Is $\neg(A \vee B) \models \neg A \wedge \neg B$ valid?

$\neg(A \vee B)$ ∘ $\neg A \wedge \neg B$

| $(\neg, \text{left})$

∘ $\neg A \wedge \neg B$, $A \vee B$

| $(\vee, \text{right})$

∘ $\neg A \wedge \neg B$, A, B

$(\wedge, \text{right})$

∘ $\neg A, A, B$ | $(\neg, \text{right})$ A ∘ A, B X

∘ $\neg B, A, B$ | $(\neg, \text{right})$ B ∘ A, B X

Tableau closed, so inference valid.

⇒ Formulas imply each other

⇒ $\neg(A \vee B)$ and $\neg A \wedge \neg B$ are equivalent.