CLAIMS

1. A method of repairing a section of a pipe including a breach in the pipe, the method comprising:

preparing an internal surface of a wall of the pipe generally around the breach;

sizing a piece of conformable material of the type capable of carrying a curable polymer in relation to a size of the breach;

applying the sized piece of conformable material to the prepared internal surface so that the breach is covered by the piece of conformable material;

impregnating the piece of conformable material with a curable polymer; and

curing the curable polymer within the piece of conformable material thereby to seal the breach against egress of groundwater into the pipe.

2. The method of claim 1 wherein the piece of conformable material comprises a first piece of conformable material and the method further comprises applying a second piece of conformable material of the type capable of carrying a curable polymer over the applied first piece of conformable material.

3. The method of claim 2 wherein each of the first and second pieces of conformable material have fibers arranged to give the piece of conformable material a greater strength in a strong direction, and the strong directions of the first and second pieces of conformable material are transverse to each other.

4. The method of claim 1 wherein the step of impregnating the piece of conformable material occurs prior to the step of applying the conformable material to the prepared surface.

5. The method of claim 1 further comprising applying a primer coat material to the prepared surface and over less than the entire circumference of the pipe at the location of the breach prior to applying the conformable material to the prepared surface.

6. The method of claim 1 wherein the piece of conformable material comprises chopped strand mat.

7. The method of claim 1 further comprising lining the entire section of pipe including the sealed breach.

8. A repaired pipe having a breach in the side wall closed by the repair, the repaired pipe comprising:

a conditioned surface around the breach on an internal surface of the side wall;

adhesive applied to the conditioned surface; and

a piece of fiber reinforced polymer material cured over the breach and joined to the side wall of the pipe at least in part by the adhesive, the piece of fiber reinforced polymer material sealing the breach against egress of groundwater into the pipe, the piece of reinforced polymer material being sized to cover the breach.

9. The repaired pipe as set forth in claim 8 wherein the piece of fiber reinforced polymer material comprises a first piece of fiber reinforced polymer material, the repaired pipe further comprising a second piece of fiber reinforced polymer material at least partially overlying the first piece of fiber reinforced polymer material.

10. The repaired pipe as set forth in claim 9 further comprising a liner covering the entire circumference of the repaired pipe an overlying the first and second pieces of fiber reinforced polymer material.

11. The repaired pipe as set forth in claim 8 wherein the piece of fiber reinforced polymer material comprises a fiber ladened fabric and a cured polymer in the fabric.

12. The repaired pipe as set forth in claim 11 wherein the fiber ladened fabric comprises multi-axial fabric.

13. The repaired pipe as set forth in claim 12 wherein the piece of fiber reinforced polymer material comprises a first piece of fiber reinforced polymer material, the repaired pipe

further comprising a second piece of fiber reinforced polymer material, the second piece of fiber reinforced polymer material comprising of multi-axial fabric and a cured polymer in the fabric, the multi-axial fabric of the first piece of fiber reinforced material having fibers arranged so that the fabric has greatest strength in a strong direction and the multi-axial fabric of the second piece of fiber reinforced material having fibers arranged so that the fabric has greatest strength in a strong direction.

14. The repaired pipe as set forth in claim 13 wherein the strong direction of the multi-axial fabric of the first piece of fiber reinforced polymer material is transverse to the strong direction of the multi-axial fabric of the second piece of fiber reinforced polymer material.

15. The repaired pipe as set forth in claim 11 wherein the piece of fiber reinforced polymer material comprises a woven fabric having one of a satin weave and a twill weave.

16. The repaired pipe as set forth in claim 8 wherein the piece of fiber reinforced polymer material comprises chopped strand mat.

17. The repaired pipe as set forth in claim 8 wherein the fiber reinforced polymer material forms a liquid tight covering over the breach capable of holding a substantially continuous liquid pressure of about 50 psi (345 kPa) for a period of at least seven days.

18. The repaired pipe as set forth in claim 8 wherein the fiber reinforced polymer material forms a liquid tight covering over the breach capable of holding a substantially continuous liquid pressure of about 100 psi (689 kPa) for a period of at least seven days.

19. The repaired pipe as set forth in claim 8 wherein the fiber reinforced polymer material forms a liquid tight covering over the breach having a burst pressure of at least about 290 psi (2,000 kPa).

20. A method of repairing a section of a pipe including a breach in the pipe, the method comprising:

preparing a surface of a wall of the pipe generally around the breach;

sizing first and second pieces of woven fibrous material of the type capable of carrying a curable polymer in relation to a size of the breach, each of the first and second pieces of woven fibrous material having fibers arranged to give the respective piece of woven fibrous material a greater strength in a single strong direction;

applying the first piece of sized woven fibrous material to the prepared surface so that the breach is covered by the first piece of woven fibrous material and the single strong direction of the first piece of sized woven fibrous material has a first orientation;

applying the second piece of sized woven fibrous material to the applied first piece of woven fibrous material so that the breach is covered by the second piece of woven fibrous material and the single strong direction of the second piece of woven fibrous material has a second orientation different from the first orientation such that the single strong direction of the second piece of woven fibrous material is oriented transverse to the single strong direction of the first piece of woven fibrous material;

impregnating the first and second pieces of woven fibrous material with a curable polymer; and

curing the curable polymer within the first and second pieces of woven fibrous material thereby to seal the breach against egress of groundwater into the pipe.