1"    0     # LINE from  PANOCHE  115.00  to  P0406    115.00
 1  34158  34350  "1"    0     # LINE from  PANOCHE  115.00  to  KAMM     115.00
 2  34158  34186  "1"    0     # TRAN from  PANOCHE  115.00  to  DG_PAN1   13.80
 2  34158  30791  "1"    0     # TRAN from  PANOCHE  115.00  to  PNCHE 1M 230.00
 0
#
# (56) BUS FAULT  34158  "PANOCHE BUS 2"
 1  34158  34149  "1"    0     # LINE from  PANOCHE  115.00  to  CHENYT   115.00
 1  34158  34159  "1"    0     # LINE from  PANOCHE  115.00  to  PANOCHEJ 115.00
 2  34158  30792  "2"    0     # TRAN from  PANOCHE  115.00  to  PNCHE 2M 230.00
 0
#
# (57) BUS FAULT  34370  "MC CALL BUS D1"
 1  34370  34385  "1"    0     # LINE from  MC CALL  115.00  to  KINGS J1 115.00
 1  34370  34402  "1"    0     # LINE from  MC CALL  115.00  to  CAL AVE  115.00
 2  34370  30878  "3"    0     # TRAN from  MC CALL  115.00  to  MCCALL3M 115.00
 4  34370     0  "4 "    0     # LOAD-DROP    MC CALL  115.00  LOAD==23.23(5.29)
 4  34370     0  "5 "    0     # LOAD-DROP    MC CALL  115.00  LOAD==28.28(6.45)
 0
#
# (58) BUS FAULT  34370  "MC CALL BUS D2"
 1  34370  34404  "1"    0     # LINE from  MC CALL  115.00  to  WST FRSO 115.00
 1  34370  34369  "1"    0     # LINE from  MC CALL  115.00  to  P0418    115.00
 0
#
# (59) BUS FAULT  34370  "MC CALL BUS E1"
 1  34370  34366  "1"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34366  "3"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34382  "1"    0     # LINE from  MC CALL  115.00  to  WAHTOKE  115.00
 0
#
# (60) BUS FAULT  34370  "MC CALL BUS E2"
 1  34370  34366  "2"    0     # LINE from  MC CALL  115.00  to  SANGER   115.00
 1  34370  34377  "1"    0     # LINE from  MC CALL  115.00  to  AIRPROD  115.00
 1  34370  34423  "1"    0     # LINE from  MC CALL  115.00  to  GAURD J1 115.00
 2  34370  30876  "1"    0     # TRAN from  MC CALL  115.00  to  MCCALL1M 115.00
 0
#
# (61) BUS FAULT  34412  "HERNDON BUS 1"
 1  34412  34408  "1"    0     # LINE from  HERNDON  115.00  to  BARTON   115.00
 1  34412  34411  "1"    0     # LINE from  HERNDON  115.00  to  PNDLJ1   115.00
 0
#
# (62) BUS FAULT  34412  "HERNDON BUS 2"
 1  34412  34410  "1"    0     # LINE from  HERNDON  115.00  to  MANCHSTR 115.00
 1  34412  34409  "1"    0     # LINE from  HERNDON  115.00  to  PNDLJ2   115.00
 1  34412  34422  "1"    0     # LINE from  HERNDON  115.00  to  CHLDHOSP 115.00
 2  34412  30882  "1"    0     # TRAN from  HERNDON  115.00  to  HERNDN1M 115.00
 0
#
#
-1
# EOF
```