Questions (8)

Hide answers

Q1: What is the relationship between plateau duration and plateau rate?

- They are independent of each other

  This is a wrong answer

- The higher the plateau rate, longer the plateau

  This is a wrong answer

- The higher the plateau rate, shorter the plateau

  This is a correct answer

Q2: when producing in plateau mode, what is the effect of increasing the number of wells?

- Plateau duration remains unchanged

  This is a wrong answer

- Plateau duration is prolonged

  This is a correct answer

- Plateau duration is shortened

  This is a wrong answer

Q3: What is the reason why increasing the number of wells prolongs plateau duration?

- The available pressure calculated from reservoir is higher

  This is a correct answer

- The required pressure to flow against separator is lowered

This is a wrong answer

- The production potential of the system increases

This is a correct answer

Q4: What is the production potential of a field?

- The maximum rate the field can produce at a given time

This is a correct answer

- The rate calculated when all chokes are open

This is a wrong answer

- The flow equilibrium rate

This is a wrong answer

- The rate calculated when all pumps are at maximum speed

This is a wrong answer

Q5: Why is production potential (pp) a function of cumulative production (Qp)?

- It is NOT a function of cumulative production

This is a wrong answer

- pp is a function of pR, and pR is a function of Qp

This is a correct answer

- The IPR depends on Qp only.

This is a correct answer

Q6: If the production potential vs cumulative production is linear, the decline is exponential
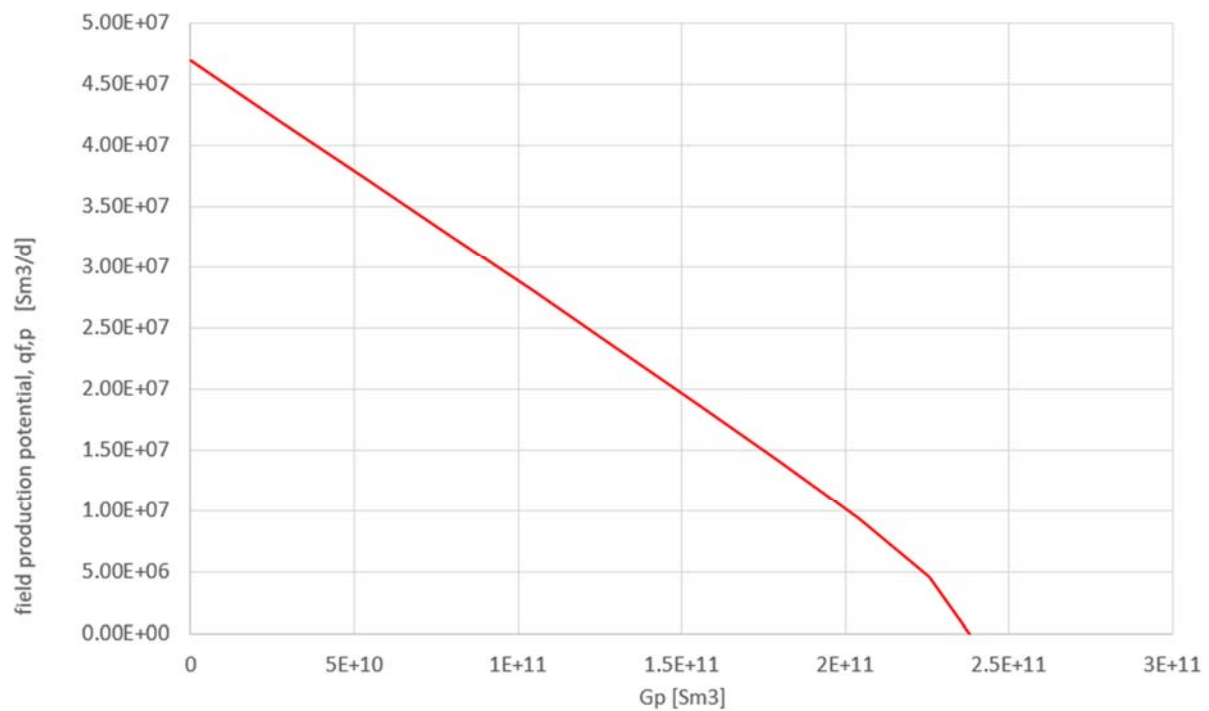
- FALSE

  This is a wrong answer

- TRUE

  This is a correct answer

Q7: For the following production potential curve, what is the plateau duration for 30 E06 Sm3/d

- 15 years

  This is a wrong answer
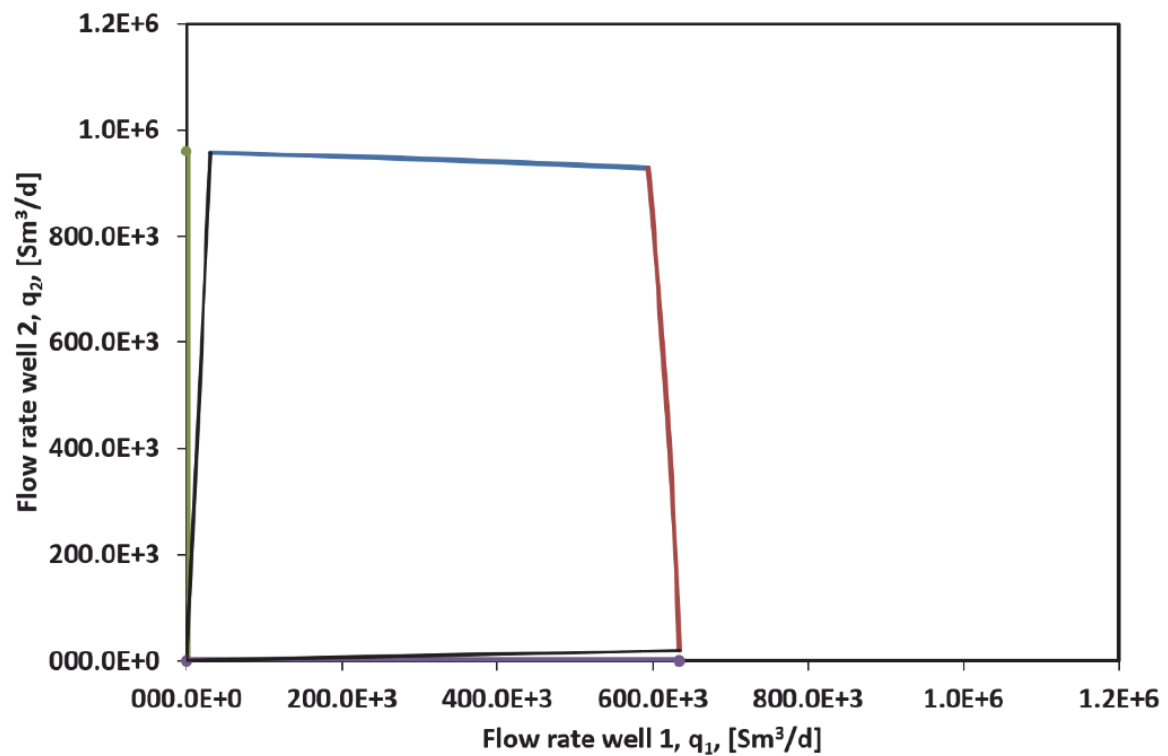
- 5 years

  This is a wrong answer

- 3 years

  This is a wrong answer

- 8 years

  This is a correct answer

Q8: For two wells producing to a common line, rates q1=200E3 and q2=1e6 are feasible

- TRUE

 This is a wrong answer

- FALSE

  This is a correct answer

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Note Title   14.02.2019

- Re-cap kahoot quiz

- Problem 2, exercise set 2

$$q_{pp,t} = N_w \left(-m \, G_p + q_{ppo} \right)$$

with p_R indicated above G_p.

{ flow equilibrium calculations if well model and network model are available

↳ impose p_{wmin} if reservoir simulator

plateau period q_f = constant
t_p

$q_{pp,t}$ G_p
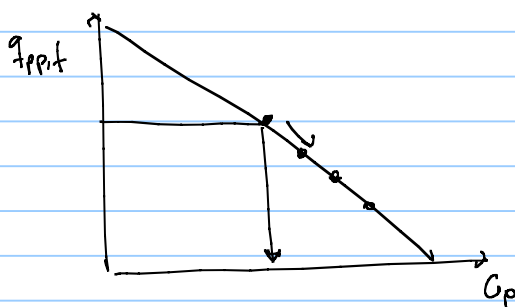
$$G_{p_i} = G_{p_{i-1}} + 0.5 \left(q_i + q_{i-1} \right) \cdot \left(t_i - t_{i-1} \right) \quad (1)$$

q_{field} $q_{plateau}$ q_i

t_p t_i time
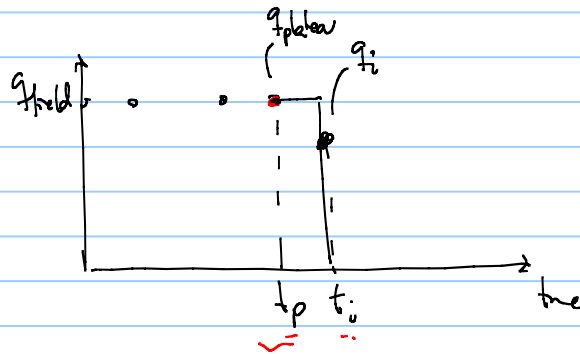
$$q_{field} = N_w \left(-m \, G_p + q_{ppo} \right).$$

$$q_i = N_w \left(-m \, G_{p_i} + q_{ppo} \right) \quad (1)$$

time	q_{field}	G_p	$q_{pp,t}$
0	$q_{plateau}$	0	$q_{pp,t}$
1	"		
2	"		
	"		
t_p	$q_{plateau}$	□	
t_i	○ ← □ + $q_{plateau} (t_i - t_p)$ → ○		
t_{i+1}	○ ?		○

$q_L/4$

q_L

p_{touch}

$q_{tr/3}$

$q_f/2$

q_m
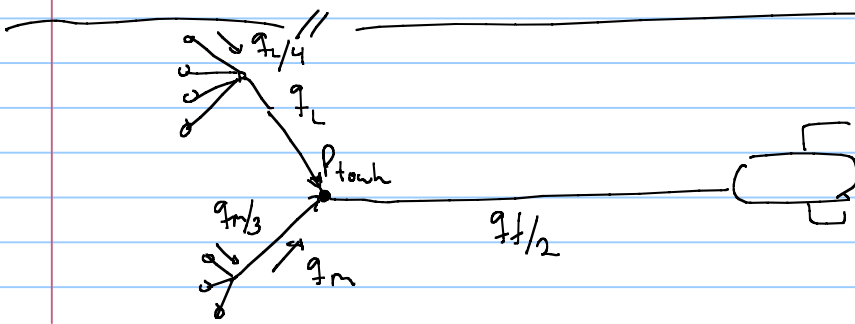
Problem 1, exercise set 3.

to estimate how much each reservoir unit should produce in plateau rate one often uses the potential

① at the "ö" run a flow equilibrium calculation with open choke

$$q_{pp\_L}$$

$$q_{pp\_n}$$

$$q_{pp\_field}$$

② calculate production split factor

$$f_L = \frac{q_{pp\_L}}{q_{pp\_field}} \qquad f_n = \frac{q_{pp\_n}}{q_{pp\_field}}$$

③ Calculate production split at plateau rate

$$q_{plateau\_L} = q_{plateau\,field} \cdot f_{\_L}$$

$$q_{plateau\_n} = q_{plateau\_field} \cdot f_{\_n}$$