

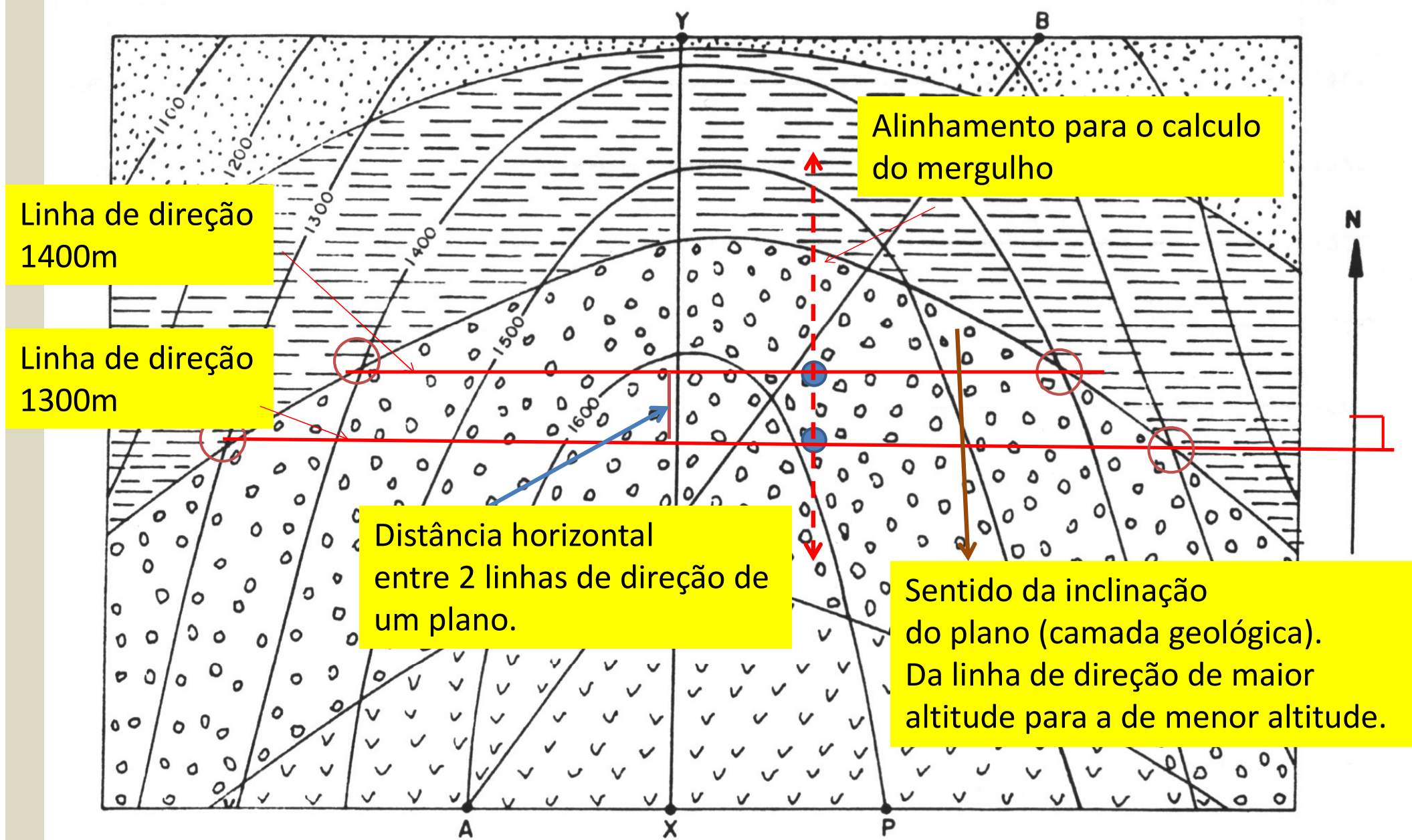
 ARENITO

 ARGILITO

 CONGLOMERADO

 BASALTO





ESCALA . 1 : 5.000

 ARENITO

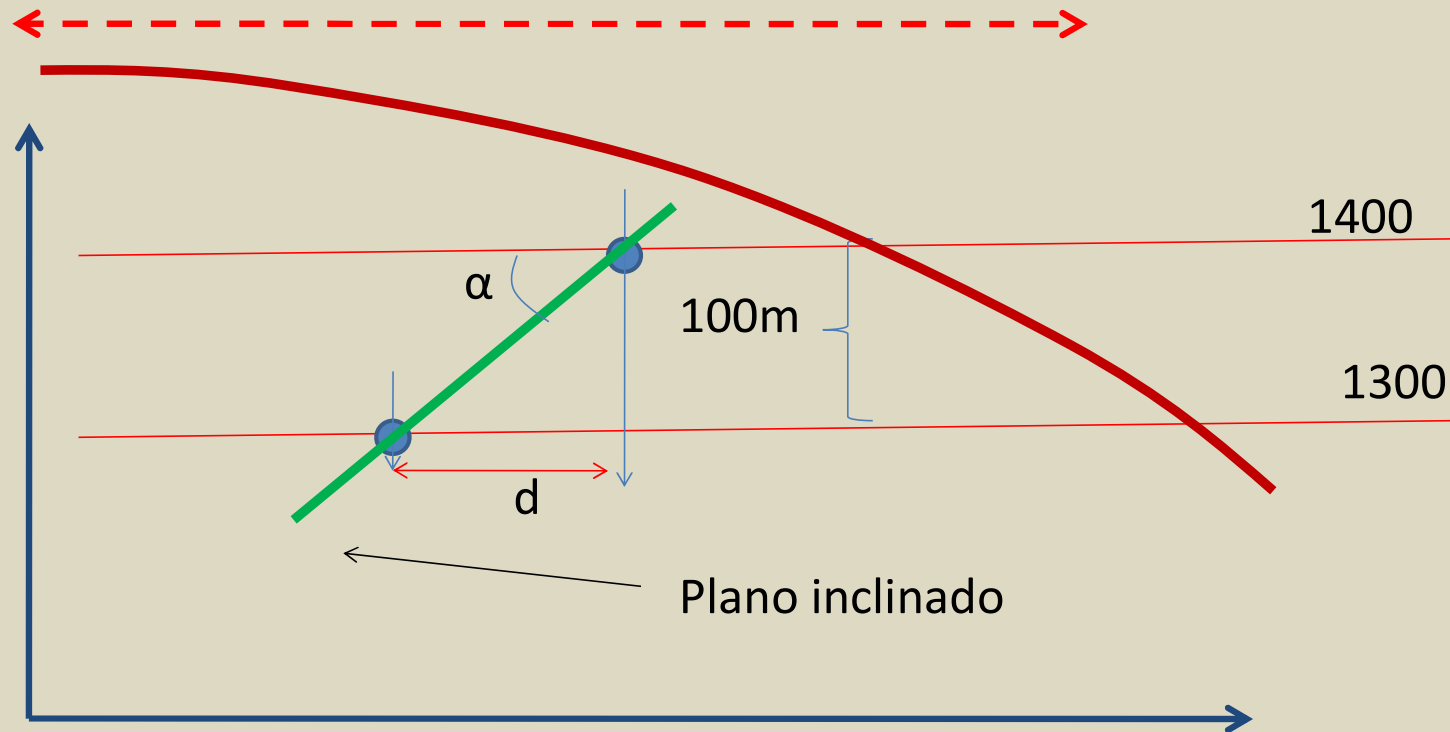
 ARGILITO

 CONGLOMERADO

 BASALTO



## Esquema para o calculo do mergulho



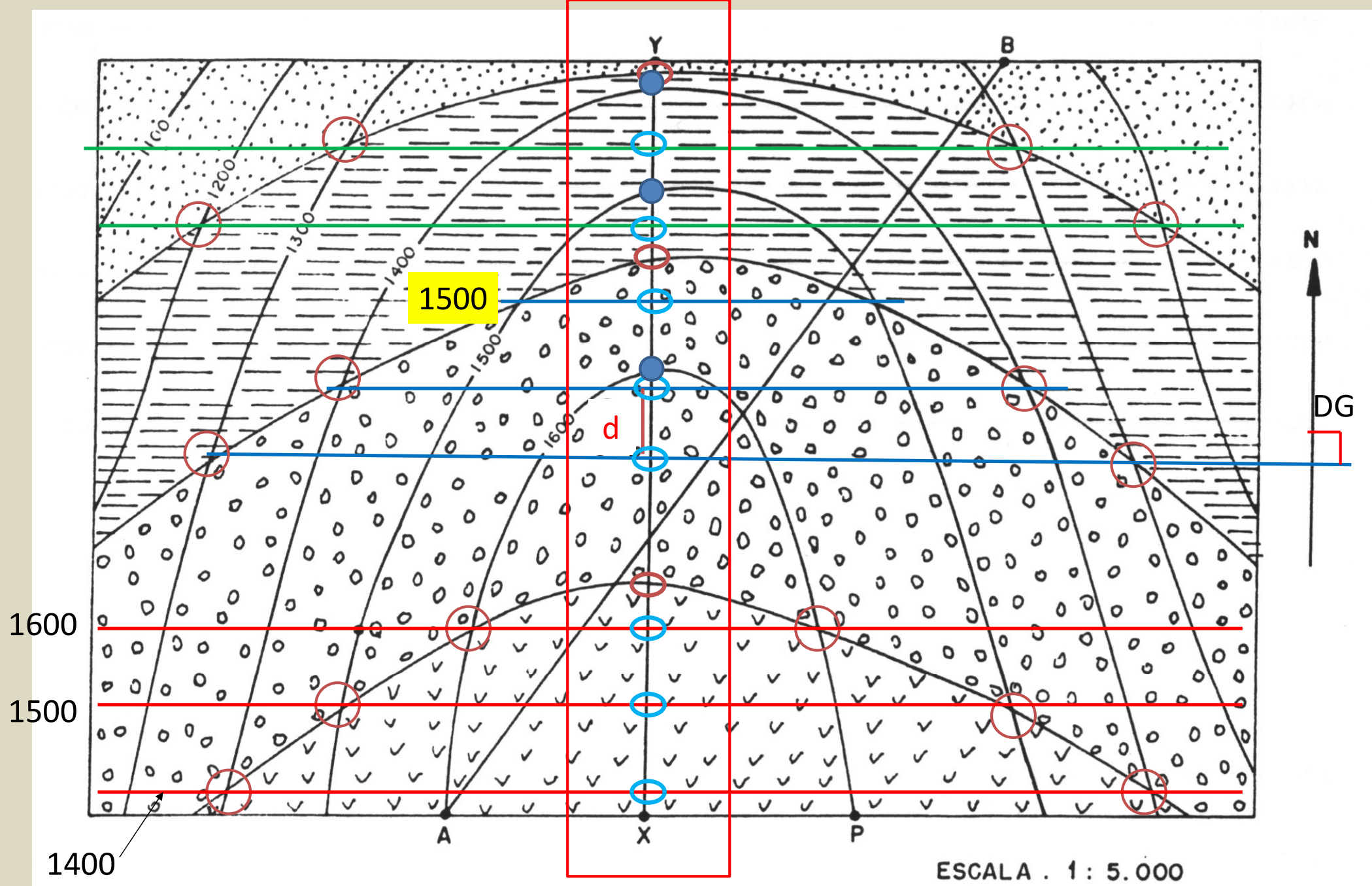
$$\text{tg } \alpha = \text{co/ca} = 100/d =$$

$\alpha$  – mergulho real

$d = d_{\text{medido no mapa}} \times \text{escala}$







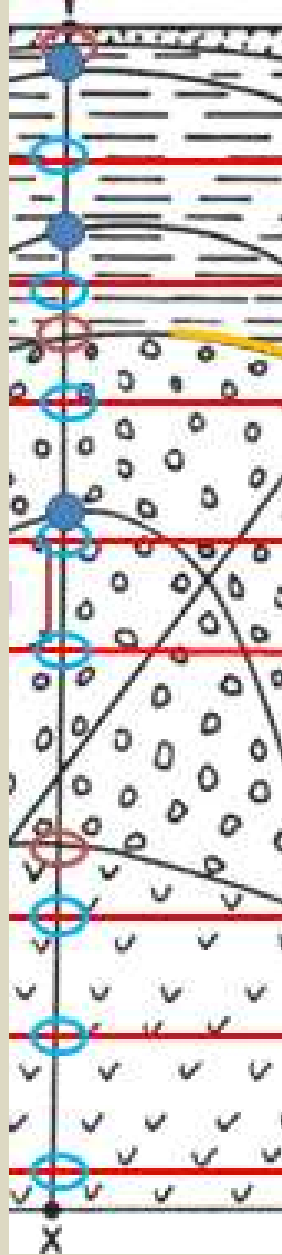
 ARENITO

 ARGILITO

 CONGLOMERADO

 BASALTO





# PERFIL XY

E.V - 1:5000

S = 1

E.H - 1: 5000

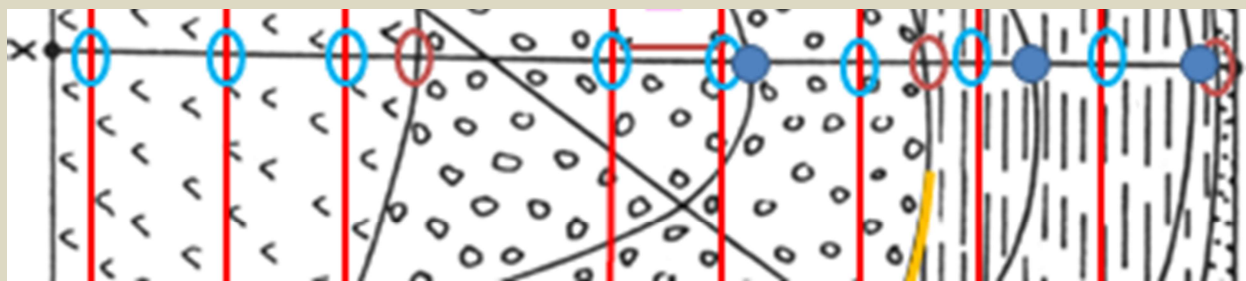
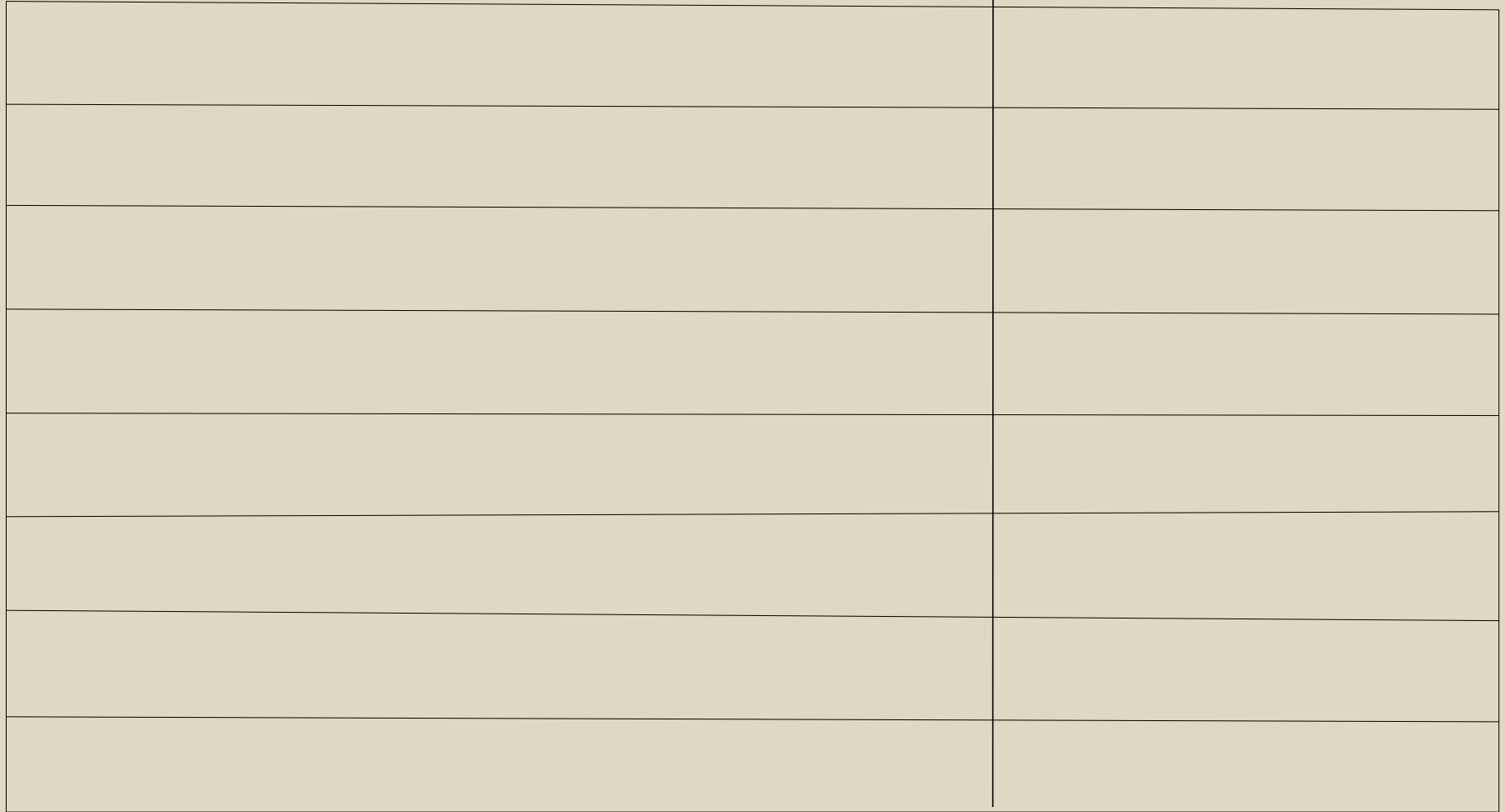
1700

1600

1500

1400

1300



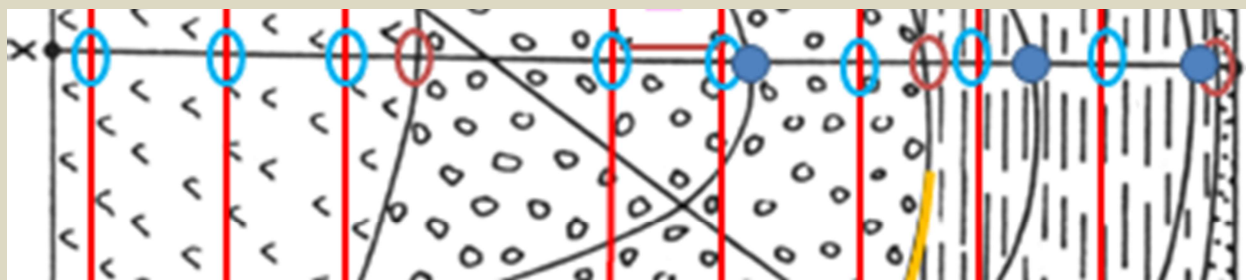
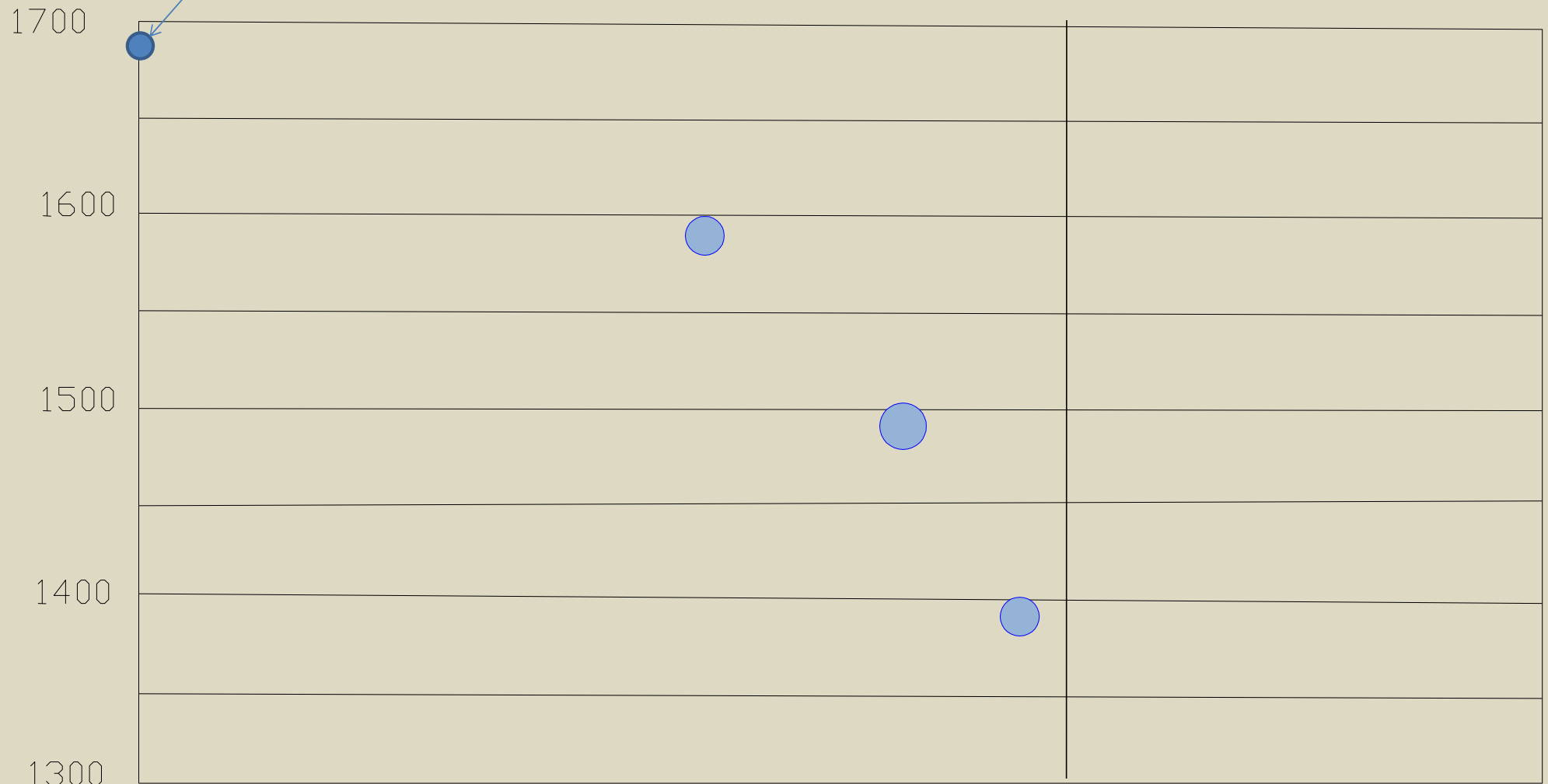
E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000

1675??



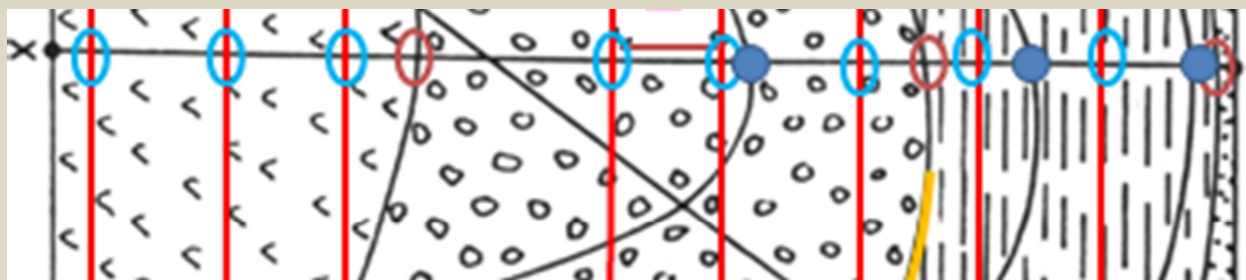
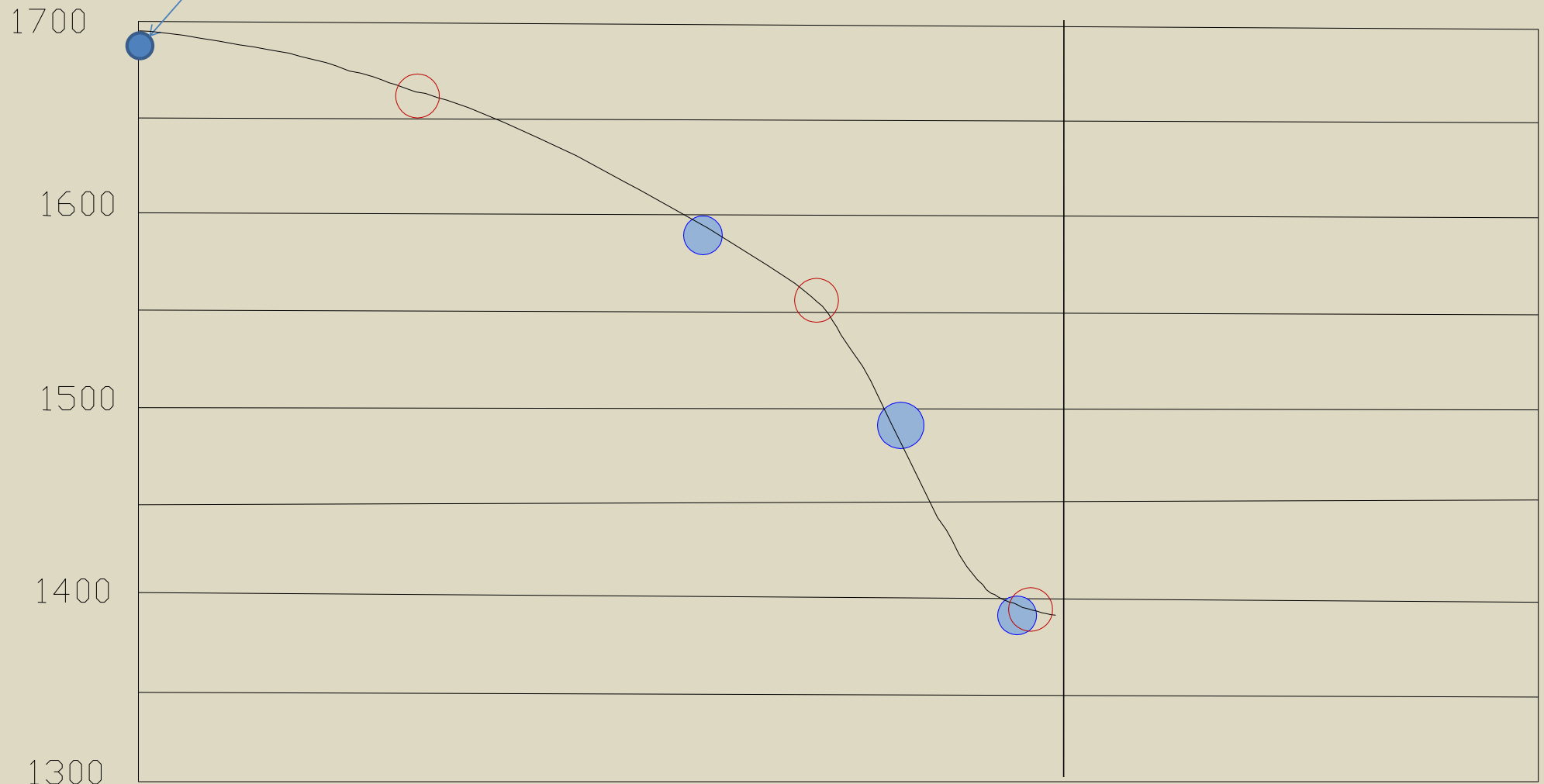
E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000

1675??





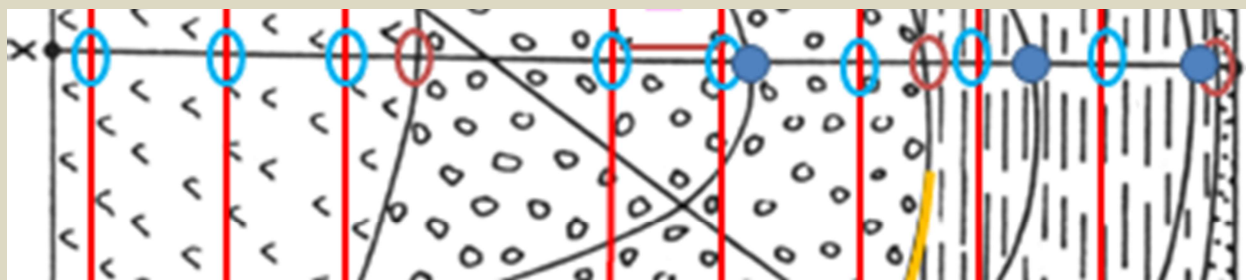
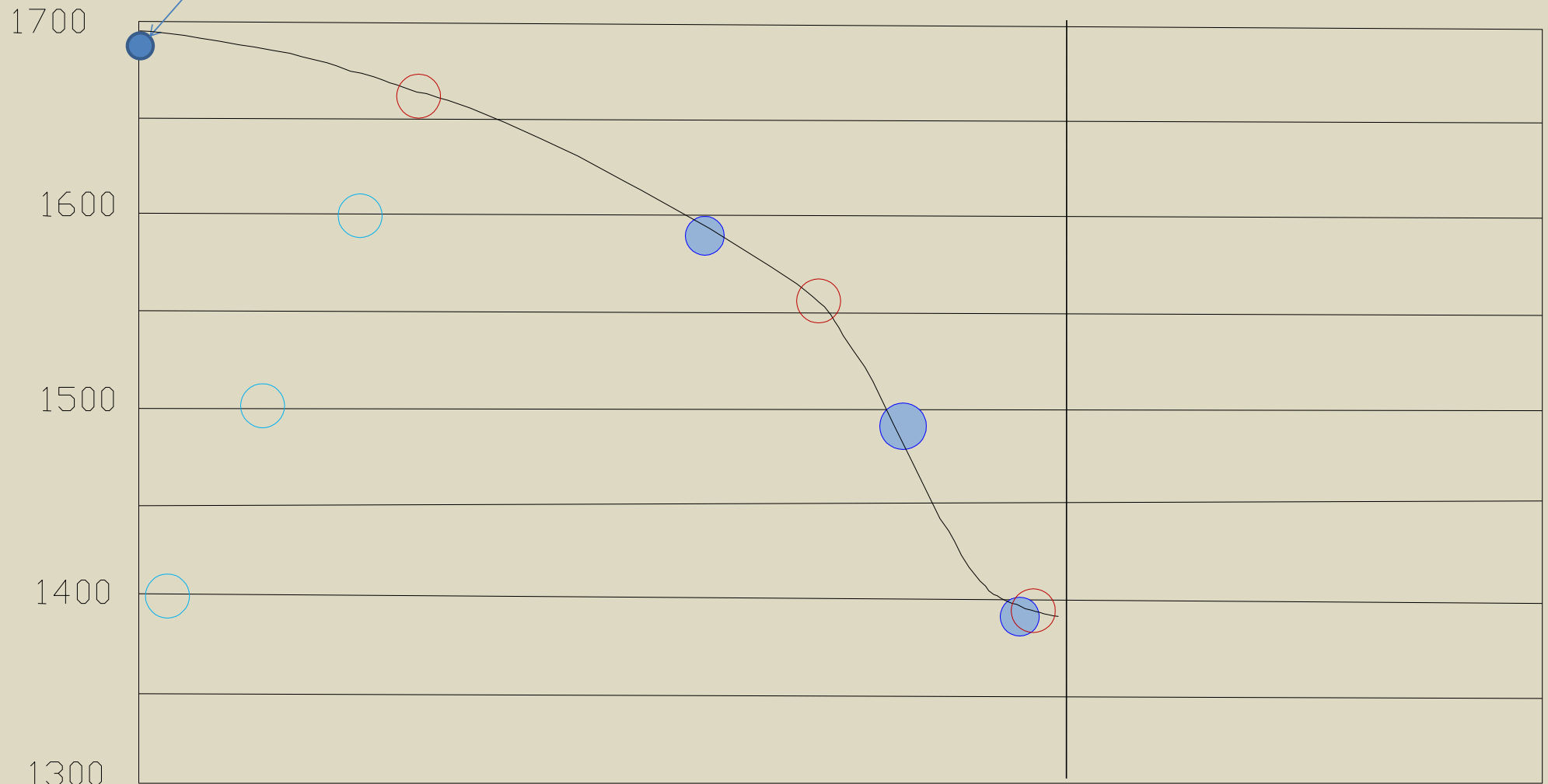
E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000

1675??



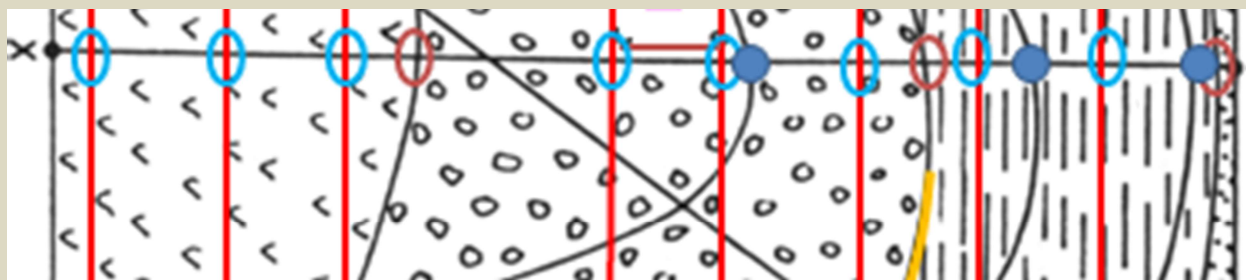
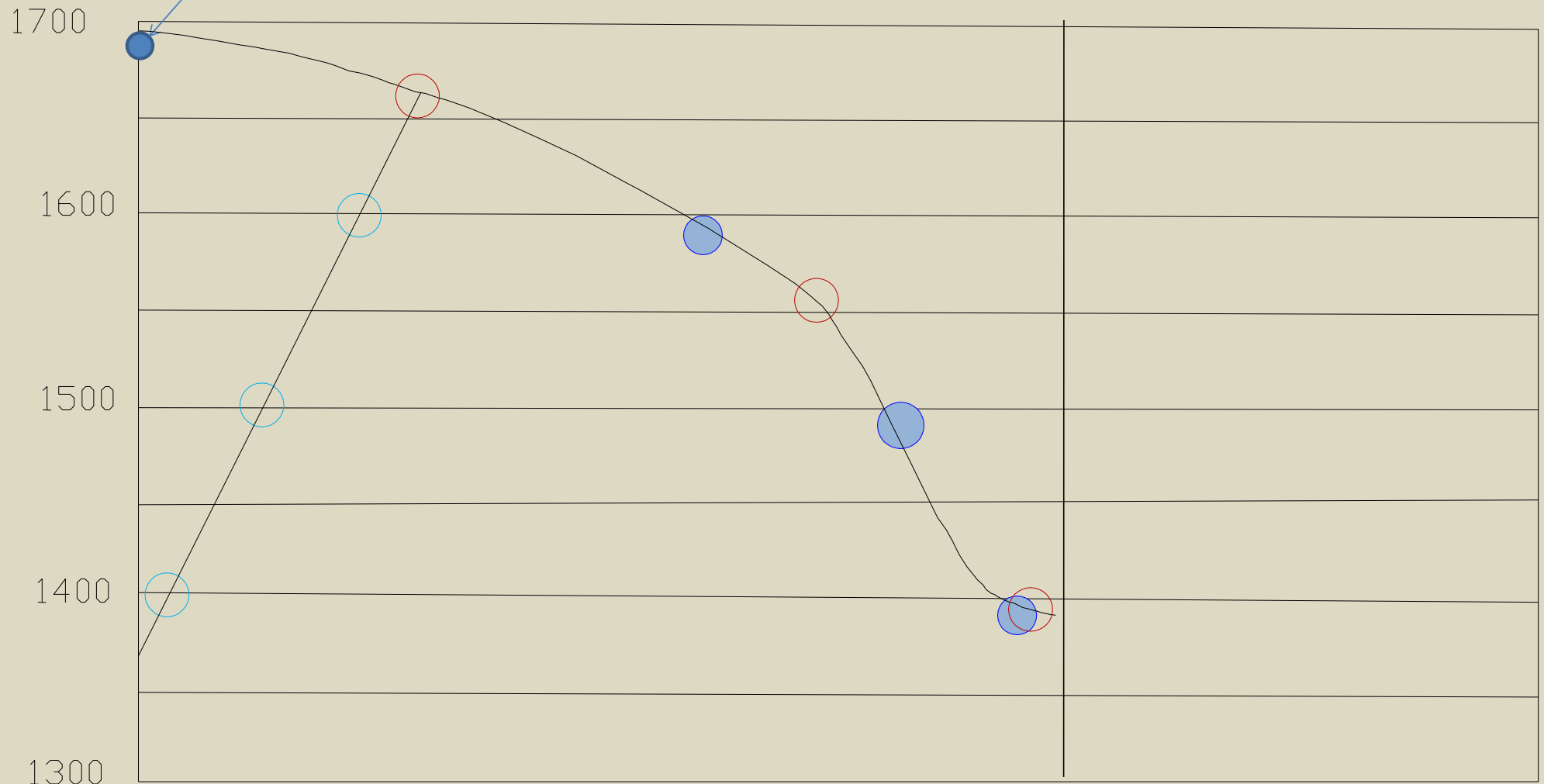
E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000

1675??



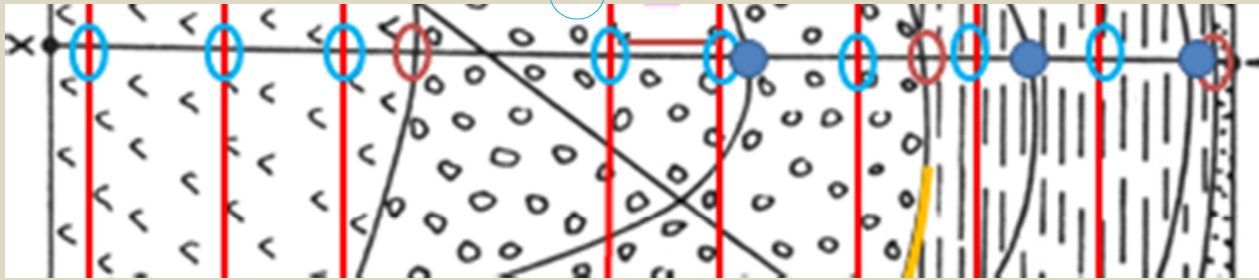
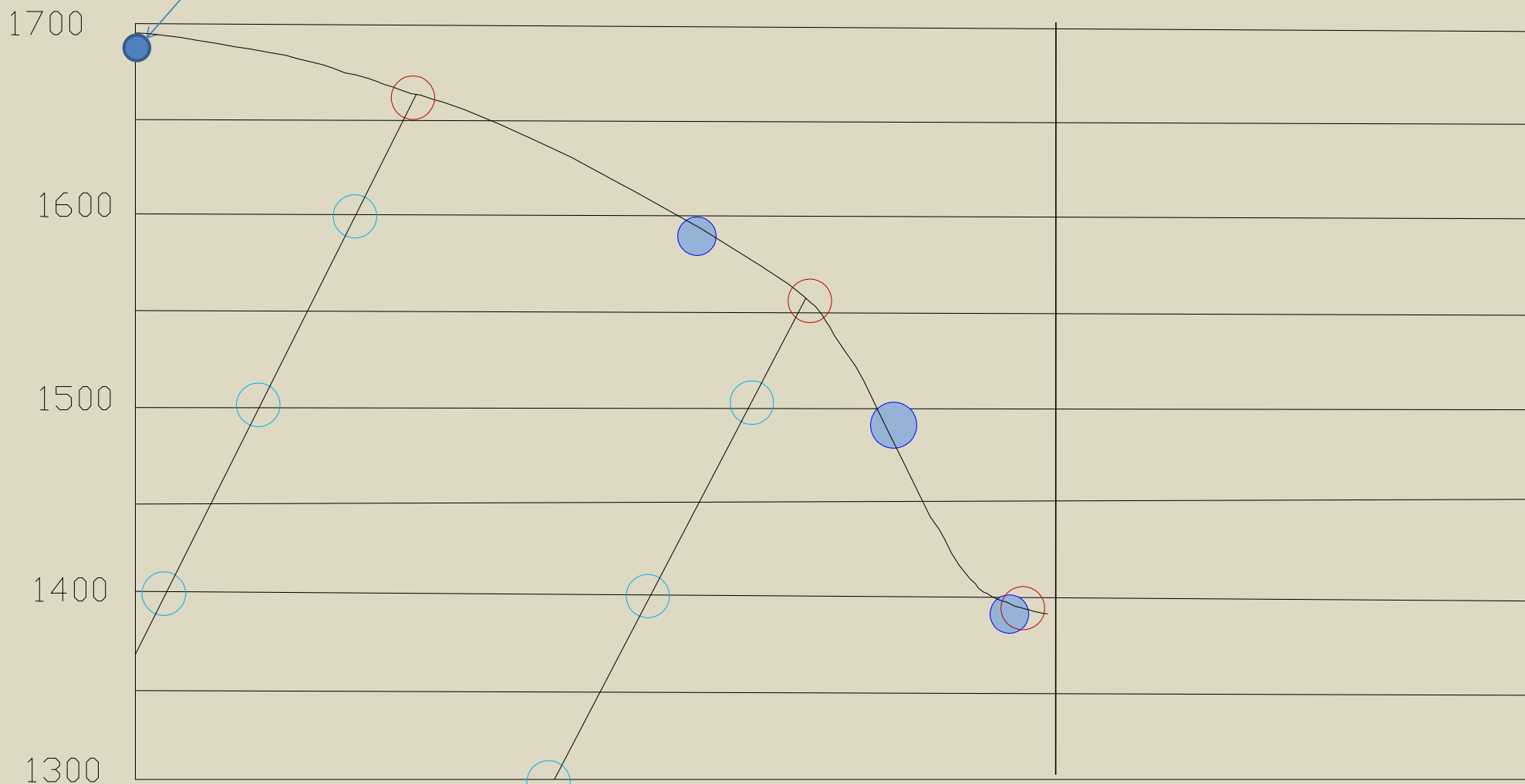
E.V - 1:5000

S = 1

### PERFIL XY

E.H - 1: 5000

1675??



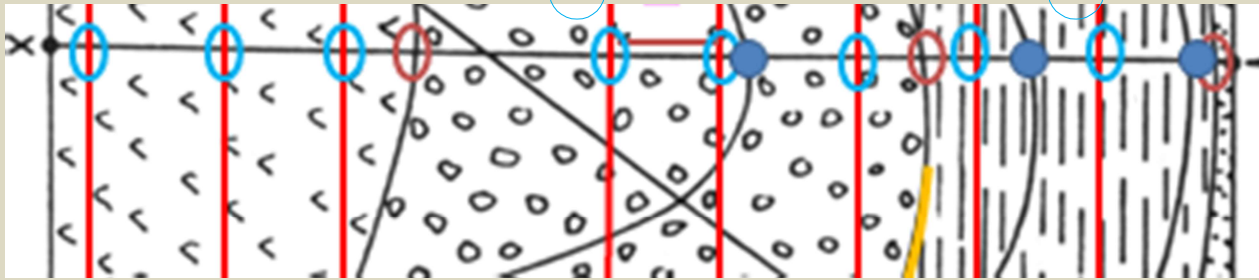
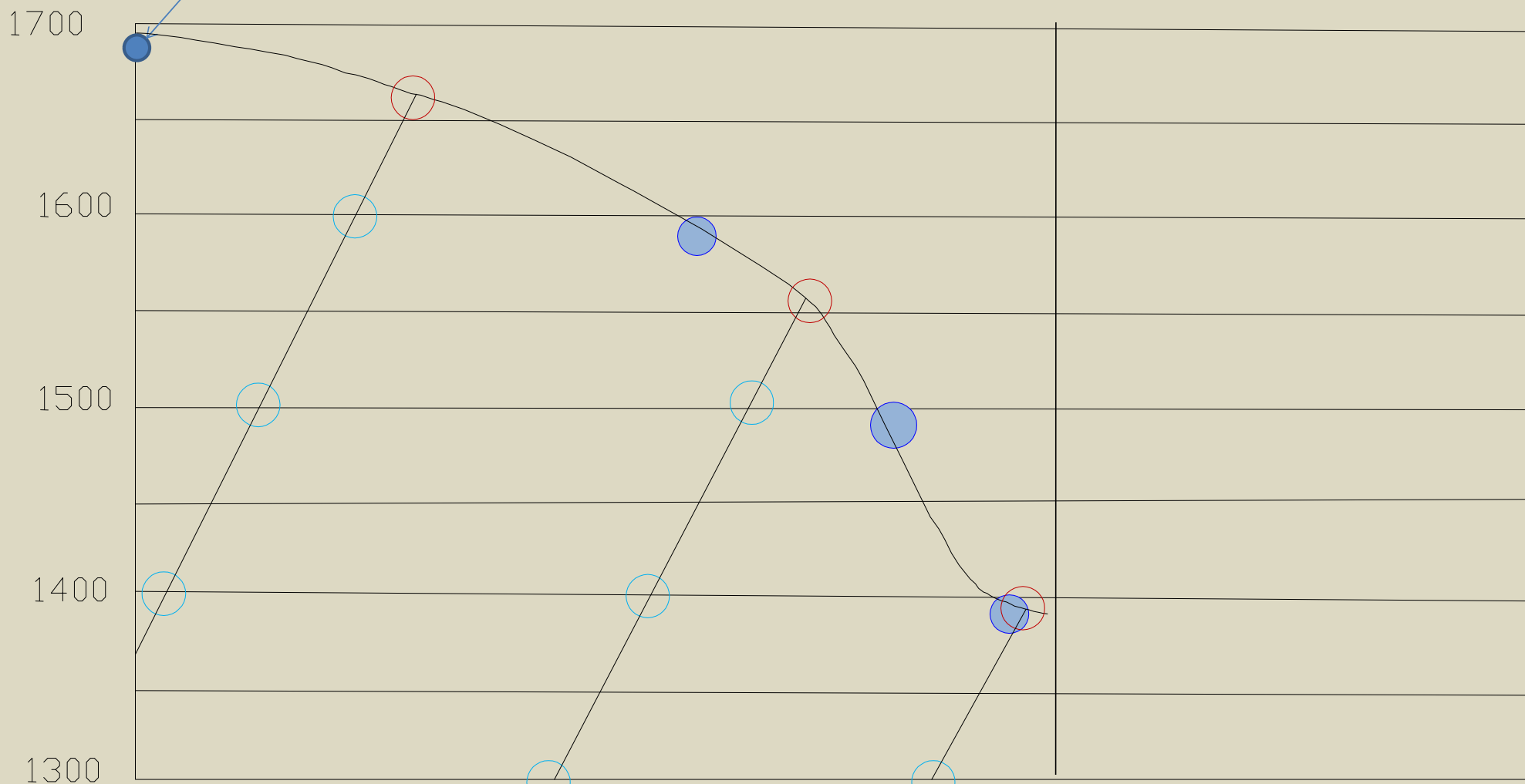
E.V - 1:5000

S = 1

### PERFIL XY

E.H - 1: 5000

1675??



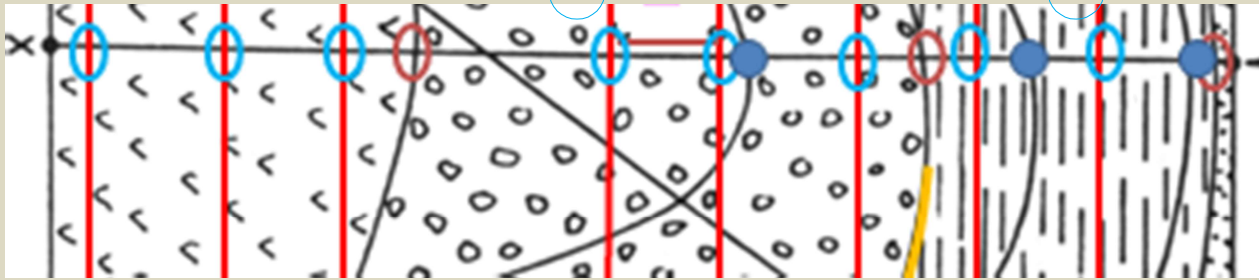
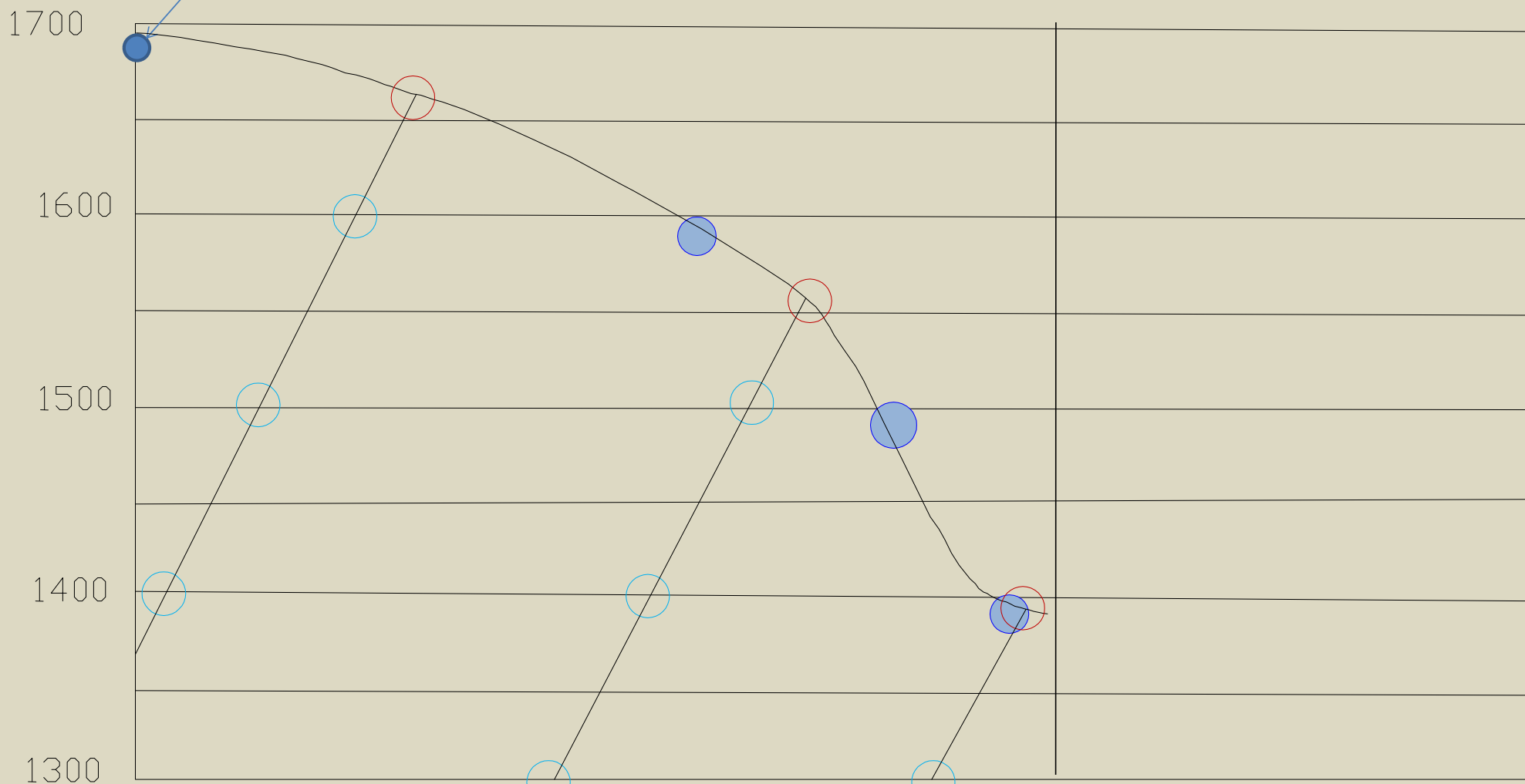
E.V - 1:5000

S = 1

### PERFIL XY

E.H - 1: 5000

1675??



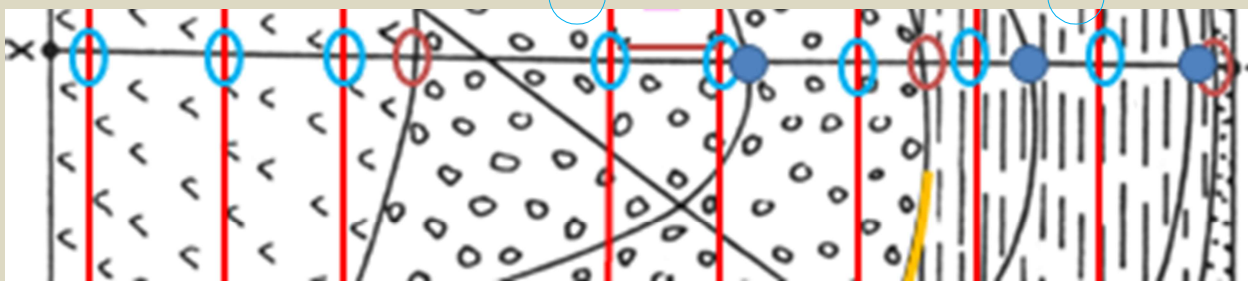
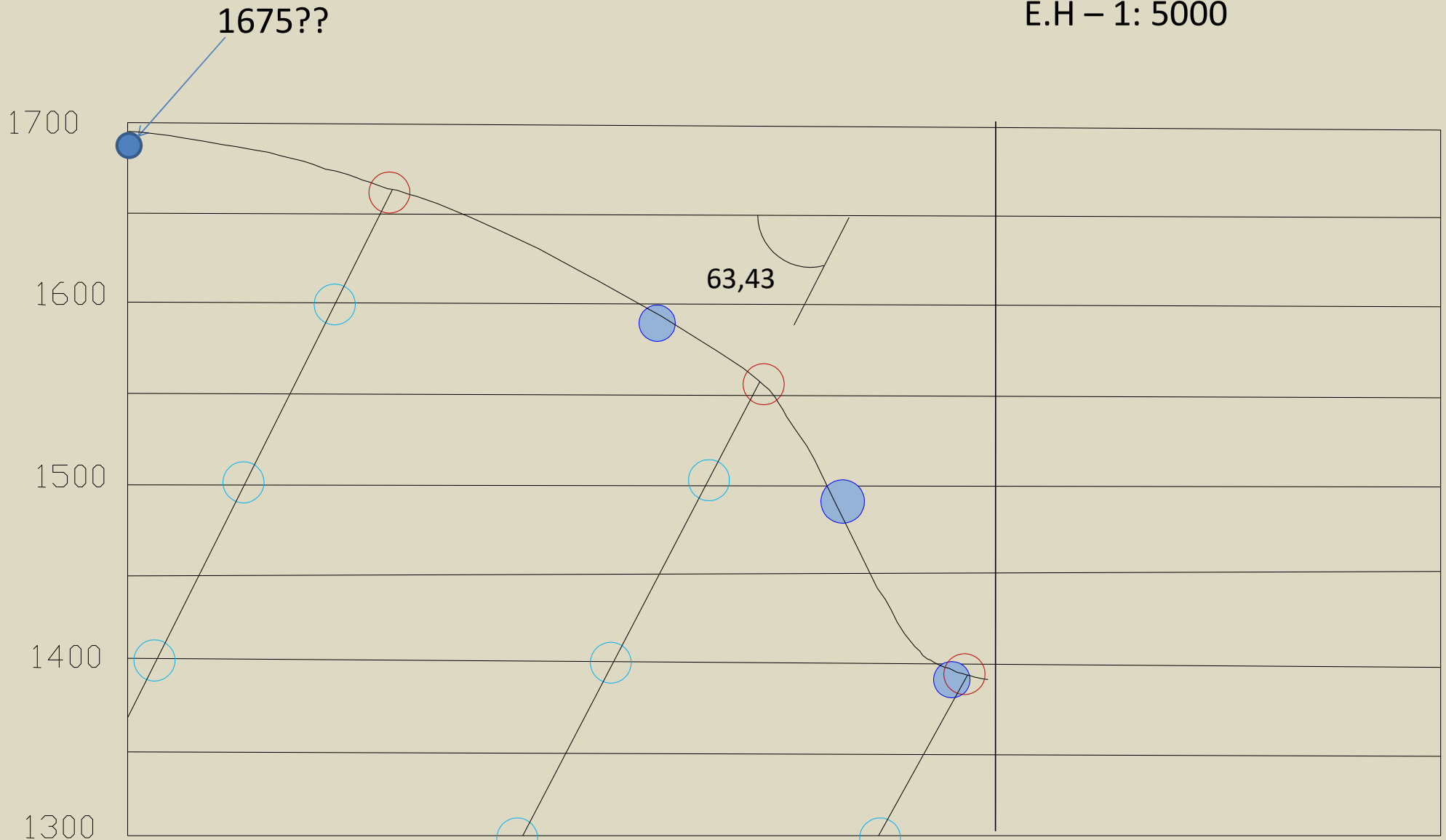


E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000



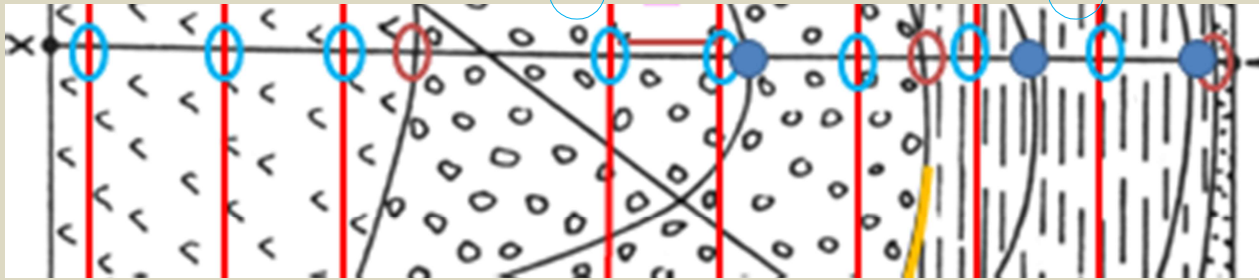
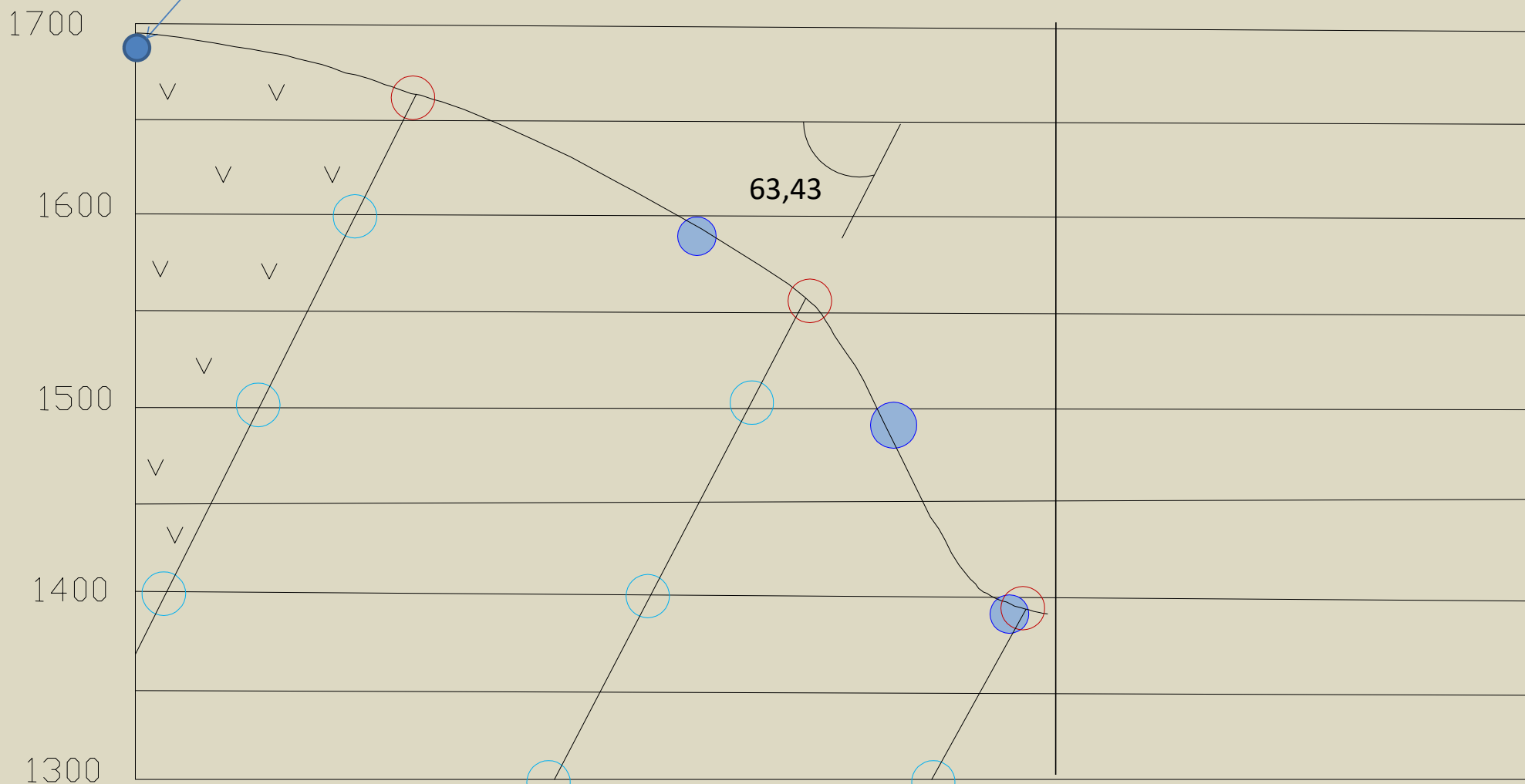
E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000

1675??



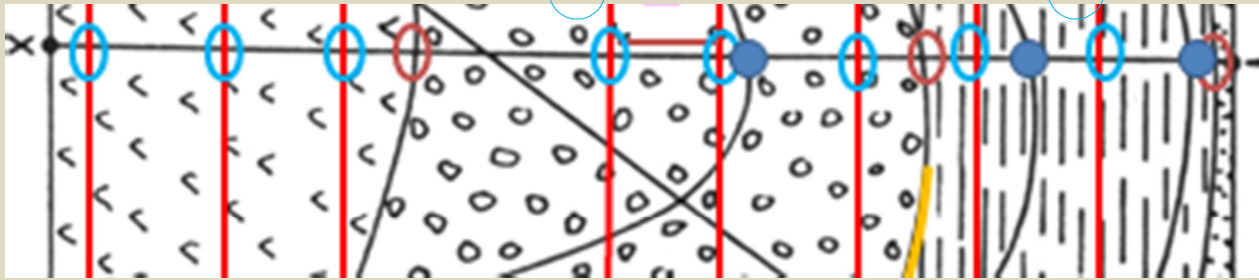
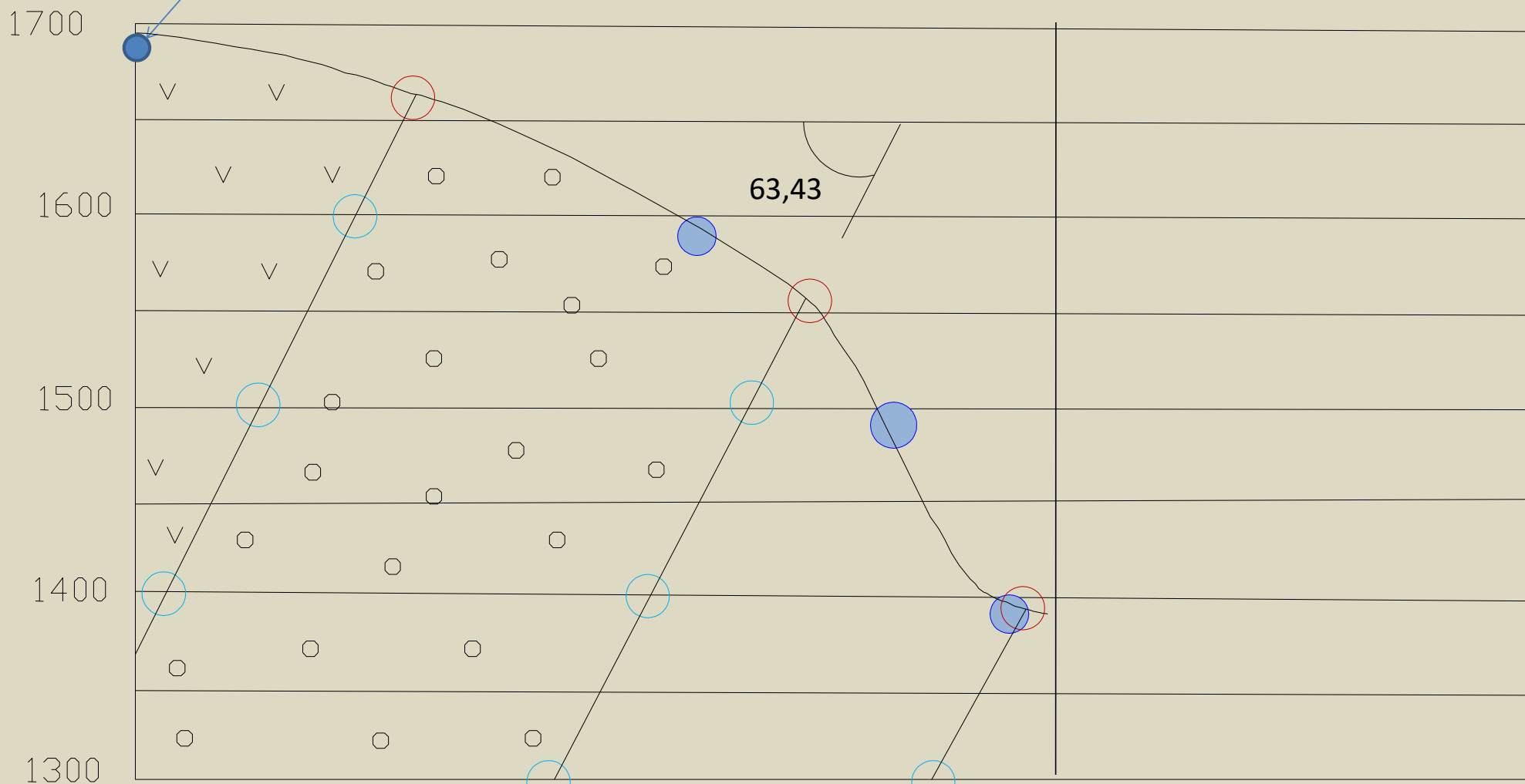
E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000

1675??

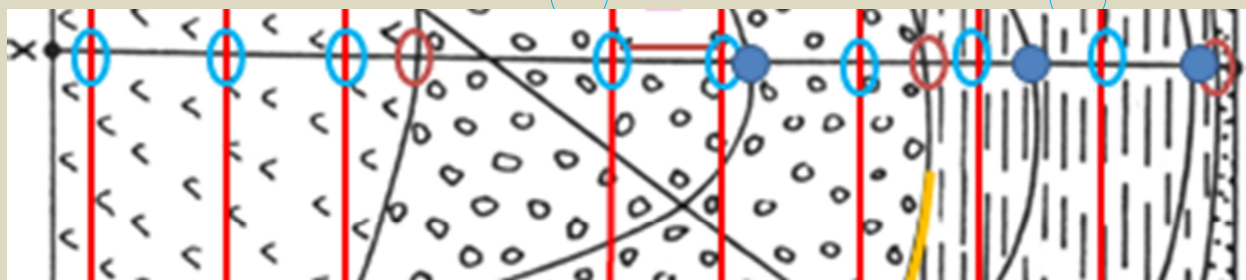
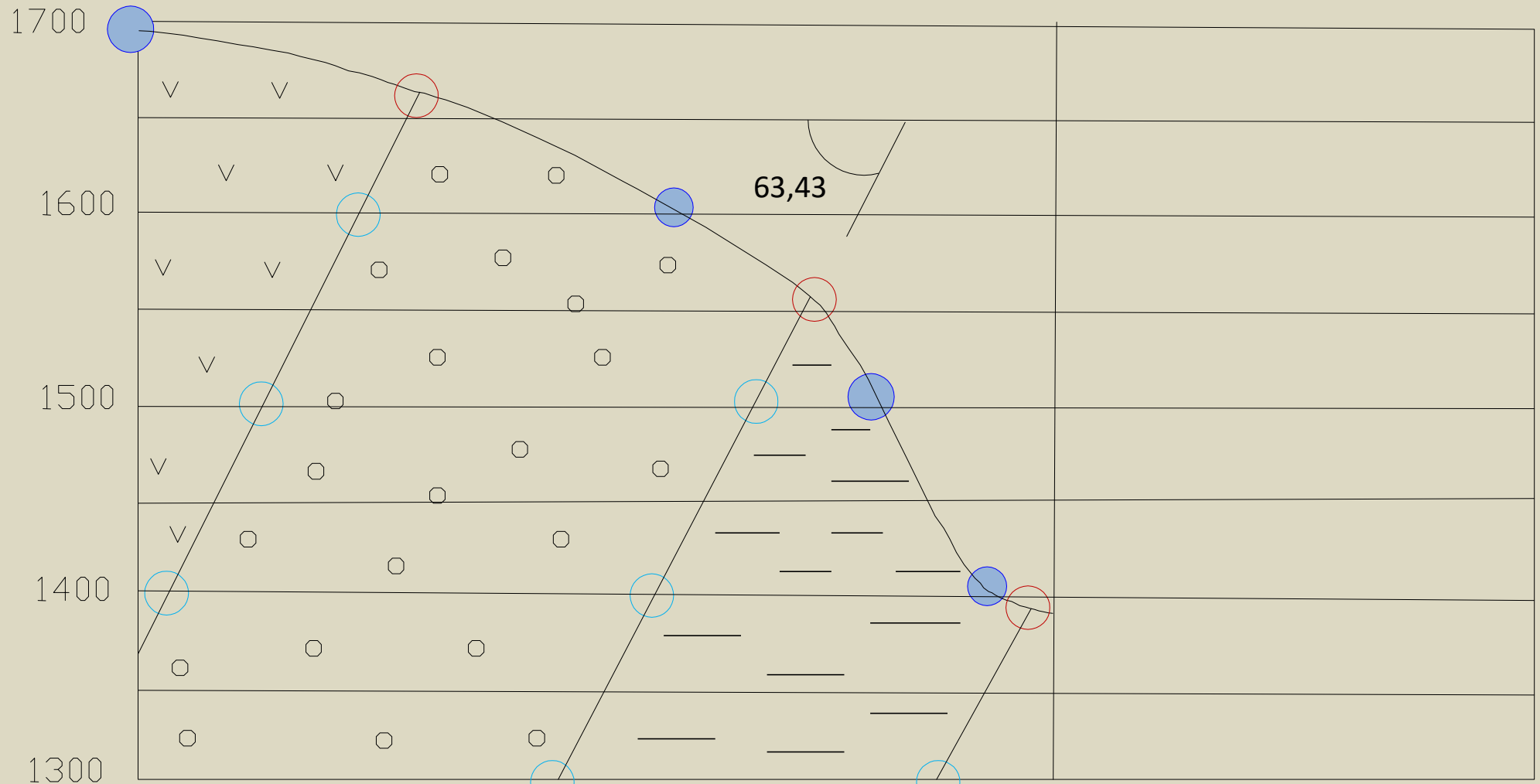


E.V - 1:5000

S = 1

# PERFIL XY

E.H - 1: 5000



## PROFUNDIDADE EM P:

OBS:

1 – QUAIS PLANOS OU POSIÇÃO?

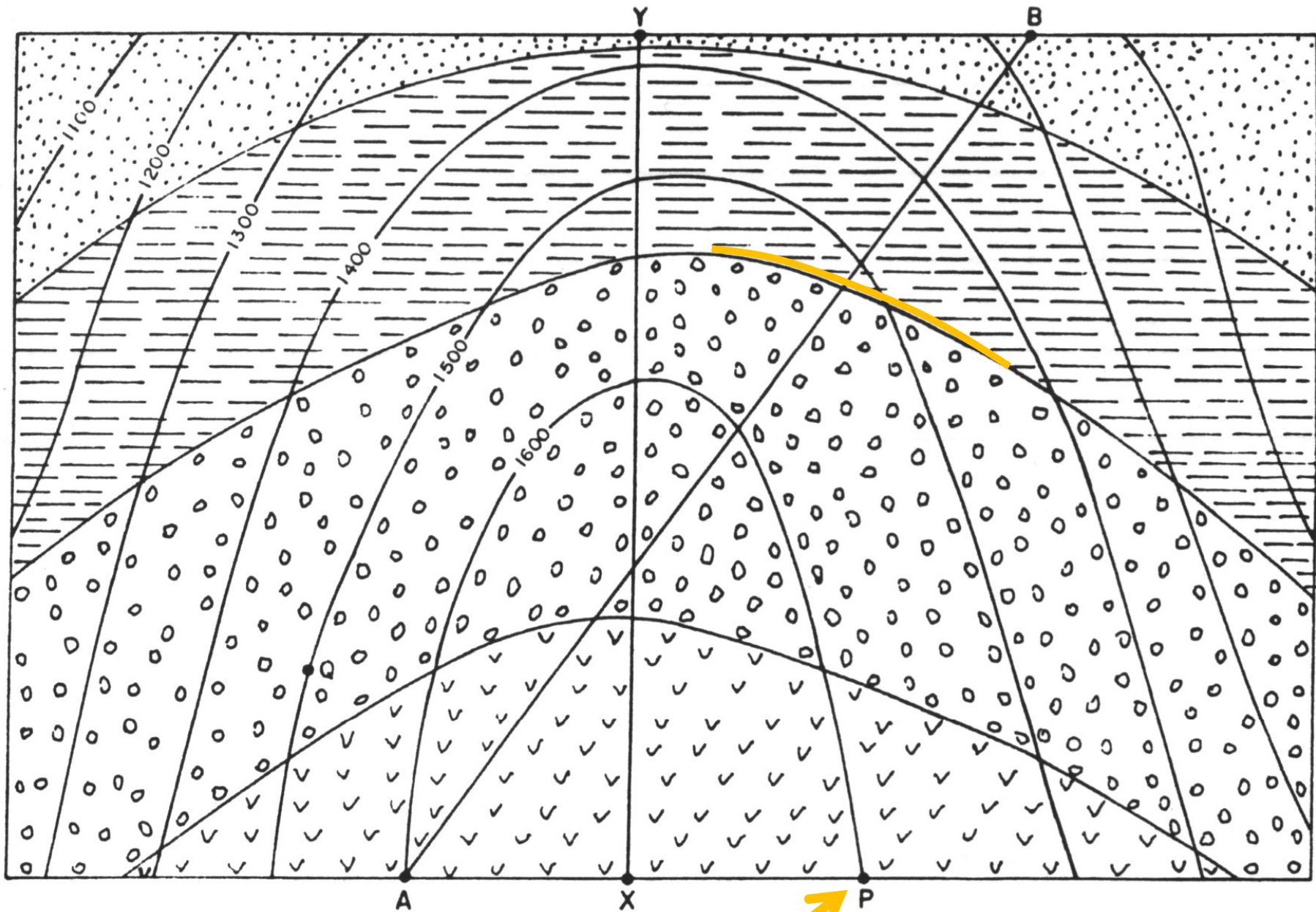
2 – ALINHAMENTO PARALELO AO DA DIREÇÃO DO MERGULHO REAL?

3 – FAZER O PERFIL GEOLÓGICO

4 – EQUACIONAR OS PARÂMETROS.







ESCALA . 1 : 5.000

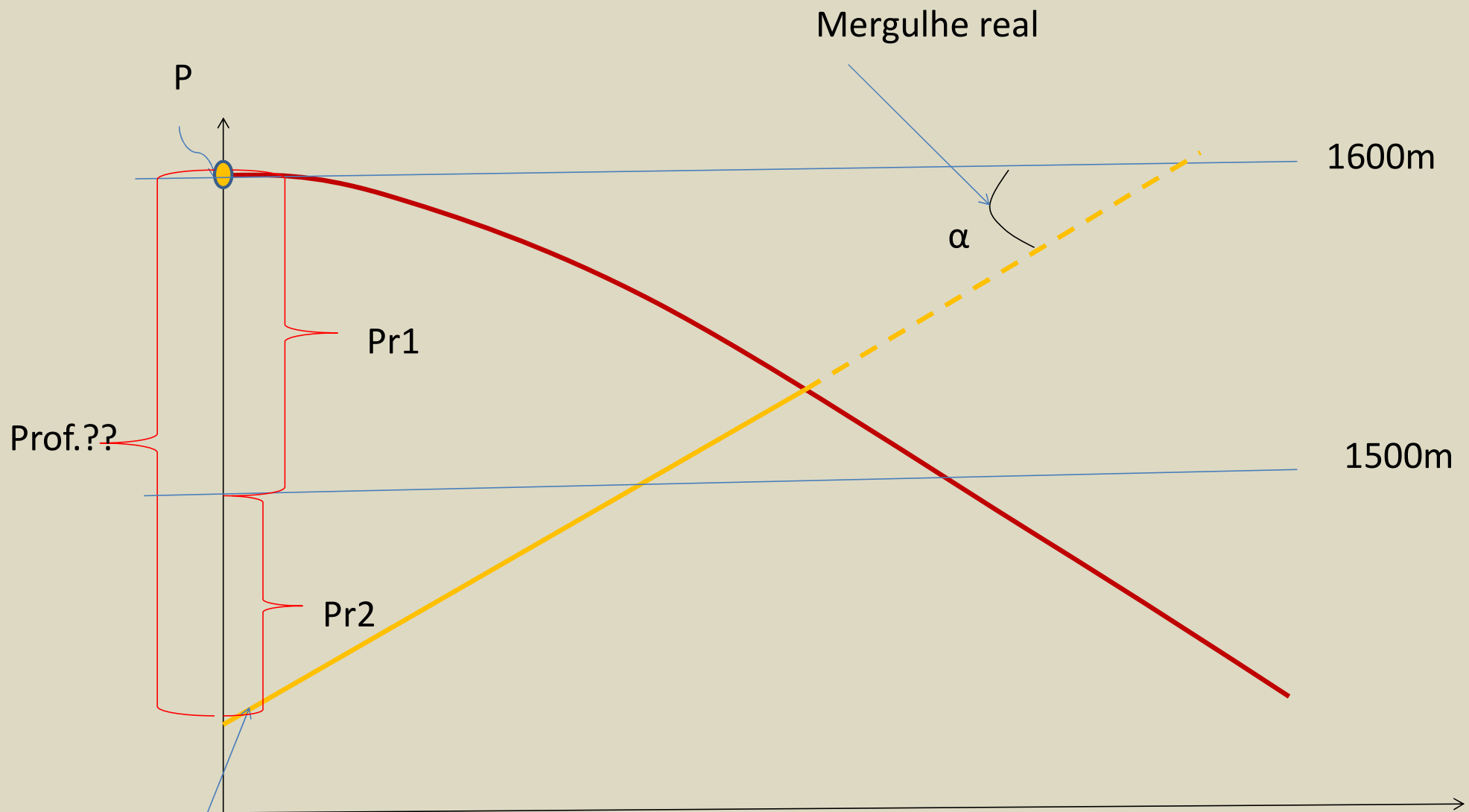
 ARENITO

 ARGILITO

 CONGLOMERADO

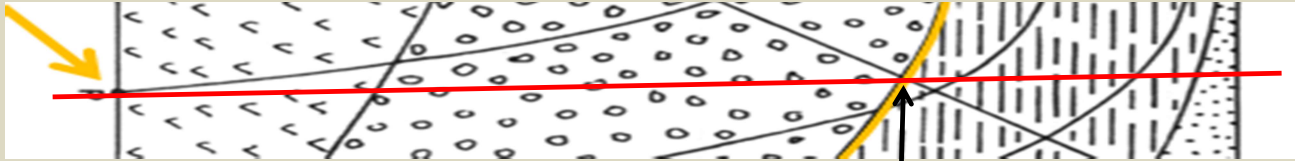
 BASALTO





Limite entre  
Argilito e  
Conglomerado





Mergulhe real

1600m

$\alpha$

1500m

P

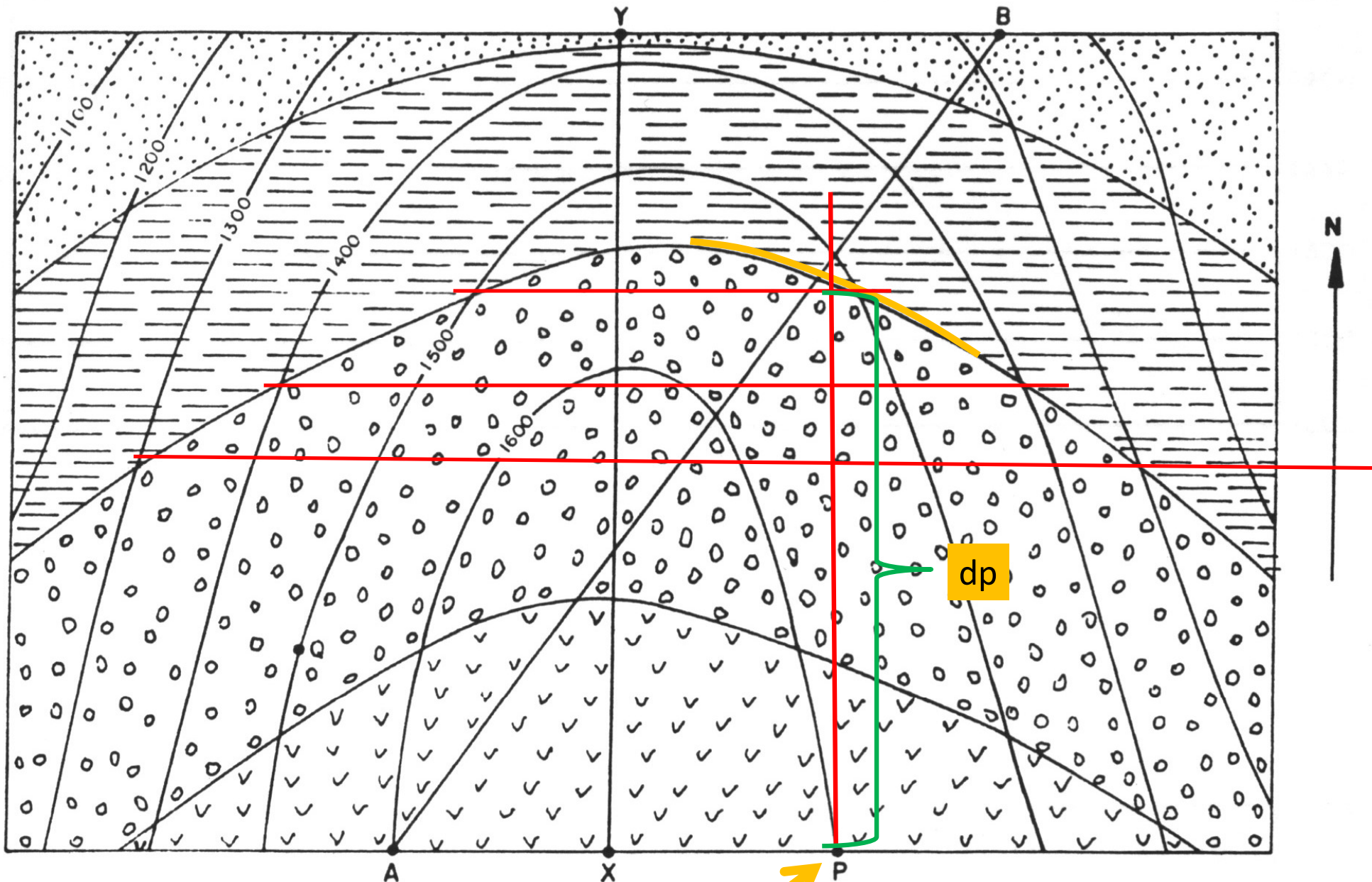
Pr1

Prof.??

Pr2

Limite entre  
Argilito e  
Conglomerado





 ARENITO

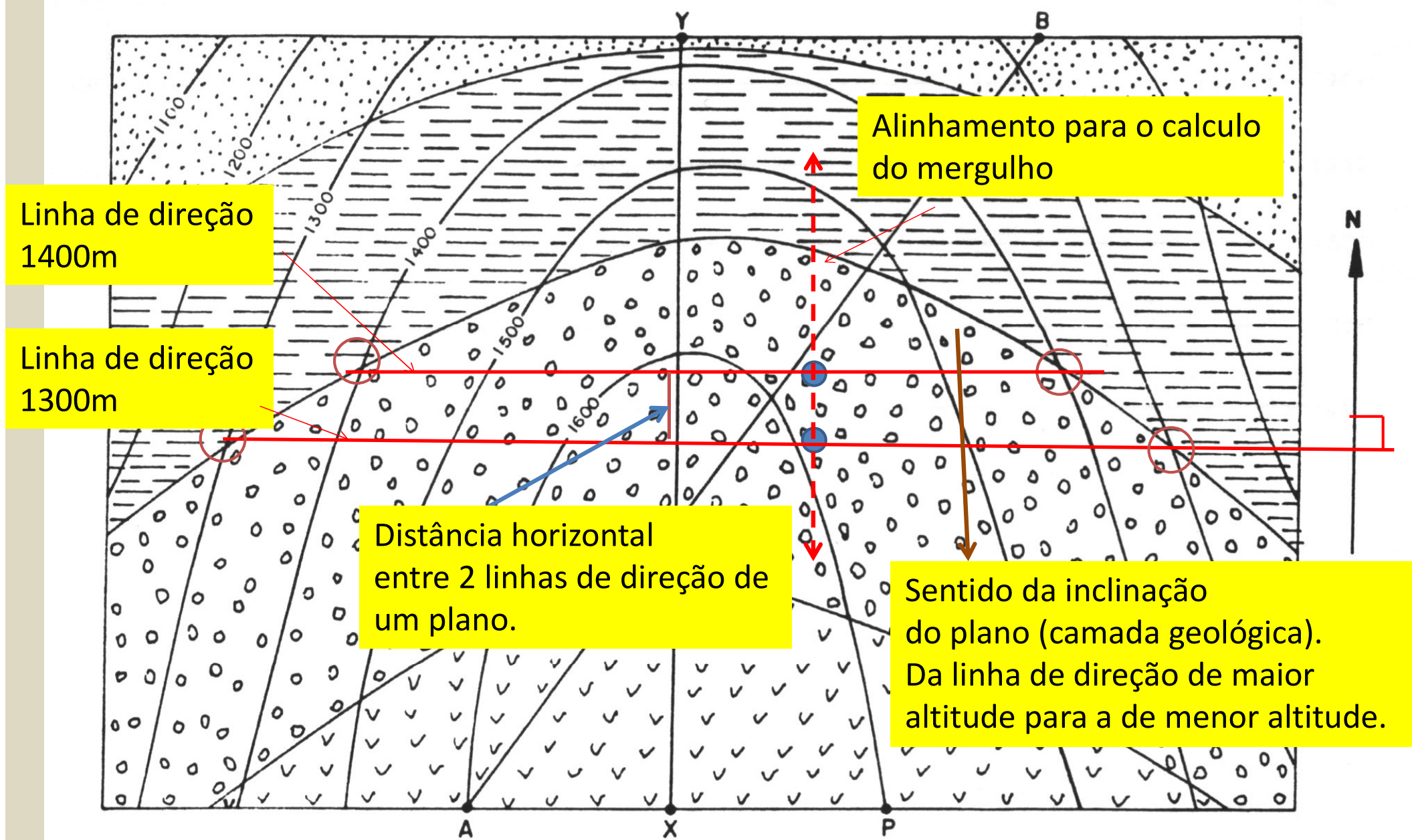
 ARGILITO

 CONGLOMERADO

 BASALTO







ESCALA . 1 : 5.000

 ARENITO

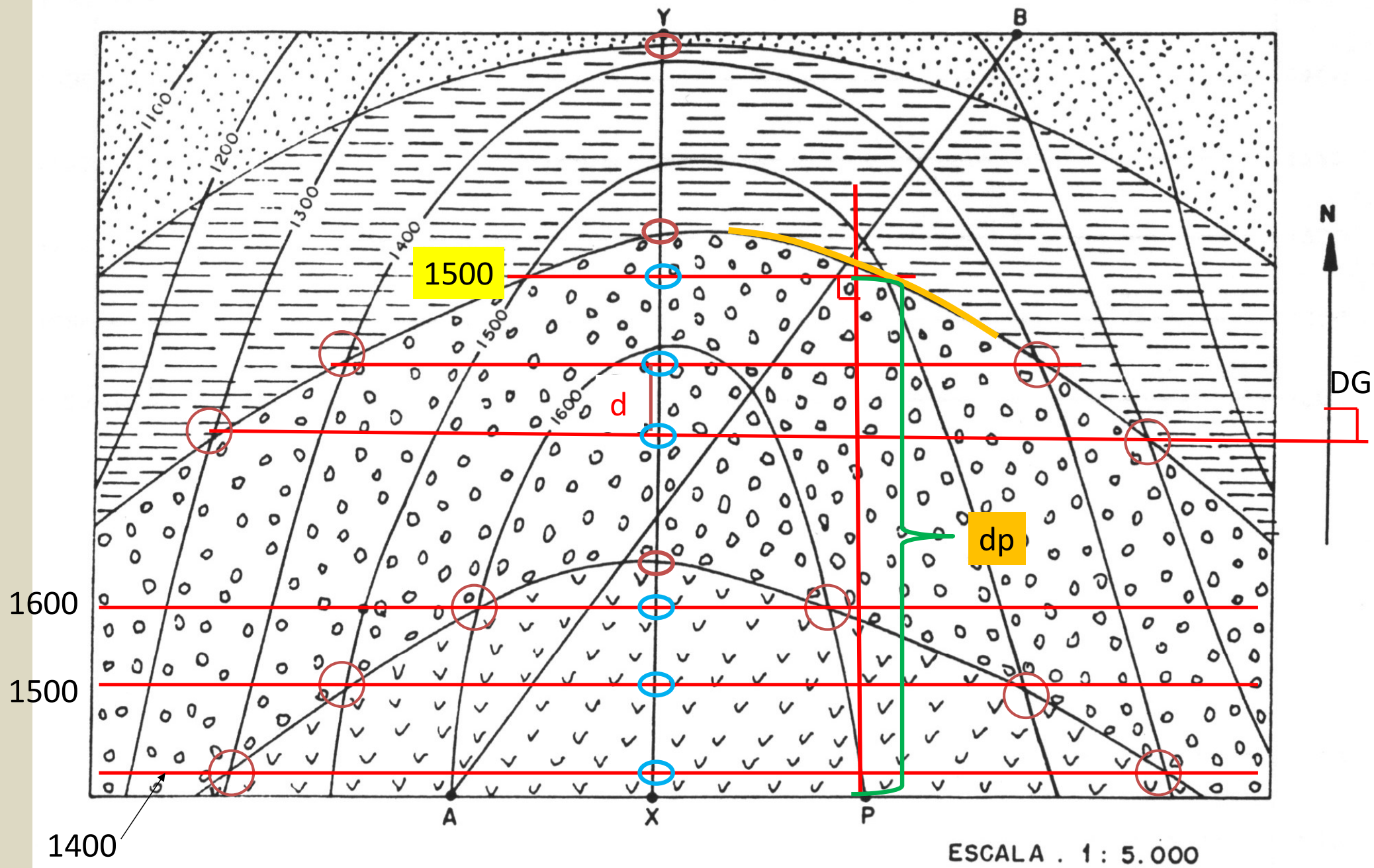
 ARGILITO

 CONGLOMERADO

 BASALTO







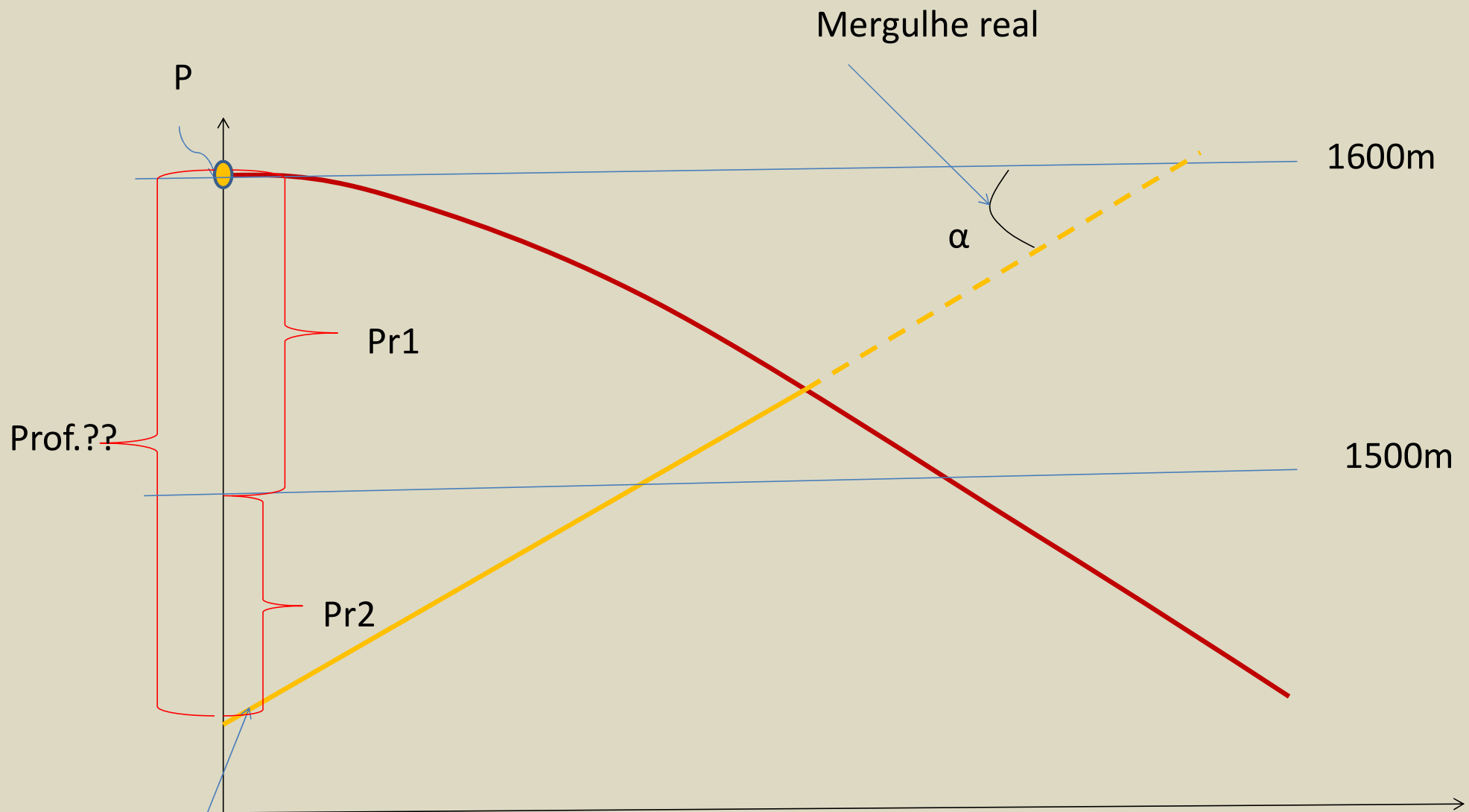
 ARENITO

 ARGILITO

 CONGLOMERADO

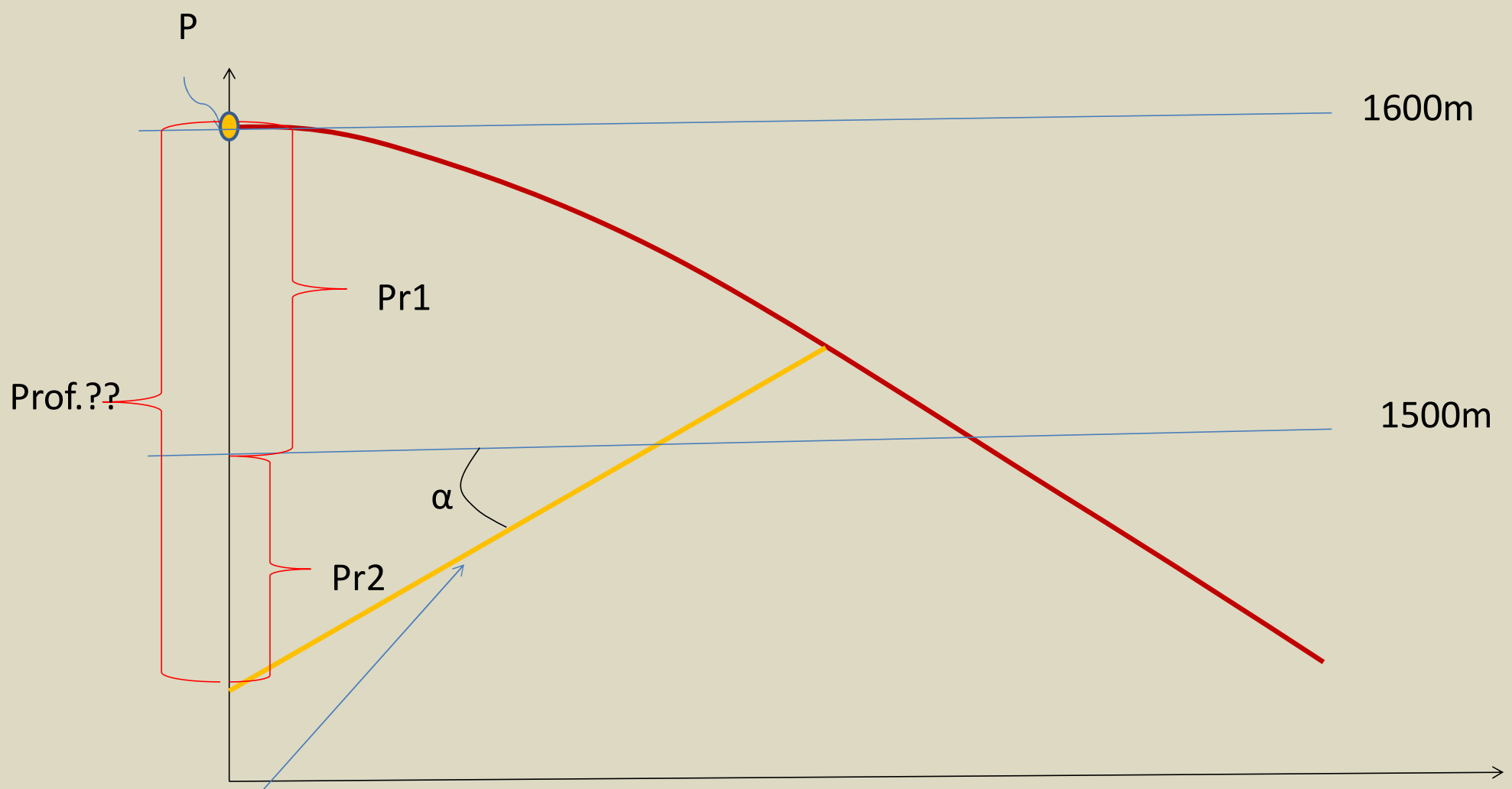
 BASALTO





Limite entre  
Argilite e  
Conglomerado



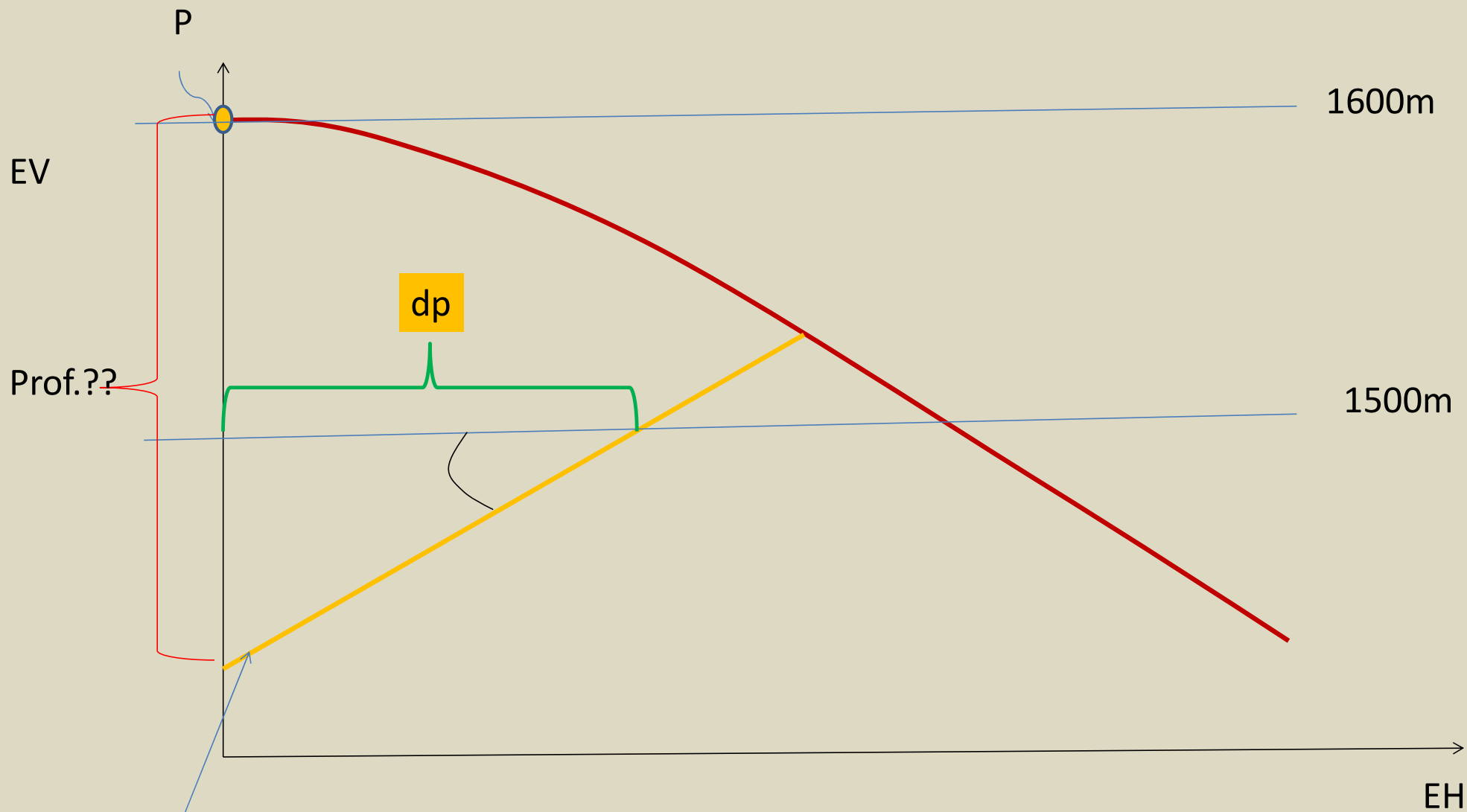


$$\text{Prof} = \text{Pr1} + \text{Pr2}$$

$$\text{Prof} = 100\text{m} + dp.tg\alpha$$

Limite entre  
Argilito e  
Conglomerado





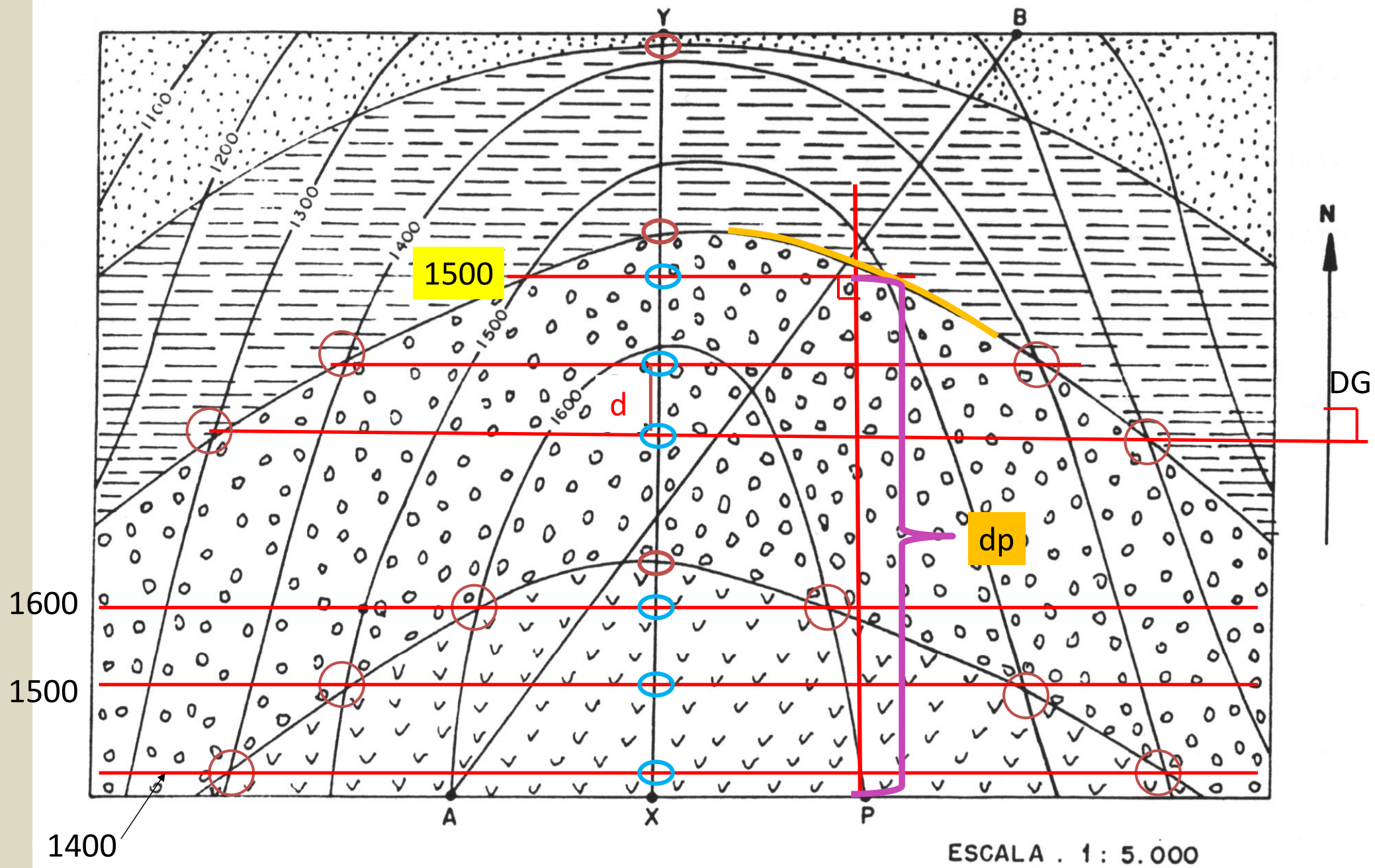
Limite entre  
Argilito e  
Conglomerado

$$\text{Prof} = \text{Pr1} + \text{Pr2}$$

$$\text{Prof} = 100\text{m} + \text{dp} \cdot \text{tg}\alpha$$

dp = distancia no mapa x escala





 ARENITO

 ARGILITO

 CONGLOMERADO

 BASALTO







### **PRESSUPOSTO:**

NO MAPA GEOLÓGICO EM ANEXO PRETENDE-SE CONSTRUIR NO ALINHAMENTO A-A' UMA RODOVIA – CLASSE 0 (ZERO) MAS COM INCLINAÇÃO SEMPRE MENOR QUE 10%. ELABORE O PERFIL GEOLÓGICO COM A ESCALA VERTICAL ADEQUADA E POSICIONE AS OBRAS CONSIDERANDO SUAS CARACTERÍSTICAS. ELABORE UM RELATÓRIO DOS PROBLEMAS CONSTRUTIVOS POTENCIAIS ASSOCIADOS AOS MATERIAIS GEOLÓGICOS E DA DISTRIBUIÇÃO ESPACIAL DOS MESMOS. DEMARCAR NO PERFIL GEOLÓGICO A ZONA DE OCORRÊNCIA DE CADA TIPO DE PROBLEMA.

### **DADOS:**







- 1 – Os 3m inferiores da camada do basalto são constituídos por vesículas e amígdalas preenchidas por zeólitas e nontronitas.
- 2 – A metade superior da camada do argilito é constituída predominantemente por minerais de argila do grupo das esmectitas.
- 3 – O arenito 2 tem como cimento carbonatos de Ca e Mg.
- 4 – No limite entre o granito e o arenito 1 (faixa com 10m de espessura) ocorre matações de granitos envolvidos pelos arenitos.
- 5 – No terço superior o siltito encontra-se intercalado com camadas de argilitos com minerais de argilas do grupo das esmectitas da ordem de 1m de espessura.





Escala  
1:10.000

Legenda

-  Argilito
-  Arenito 1
-  Arenito 2
-  Basalto
-  Siltito
-  Granito

Elaborar o perfil geológico A - A'

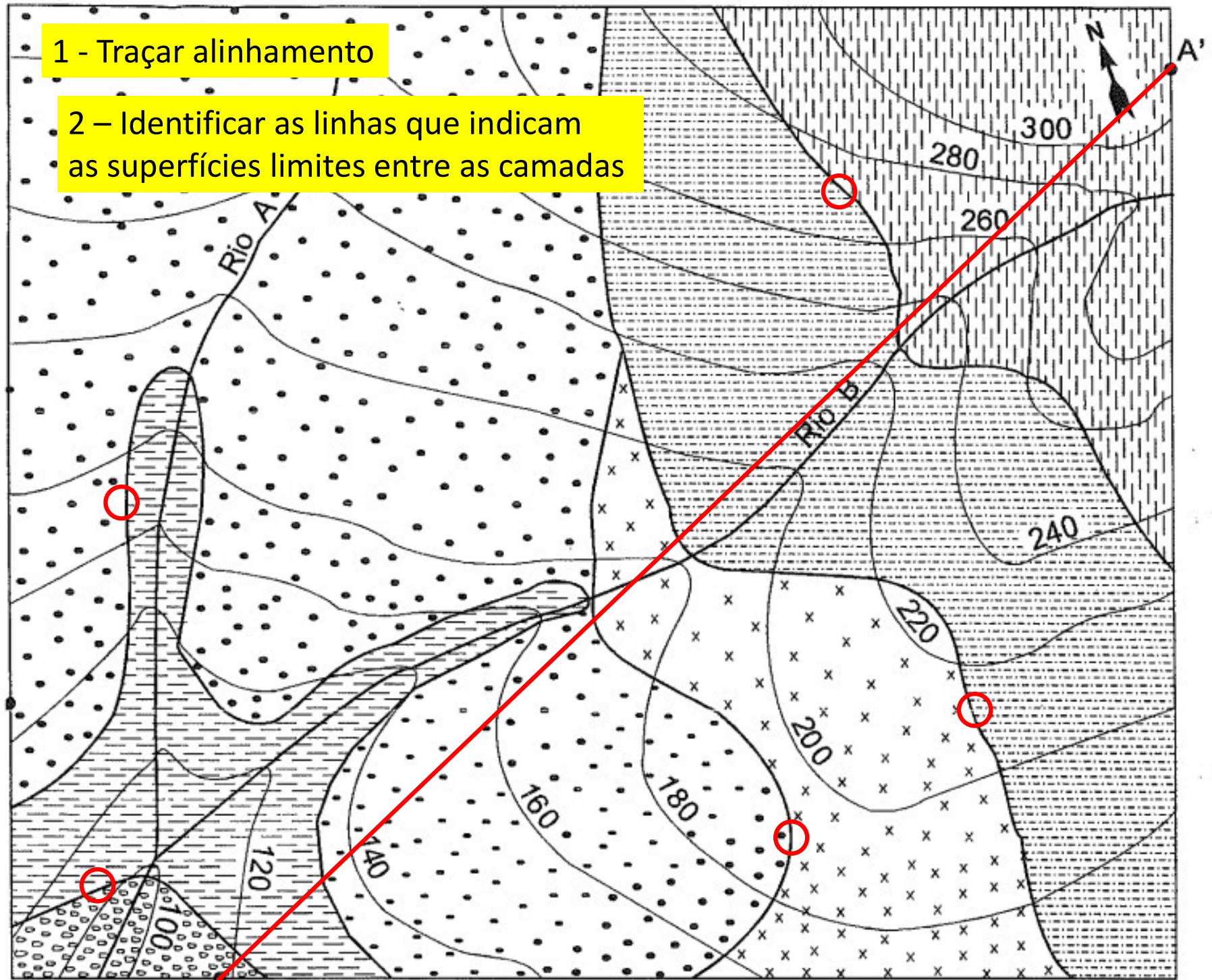






1 - Traçar alinhamento

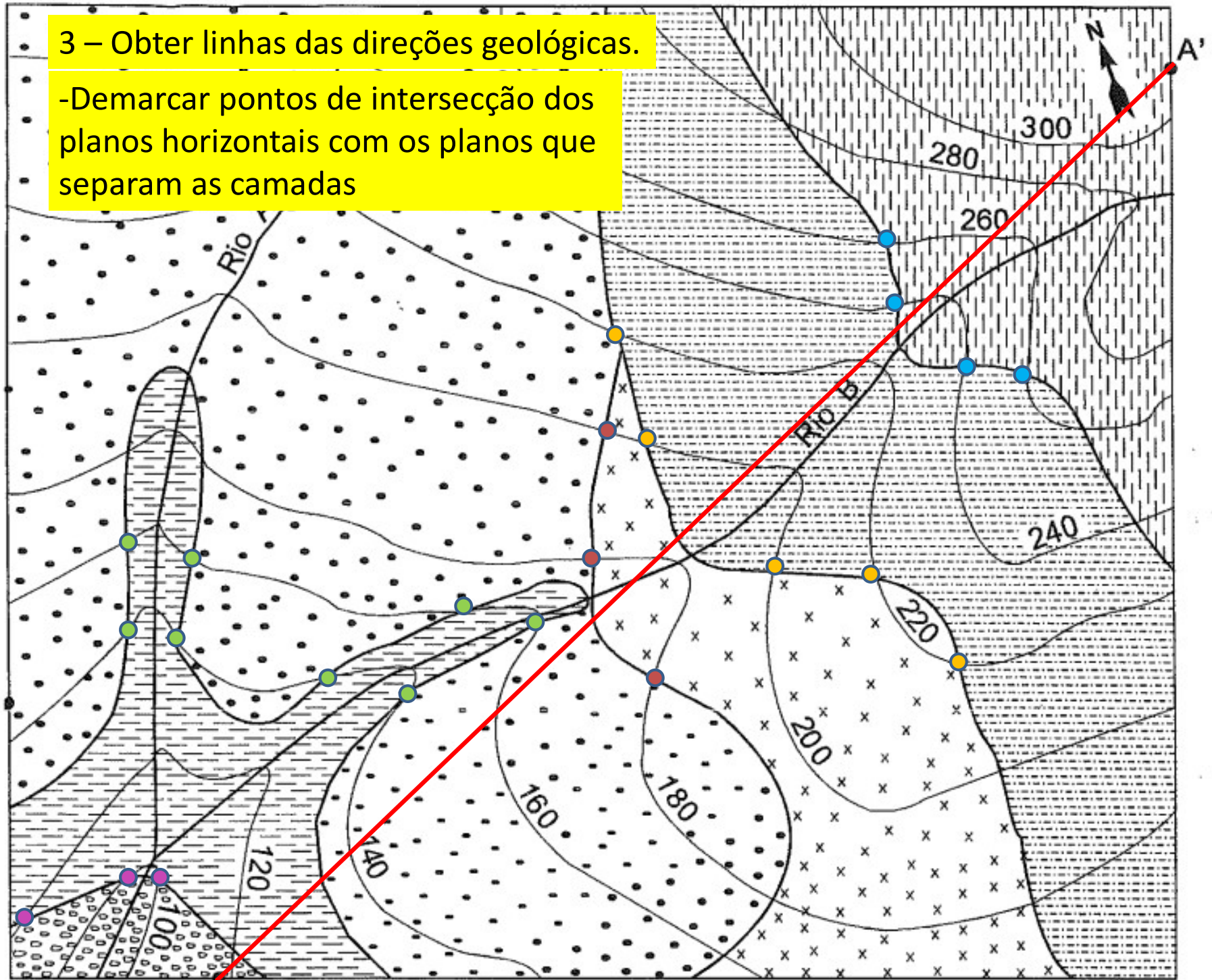
2 - Identificar as linhas que indicam as superfícies limites entre as camadas





3 – Obter linhas das direções geológicas.

-Demarcar pontos de intersecção dos planos horizontais com os planos que separam as camadas





-Traçado das linhas de direção e identificação das altitudes de cada linha de cada plano.

- Direção e sentido do mergulho.

-Obtenção dos mergulhos reais e na direção do alinhamento A-A.

