

Variant 1

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 80°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.9, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 30 MPa, current reservoir pressure in the flooded area - 10 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 70 °C, gas gravity - 0.85.

Variant 2

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.8, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 35 MPa, current reservoir pressure in flooded zone - 22 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.97, gas compressibility factor of current reservoir pressure in gas zone is 0.86 and in flooded zone - 0.9.

Variant 3

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 78°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.7, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 40 MPa, current reservoir pressure in the flooded area - 20 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 60 °C, gas gravity - 0.8.

Variant 4

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 85°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.9, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 40 MPa, current reservoir pressure in flooded zone - 25 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.97, gas compressibility factor of current reservoir pressure in gas zone is 0.86 and in flooded zone - 0.9.

Variant 5

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 30 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 40 MPa, current reservoir pressure in the flooded area - 15 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 70 °C, gas gravity - 0.8.

Variant 6

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 45 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.
2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 35 MPa, current reservoir pressure in flooded zone - 20 MPa, the current reservoir pressure in gas-saturated zone - 15 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.97, gas compressibility factor of current reservoir pressure in gas zone is 0.86 and in flooded zone - 0.9.

Variant 7

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 30 MPa, reservoir temperature - 70°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.
2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 35 MPa, current reservoir pressure in the flooded area - 20 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 75 °C, gas gravity - 0.85.

Variant 8

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.8, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 37 MPa, current reservoir pressure in flooded zone - 20 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.95, gas compressibility factor of current reservoir pressure in gas zone is 0.8 and in flooded zone - 0.9.

Variant 9

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 45 MPa, reservoir temperature - 77°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 48 MPa, current reservoir pressure in the flooded area - 25 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 70 °C, gas gravity - 0.85.

Variant 10

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 85°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.8, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 37 MPa, current reservoir pressure in flooded zone - 20 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.87, gas compressibility factor of current reservoir pressure in gas zone is 0.8 and in flooded zone - 0.85.

Variant 11

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 70°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.9, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.
2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 40 MPa, current reservoir pressure in the flooded area - 20 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 75 °C, gas gravity - 0.9.

Variant 12

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.8, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.
2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 30 MPa, current reservoir pressure in flooded zone - 10 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.97, gas compressibility factor of current reservoir pressure in gas zone is 0.86 and in flooded zone - 0.9.

Variant 13

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 49 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 30 MPa, current reservoir pressure in the flooded area - 10 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 70 °C, gas gravity - 0.85.

Variant 14

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 44 MPa, reservoir temperature - 80°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10000 m, current gas saturated radius - 4500 m, initial reservoir pressure - 37 MPa, current reservoir pressure in flooded zone - 20 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.97, gas compressibility factor of current reservoir pressure in gas zone is 0.86 and in flooded zone - 0.9.

Variant 15

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 40 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.9, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.

2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 40 MPa, current reservoir pressure in the flooded area - 20 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 60 °C, gas gravity - 0.8.

Variant 16

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 50 MPa, reservoir temperature - 75°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.85, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.
2. Determine current gas recovery factor for gas fields, which is developing under conditions of water drive for the following data: the initial gas saturated radius - 10500 m, current gas saturated radius - 4000 m, initial reservoir pressure - 37 MPa, current reservoir pressure in flooded zone - 20 MPa, the current reservoir pressure in gas-saturated zone - 13 MPa, initial gas saturation - 0.85, residual gas saturation - 0.25, efficient gas-saturated reservoir thickness - 24 m, open porosity coefficient - 0.14, initial gas compressibility factor is 0.97, gas compressibility factor of current reservoir pressure in gas zone is 0.86 and in flooded zone - 0.9.

Variant 17

1. Determine initial reserves of reservoir gas, dry gas and hydrocarbon condensate in gas condensate field if initial reservoir pressure is 30 MPa, reservoir temperature - 70°C, gas productive area - $7 \cdot 10^8 \text{ m}^2$, initial gas saturation - 0.81, open porosity coefficient - 0.15, gas gravity - 0.8, dry gas conversion factor - 1.05, the initial condensate yield - 230 g / m^3 , effective gas-saturated reservoir thickness - 24 m.
2. Determine current gas recovery factor of gas field watered zone, which is developing under conditions of water drive for the following data: initial reservoir pressure 47 MPa, current reservoir pressure in the flooded area - 22 MPa, initial gas saturation - 0.8, residual gas saturation - 0.22, reservoir temperature of - 70 °C, gas gravity - 0.85.