Cascade Range Resource Potential

Saint Helens Seismic Zone

Heat Potential

The Saint Helens seismic zone is a mature fault-dominated volcanic system with an active andesitic lava dome source, with magmatic and fault-related hydrothermal fluid circulating through a network of fractures formed by steeply dipping faults along the central axis of the magmatic arc of Washington State: Mount St. Helens. The Mount Baker Mogi source was determined through tomography, and suggests an active magmatic heat source, with magmatic and fault-related hydrothermal fluids circulating through a network of fractures formed by steeply dipping faults along the central axis of the magmatic arc of Washington State: Mount St. Helens. The Mount Baker Mogi source was determined through tomography, and suggests an active magmatic heat source.

Permeability Potential

The most favorable permeability potential is located along a WNW-trending strike of earthquake, which has generated systematic strike of faults along the central axis of the magmatic arc of Washington State. The Mount Baker Mogi source was determined through tomography, and suggests an active magmatic heat source, with magmatic and fault-related hydrothermal fluids circulating through a network of fractures formed by steeply dipping faults along the central axis of the magmatic arc of Washington State: Mount St. Helens.

Heat and Permeability at 3 km

Areas of overlapping heat and permeability potential are closely tied to hot springs at the plate boundary. Heat and permeability potential is located along a WNW-trending strike of earthquake, which has generated systematic strike of faults along the central axis of the magmatic arc of Washington State. The Mount Baker Mogi source was determined through tomography, and suggests an active magmatic heat source, with magmatic and fault-related hydrothermal fluids circulating through a network of fractures formed by steeply dipping faults along the central axis of the magmatic arc of Washington State: Mount St. Helens.

Wind River Valley

Heat Potential

The Wind River Valley lies along the Cascade Tectonic Zone and is underlain geothermally by an active magmatic heat source. The Mount Baker Mogi source was determined through tomography, and suggests an active magmatic heat source, with magmatic and fault-related hydrothermal fluids circulating through a network of fractures formed by steeply dipping faults along the central axis of the magmatic arc of Washington State: Mount St. Helens.

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Mount Baker

Heat Potential

Mount Baker lies along a wide fault-zone of earthquake, which has generated systematic strike of faults along the central axis of the magmatic arc of Washington State. The Mount Baker Mogi source was determined through tomography, and suggests an active magmatic heat source, with magmatic and fault-related hydrothermal fluids circulating through a network of fractures formed by steeply dipping faults along the central axis of the magmatic arc of Washington State: Mount St. Helens.

Permeability Potential

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Model Uncertainty and Risk Analysis

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Future Work

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