Accreted Terranes

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This unit contains photos from Hells Canyon, Rapid River, McCall to New Meadows, Kleinschmidt Grade, and Slate Creek.
Seven Devils Area: View of Seven Devils Mountains from Black Lake Road (Emmett Mountain, White Mountain, Pyramid Peak - left to right)-view looking north.
Seven Devils Mountains, photograph by Reed S. Lewis
Greenstone volcaniclastic rocks of Seven Devils Group, with Upper Triassic Martin Bridge Limestone. This the Wallowa terrane. Early Miocene Columbia River Basalt of Weiser Embayment in background. View to west. FS Route 50, Adams County, Riggins, 1:100,000 quadrangle (Lund, 2003).
Kleinschmidt Grade, Seven Devils Terrane - Hunsaker Formation - lower Seven Devils Group - Wallowa Terrane

EXPLANATION

- **Tcr**: Columbia River Basalt Group (Miocene)
- **Jch**: Coon Hollow Formation (Upper and Middle Jurassic)
- **JTk**: Hurwal Formation (Lower Jurassic and Upper Triassic)
- **Jmb**: Martin Bridge Limestone (Upper Triassic)
- **Jis**: "Lower Sedimentary Series" of Prostka (1962) (Upper Triassic)
- **Jdc**: Doyle Creek Formation (Upper and Middle Triassic) - Includes:
  - **Jdck**: Kurry unit (Upper Triassic)
- **Jws**: Wild Sheep Creek Formation (Upper and Middle Triassic)
- **JPcc**: Clover Creek Greensite (Triassic and Permian)
- **Phc**: Hunsaker Creek Formation (Lower Permian)
- **Pwr**: Windy Ridge Formation (Lower Permian)

- Volcanic flows
- Sandstone, siltstone, and shale
- Conglomerate
- Sandstone
- Limestone
- Breccia
- Breccia and sandstone
- Pillow lava
- Interfingering contact
- Intrusive contact
- Unconformity

- After McClelland et al., 2001
Kleinschmidt Grade, Seven Devils Terrane: Pyroclastic rocks and water laid tuffs of Lower Permian Hunsaker Formation - lower Seven Devils Group - Wallowa Terrane, Kleischmidt Grade.
Greenstone basalt or andesite of Upper and Middle Triassic Wild Sheep Creek Formation - upper Seven Devils Group - Wallowa Terrane, Kleinschmidt Grade; FS Route 50, Adams County.
Greenstone basalt or andesite of Triassic Wild Sheep Creek Formation - upper Seven Devils Group-Wallowa Terrane. FS Route 50, Adams County.
In Hells Canyon: View of folded Upper Triassic Martin Bridge Limestone on Oregon side of Snake River from Big Bend - Wallowa Terrane.
Basaltic rocks of Wild Sheep Creek Formation-upper Seven Devils Group-Wallowa Terrane
Basaltic rocks across river from Steamboat Creek-Wild Sheep Creek Formation -upper Seven Devils Group-Wallowa Terrane
Hells Canyon looking north downstream from Black Point
Upper and Middle Triassic Wild Sheep Creek Formation

Folding, faulting, & uplift

Mid-Late Jurassic shale & conglomerate

Uplift & erosion

Late Triassic- Early Jurassic limestone

Arc volcanism ceases

Permian-Triassic island arc volcanism (active subduction)

From Vallier, 1998
Outcrop of basaltic rock showing pillow structure—Upper and Middle Triassic Wild Sheep Creek Formation—upper Seven Devils Group—Wallowa Terrane
Outcrop of basaltic rock showing conchoidal weathering in Triassic Wild Sheep Creek Formation-upper Seven Devils Group-Wallowa Terrane
Basaltic rock showing paleomagnetic core samples taken-Triassic Wild Sheep Creek Formation-upper Seven Devils Group-Wallowa Terrane

Fragmental volcaniclastic rock of Triassic Wild Sheep Creek Formation-upper Seven Devils Group-Wallowa Terrane
Slickenside in basaltic rocks of Wild Sheep Creek Formation - upper Seven Devils Group - Wallowa Terrane
Quartz keratophyre - Windy Ridge Formation/lower Permian - lower Seven Devils Group - Wallowa Terrane
Greenstone volcaniclastic conglomerate along Brownlee Creek-Izee Terrane

Quartz keratophyre - Windy Ridge Formation - lower Seven Devils Group - Wallowa Terrane
Izee Terrane

Outcrop of greenstone volcaniclastic conglomerate rock along Brownlee Creek.
Greenstone volcaniclastic rock along Brownlee Creek - Izee Terrane
Triassic Martin Bridge Limestone above volcaniclastic rocks of the Seven Devils Group
- Rapid River - Wallowa Terrane
Slate Creek - Outcrop of marble from marble quarry - Upper Triassic Martin Bridge Formation
Outcrop of Riggins Group muscovite chlorite schist along Slate Creek - Rapid River Plate.

Close-up of schist in Slate Creek antiform-Upper Triassic Martin Bridge Formation
Outcrop of marble from marble quarry—Upper Triassic Martin Bridge Formation.
Outcrop of muscovite chlorite schist at confluence of Slate Creek and Salmon River - Seven Devils Group
Muscovite chlorite schist along Little Salmon River-Baker Terrane
Muscovite chlorite schist along Little Salmon River-Baker Terrane
Mylonitic gneiss-between McCall and New Meadows, Hwy 95.

Close-up of mylonitic gneiss with plagioclase megacrysts taken from near scenic overlook above Goose Creek, Salmon River Suture.
Mylonitic gneiss with plagioclase megacrysts taken from near scenic overlook above Goose Creek, Salmon River Suture.
Foliated hornblende biotite tonalite above Rapid River, near Wildhorse Saddle
Seven Devils Group along South Fork Clearwater near Harpster Grade
Ultramafic intruding schist, Time Zone Bridge, one mile north of Riggins, Highway 95
Metamorphosed volcanic sediments near Blue Mountains
Felsic dikes in greenstone basalt or andesite - view from below Sheep Lake looking east.
Seven Devils Mountains from Heaven's Gate Lookout - view looking SW.
Greenstone volcaniclastic rock - Heaven's Gate Lookout in background
Shale on McClinery Ridge—note fold
Diorite along Black Lake Road
Greenstone along Black Lake Road