South Sudanese rebels clashed with government troops Tuesday in the key oil town of Bentiu, with the guerrillas demanding that companies end production as they sought to capture oilfields.

Rebel spokesman Lul Ruai Koang claimed to have captured the town, one of the most bitterly contested regions in the four-month-long conflict, but the army rejected their claims.

"The recapturing of Bentiu marks the first phase of liberation of oilfields," Koang said in a statement.

Army spokesman Philip Aguer confirmed fighting in the town but said it had not fallen.

"There is heavy fighting, but it is still continuing... The rebels have tried to penetrate one part of the town but are being held back," Aguer told AFP.

Former vice president turned rebel chief Riek Machar told AFP on Monday forces would attack the capital Juba and target crucial oilfields, vowing that the war will not end until the country's president is removed from power.

On Tuesday, the rebels issued an ultimatum to oil companies to shut down production.

Before fighting broke out in the young nation, which won independence from Sudan less than three years ago after a decades of civil war, oil provided more than 95 percent of its government budget.

Koang said the rebel army "urges all oil companies still operating in government-controlled areas to immediately embark on gradual and voluntary closure of oil production, and to evacuate all their staff" within a week.

"Failure to comply with this request, the oil companies risk forced oil shutdown and the safety of their staff," he added.

The conflict in South Sudan has left thousands dead and forced around a million people to flee their homes since fighting broke out on December 15 in the capital Juba before spreading to other states in the oil-rich nation.

Toby Lanzer, the United Nations' top aid official in the country, said the fighting was an "outrage", flouting a January ceasefire deal.

"Fighting in Bentiu is forcing hundreds of civilians to flee and seek protection" with UN peacekeepers, he said. UN blue helmets evacuated oil workers on Monday north of Bentiu, some of whom were wounded.