WE CLAIM:

1. A method for maximizing geothermal energy recovery within a formation having a geothermal gradient, comprising:

determining the geothermal gradient within the rock volume of said formation;

forming a wellbore configuration for location and positioning within said rock volume with the configuration of the wellbore based on a determined geothermal gradient for maximum thermal recovery, the wellbore configuration comprising a closed loop having an inlet well and outlet well and lateral interconnecting section in fluid communication, said lateral section of said configuration positioned within said rock volume;

selecting at least one working fluid for circulation in a predetermined sequence within said configuration based on:

wellbore configuration;

geothermal gradient variation; and

formation geology;

determining working fluid temperature from sequenced circulation within said wellbore configuration; and

selecting at least one of:

working fluid rerouting and distribution within said configuration;

working fluid composition;

working fluid flow rate within said configuration;

working fluid flow direction; and

combinations thereof to maximize energy recovery with said working fluid from said rock volume.

2. The method as set forth in claim 1, wherein said wellbore configuration is formed by sealing the wellbore during drilling absent casing in lateral sections of wellbores.

3. The method as set forth in claim 1, wherein determination of said gradient includes determining temperature distribution within said rock volume.

4. The method as set forth in claim 1, further including the step of characterizing rock type and thermal conductivity within said rock volume.

5. The method as set forth in claim 1, wherein selection of working fluid composition includes incorporating additives to maintain wellbore integrity in said configuration and fluid density for compressive strength of said wellbore configuration.

6. The method as set forth in claim 1, further including the step of controlling at least one of working fluid temperature, wellbore integrity in said configuration, and thermal recharge of a wellbore in said configuration during operation.

7. The method as set forth in claim 1, further including the step of introducing ancillary mechanical or chemical unit operations and combinations thereof to maintain wellbore integrity.

8. The method as set forth in claim 7, wherein said ancillary mechanical operations include introducing casing and multilateral junctions into said wellbore configuration at predetermined locations.

9. The method as set forth in claim 7, wherein said ancillary chemical operations include introducing at least one of chemical sealant, densifying agents and bridging

agents into said wellbore configuration at predetermined locations in at least one of a single operation and sequentially phased operations.

10. The method as set forth in claim 1, further including at least one of spacing, angling, stacking, conglomerating, interdigitating and interconnecting and combinations thereof individual wellbores in said configuration within said rock volume to maximize energy extraction.

11. The method as set forth in claim 10, further including the step of selectively connecting inlet wells and outlet wells at predetermined locations in said configuration at one or more superterranean locations.

12. The method as set forth in claim 1, wherein the step of forming a wellbore configuration comprises forming a network of wellbores within said rock volume of said formation which optionally have a common inlet well and a common outlet well connected to the wellbores at a superterranean location.

13. The method as set forth in claim 1, wherein sequenced circulation includes flow rate variation, flow direction, quiescence and combinations thereof.

14. The method as set forth in claim 1, further including the step of sampling said working fluid in predetermined locations within said wellbore configuration to determine compositional variations relative to uncirculated working fluid.

15. The method as set forth in claim 14, further including the step of determining if said compositional variations are related to chemical or mechanical wellbore factors.

16. The method as set forth in claim 1, further including the step of forming said configuration within at least one of a temperature gradient, conductive zone within said gradient, convective zone within said gradient, permeability zone within said formation, and combinations thereof.

17. The method as set forth in claim 1, further including the step of controlling the thermal profile variation between proximate wellbores in said configuration, said controlling including:

selecting said wellbore configuration within said rock volume based on temperature distribution within said rock volume;

spacing wellbores of said configuration to reduce thermal interference and inefficient thermal recovery between proximate wellbores.

18. The method as set forth in claim 17, including the step of

introducing a first working fluid into a first well of said wellbores to absorb thermal energy from surrounding formation rock in said gradient from a maximum to a minimum through said well;

introducing a second working fluid into a second well of said wellbores to absorb thermal energy from surrounding formation rock in said formation from a maximum to a minimum through said well, first fluid flow being in an opposite direction to said second fluid flow to induce thermal consistency within the rock volume proximate said wells absent thermal minima and maxima.

19. The method as set forth in claim 1, further including integrating a surface arrangement with said loop to utilize recovered thermal energy.

20. The method as set forth in claim 19, wherein said surface arrangement comprises at least one of a steam generating arrangement for use in industrial operation, a power generating arrangement, a power storage arrangement, a distribution network for selective distribution of energy to linked wellbore configurations and combinations thereof.

21. The method as set forth in claim 1, further including the step of introducing a drag reducing agent to said working fluid to enable an expanded wellbore network configuration while maintaining optimum hydraulic performance.

22. The method of claim 1, further including the step of providing sufficient hydraulic frictional pressure losses in each lateral to passively control flow distribution within lateral sections within said configuration.

23. The method of claim 1, further including the step of determining interaction between thermal conductivity and drilling rate-of-penetration for positioning and location of said wellbore within said rock volume.