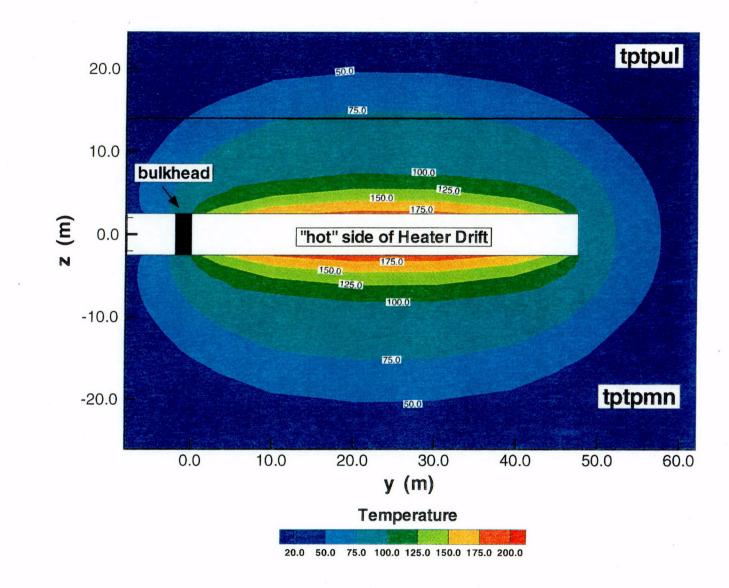


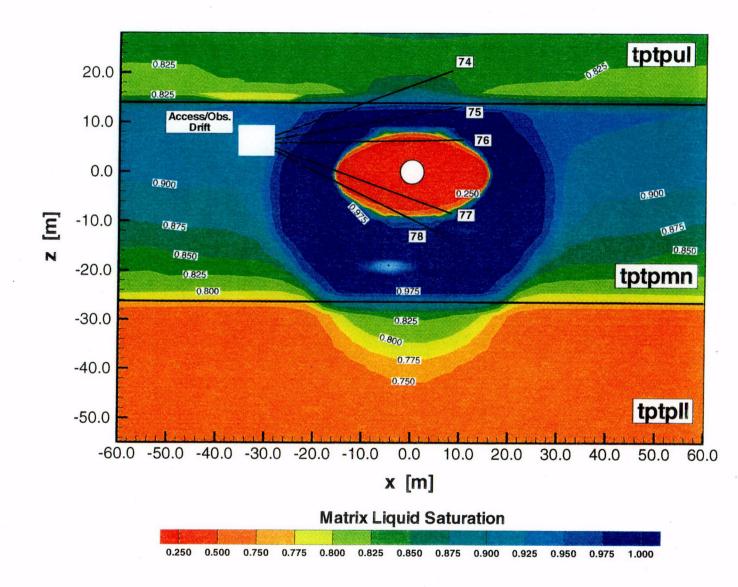
Figure 5.2-11 *I* Temperature response after 4 years of heating in yz-cross section at x = 0.0 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



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Figure 5.2-12 2 Matrix liquid saturation after 4 years of heating in xz-cross section at y=30.18 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%). Also presented is the location of hydrology holes 74 through 77.



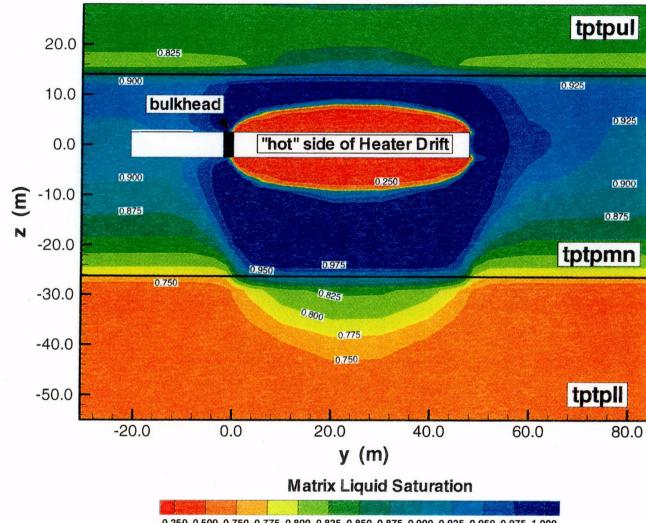
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Figure 5.2-13 3 Matrix liquid saturation after 4 years of heating in yz-cross section at x = 0.0 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



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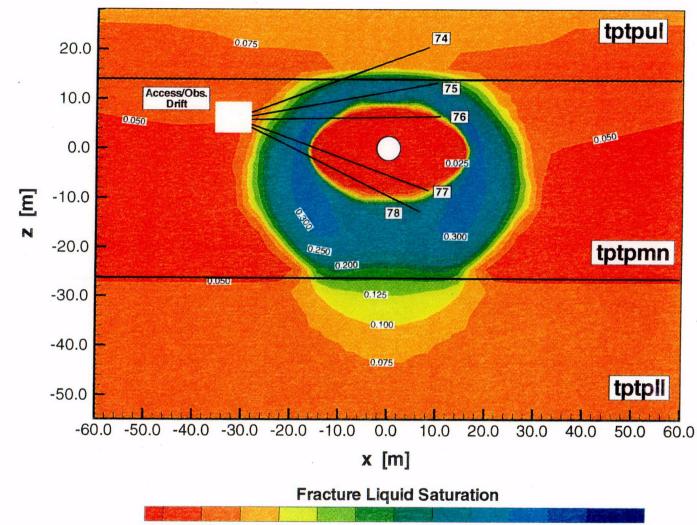
0.250 0.500 0.750 0.775 0.800 0.825 0.850 0.875 0.900 0.925 0.950 0.975 1.000

June 1997

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Figure 5.2-14 .14 Fracture liquid saturation after 4 years of heating in xz-cross section at y=30.18 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%). Also presented is the location of hydrology holes 74 through 77.



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0.025 0.050 0.075 0.100 0.125 0.150 0.175 0.200 0.250 0.300 0.350 0.400 0.500

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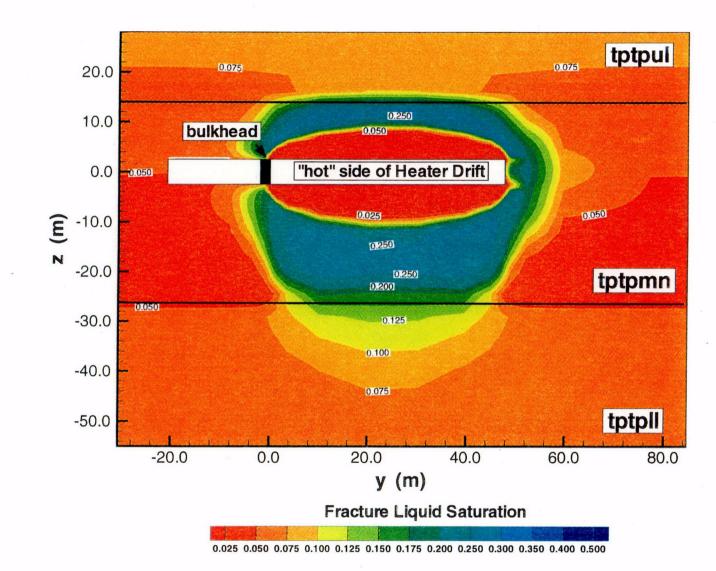
C-31

Pretest Analysis of the Thermal-Hydrological Conditions of the ESF Drift Scale Test

Figure 5.2-15 Fracture liquid saturation after 4 years of heating in yz-cross section at x = 0.0 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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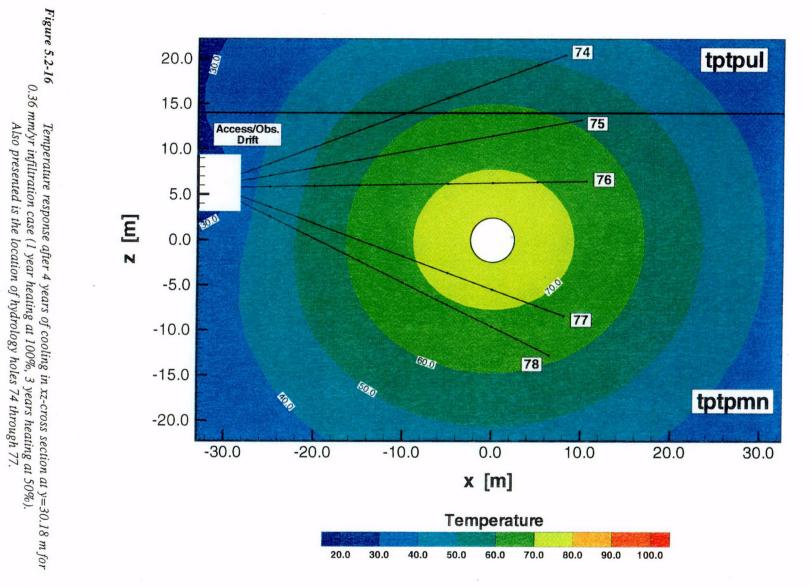


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Figure 5.2-16

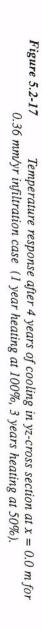
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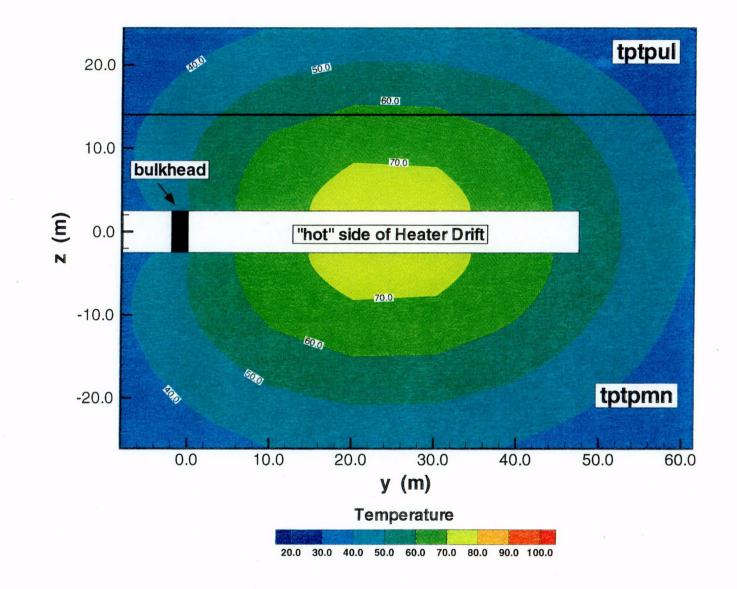


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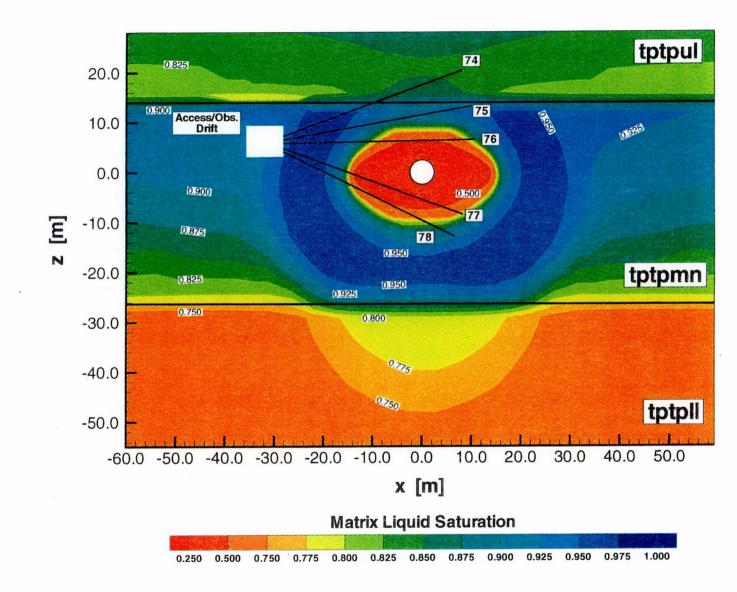
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Figure 5.2-18 8 Matrix liquid saturation after 4 years of cooling in xz-cross section at y=30.18 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%). Also presented is the location of hydrology holes 74 through 77

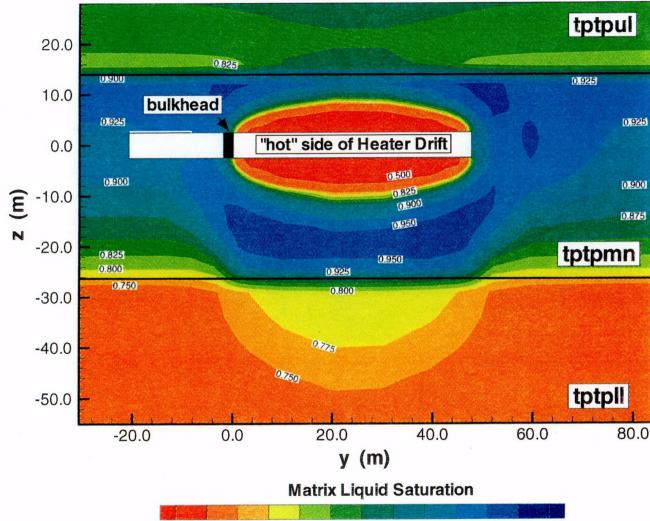


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Figure 5.2-19 9 Matrix liquid saturation after 4 years of cooling in yz-cross section at x=0.0 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



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0.250 0.500 0.750 0.775 0.800 0.825 0.850 0.875 0.900 0.925 0.950 0.975 1.000

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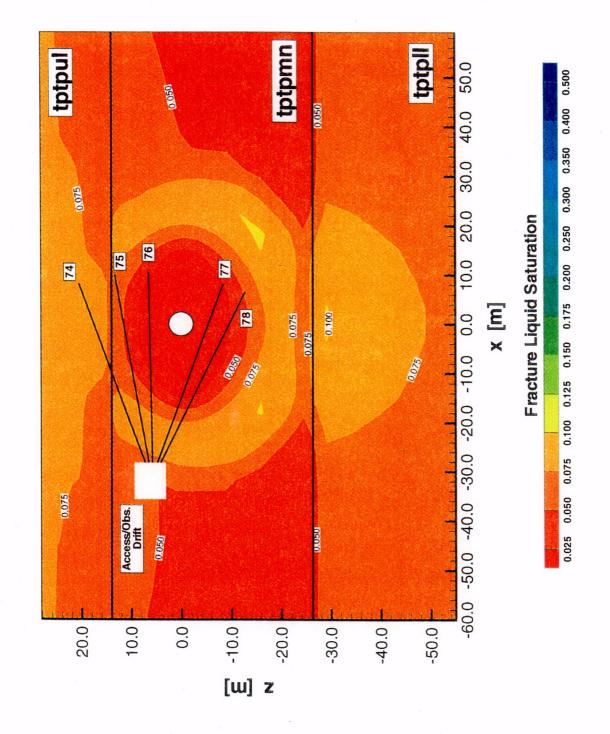
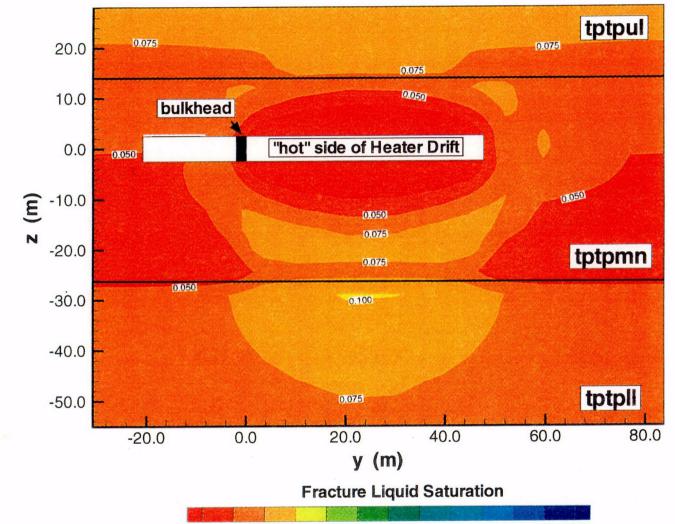


Figure 5.2-20Fracture liquid saturation after 4 years of cooling in xz - cross section at y = 30.18 m
for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).
Also presented is the location of hydrology holes 74 through 77.

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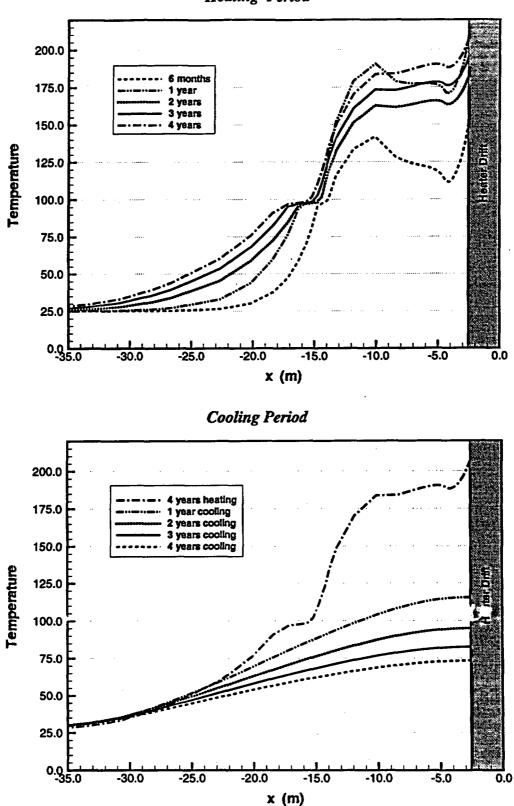
0.025 0.050 0.075 0.100 0.125 0.150 0.175 0.200 0.250 0.300 0.350 0.400 0.500

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Heating Period

Figure 5.2-22 Temperature profiles along x-axis at y = 30.18 m and z = 0.0 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

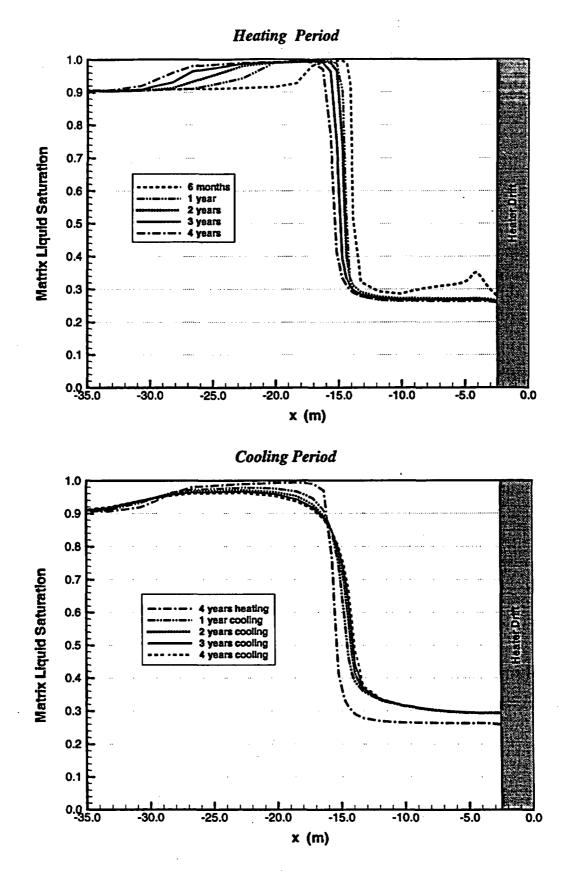


Figure 5.2-24 Matrix liquid saturation profiles along x-axis at y = 30.18 m and z = 0.0 m for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

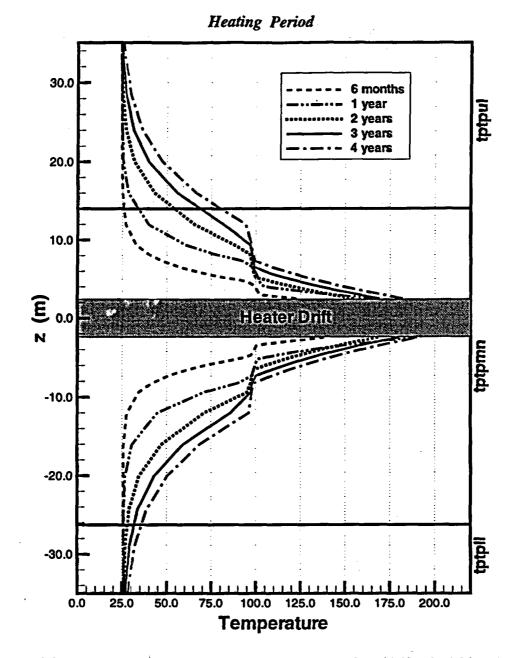


Figure 5.2-26 Temperature profiles along z-axis at x = 0.0 m and y = 30.18 m for 0.36 mm/yr infiltration case during heating (1 year heating at 100%, 3 years heating at 50%).

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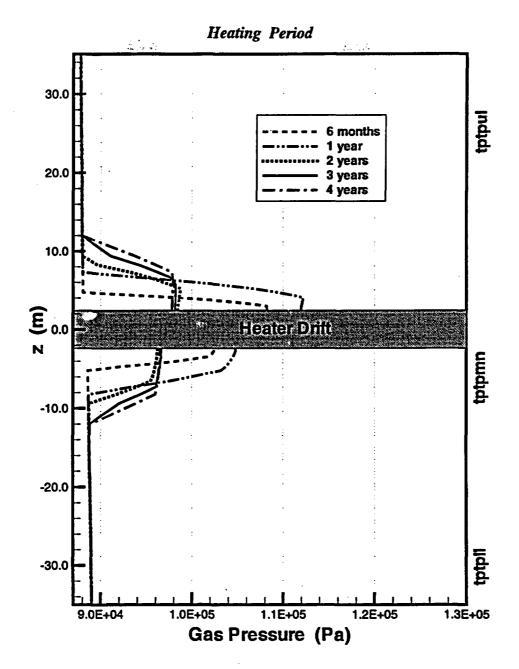


Figure 5.2-28 Gas pressure profiles along z-axis at x = 0.0 m and y = 30.18 m for 0.36 mm/yr infiltration case during heating (1 year heating at 100%, 3 years heating at 50%).

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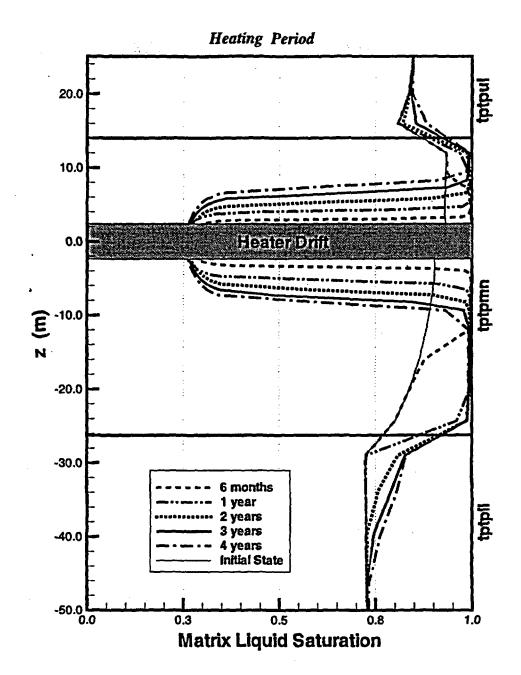


Figure 5.2-30 Matrix liquid saturation profiles along z-axis at x = 0.0 m and y = 30.18 m for 0.36 mm/yr infiltration case during heating (1 year heating at 100%, 3 years heating at 50%).

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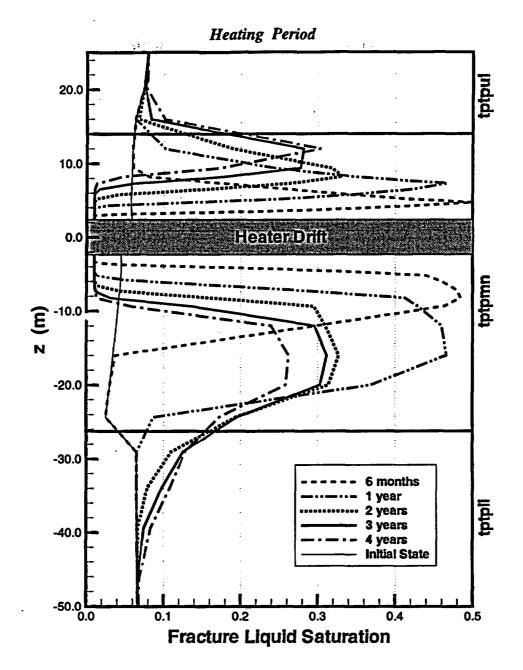


Figure 5.2-32 Fracture liquid saturation profiles along z-axis at x = 0.0 m and y = 30.18 m for 0.36 mm/yr infiltration case during heating (I year heating at 100%, 3 years heating at 50%).

Pretest Analysis of the Thermal-Hydrological Conditions of the ESF Drift Scale Test

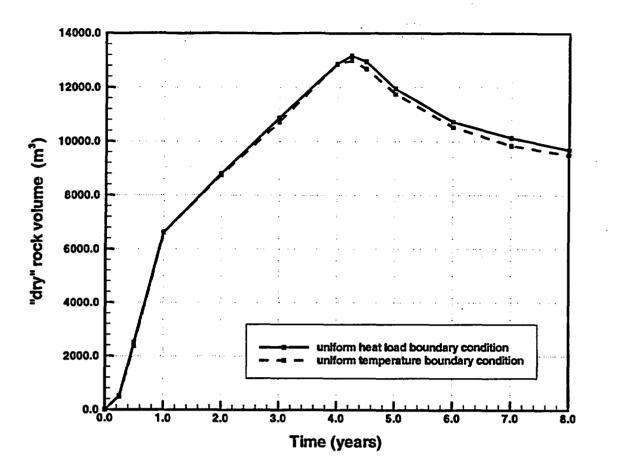


Figure 5.2-34 Evolution of dry-out rock volume for 0.36 mm/yr infiltration case. Both the uniform temperature and the uniform heat load case are shown (1 year heating at 100%, 3 years heating at 50%).

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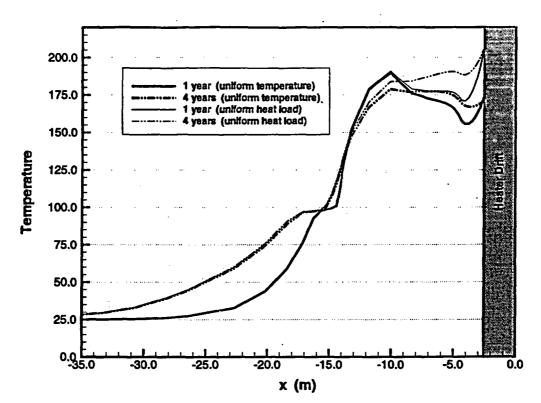


Figure 5.2-36 Temperature profiles along x-axis at y = 30.18 m and z = 0.0 m for 0.36 mm/yr infiltration case. Both the uniform temperature and the uniform heat load case are shown (1 year heating at 100%, 3 years heating at 50%).

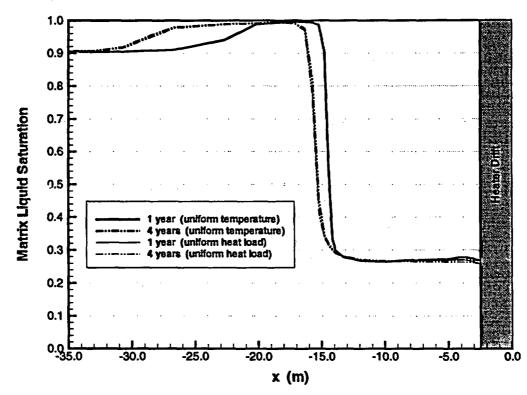
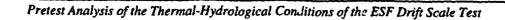
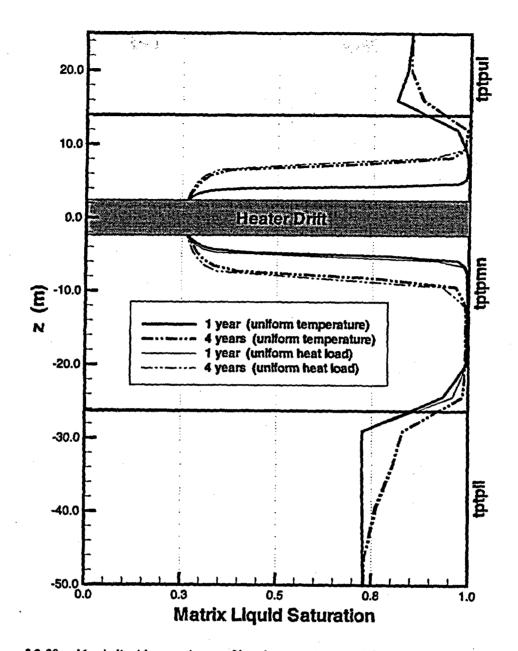


Figure 5.2-37 Matrix liquid saturation profiles along x-axis at y = 30.18 m and z = 0.0 m for 0.36 mm/yr infiltration case. Both the uniform temperature and the uniform heat load case are shown (1 year heating at 100%, 3 years heating at 50%).





F. sure 5.2-39 Matrix liquid saturation profiles along z-axis at x = 0.0 m and y = 30.1 cm. fo-0.36 mm/yr infiltration case. Both the uniform temperature and the uniform heat load case are shown (1 year heating at 100%, 3 years heating at 50%).

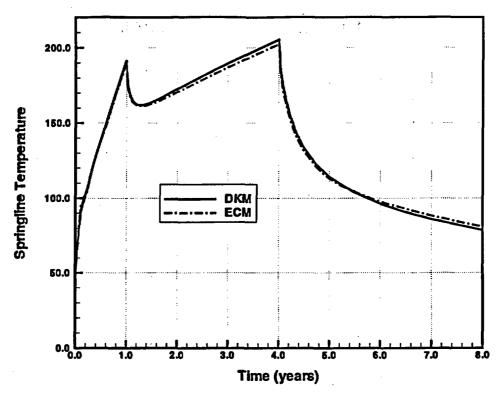


Figure 6.2-1 Temperature evolution at the heater drift wall for DKM versus ECM (1 year heating at 100%, 3 years heating at 50%).

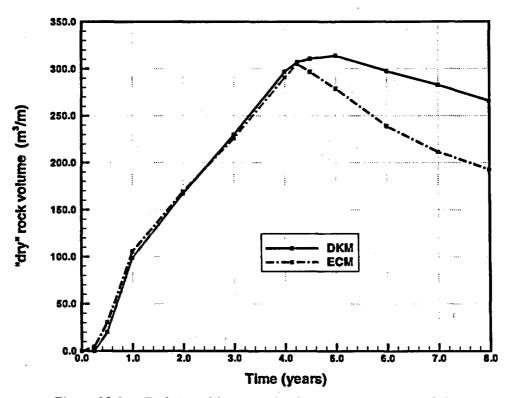
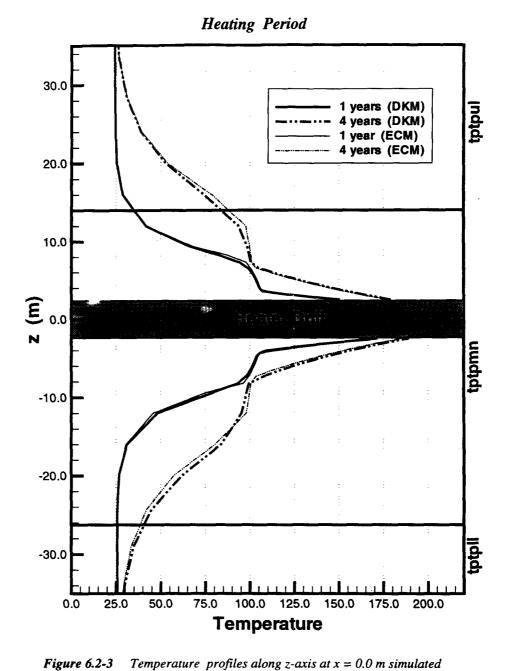
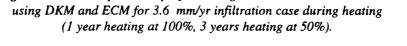


Figure 6.2-2 Evolution of dry-out rock volume for DKM versus ECM (1 year heating at 100%, 3 years heating at 50%).





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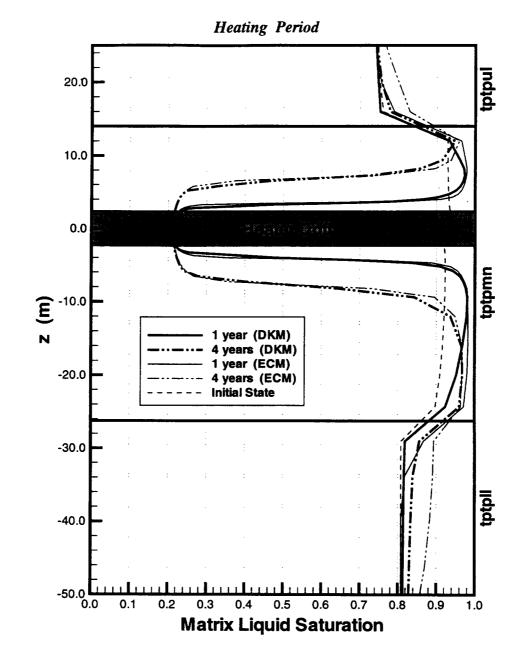
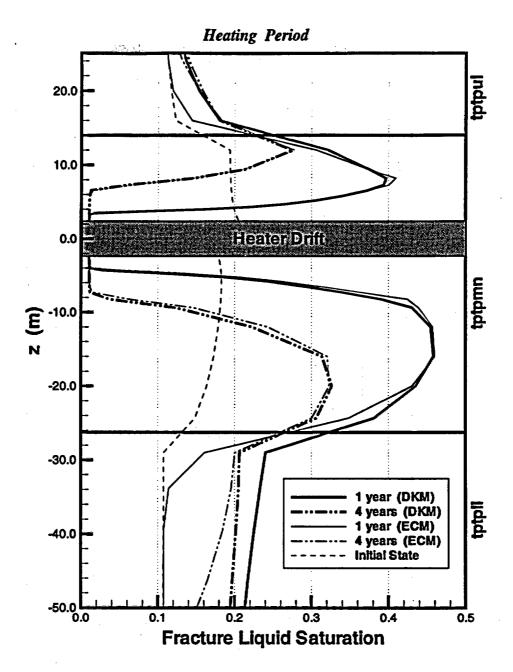
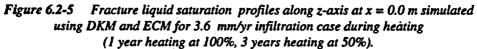


Figure 6.2-4 Matrix liquid saturation profiles along z-axis at x = 0.0 m simulated using DKM and ECM for 3.6 mm/yr infiltration case during heating (1 year heating at 100%, 3 years heating at 50%).





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## Appendix A1:

## Thermal-hydrological Response in Hydrology Holes

## 3.6 mm/yr infiltration

1 year heating at 100%, 3 years heating at 50%

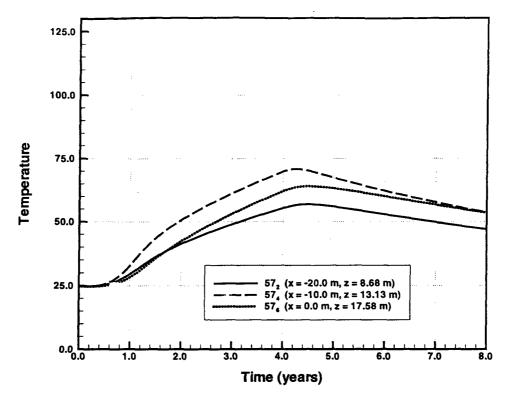


Figure A1-1 Temperature evolution at different sensor locations in borehole 57 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

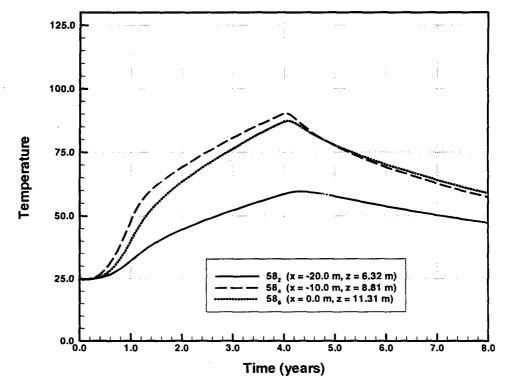


Figure A1-2 Temperature evolution at different sensor locations in borehole 58 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

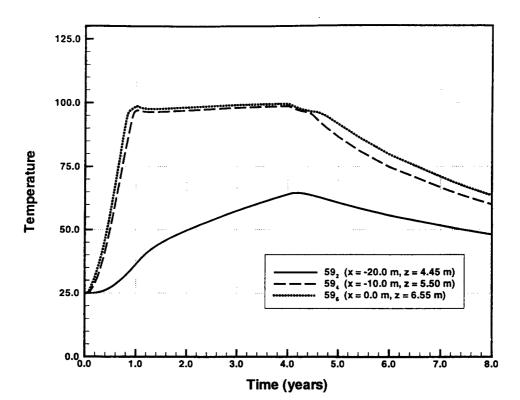


Figure A1-3 Temperature evolution at different sensor locations in borehole 59 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

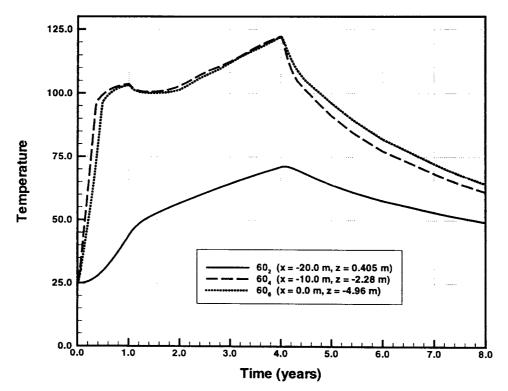


Figure AI-4 Temperature evolution at different sensor locations in borehole 60 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

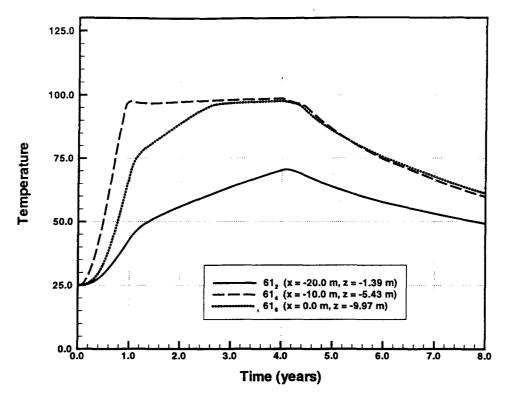


Figure A1-5 Temperature evolution at different sensor locations in borehole 61 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

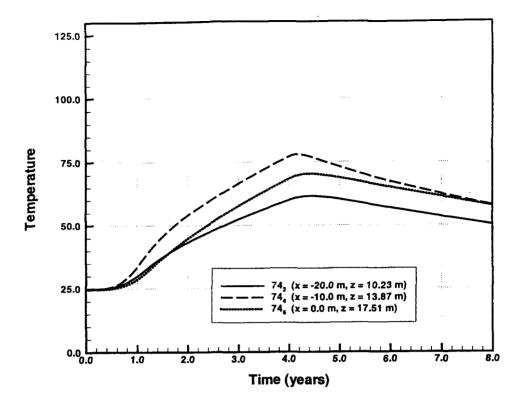


Figure A1-6 Temperature evolution at different sensor locations in borehole 74 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

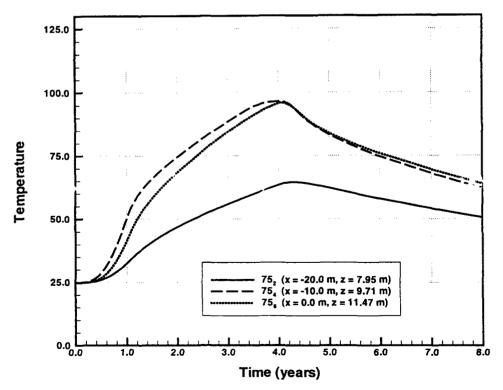


Figure A1-7 Temperature evolution at different sensor locations in borehole 75 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

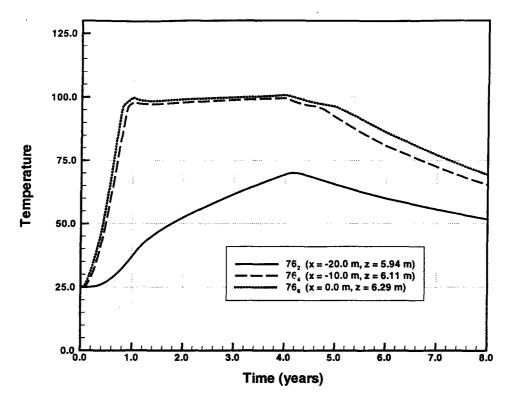


Figure A1-8 Temperature evolution at different sensor locations in borehole 76 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

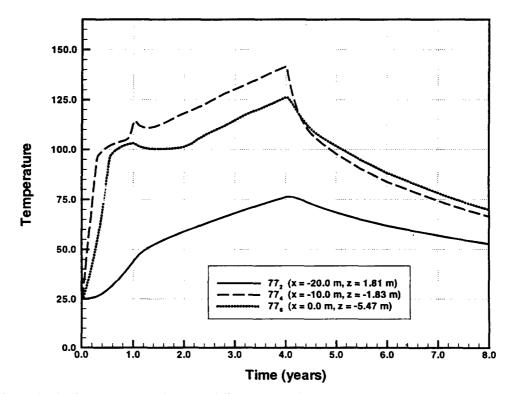


Figure A1-9 Temperature evolution at different sensor locations in borehole 77 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

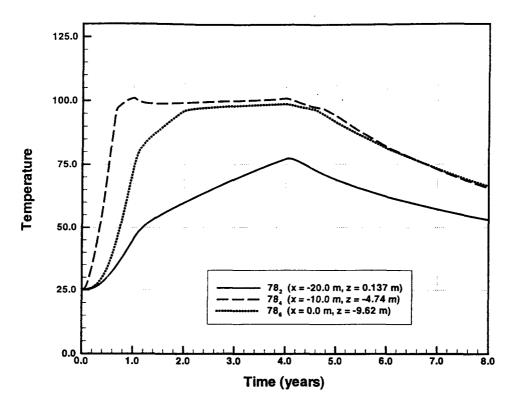


Figure A1-10 Temperature evolution at different sensor locations in borehole 78 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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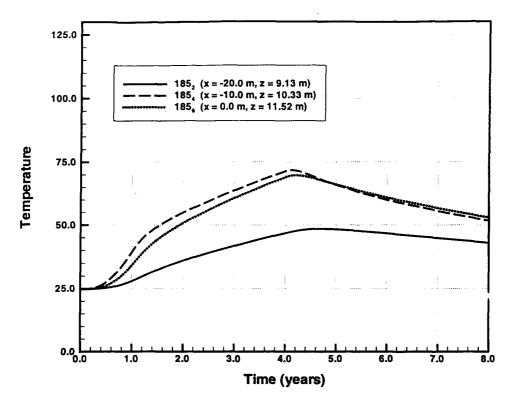


Figure A1-11 Temperature evolution at different sensor locations in borehole 185 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

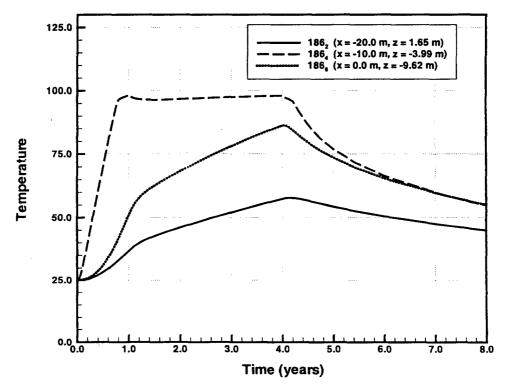


Figure A1-12 Temperature evolution at different sensor locations in borehole 186 for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

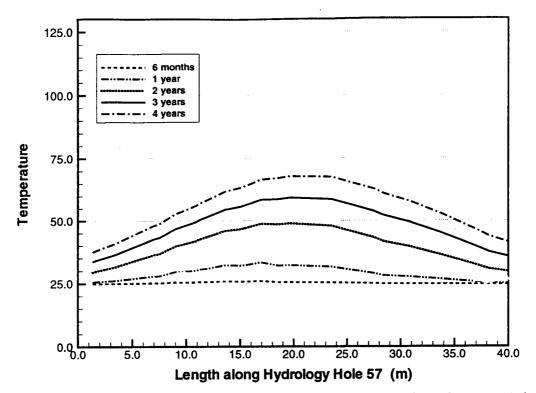


Figure A1-13 Temperature profile along borehole 57 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

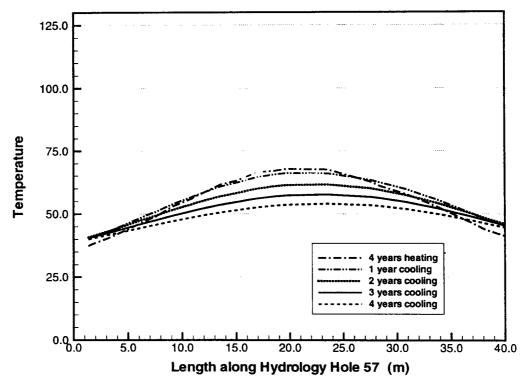


Figure A1-14 Temperature profile along borehole 57 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

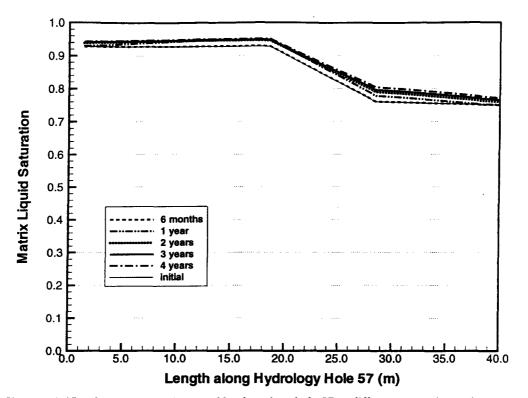


Figure A1-15 Matrix saturation profile along borehole 57 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

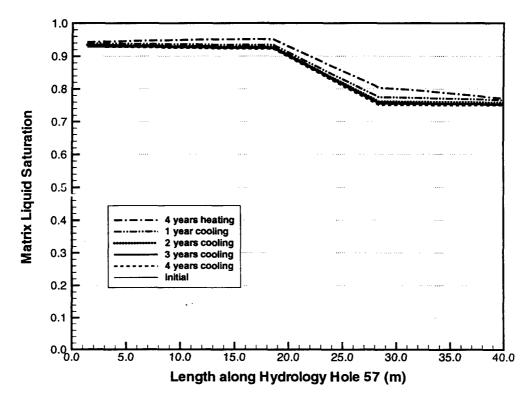


Figure A1-16 Matrix saturation profile along borehole 57 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

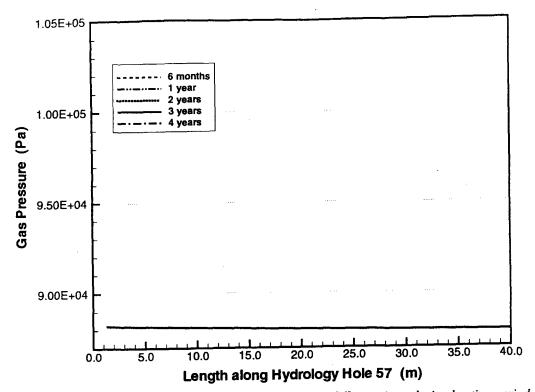


Figure A1-17 Gas pressure profile along borehole 57 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

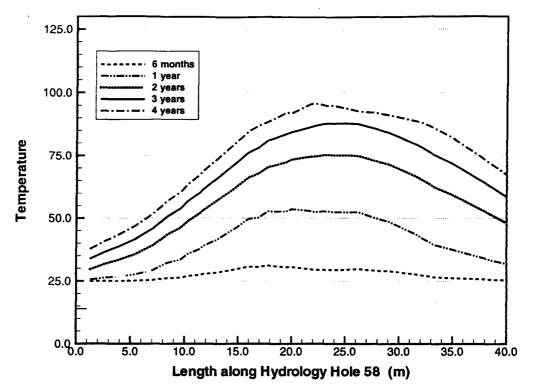
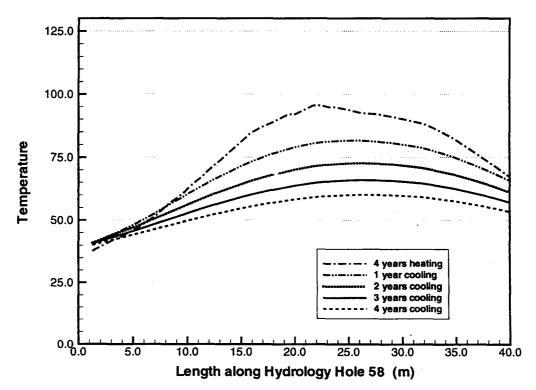


Figure A1-18 Temperature profile along borehole 58 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-19** Temperature profile along borehole 58 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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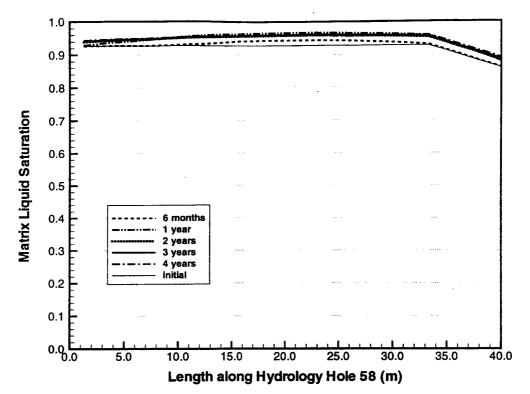


Figure A1-20 Matrix saturation profile along borehole 58 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

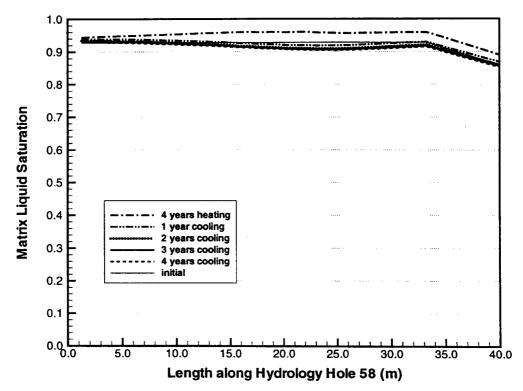
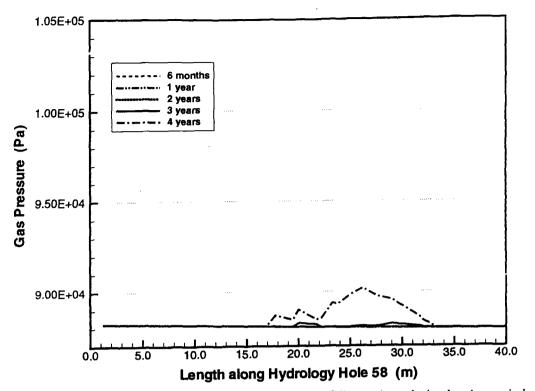
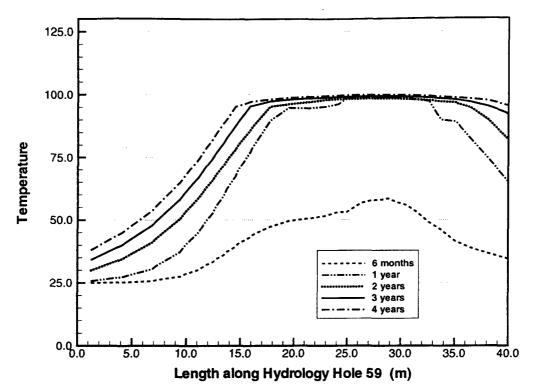


Figure A1-21 Matrix saturation profile along borehole 58 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-22** Gas pressure profile along borehole 58 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-23** Temperature profile along borehole 59 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

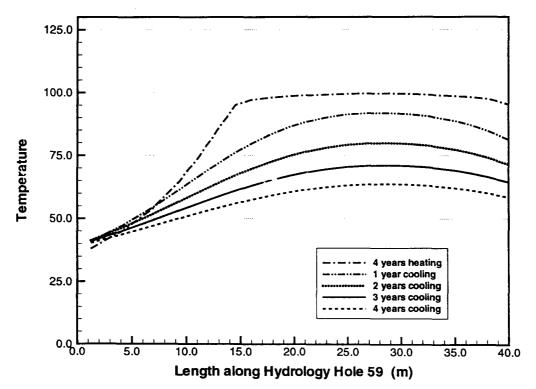


Figure A1-24 Temperature profile along borehole 59 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

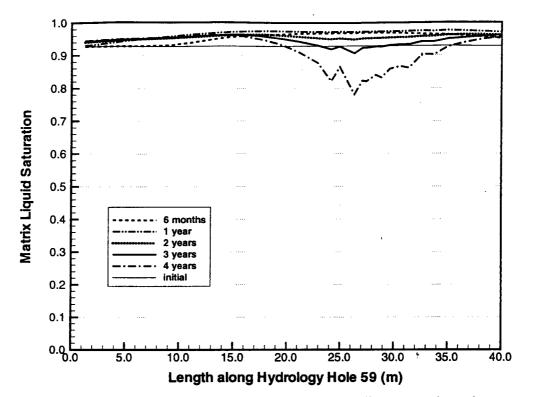
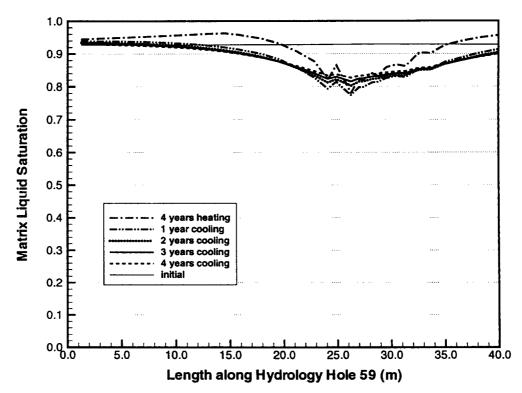
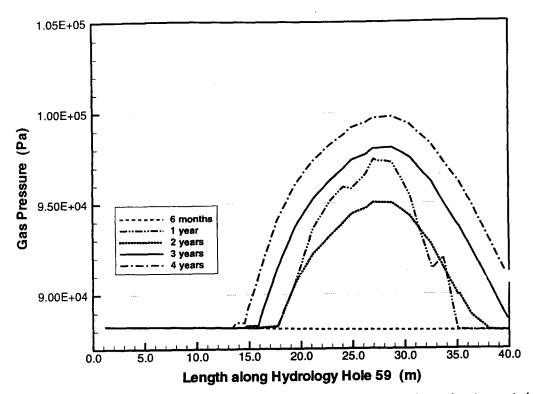


Figure A1-25 Matrix saturation profile along borehole 59 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-26** Matrix saturation profile along borehole 59 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-27** Gas pressure profile along borehole 59 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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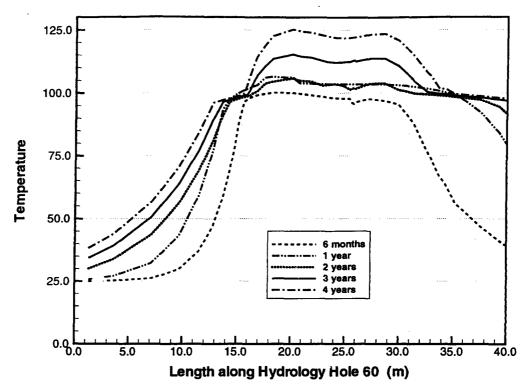


Figure A1-28 Temperature profile along borehole 60 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

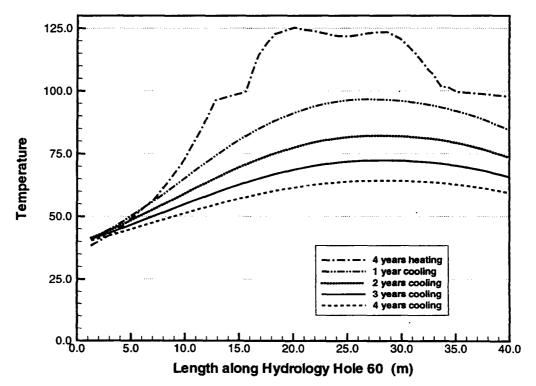
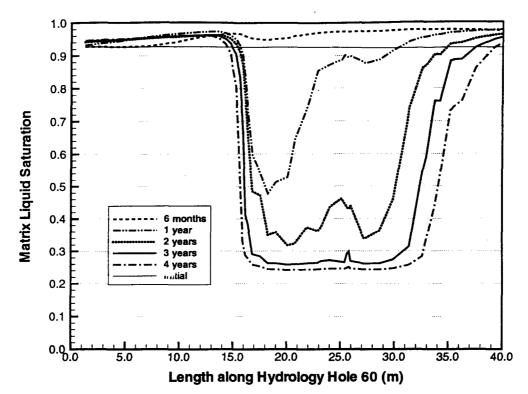


Figure A1-29 Temperature profile along borehole 60 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-30** Matrix saturation profile along borehole 60 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

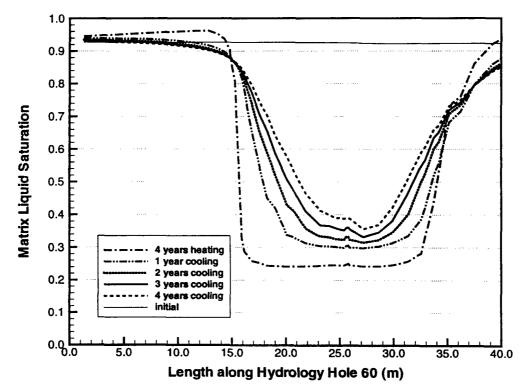
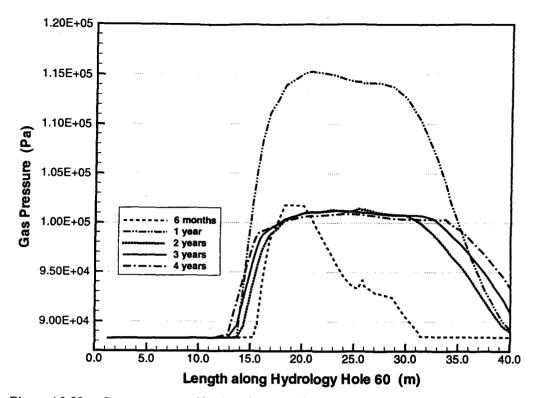


Figure A1-31 Matrix saturation profile along borehole 60 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-32** Gas pressure profile along borehole 60 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

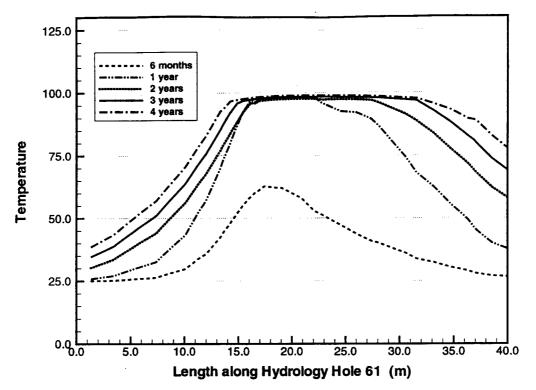


Figure A1-33 Temperature profile along borehole 61 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

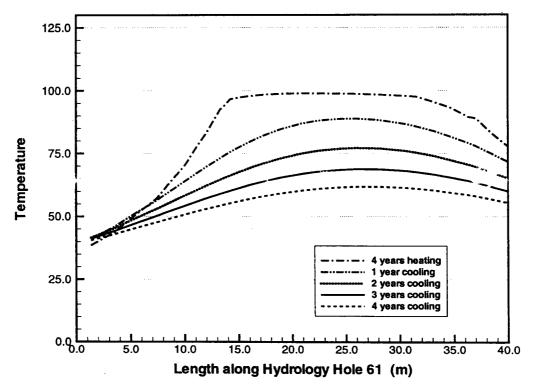


Figure A1-34 Temperature profile along borehole 61 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

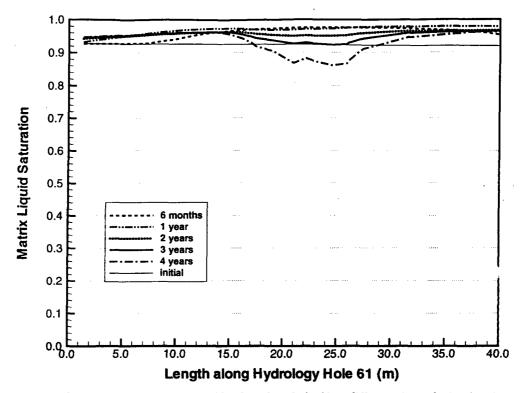


Figure A1-35 Matrix saturation profile along borehole 61 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

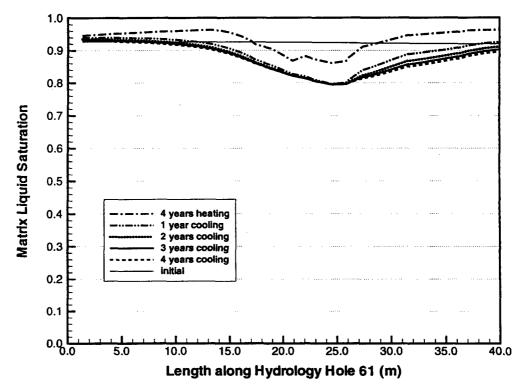


Figure A1-36 Matrix saturation profile along borehole 61 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

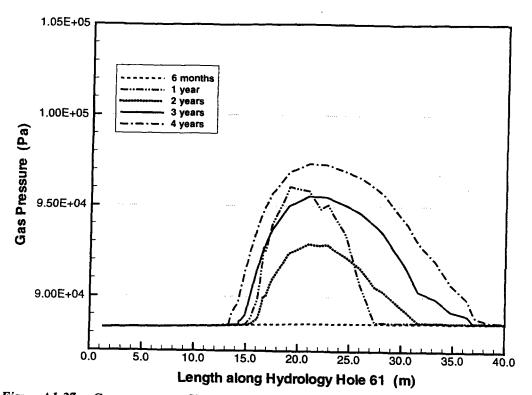


Figure A1-37 Gas pressure profile along borehole 61 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

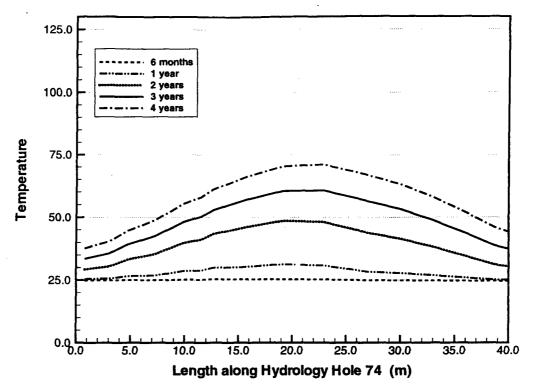
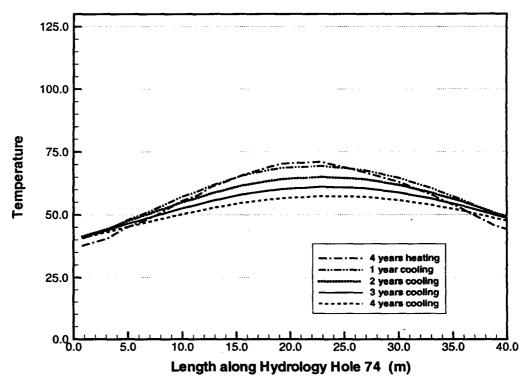


Figure A1-38 Temperature profile along borehole 74 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-39** Temperature profile along borehole 74 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

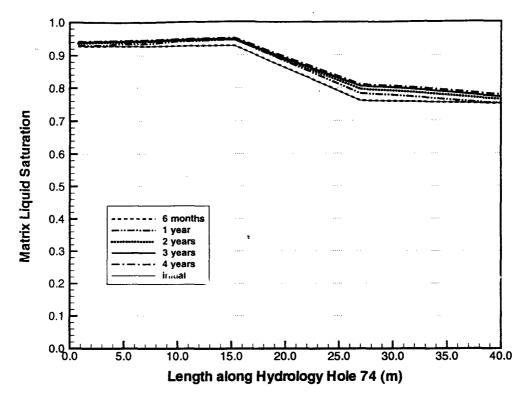


Figure A1-40 Matrix saturation profile along borehole 74 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

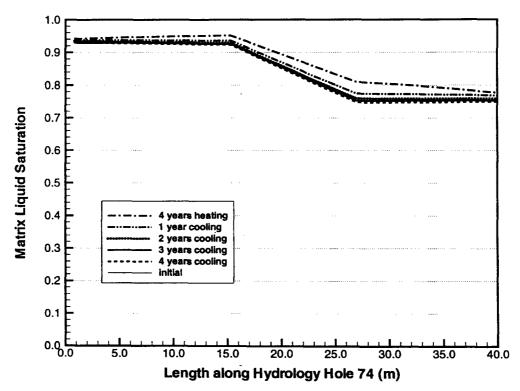
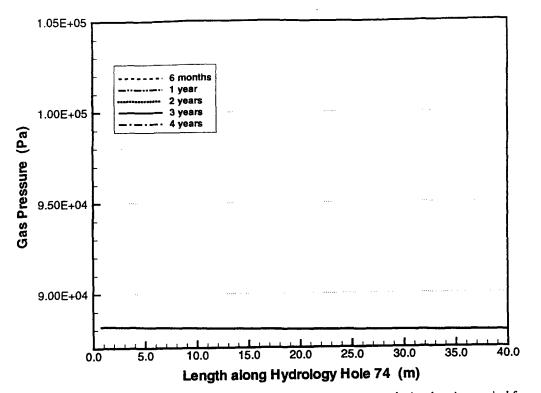
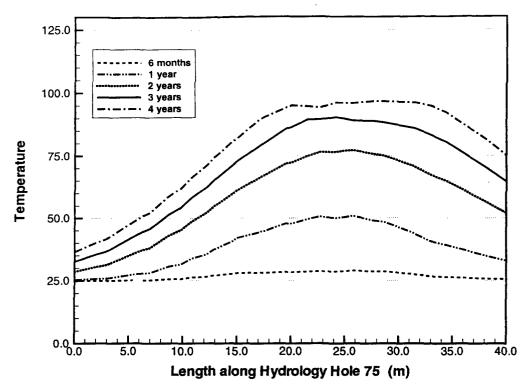


Figure A1-41 Matrix saturation profile along borehole 74 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-42** Gas pressure profile along borehole 74 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-43** Temperature profile along borehole 75 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

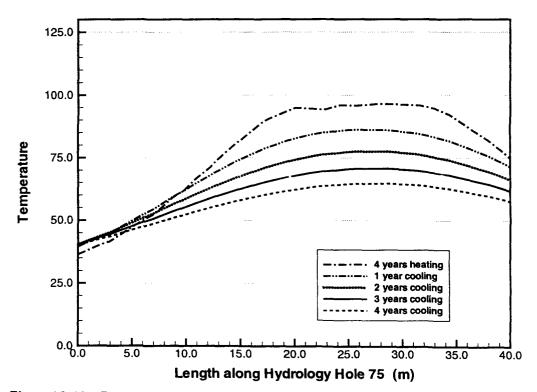


Figure A1-44 Temperature profile along borehole 75 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

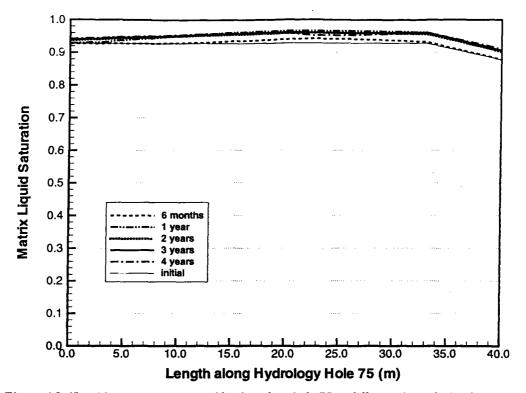


Figure A1-45 Matrix saturation profile along borehole 75 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

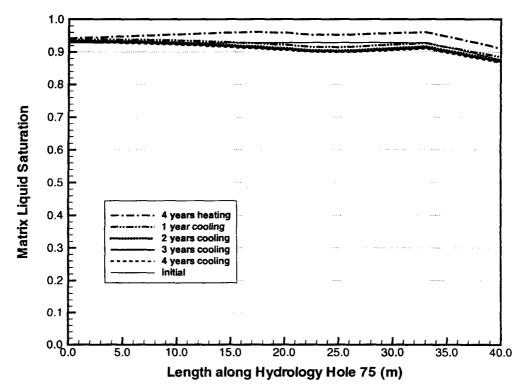
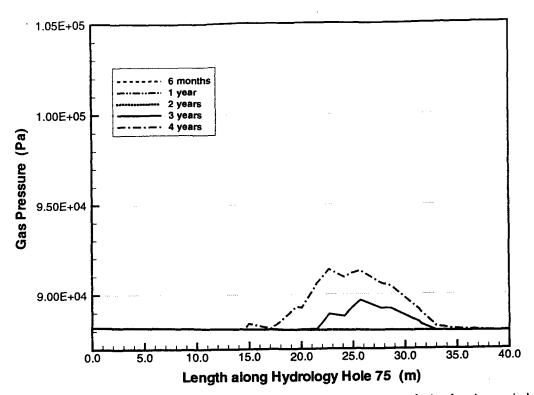
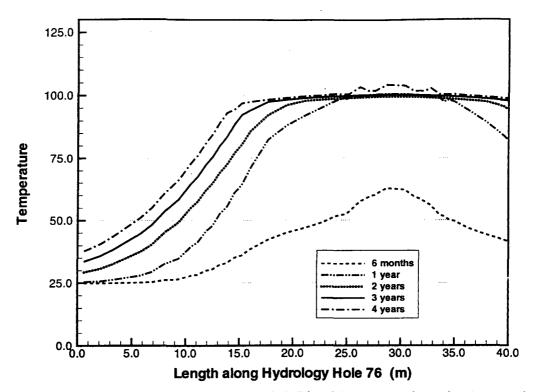


Figure A1-46 Matrix saturation profile along borehole 75 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

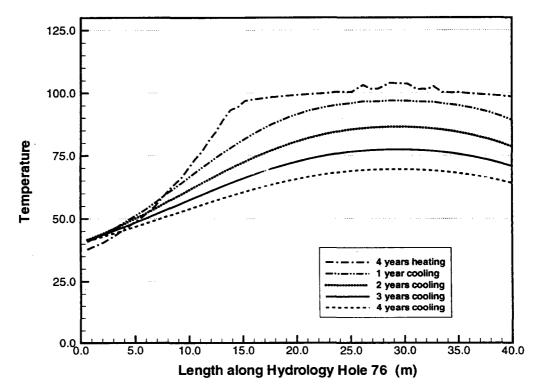


**Figure A1-47** Gas pressure profile along borehole 75 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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**Figure A1-48** Temperature profile along borehole 76 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-49** Temperature profile along borehole 76 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

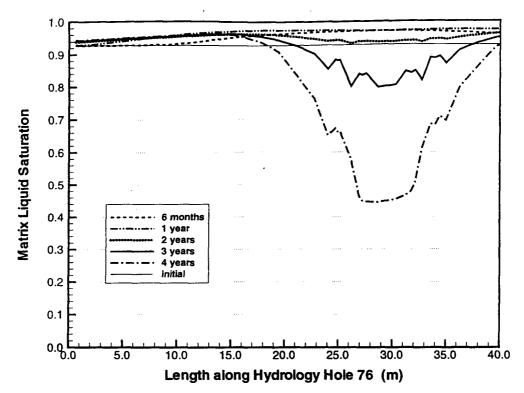


Figure A1-50 Matrix saturation profile along borehole 76 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

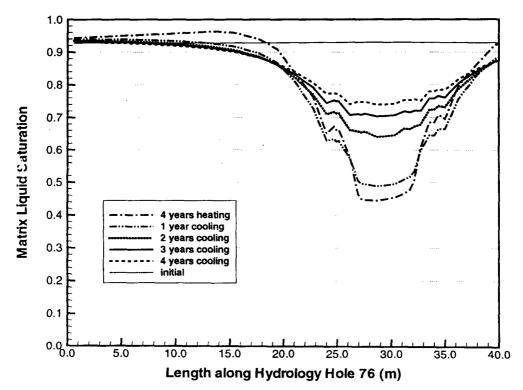
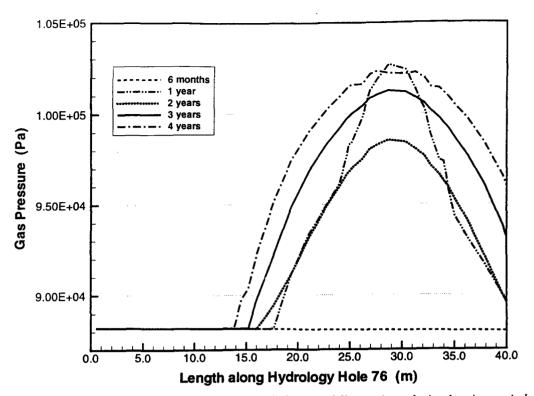


Figure A1-51 Matrix saturation profile along borehole 76 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-52** Gas pressure profile along borehole 76 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

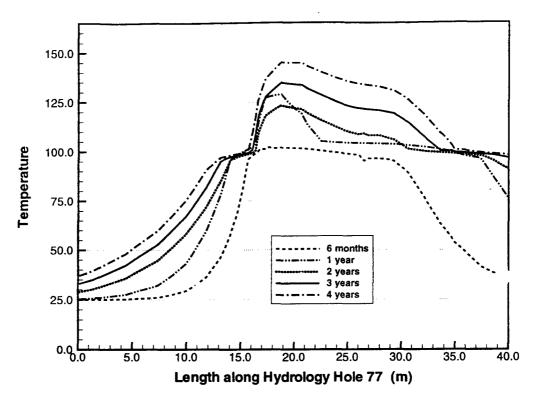


Figure A1-53 Temperature profile along borehole 77 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

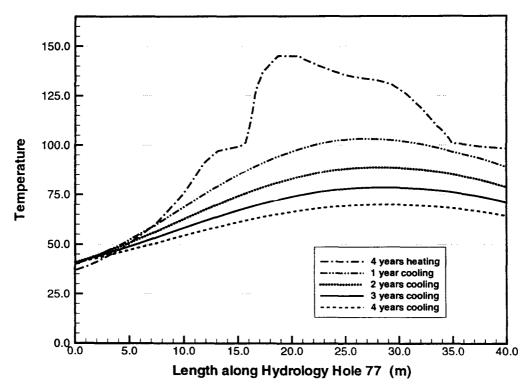


Figure A1-54 Temperature profile along borehole 77 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

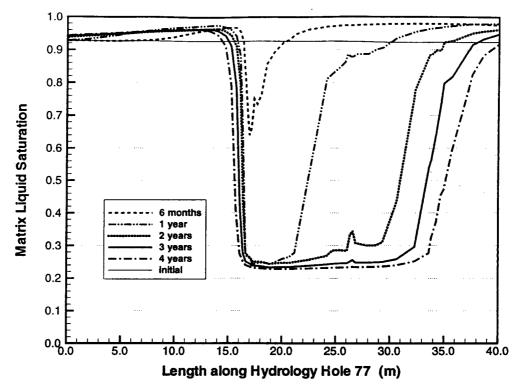


Figure A1-55 Matrix saturation profile along borehole 77 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

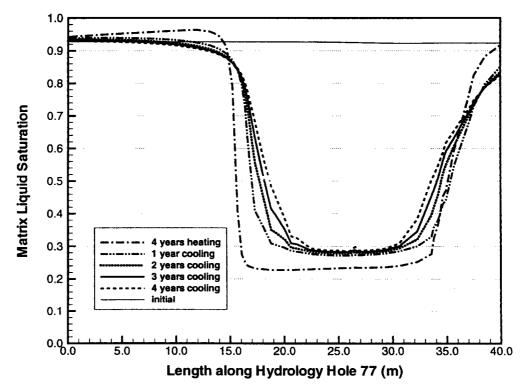


Figure A1-56 Matrix saturation profile along borehole 77 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

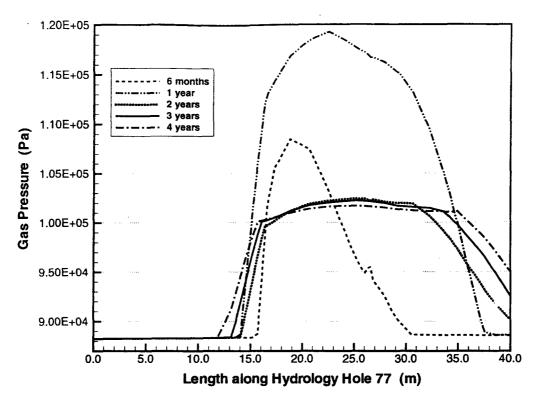
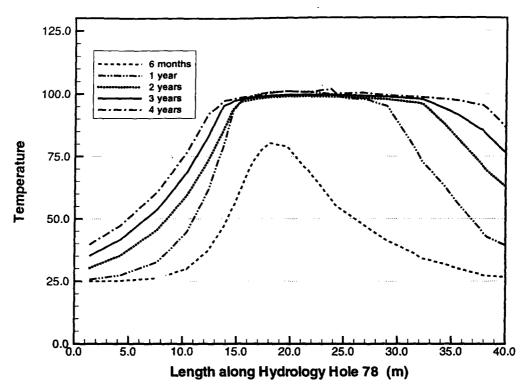


Figure A1-57 Gas pressure profile along borehole 77 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-58** Temperature profile along borehole 78 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%)

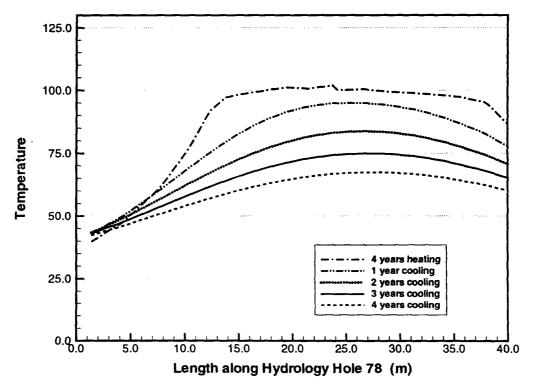


Figure A1-59 Temperature profile along borehole 78 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

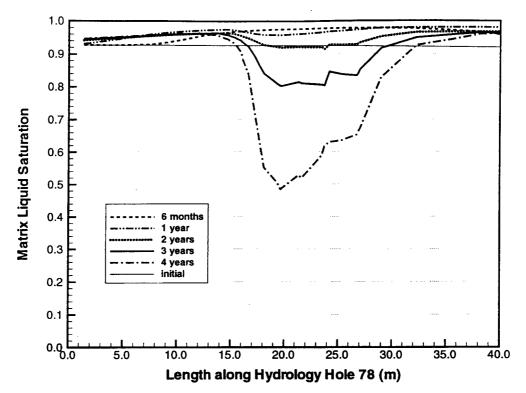


Figure A1-60 Matrix saturation profile along borehole 78 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

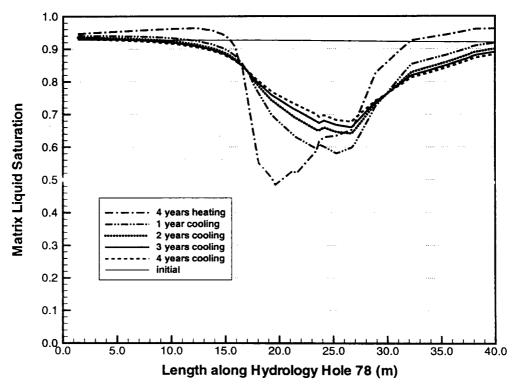
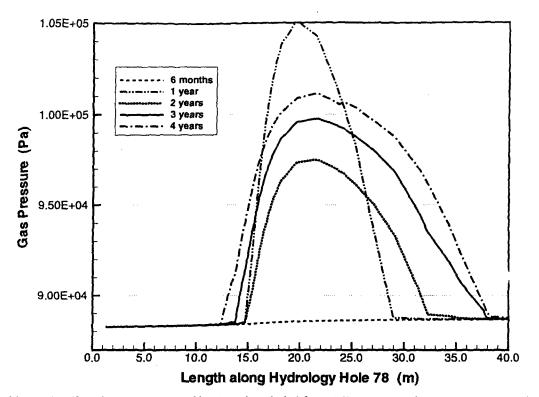


Figure A1-61 Matrix saturation profile along borehole 78 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-62** Gas pressure profile along borehole 78 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

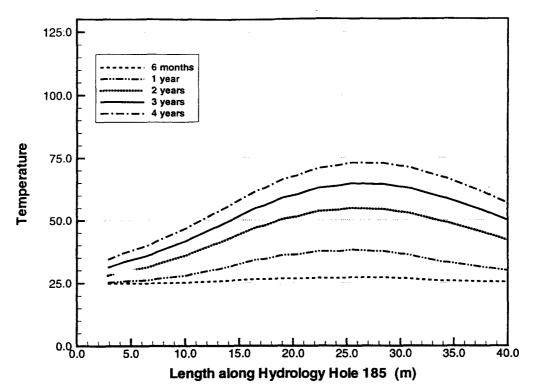


Figure A1-63 Temperature profile along borehole 185 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

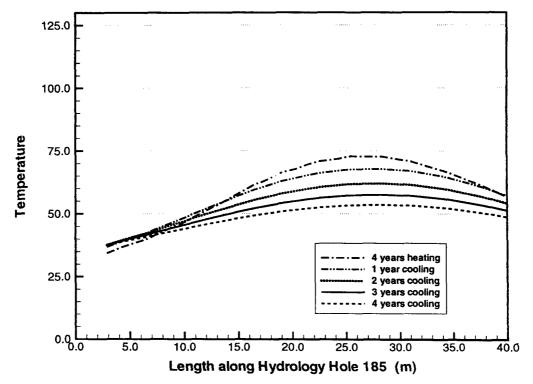


Figure A1-64 Temperature profile along borehole 185 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

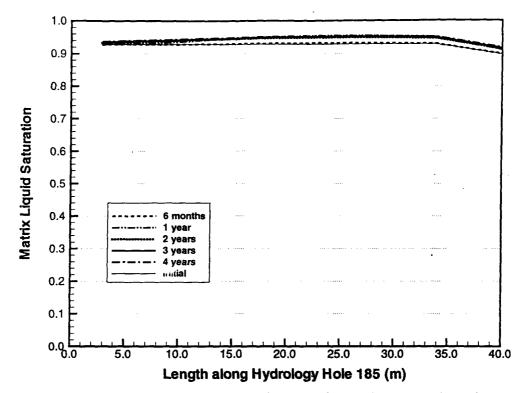


Figure A1-65 Matrix saturation profile along borehole 185 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

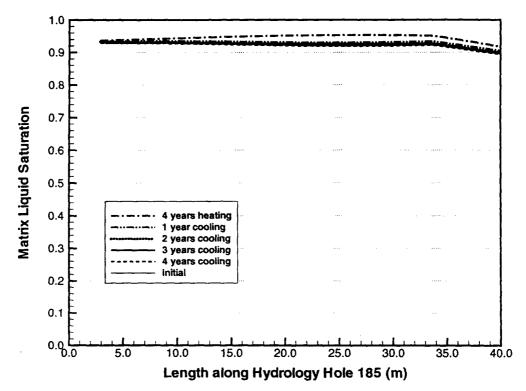
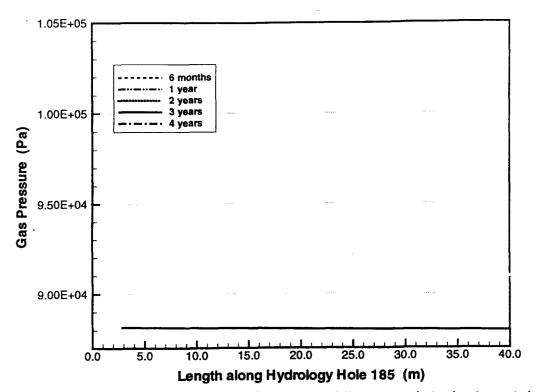
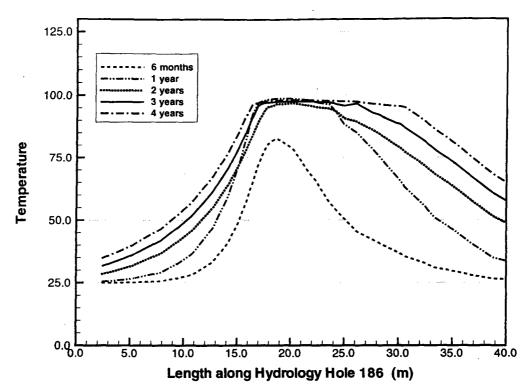


Figure A1-66 Matrix saturation profile along borehole 185 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A1-67** Gas pressure profile along borehole 185 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 heating years heating at 50%).



**Figure A1-68** Temperature profile along borehole 186 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

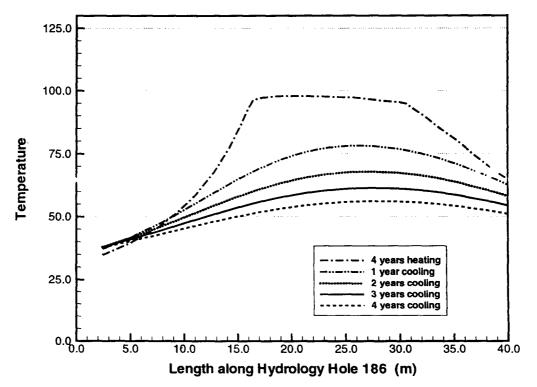
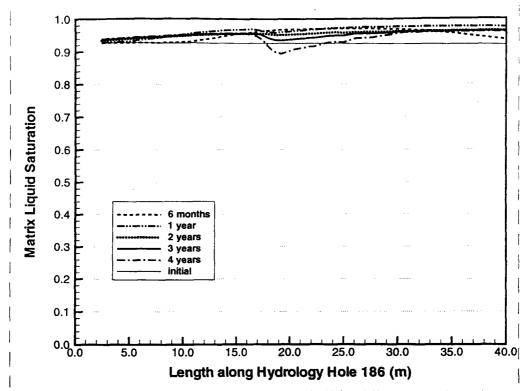
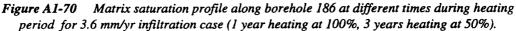


Figure A1-69 Temperature profile along borehole 186 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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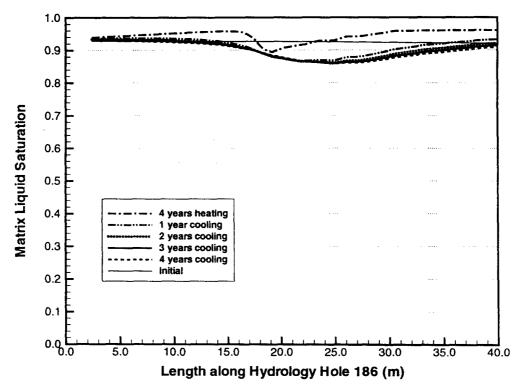


Figure A1-71 Matrix saturation profile along borehole 186 at different times during cooling period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

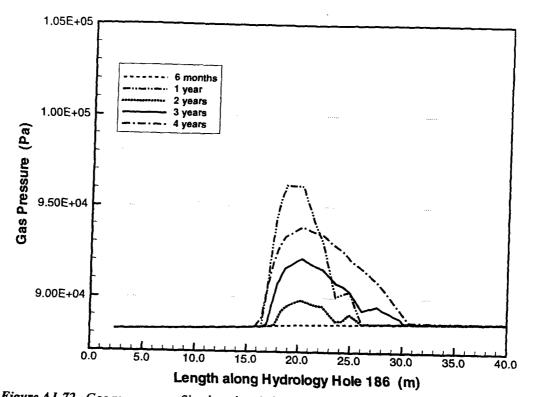


Figure A1-72 Gas pressure profile along borehole 186 at different times during heating period for 3.6 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

## Appendix A2:

## Thermal-hydrological Response in Hydrology Holes

## 0.36 mm/yr infiltration

1 year heating at 100%, 3 years heating at 50%

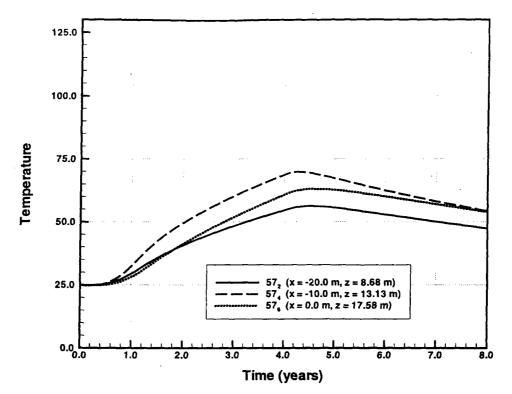


Figure A2-1 Temperature evolution at different sensor locations in borehole 57 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

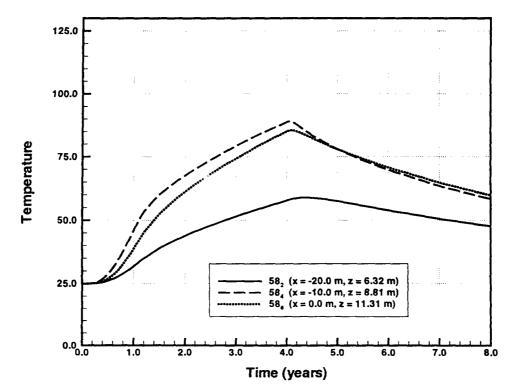


Figure A2-2 Temperature evolution at different sensor locations in borehole 58 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

A2-2

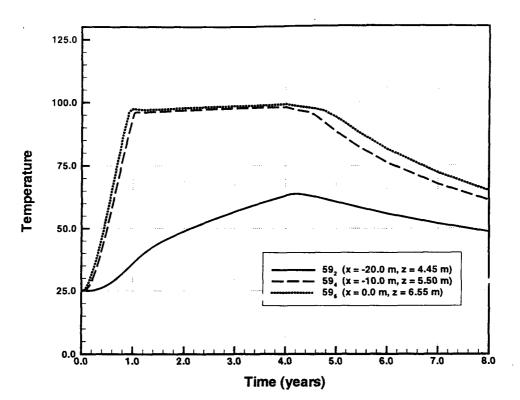


Figure A2-3 Temperature evolution at different sensor locations in borehole 59 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

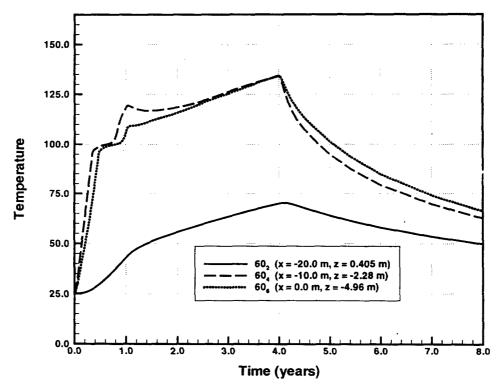


Figure A2-4 Temperature evolution at different sensor locations in borehole 60 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

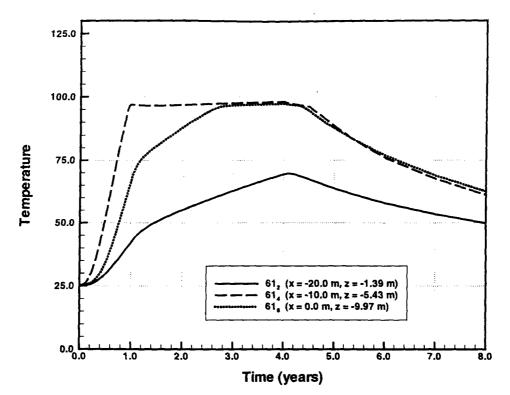


Figure A2-5 Temperature evolution at different sensor locations in borehole 61 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

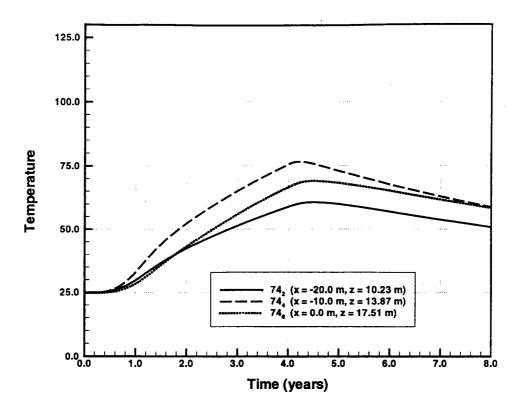


Figure A2-6 Temperature evolution at different sensor locations in borehole 74 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

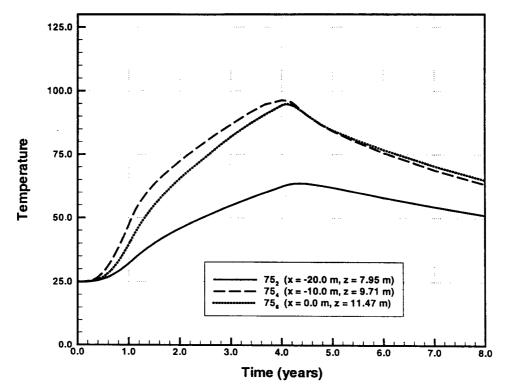


Figure A2-7 Temperature evolution at different sensor locations in borehole 75 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

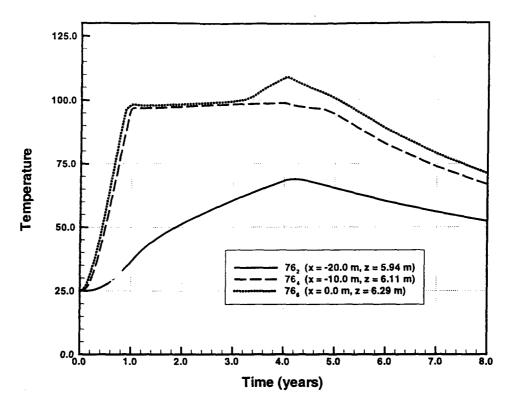


Figure A2-8 Temperature evolution at different sensor locations in borehole 76 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

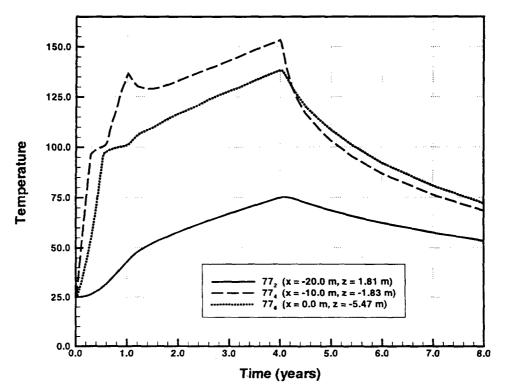


Figure A2-9 Temperature evolution at different sensor locations in borehole 77 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

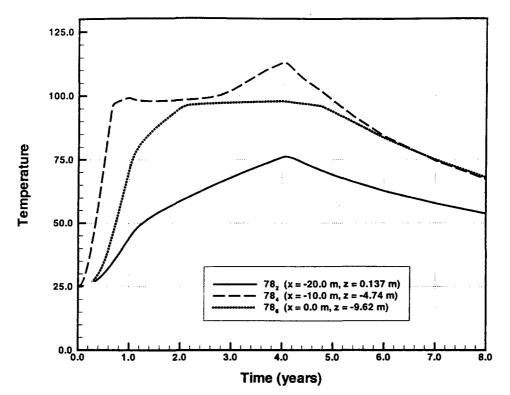


Figure A2-10 Temperature evolution at different sensor locations in borehole 78 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

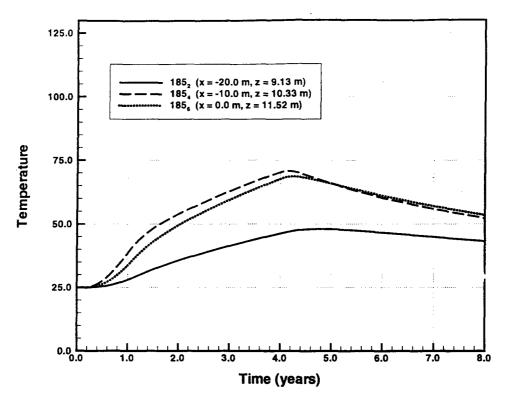


Figure A2-11 Temperature evolution at different sensor locations in borehole 185 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

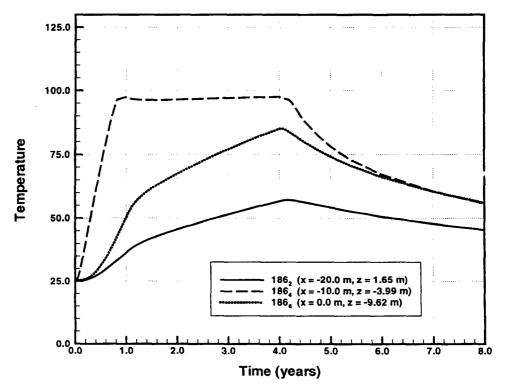
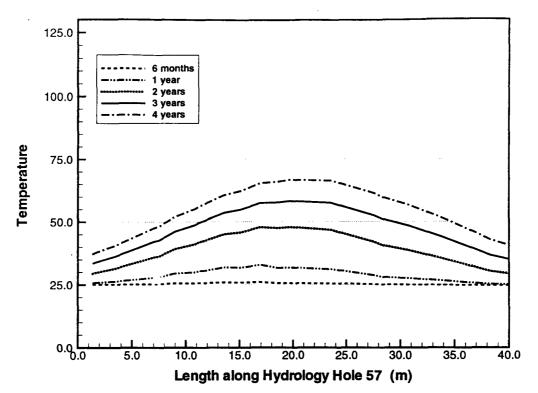


Figure A2-12 Temperature evolution at different sensor locations in borehole 186 for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-13** Temperature profile along borehole 57 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

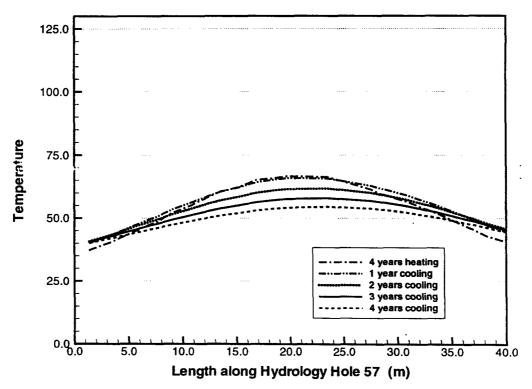


Figure A2-14 Temperature profile along borehole 57 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

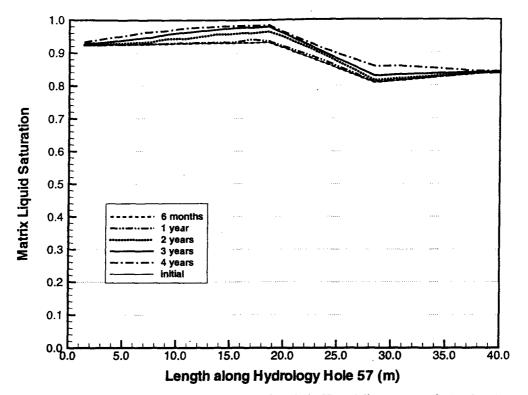


Figure A2-15 Matrix saturation profile along borehole 57 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

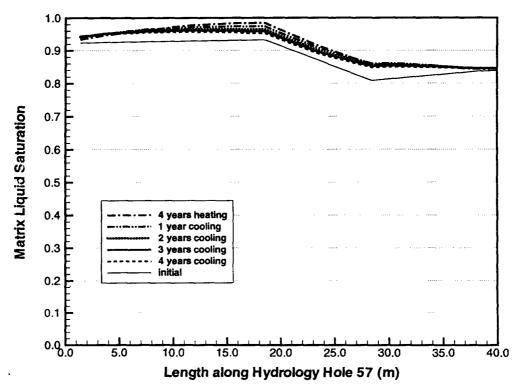
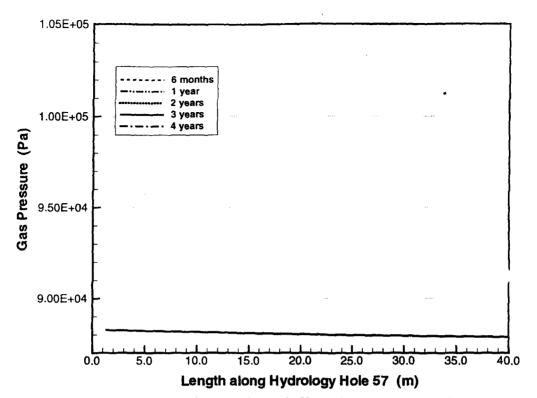
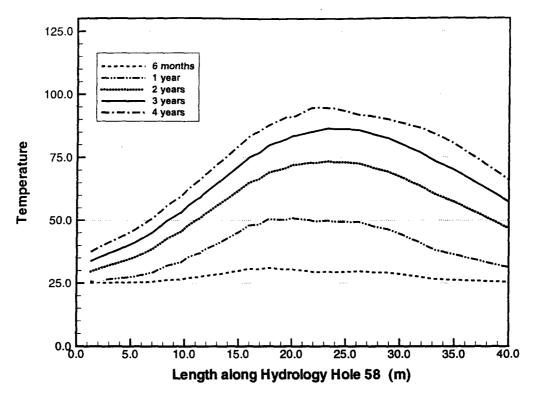


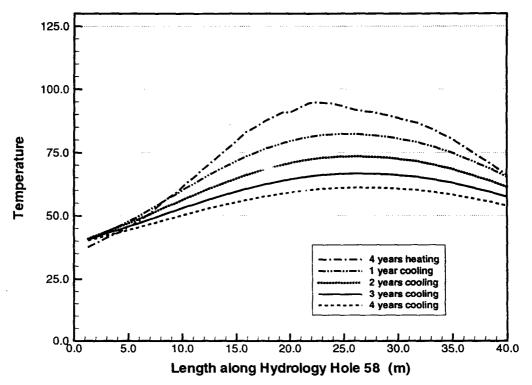
Figure A2-16 Matrix saturation profile along borehole 57 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-17** Gas pressure profile along borehole 57 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-18** Temperature profile along borehole 58 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-19** Temperature profile along borehole 58 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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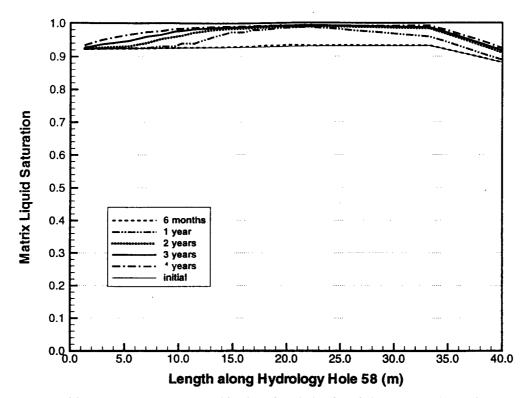


Figure A2-20 Matrix saturation profile along borehole 58 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

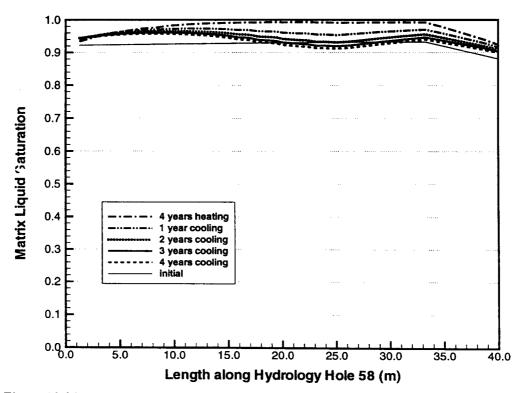


Figure A2-21 Matrix saturation profile along borehole 58 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

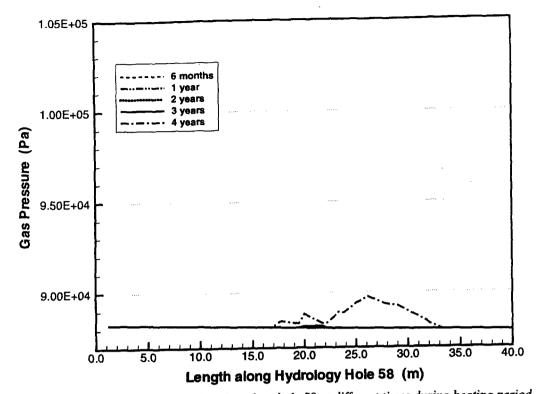
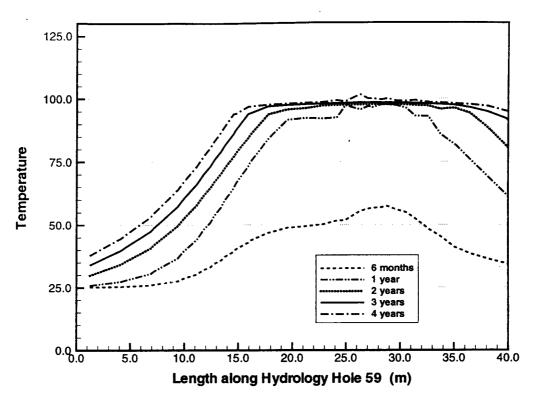


Figure A2-22 Gas pressure profile along borehole 58 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-23** Temperature profile along borehole 59 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

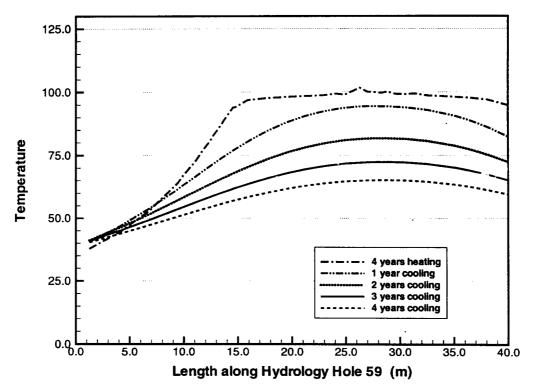


Figure A2-24 Temperature profile along borehole 59 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

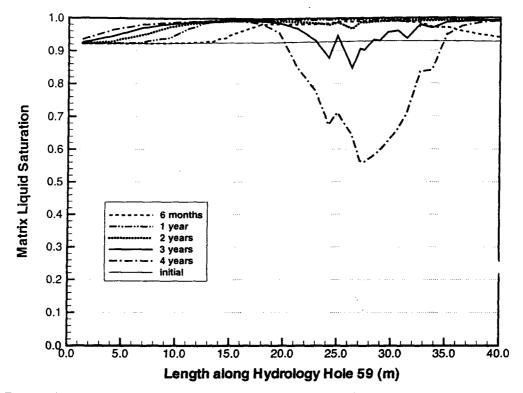


Figure A2-25 Matrix saturation profile along borehole 59 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

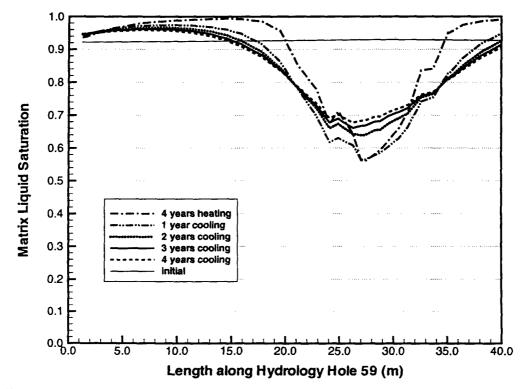
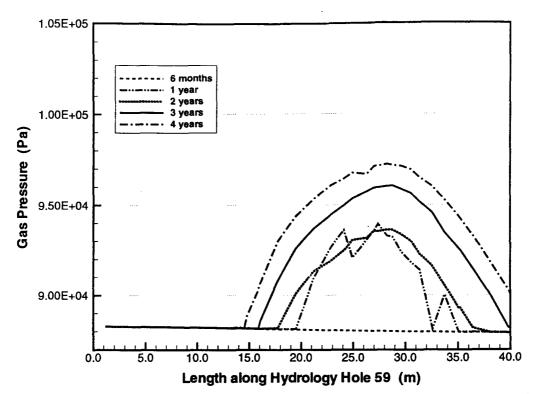


Figure A2-26 Matrix saturation profile along borehole 59 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-27** Gas pressure profile along borehole 59 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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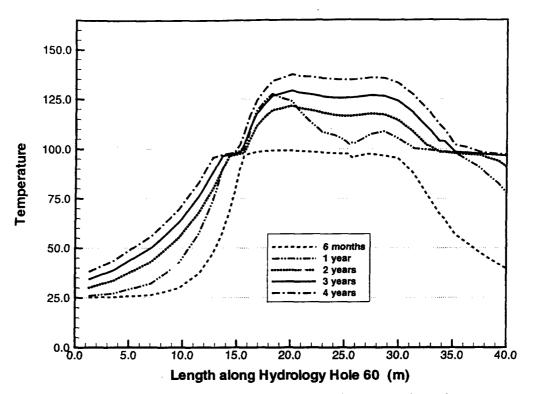
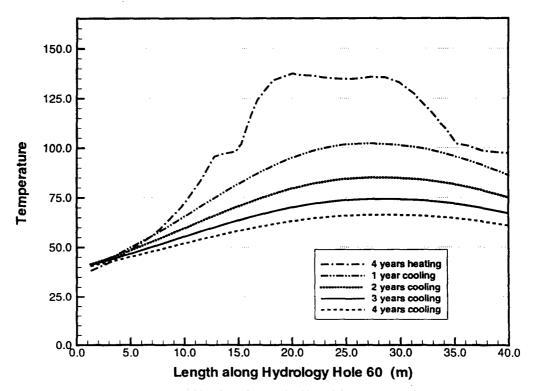


Figure A2-28 Temperature profile along borehole 60 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-29** Temperature profile along borehole 60 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

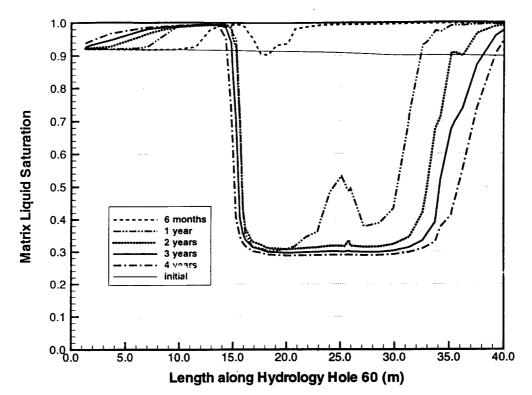


Figure A2-30 Matrix saturation profile along borehole 60 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

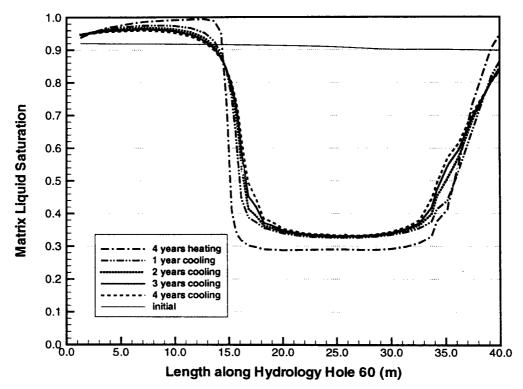
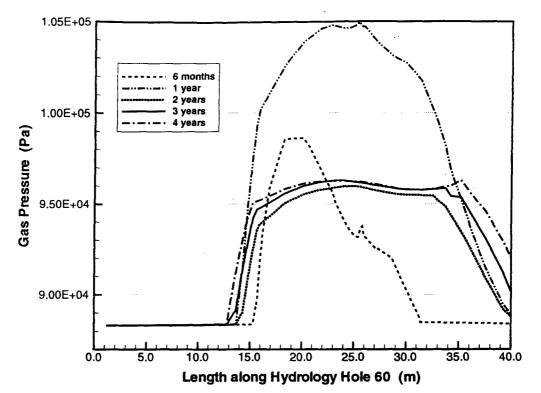


Figure A2-31 Matrix saturation profile along borehole 60 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-32** Gas pressure profile along borehole 60 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

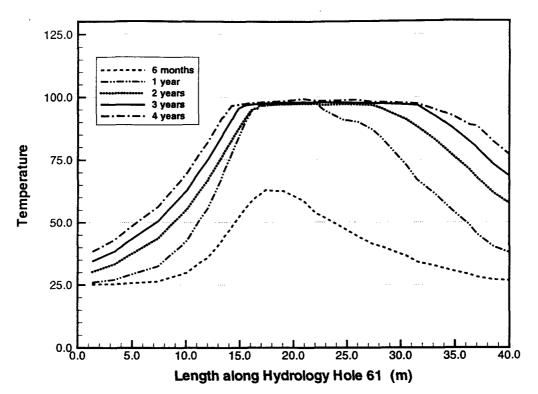


Figure A2-33 Temperature profile along borehole 61 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

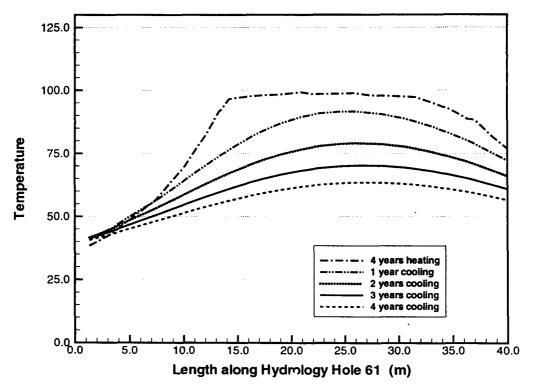


Figure A2-34 Temperature profile along borehole 61 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

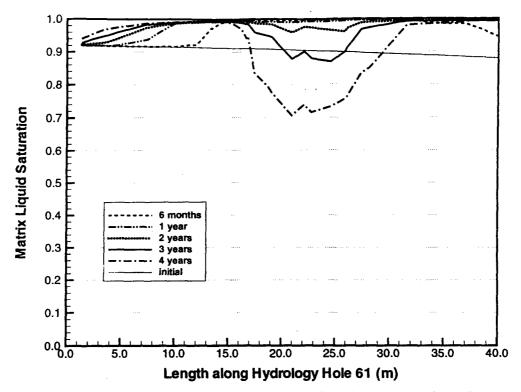


Figure A2-35 Matrix saturation profile along borehole 61 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

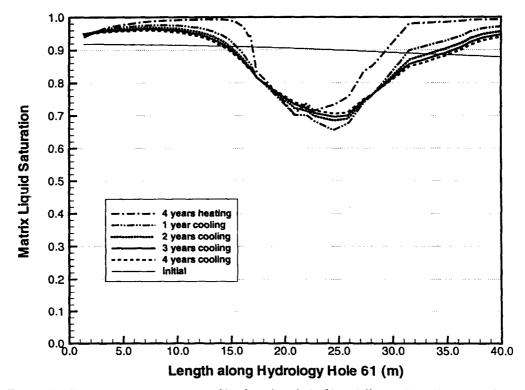
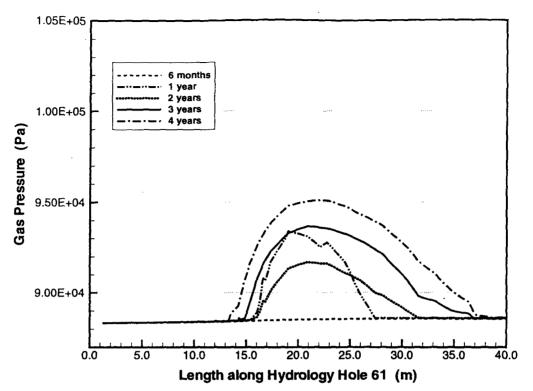


Figure A2-36 Matrix saturation profile along borehole 61 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-37** Gas pressure profile along borehole 61 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

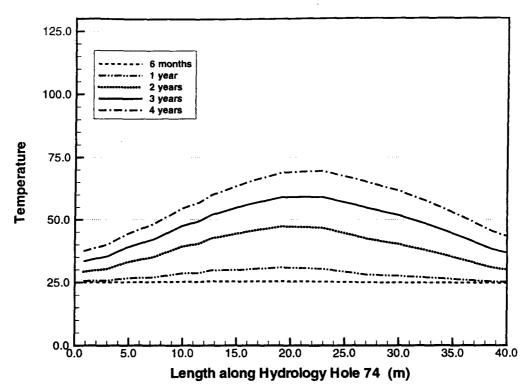
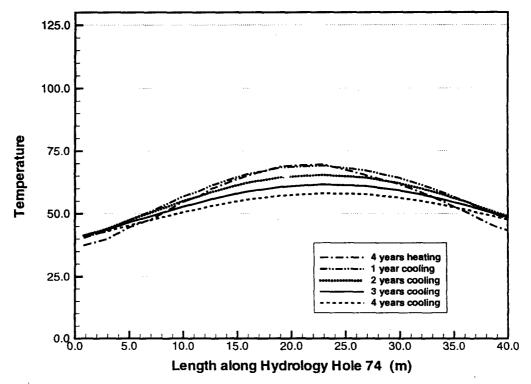
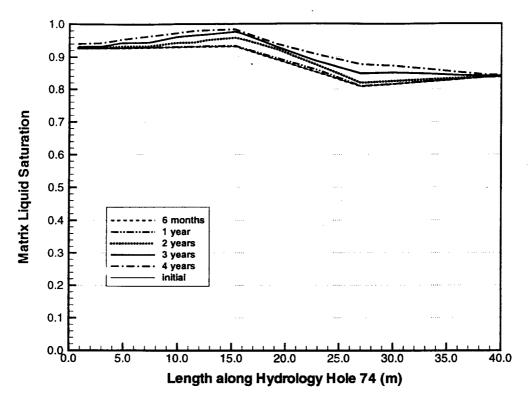


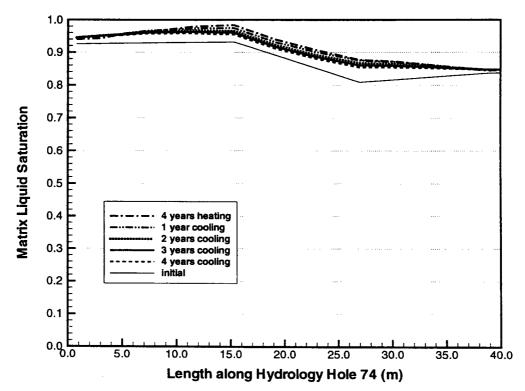
Figure A2-38 Temperature profile along borehole 74 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-39** Temperature profile along borehole 74 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-40** Matrix saturation profile along borehole 74 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-41** Matrix saturation profile along borehole 74 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

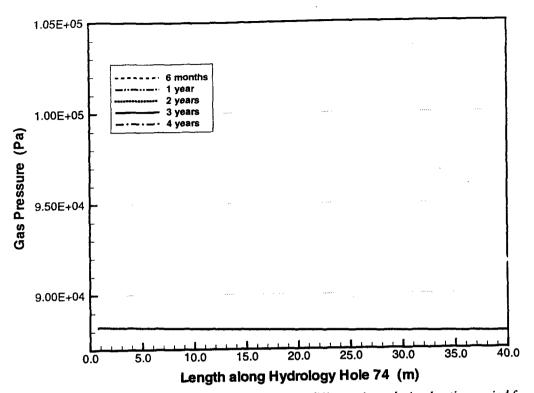
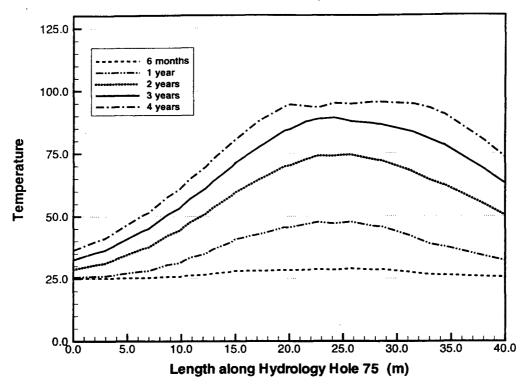


Figure A2-42 Gas pressure profile along borehole 74 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-43** Temperature profile along borehole 75 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

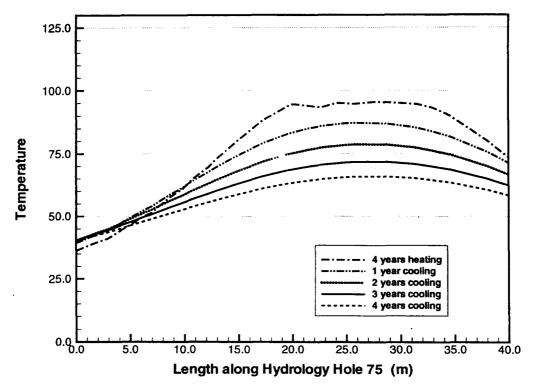
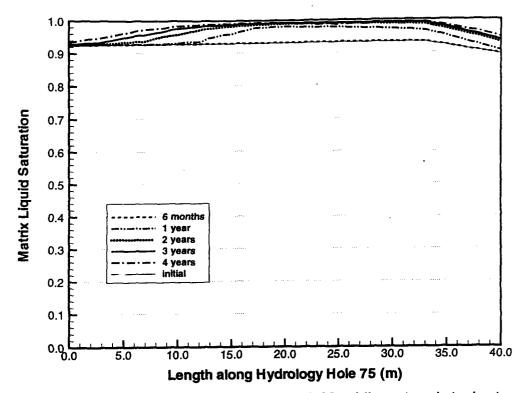
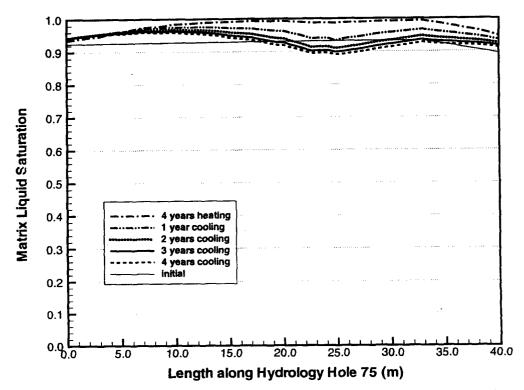


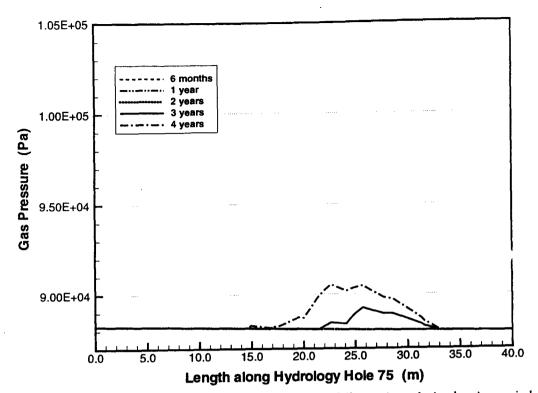
Figure A2-44 Temperature profile along borehole 75 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-45** Matrix saturation profile along borehole 75 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-46** Matrix saturation profile along borehole 75 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-47** Gas pressure profile along borehole 75 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

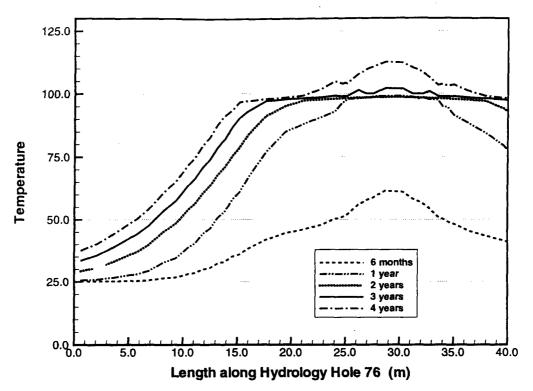
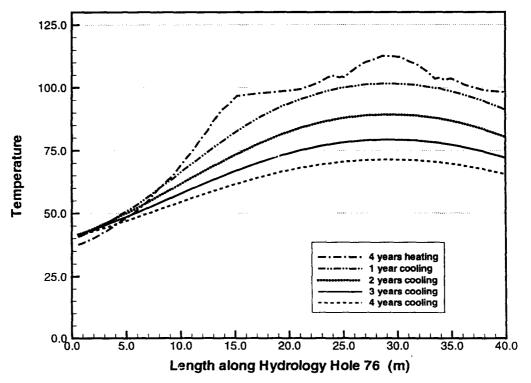
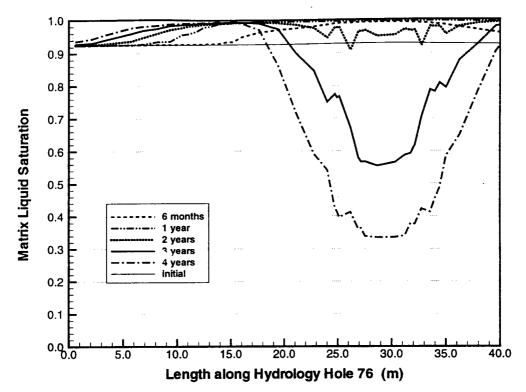


Figure A2-48 Temperature profile along borehole 76 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-49** Temperature profile along borehole 76 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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**Figure A2-50** Matrix saturation profile along borehole 76 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

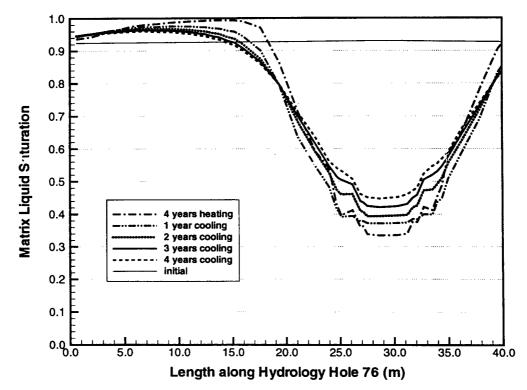
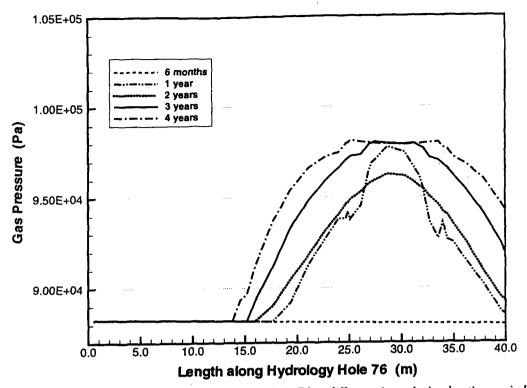
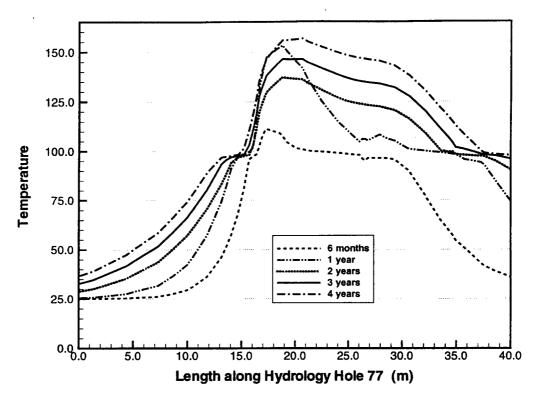


Figure A2-51 Matrix saturation profile along borehole 76 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

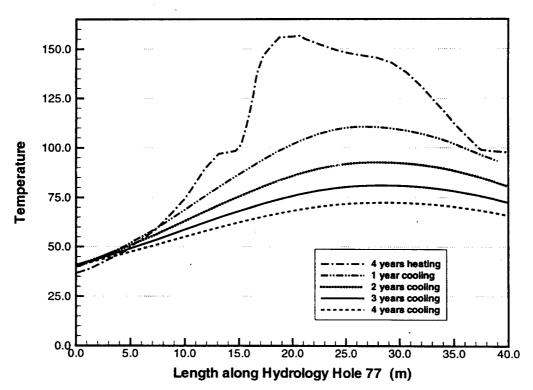


**Figure A2-52** Gas pressure profile along borehole 76 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

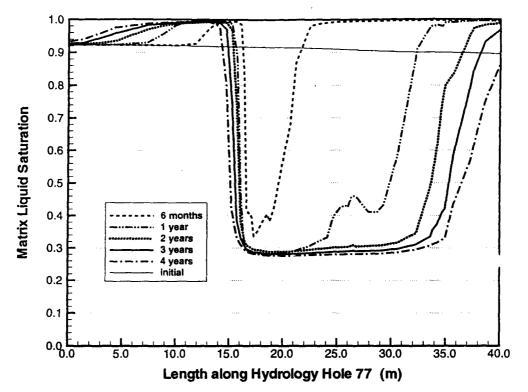
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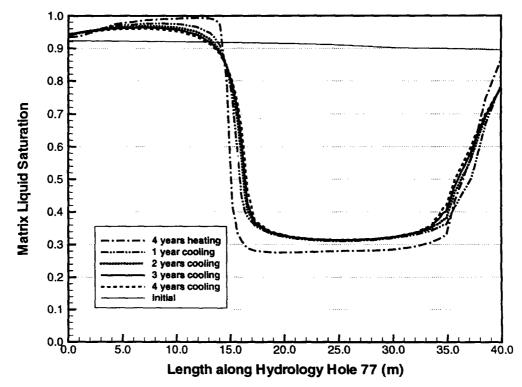
**Figure A2-53** Temperature profile along borehole 77 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-54** Temperature profile along borehole 77 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

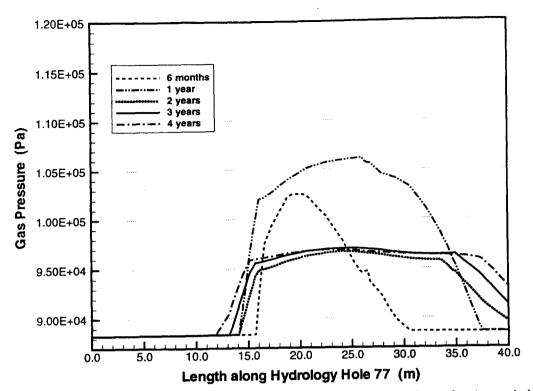


**Figure A2-55** Matrix saturation profile along borehole 77 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

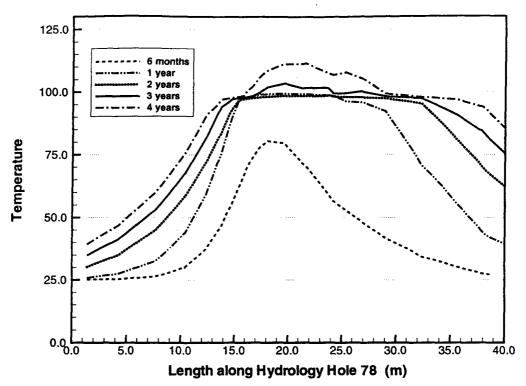


**Figure A2-56** Matrix saturation profile along borehole 77 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

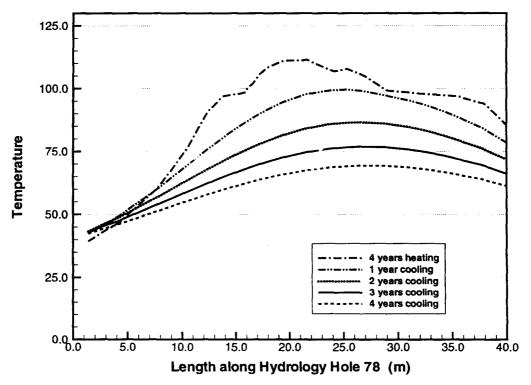
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**Figure A2-57** Gas pressure profile along borehole 77 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

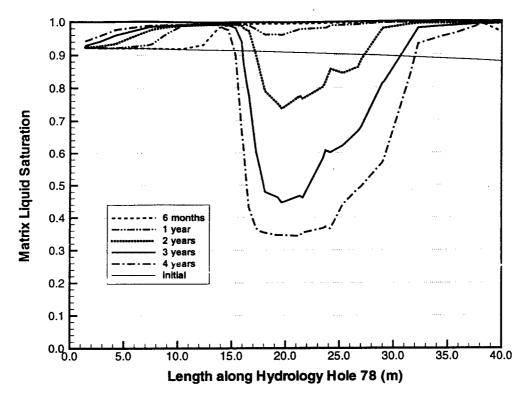


**Figure A2-58** Temperature profile along borehole 78 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%)



**Figure A2-59** Temperature profile along borehole 78 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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**Figure A2-60** Matrix saturation profile along borehole 78 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

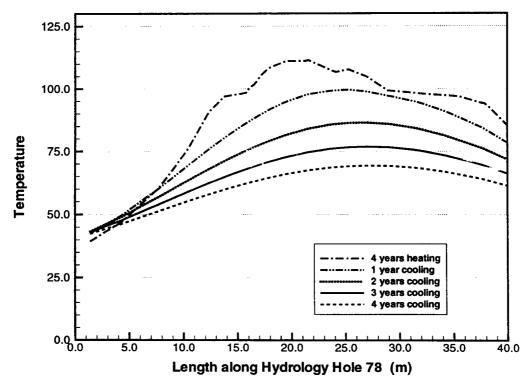
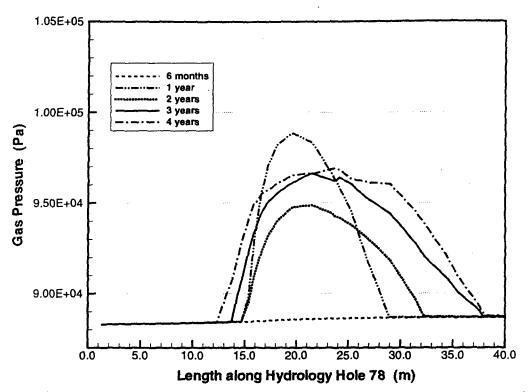
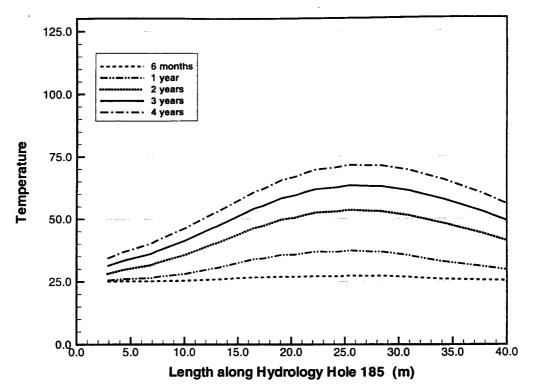


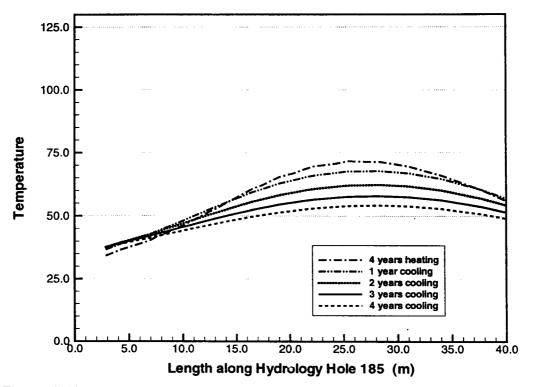
Figure A2-61 Matrix saturation profile along borehole 78 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



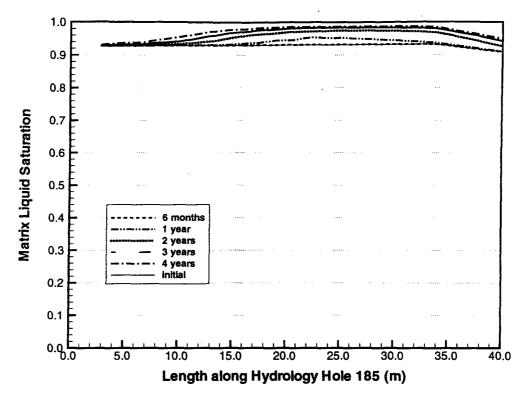
**Figure A2-62** Gas pressure profile along borehole 78 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-63** Temperature profile along borehole 185 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-64** Temperature profile along borehole 185 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-65** Matrix saturation profile along borehole 185 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

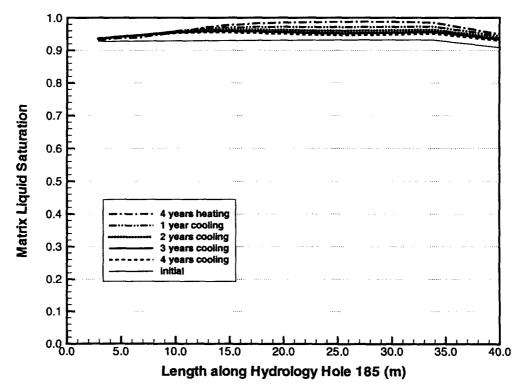
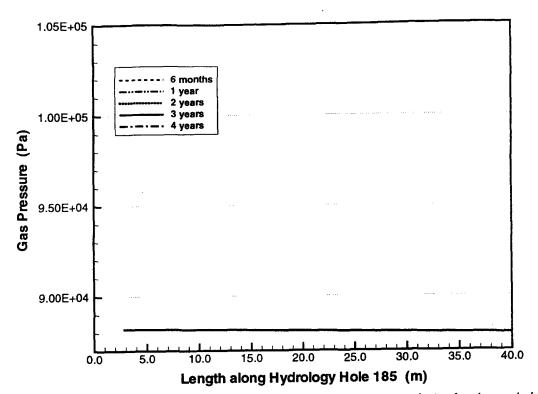
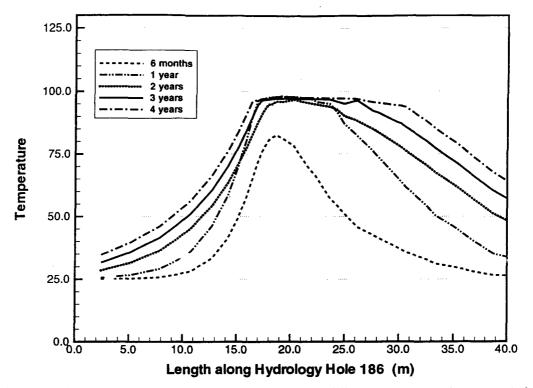


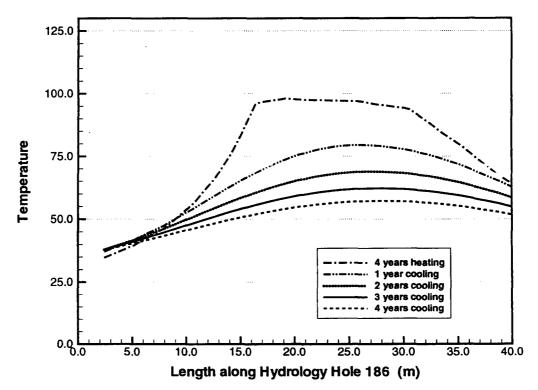
Figure A2-66 Matrix saturation profile along borehole 185 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-67** Gas pressure profile along borehole 185 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 heating years heating at 50%).



**Figure A2-68** Temperature profile along borehole 186 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).



**Figure A2-69** Temperature profile along borehole 186 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

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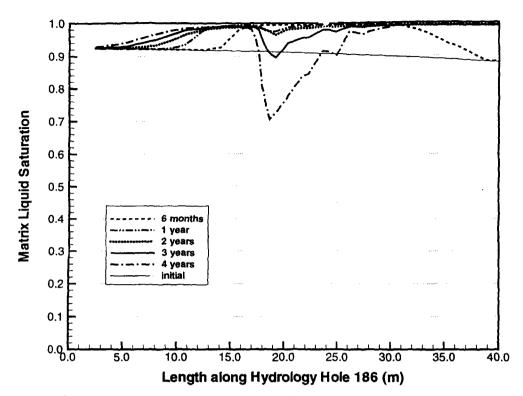


Figure A2-70 Matrix saturation profile along borehole 186 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

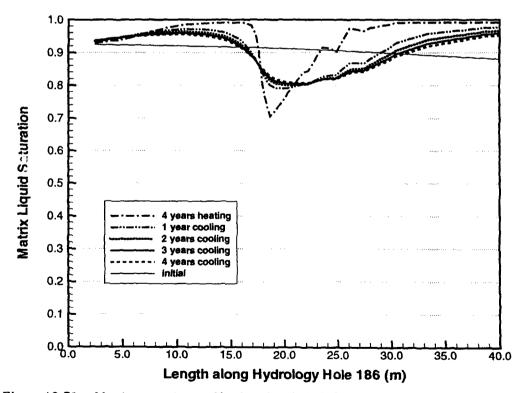


Figure A2-71 Matrix saturation profile along borehole 186 at different times during cooling period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).

Pretest Analysis of the Thermal-Hydrological Conditions of the ESF Drift Scale Test

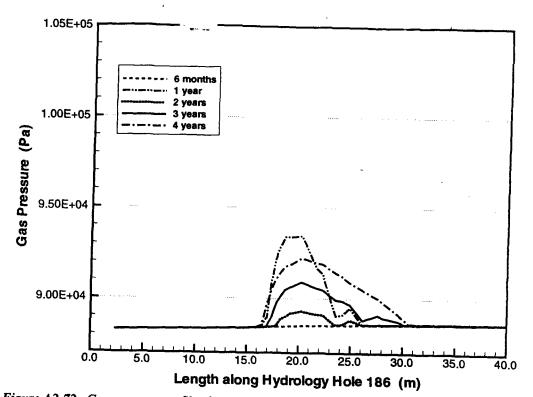


Figure A2-72 Gas pressure profile along borehole 186 at different times during heating period for 0.36 mm/yr infiltration case (1 year heating at 100%, 3 years heating at 50%).