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Apêndice

A.1.
Gráficos Representativos de Perfis

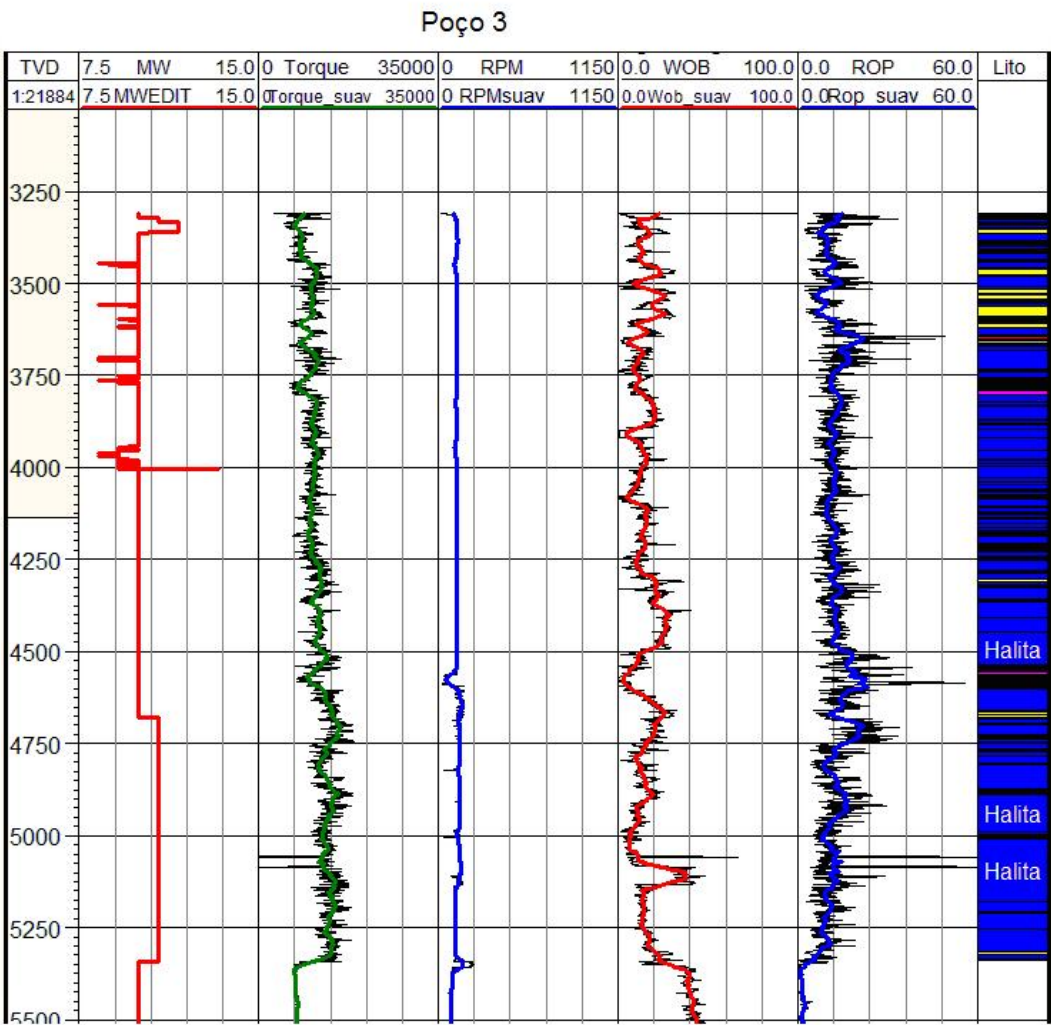


Figura A1 - Perfis do Poço 3.

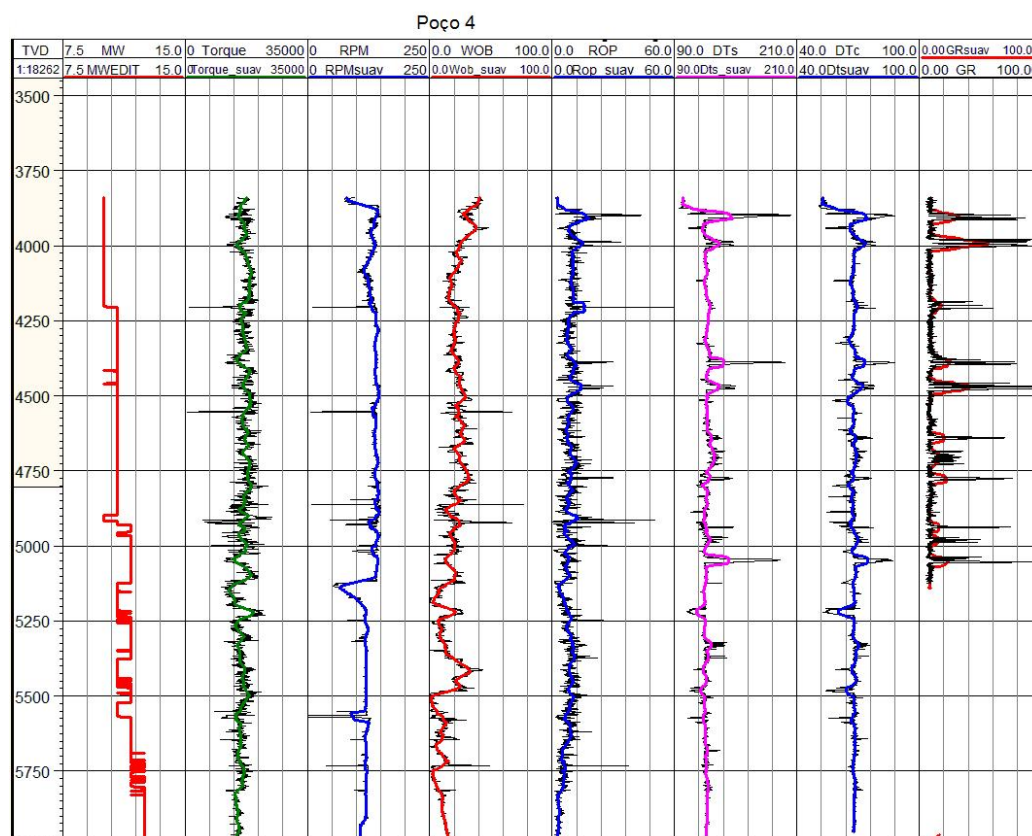


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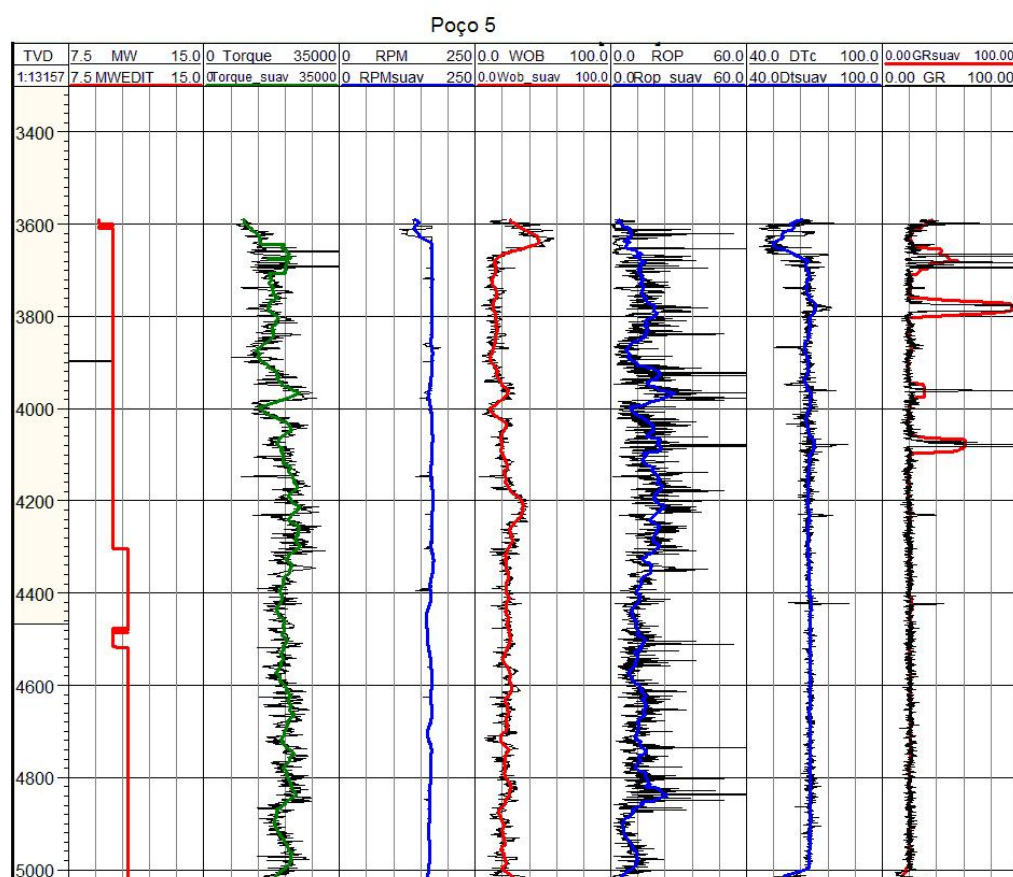


Figura A3 - Perfis do Poço 5.

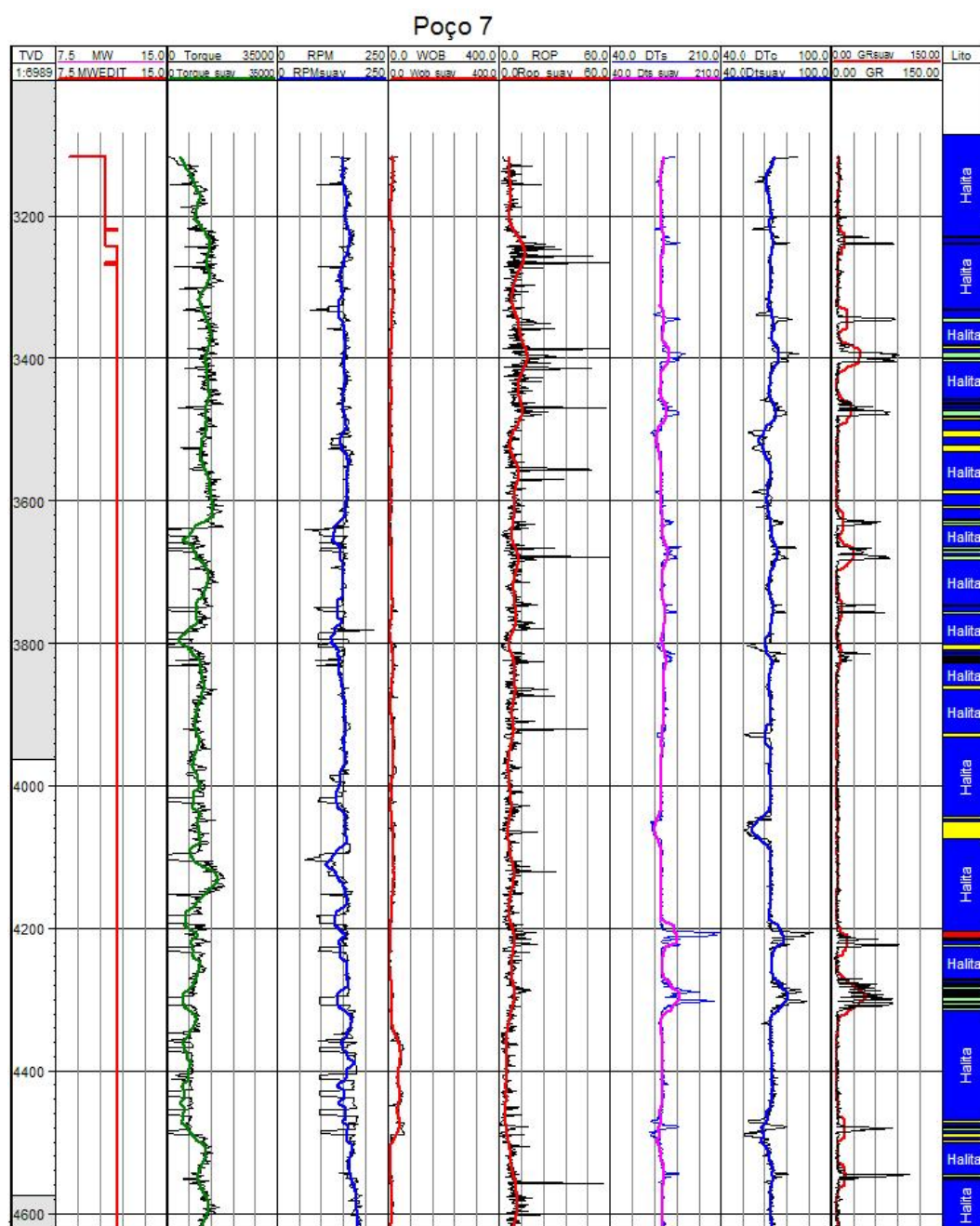


Figura A4: perfis do Poço 7.

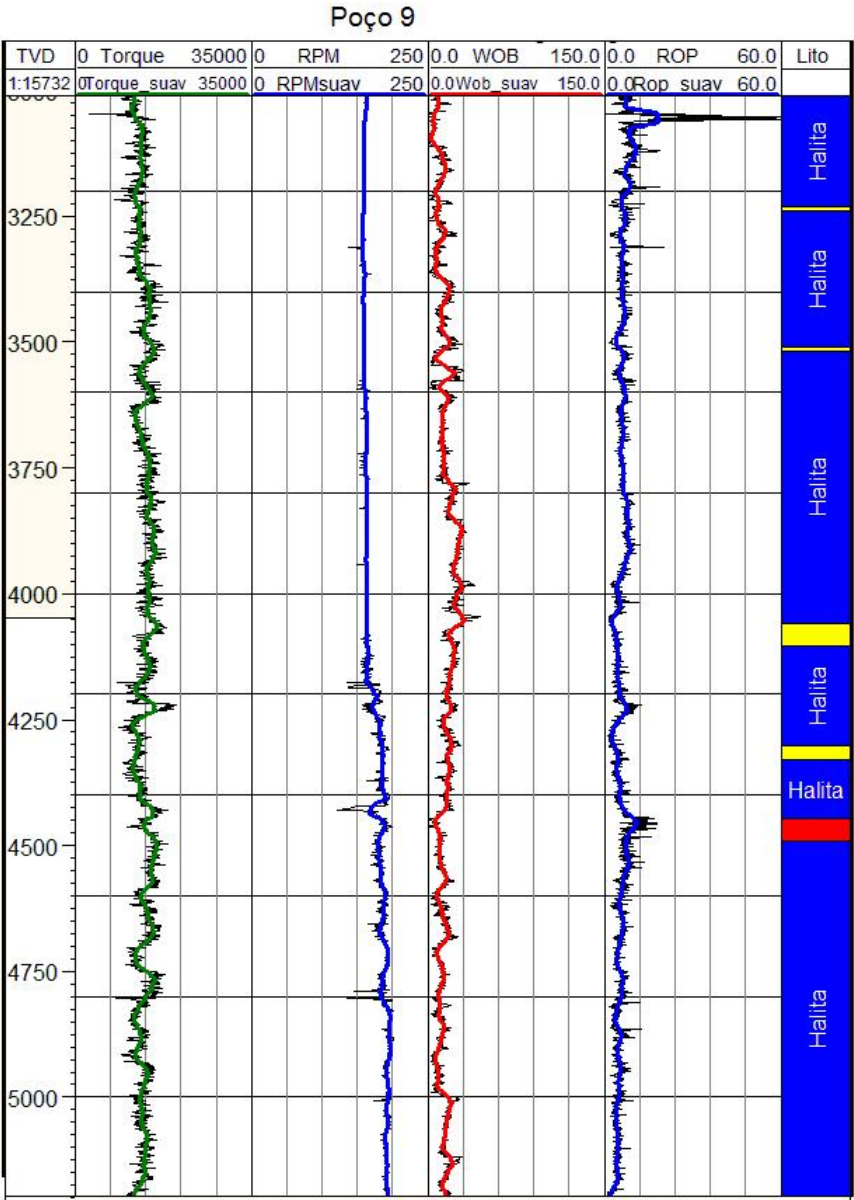


Figura A5: perfis do Poço 9.

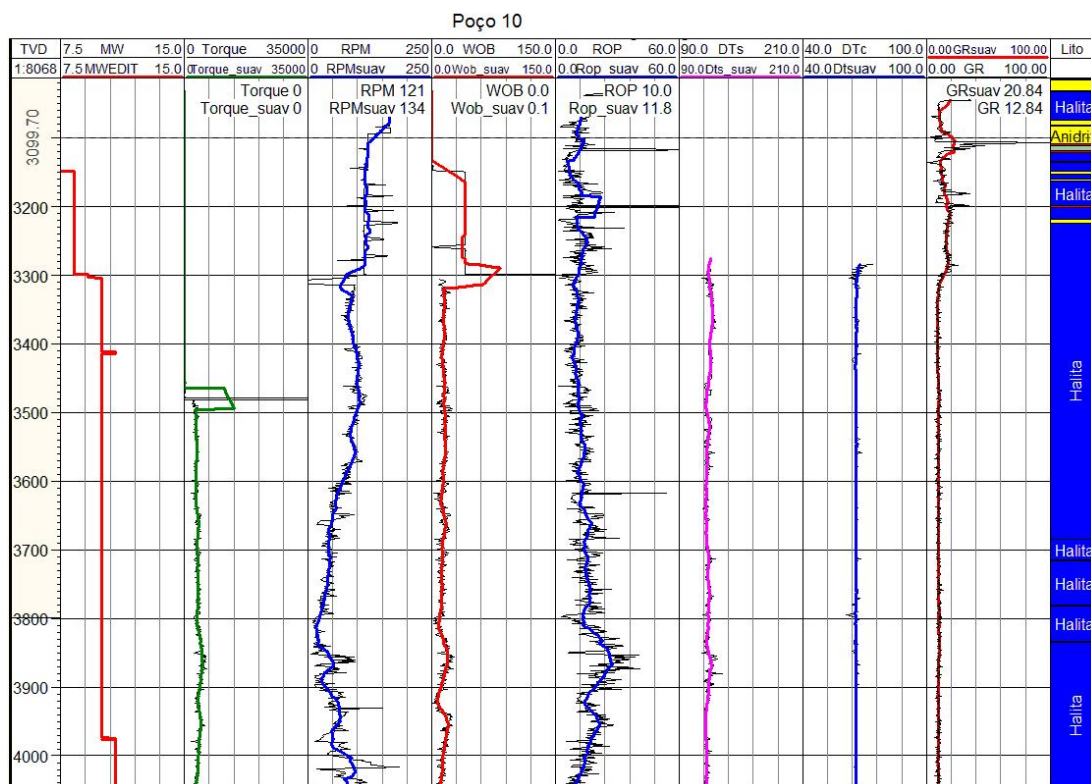


Figura A6: perfis do Poço10.

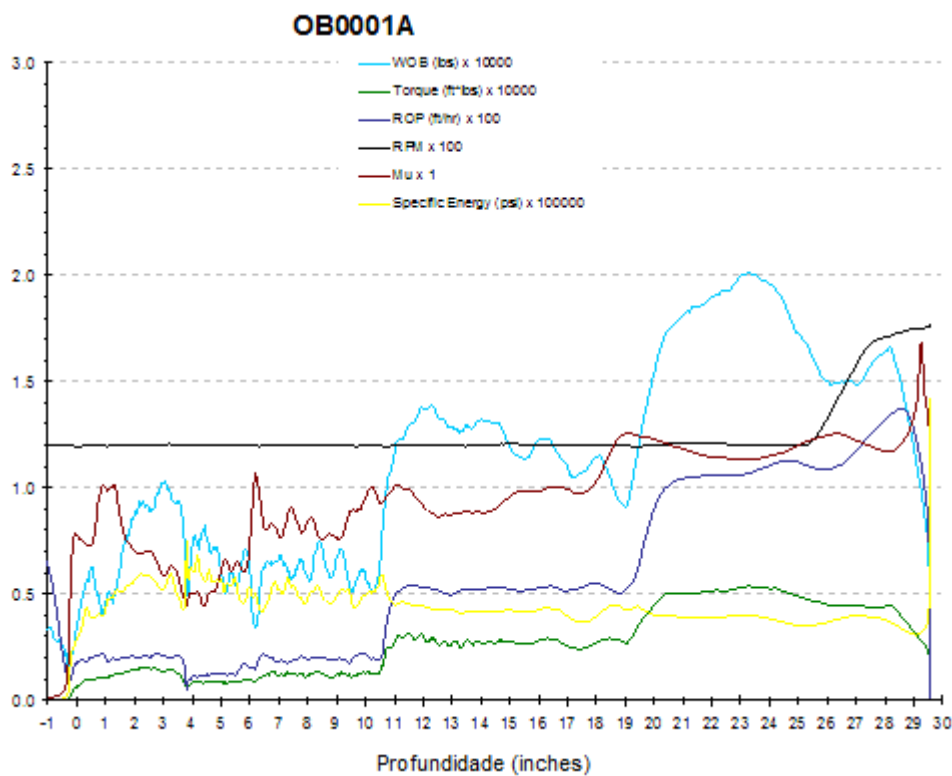


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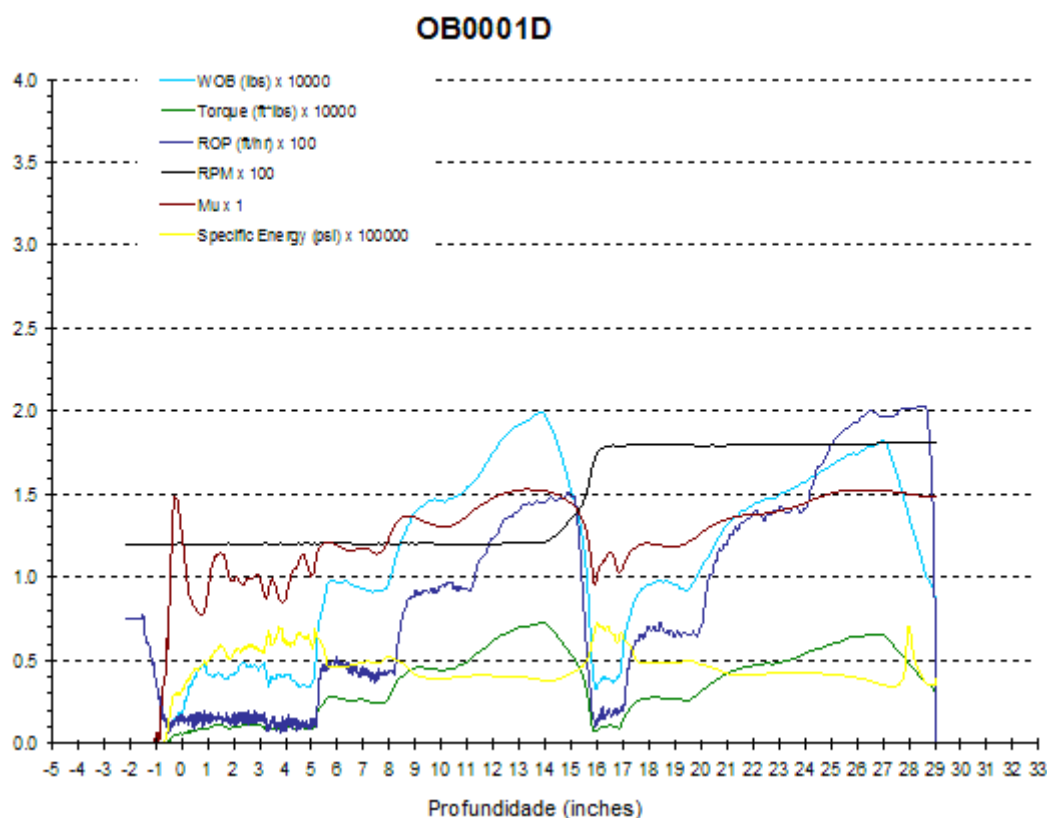


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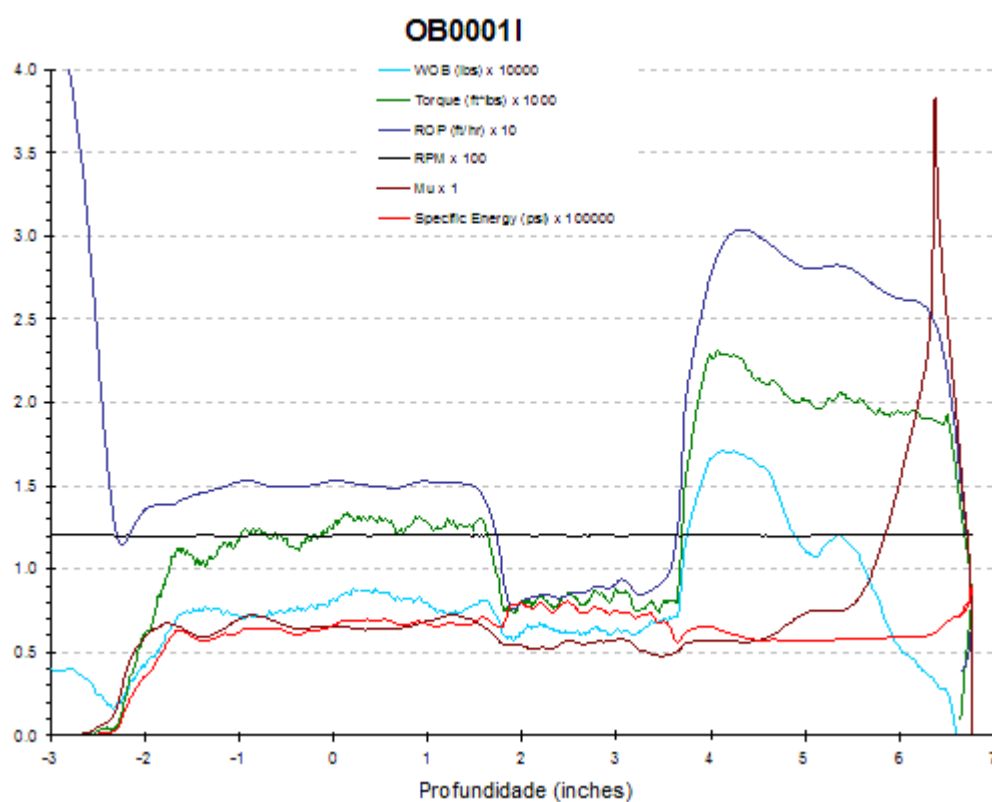


Figura A9: perfis do ensaio OB0001I.

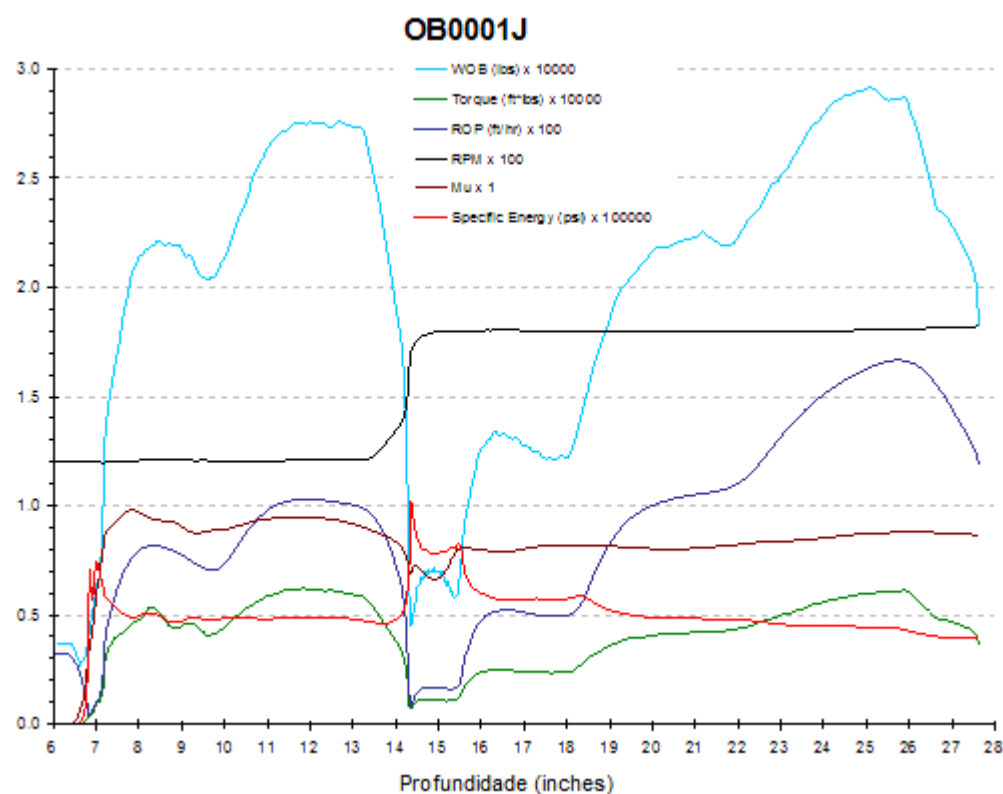


Figura A10: perfis do ensaio OB0001J.

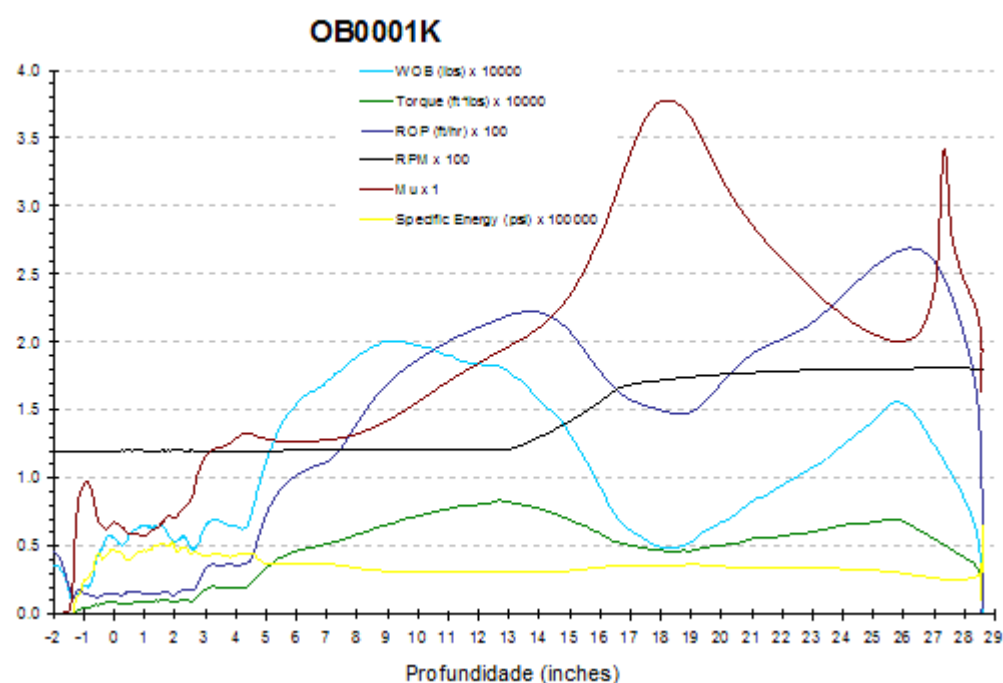


Figura A11: perfis do ensaio OB0001K.

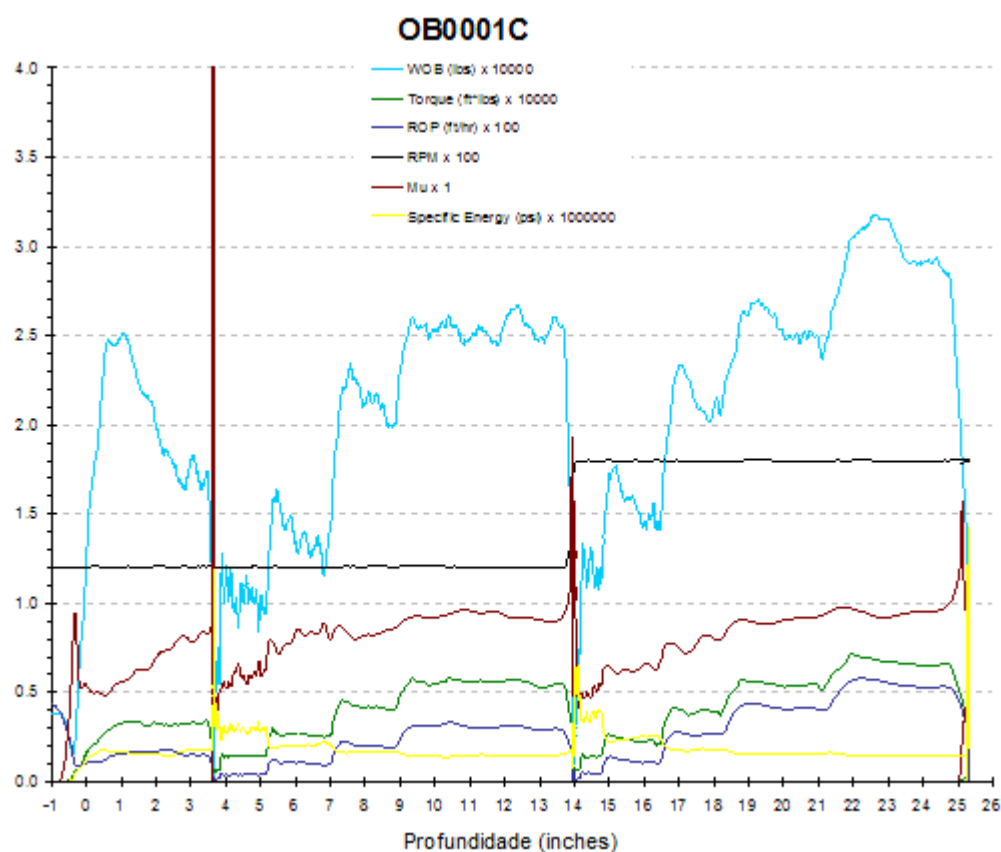


Figura A12: perfis do ensaio OB0001C – Anidrita.

A.2.

Gráficos da Faixa de Variação da Resistência à Compressão Confinada para Poços e Ensaios de Laboratório

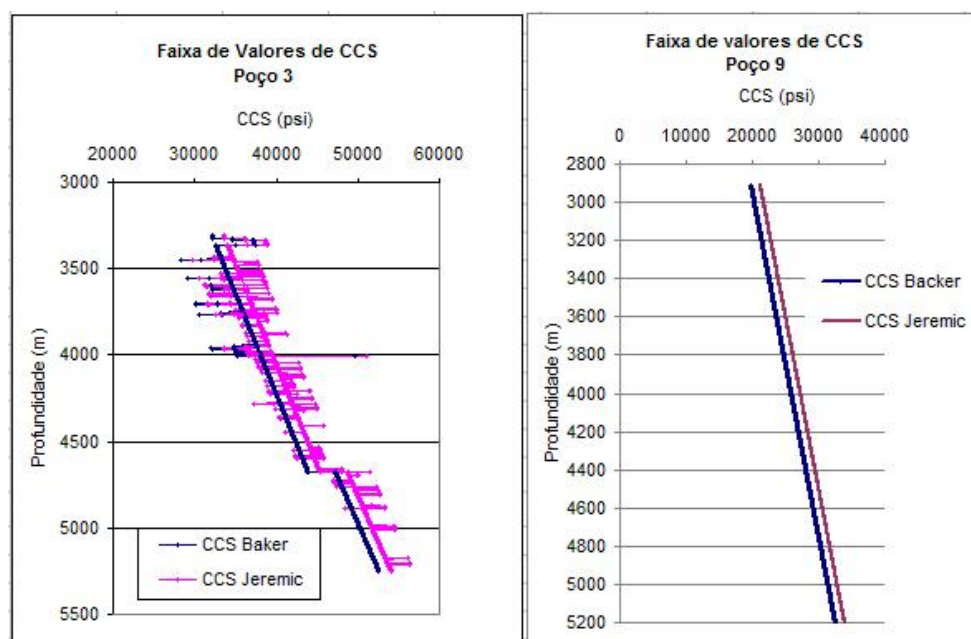


Figura A13: faixa de valores de CCS para os Poços 3 e 9.

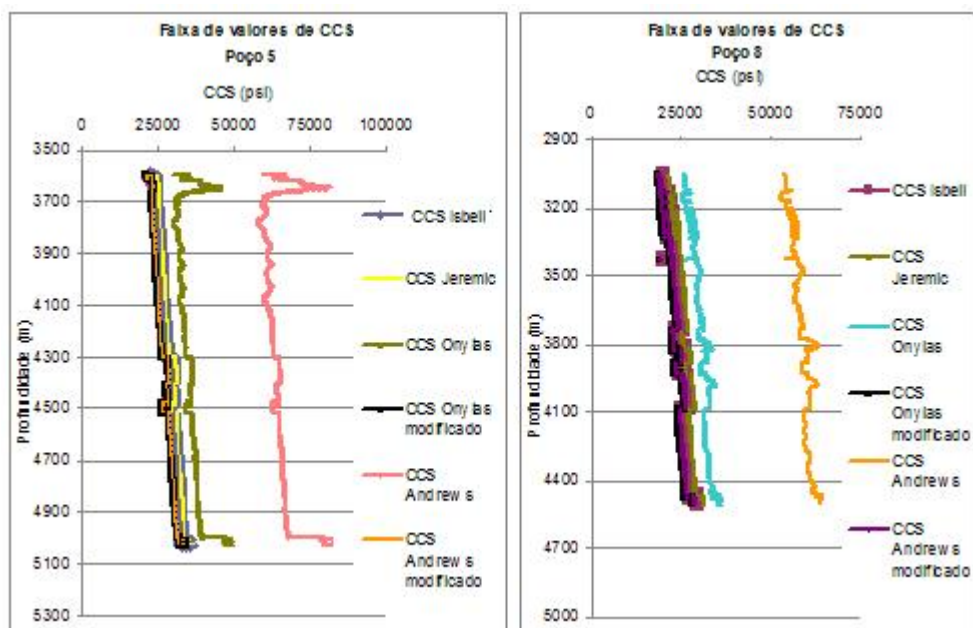


Figura A14: faixa de valores de CCS para os Poços 5 e 8.

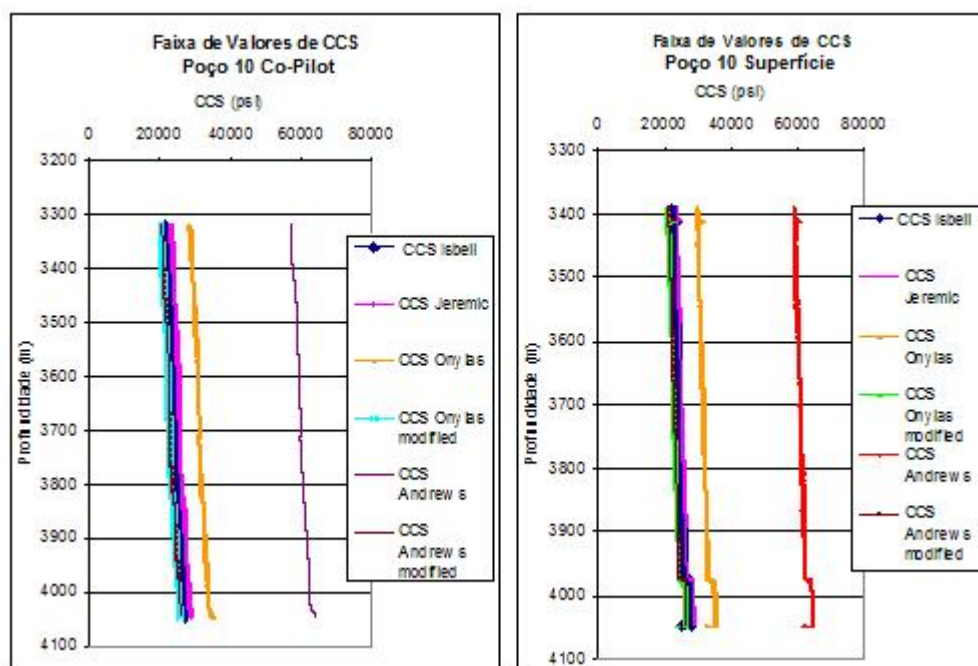


Figura A15: faixa de valores de CCS para o Poço 10_CoPilot e 10_Superfície.

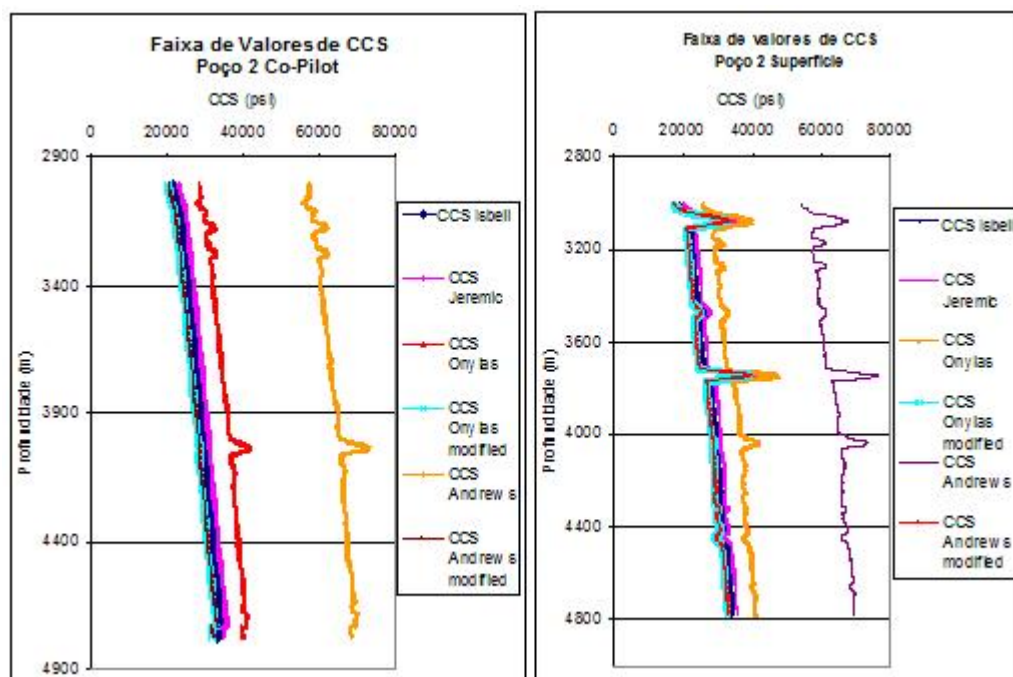


Figura A16: faixa de valores de CCS para o Poço 2_CoPilot e 2_Superfície.

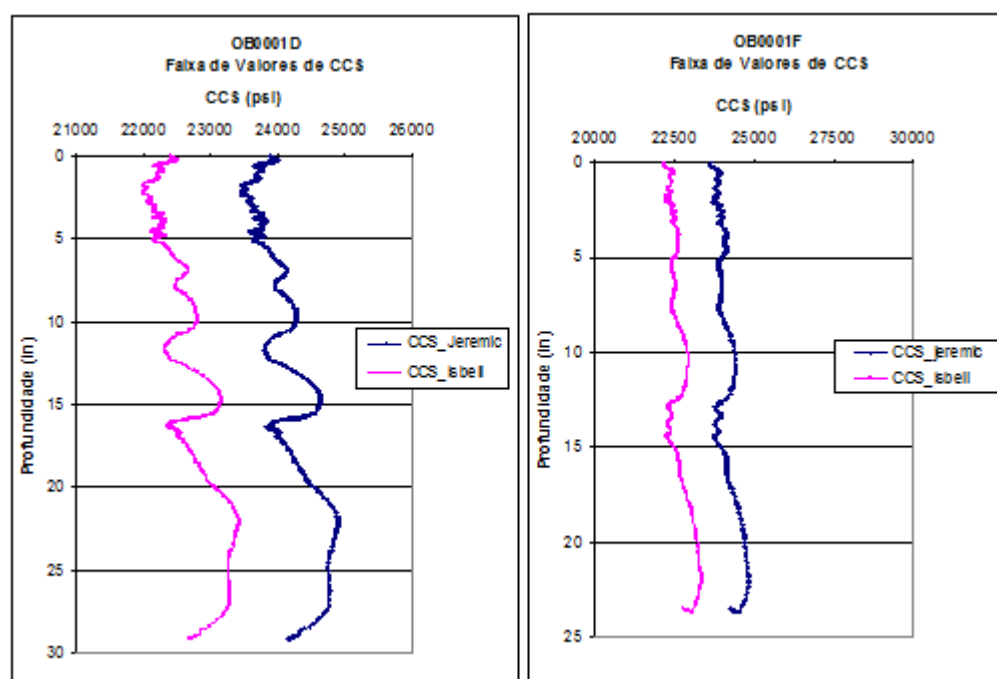


Figura A17: faixa de valores de CCS para os ensaios OB0001D e OB0001F.

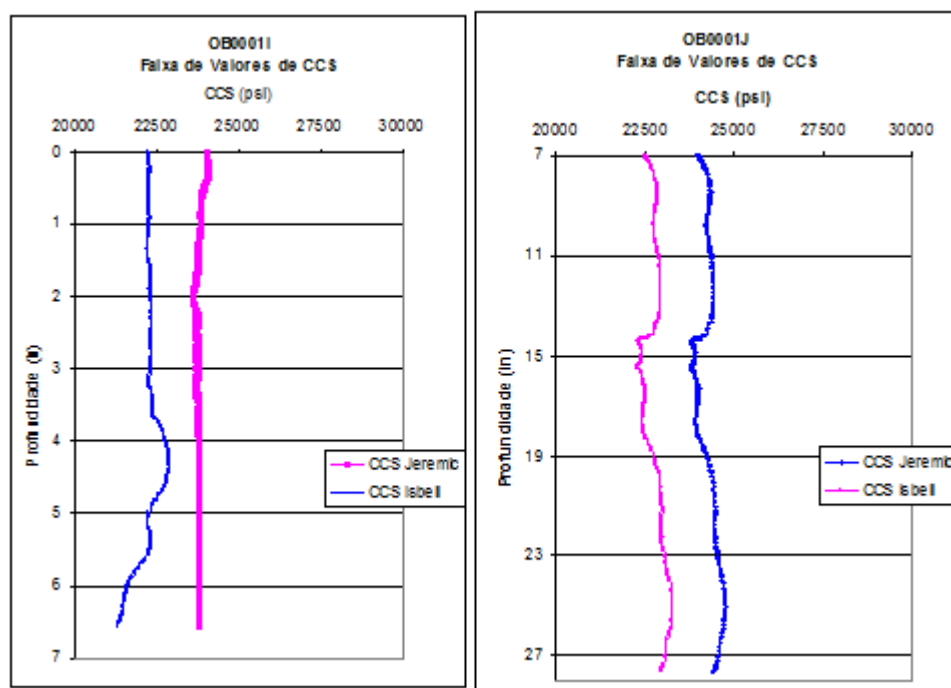


Figura A18: faixa de valores de CCS para os ensaios OB0001I e OB0001J.

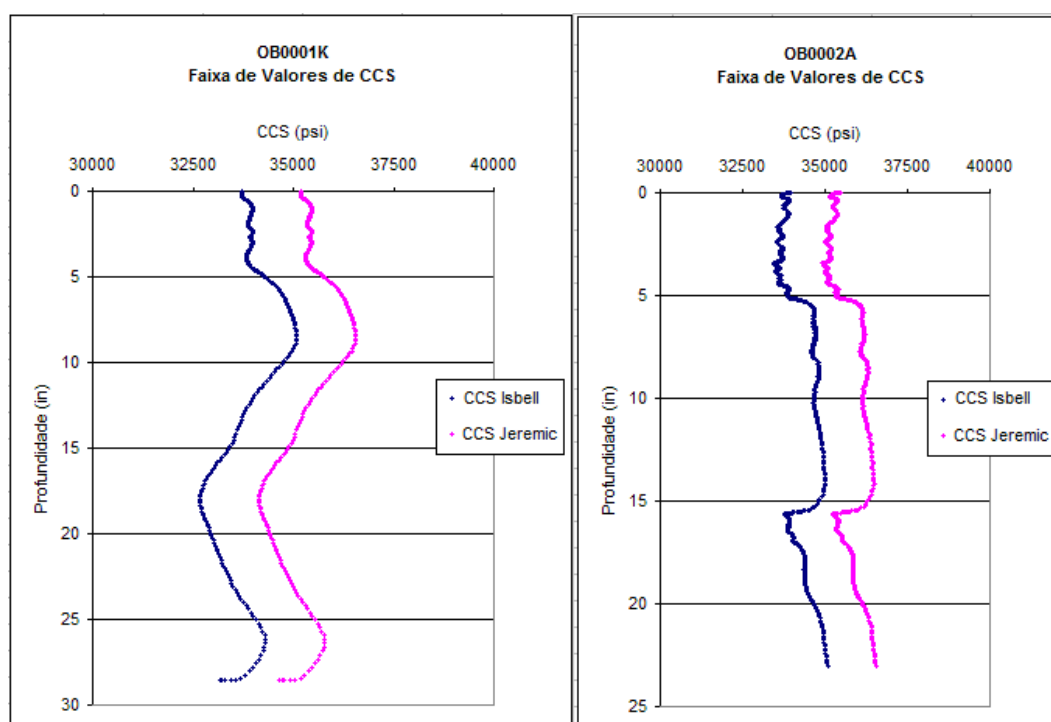


Figura A19: faixa de valores de CCS para os ensaios OB0001K e OB0002A.

A.3.

Gráficos da Aplicação dos Modelos Analíticos para os Poços e Ensaio de Laboratório

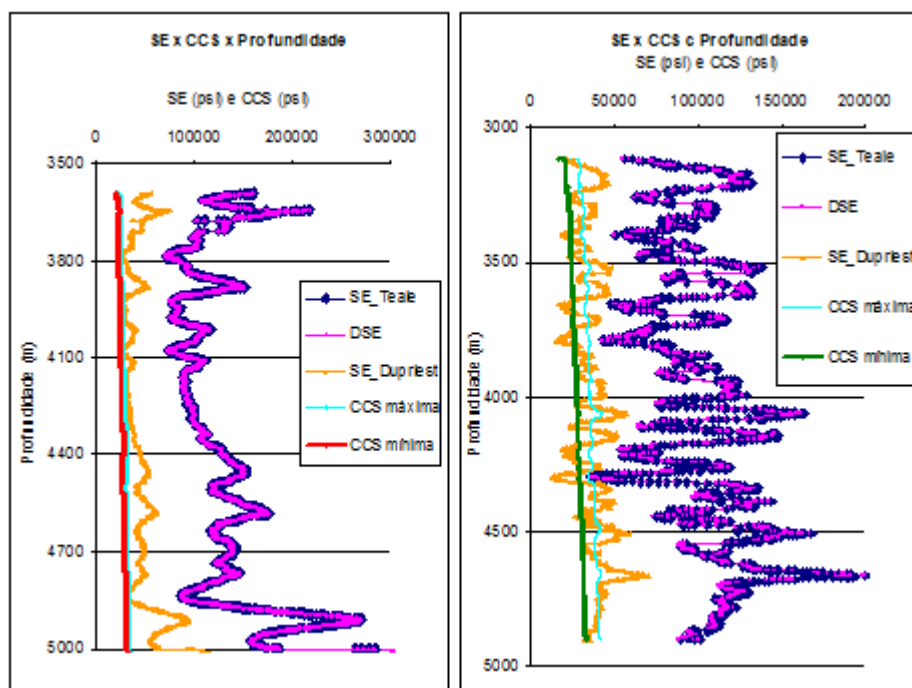


Figura A20: aplicação dos modelos analíticos de perfuração – Poços 5 e 7.

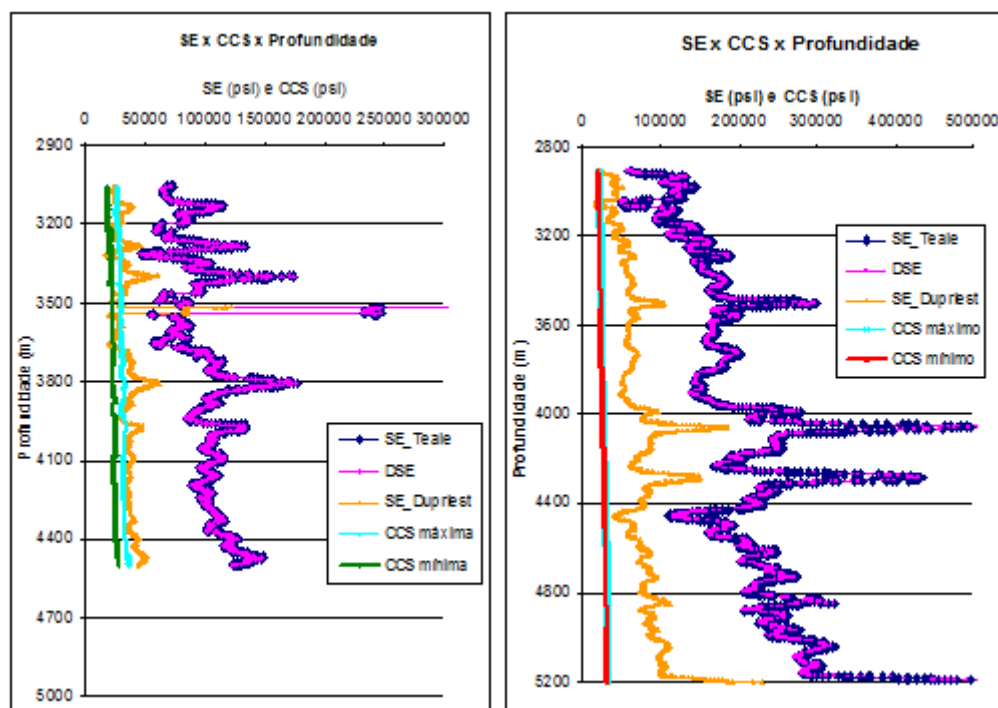


Figura A21: aplicação dos modelos analíticos de perfuração – Poço 8 e 9.

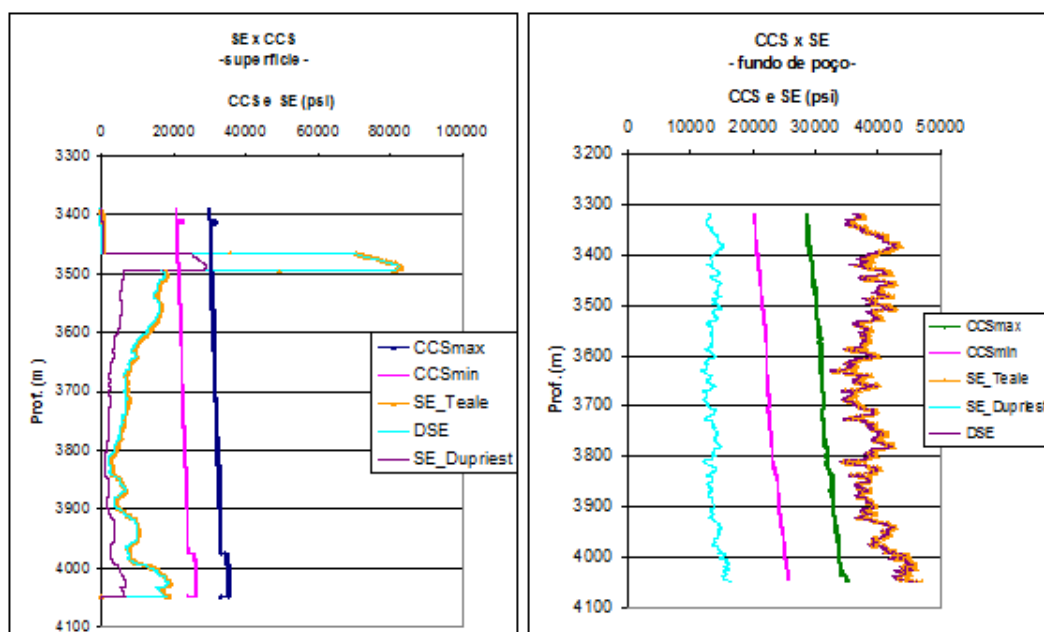


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A.4.

Gráficos da Eficiência Mecânica Máxima *versus* Profundidade – Poços

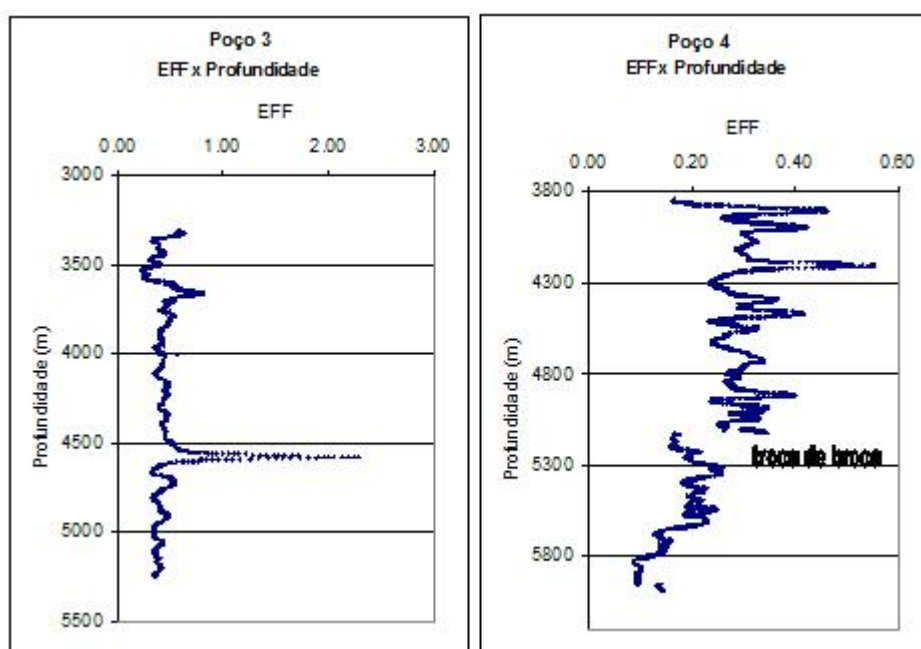


Figura A23: EFFmax para os Poços 3 e 4.

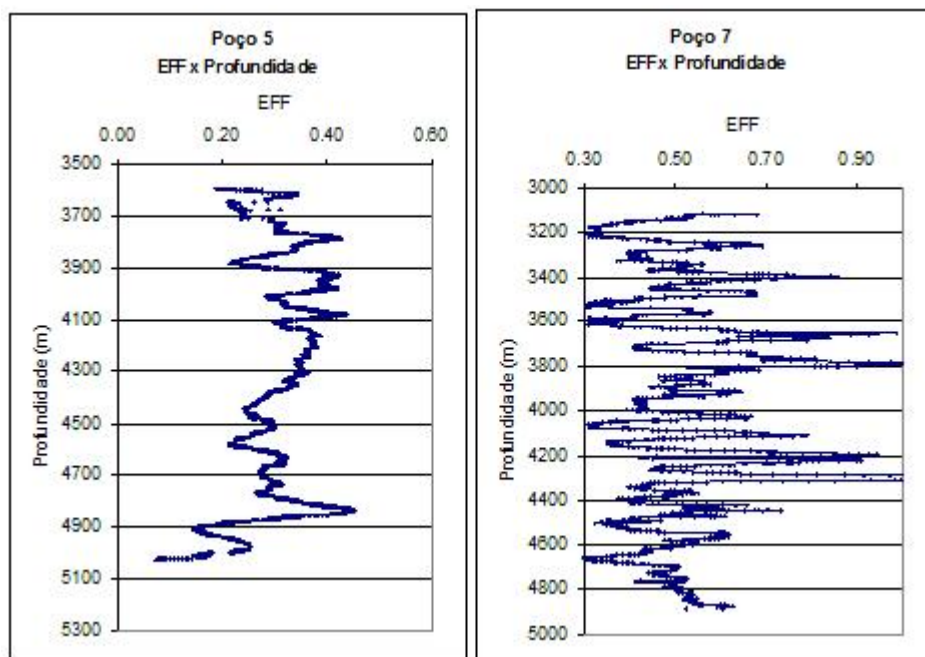


Figura A24: EFFmax para os Poços 5 e 7.

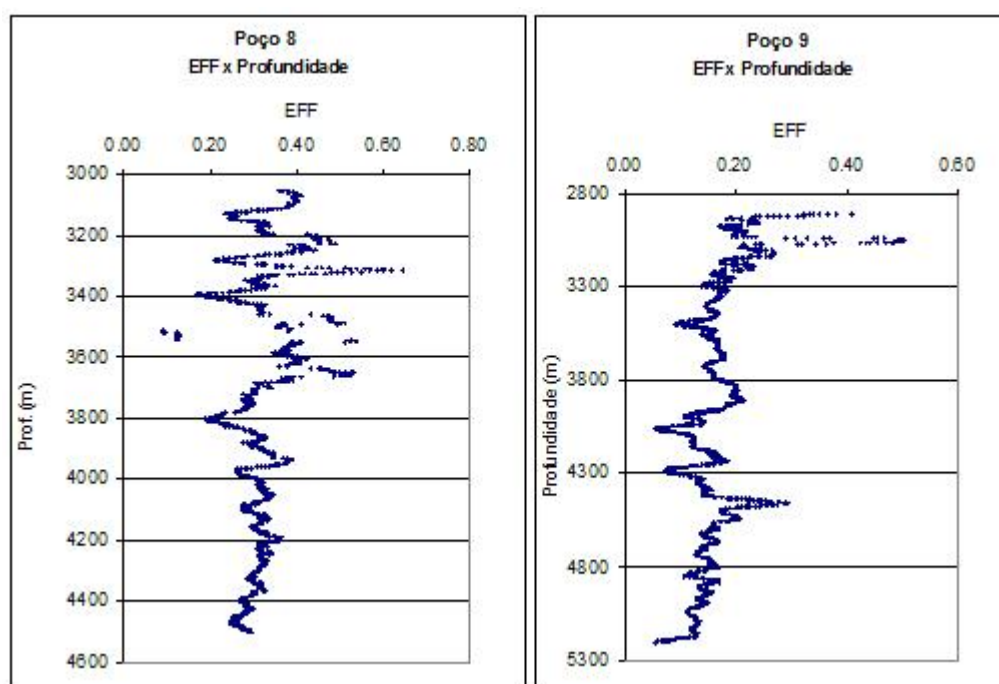


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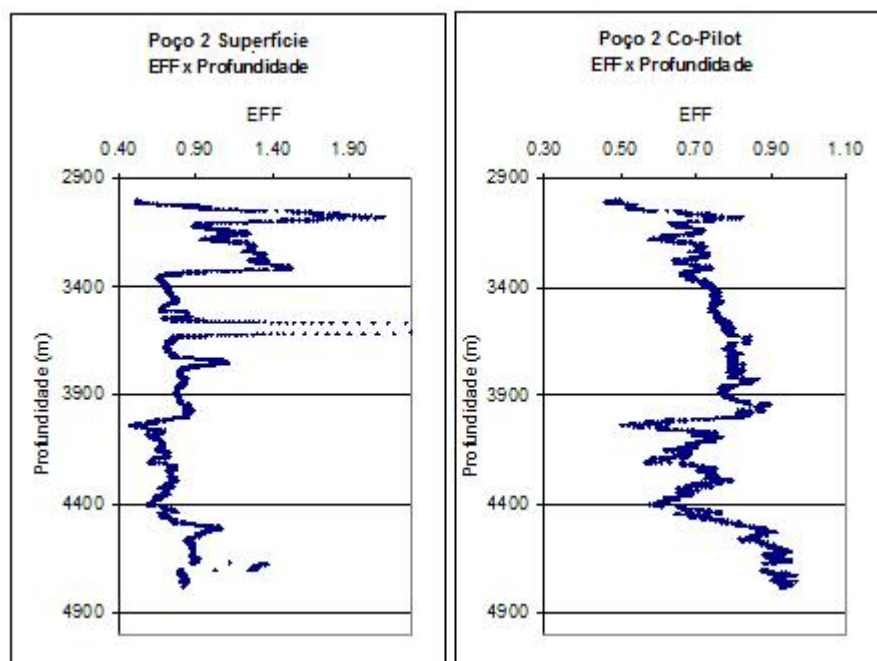


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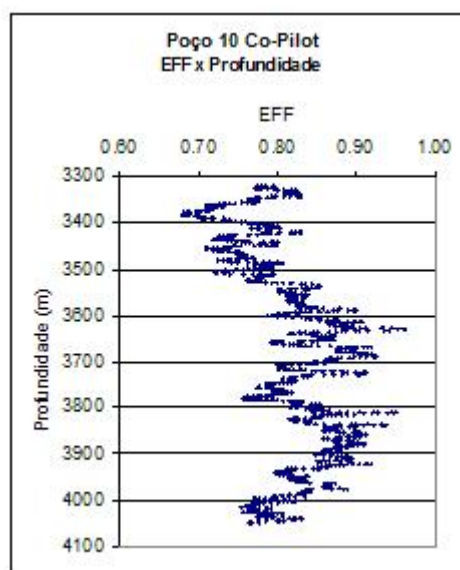


Figura A27: EFFmax para o Poço 10.

A.5.

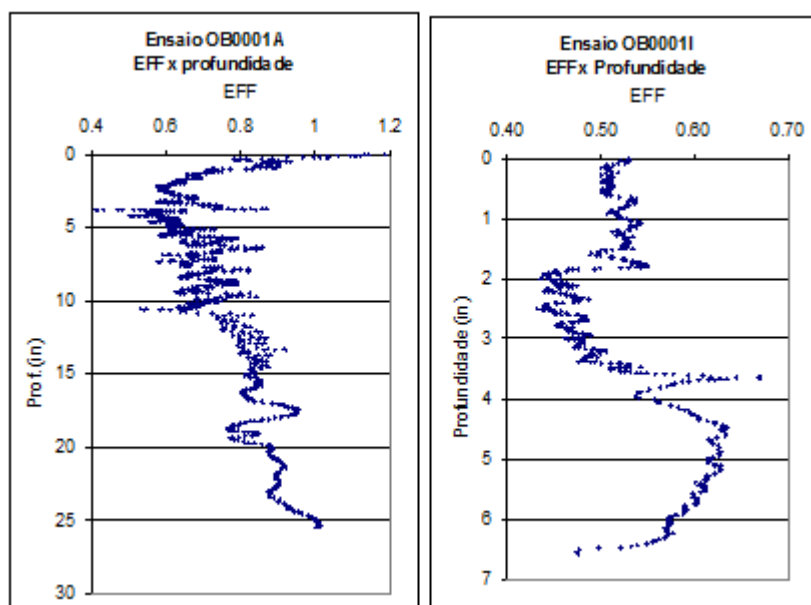
Gráficos da Eficiência Mecânica Máxima *versus* Profundidade – Ensaio de Laboratório

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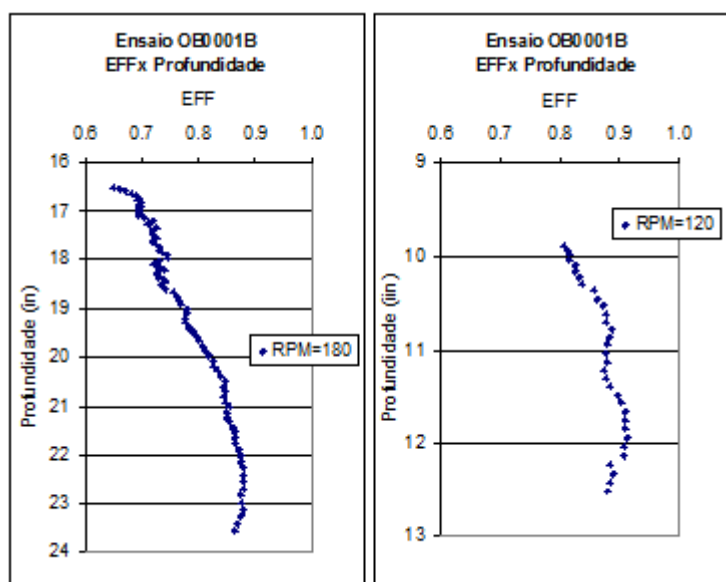


Figura A29: EFFmax para os trechos do ensaio OB0001B.

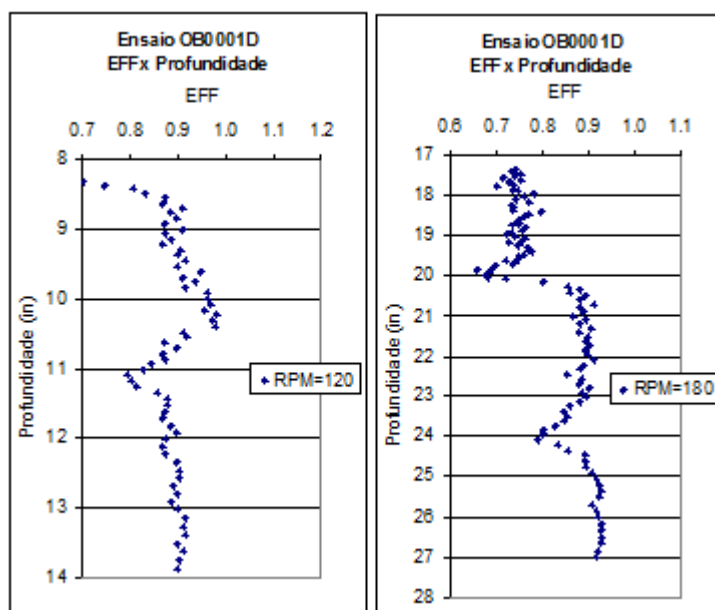


Figura A30: EFFmax para os trechos do ensaio OB0001D.

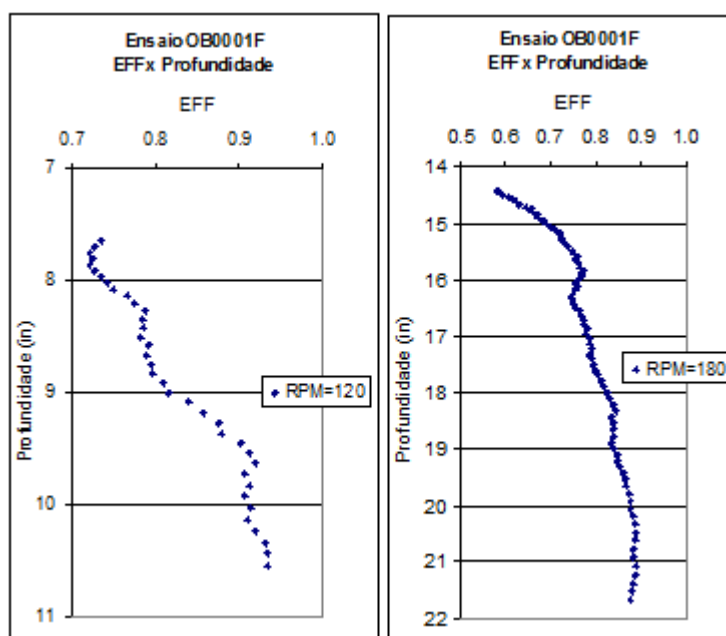


Figura A31: EFFmax para os trechos do ensaio OB0001F.

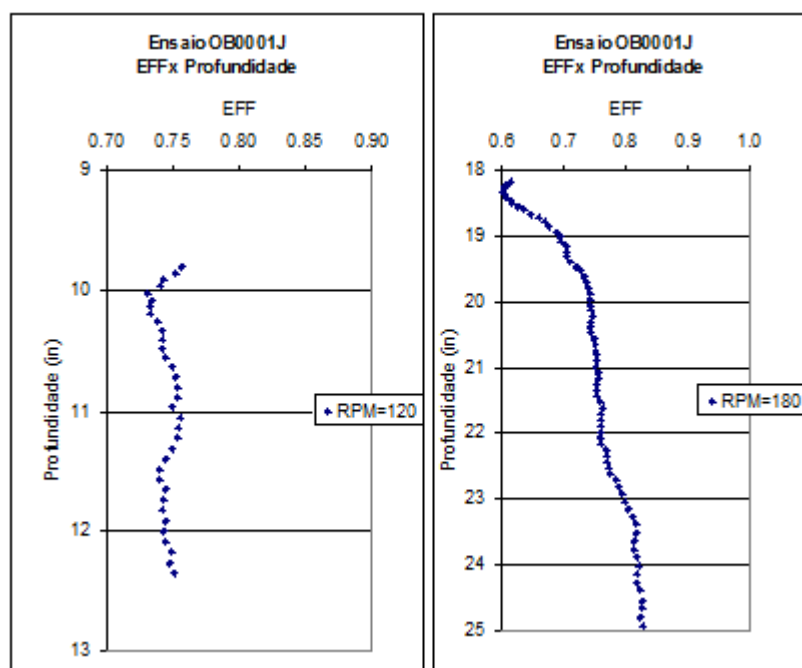


Figura A32: EFFmax para os trechos do ensaio OB0001J.

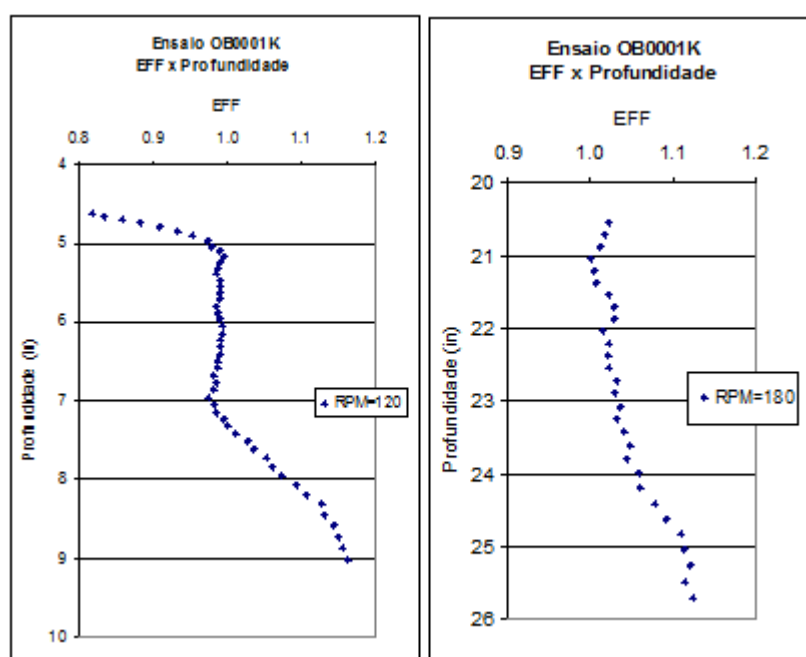


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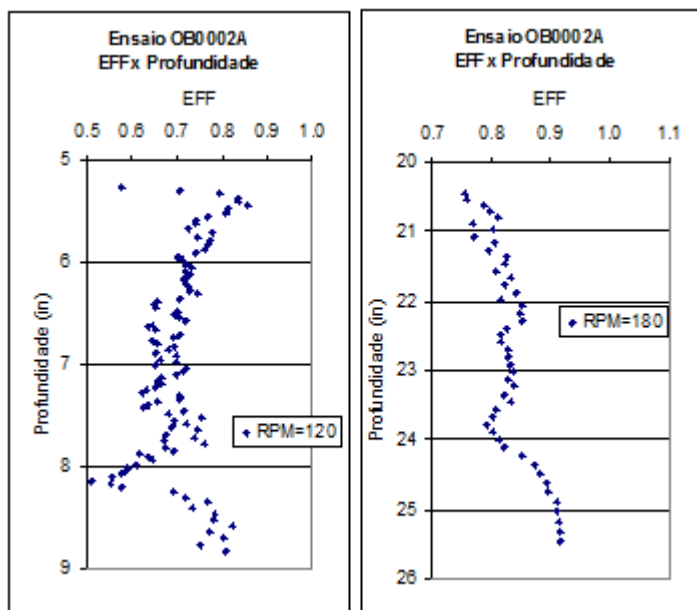
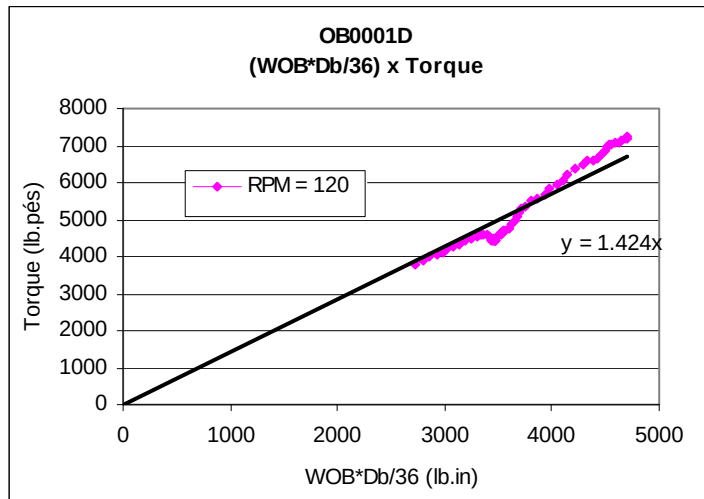


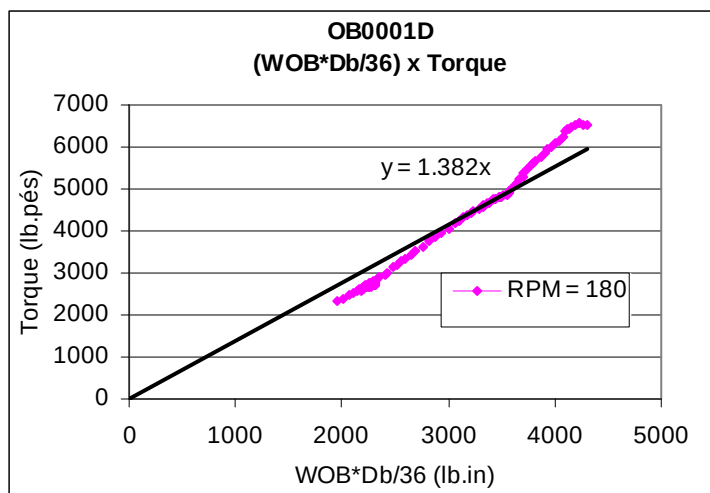
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A.6.

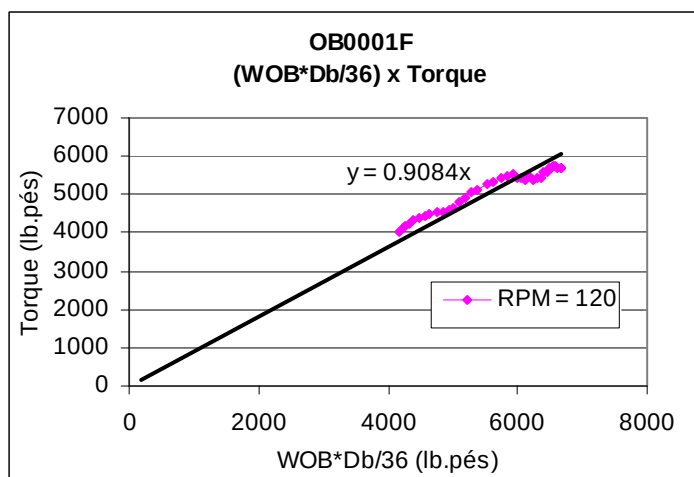
Avaliação do Comportamento do Coeficiente de Atrito ao Deslizamento da Broca – Ensaio de Laboratório



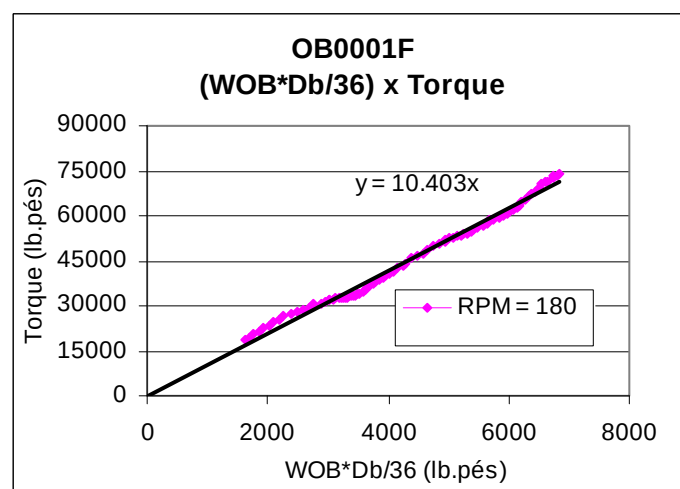
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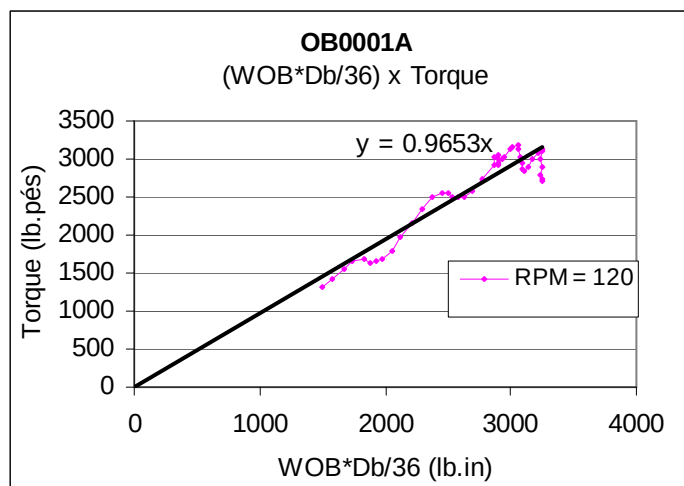
Figura A35: avaliação de μ para o ensaio OB0001D: (a) RPM=120 e (b) RPM=180

(a)

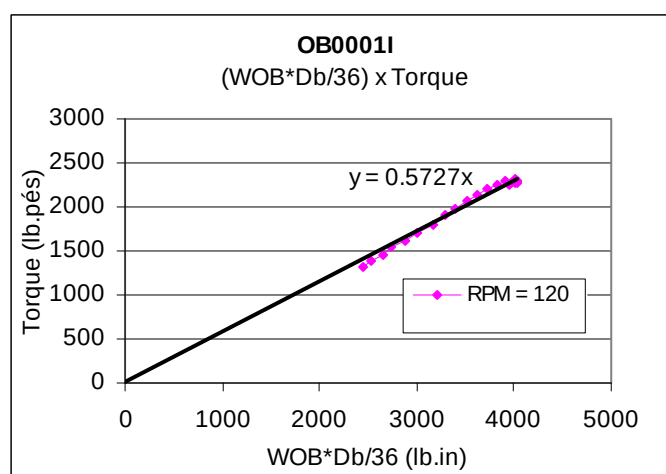


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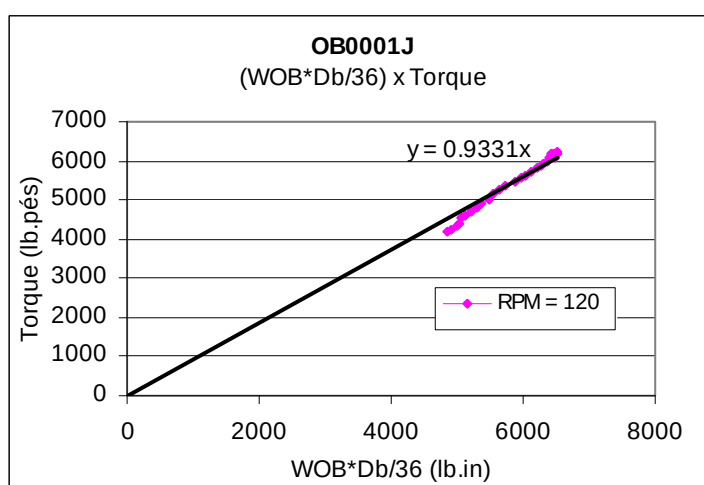
Figura A36: avaliação de μ para o ensaio OB0001F: (a) RPM=120 e (b) RPM=180



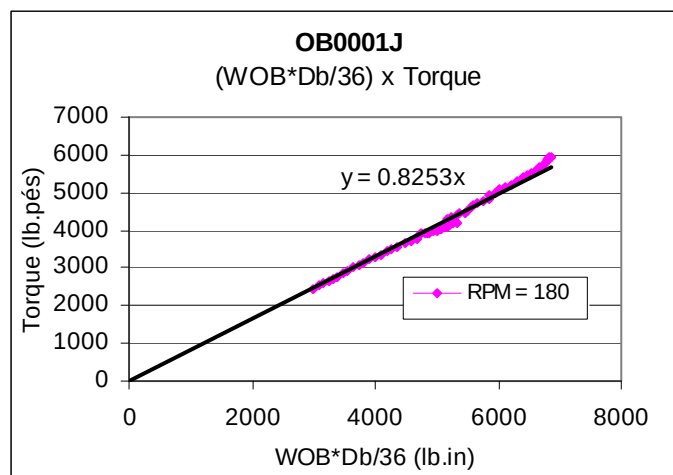
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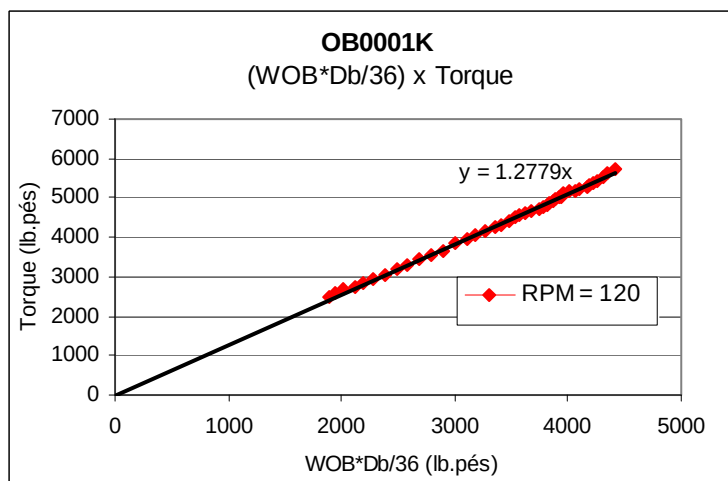
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Figura A37: avaliação de μ para os ensaios: (a) OB0001A e (b) OB0001I.

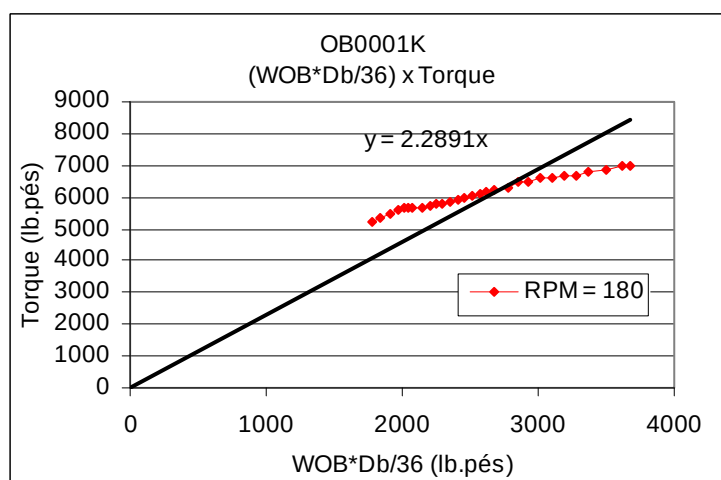
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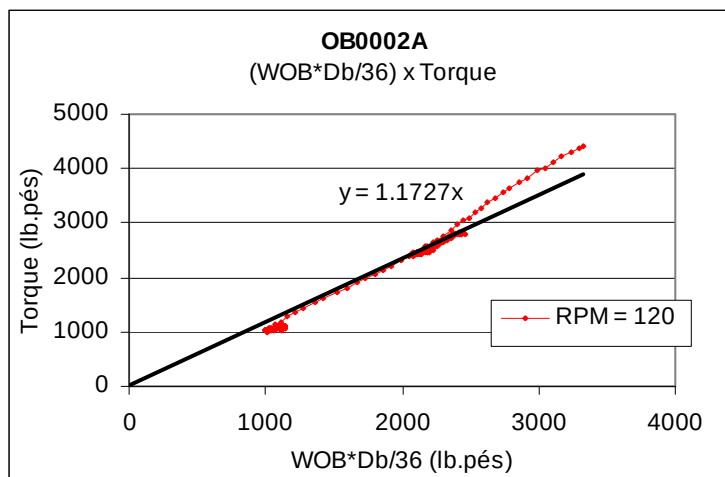
Figura A38: avaliação de μ para o ensaio OB0001J: (a) RPM=120 e (b) RPM=180

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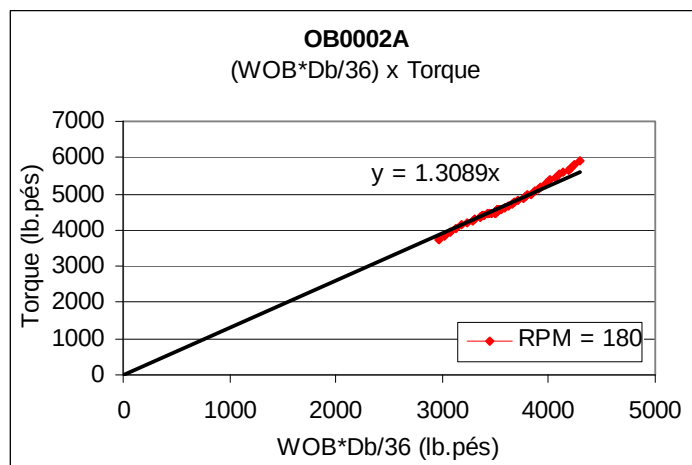


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Figura A39: avaliação de μ para o ensaio OB0001K: (a) RPM=120 e (b) RPM=180



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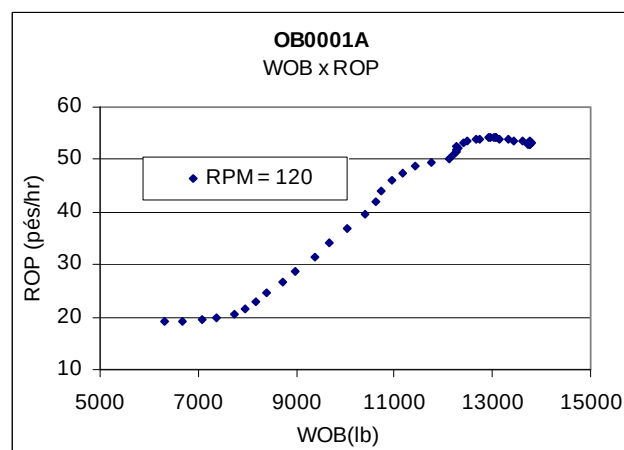


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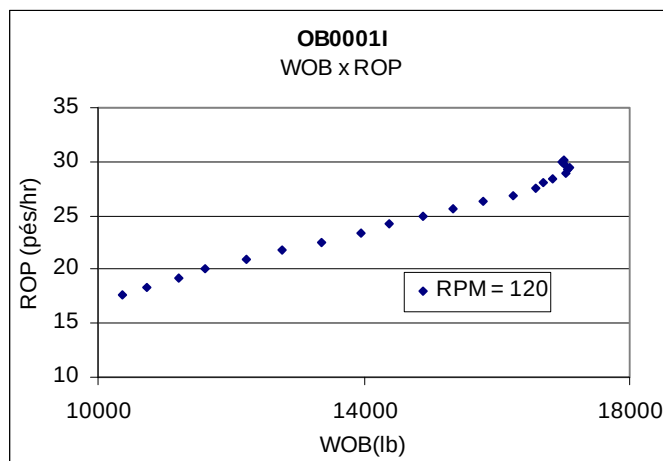
Figura A40: avaliação de μ para o ensaio OB0002A: (a) RPM=120 e (b) RPM=180

A.7.

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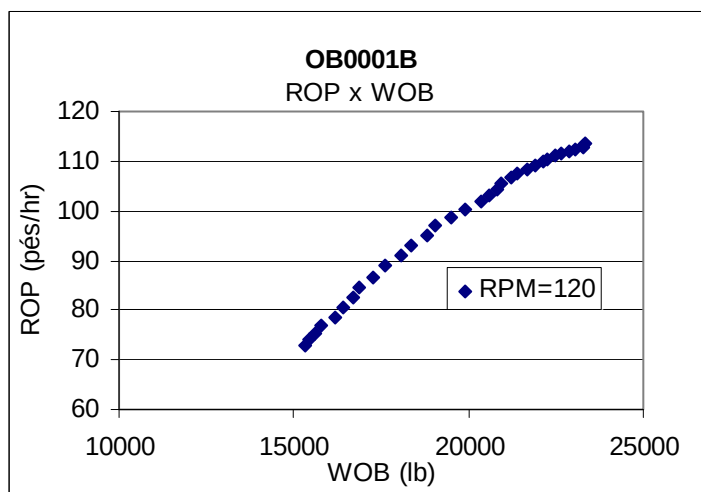


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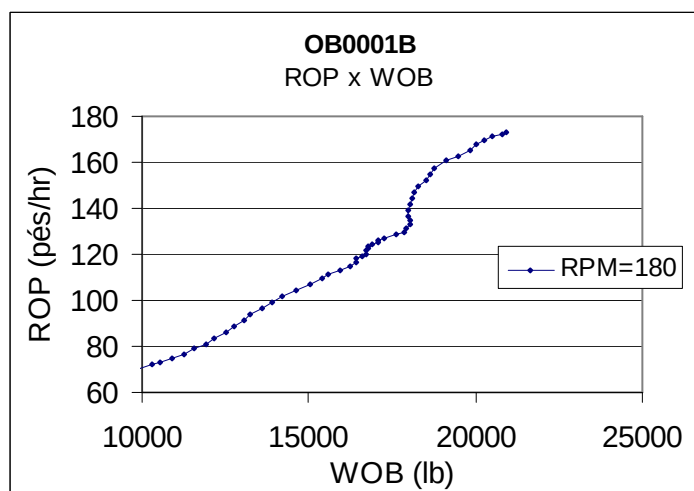


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Figura A41: curvas ROP x WOB para os ensaios: (a) OB0001A e (b) OB0001I.

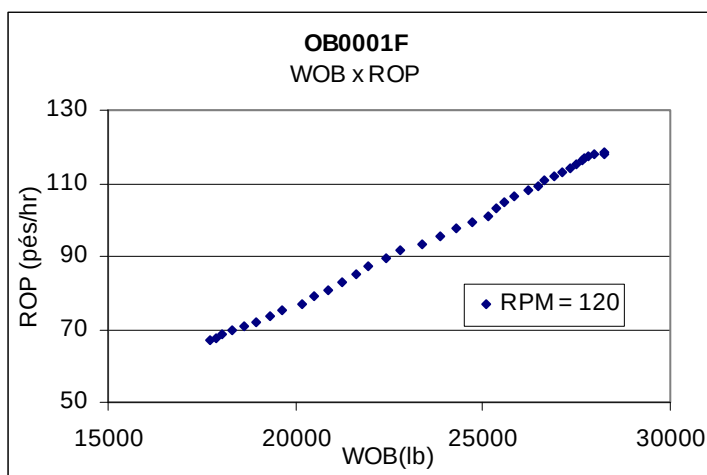


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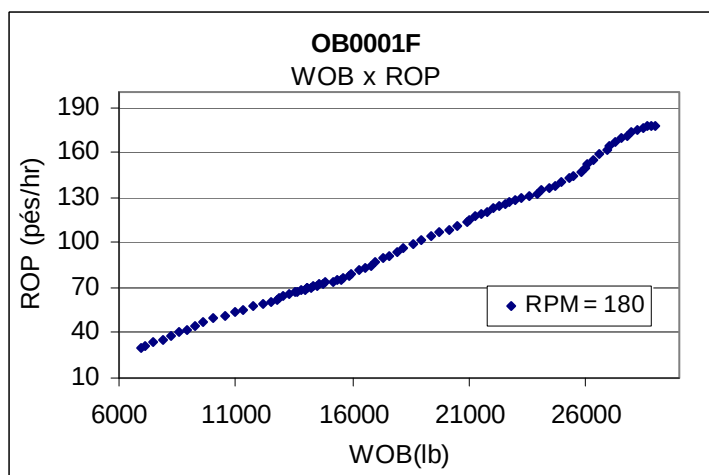


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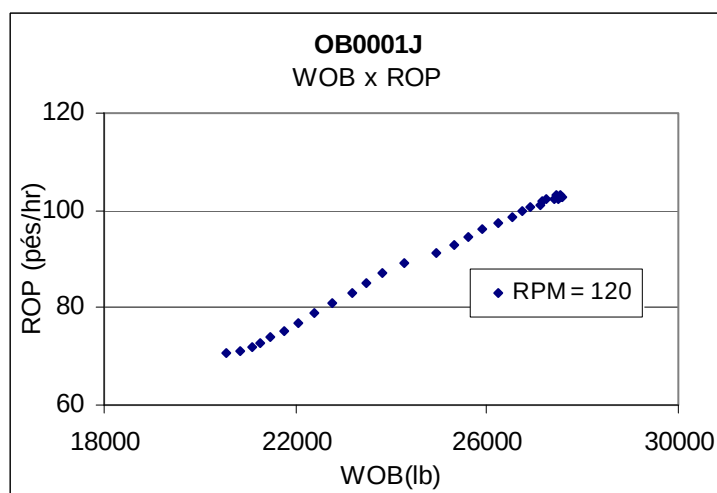


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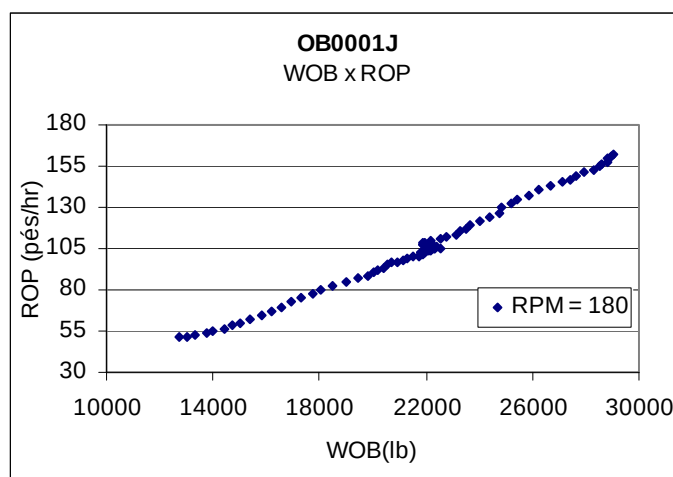


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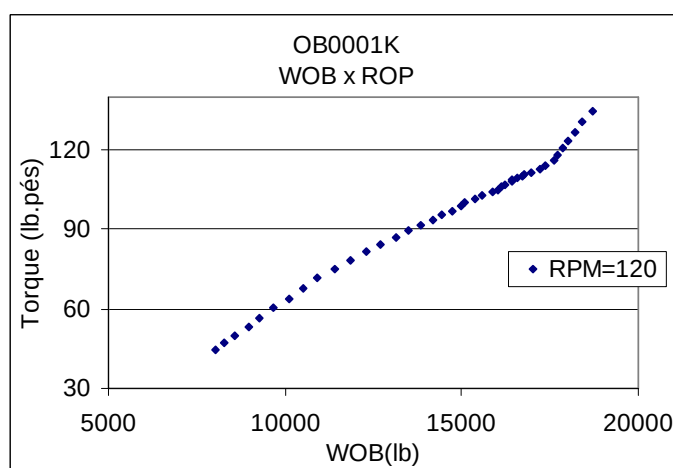


(a)

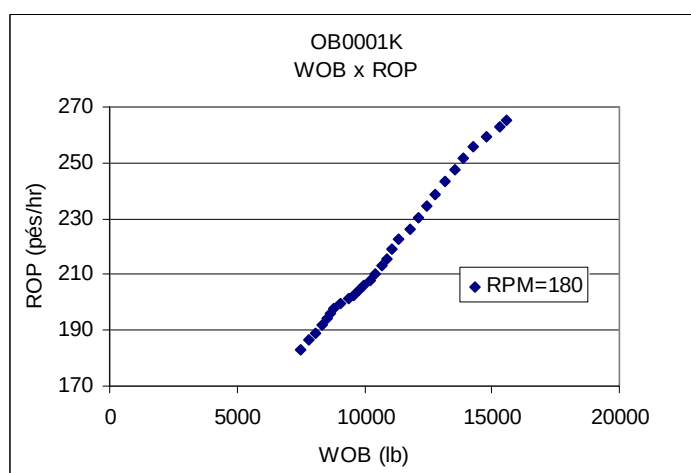


(b)

Figura A44: curvas ROP x WOB para o ensaio OB0001J: (a) RPM=120 e (b) RPM=180

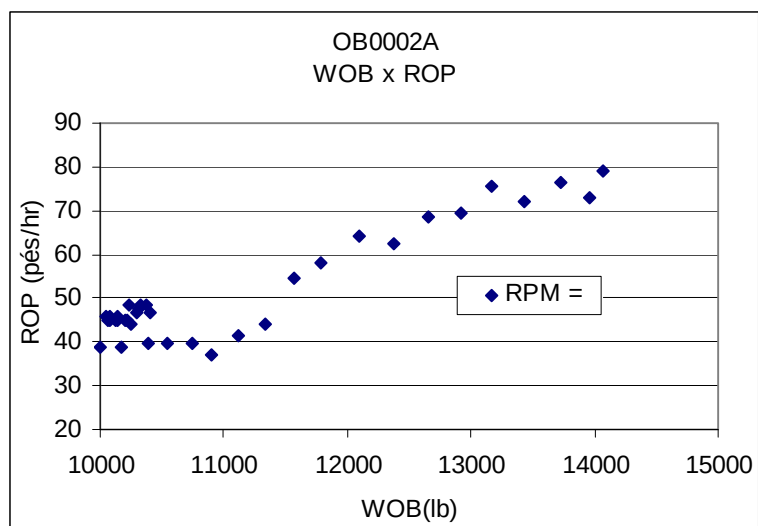


(a)

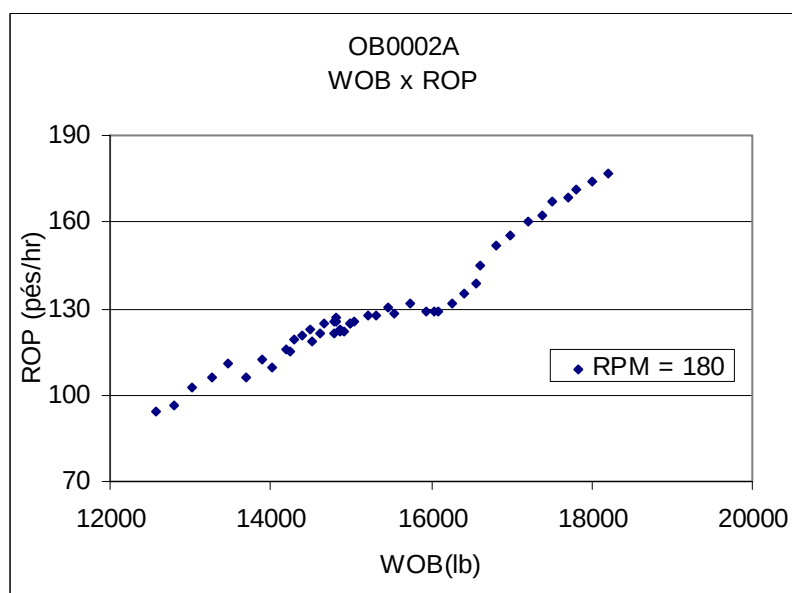


(b)

Figura A45: curvas ROP x WOB para o ensaio OB0001K: (a) RPM=120 e (b) RPM=180



(a)

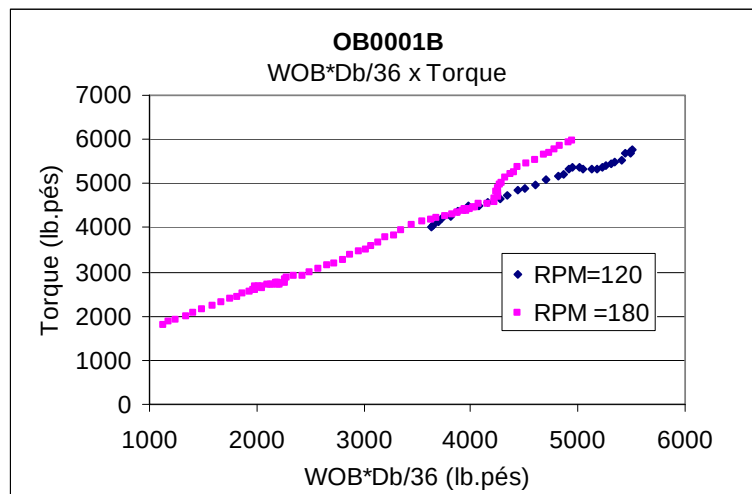


(b)

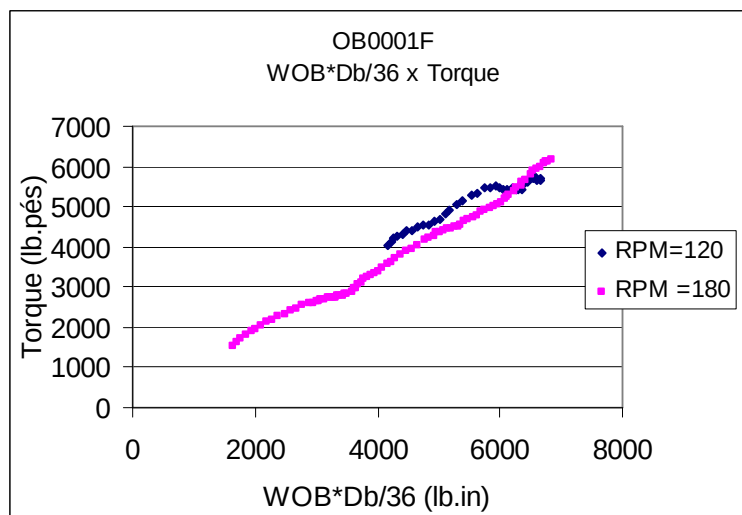
Figura A46: curvas ROP x WOB para o ensaio OB0002A: (a) RPM=120 e (b) RPM=180

A.8.

Comparação entre as curvas T x (WOB.Db/36) – Ensaios de Laboratório

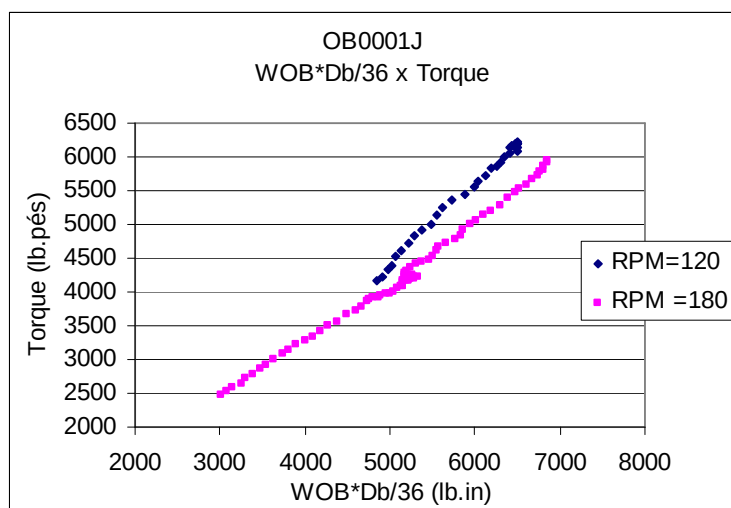


(a)

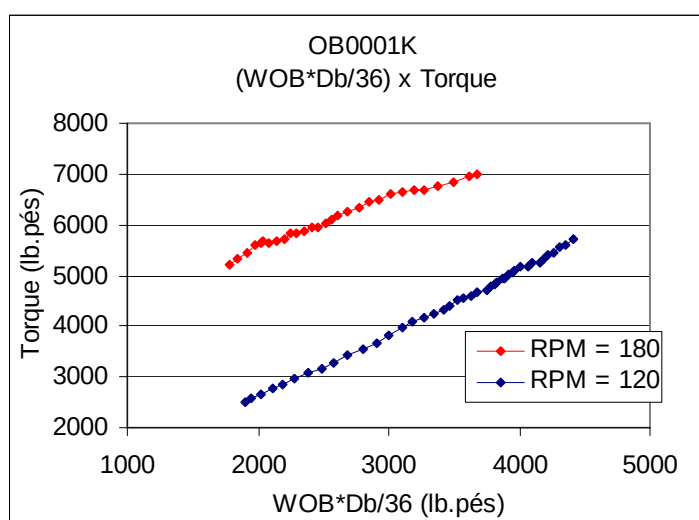


(b)

Figura A47: curvas T x WOB.Db/36 para ensaios OB0001B e OB0001F.



(a)



(b)

Figura A48: curvas T x WOB.Db/36 para ensaios OB0001J e OB0001K.

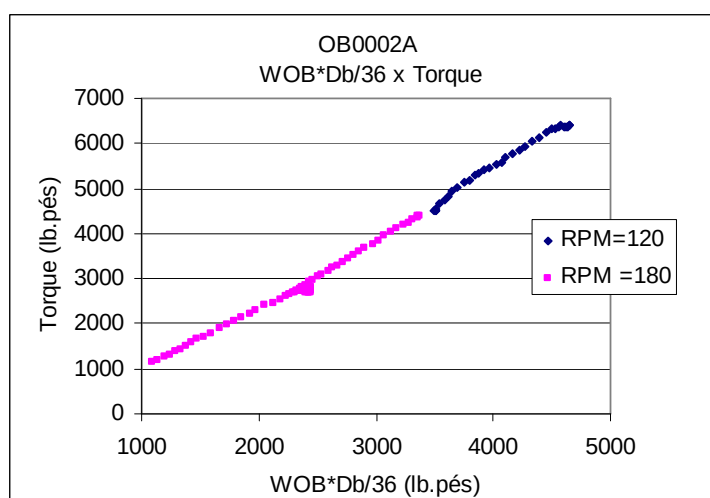
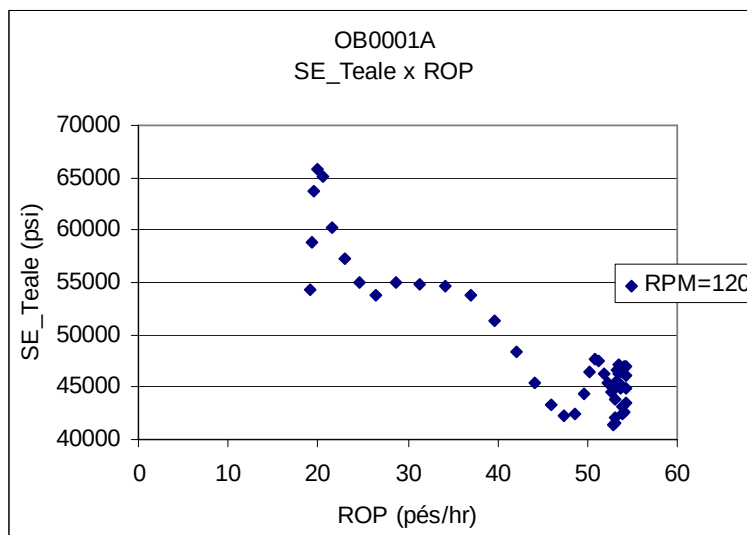
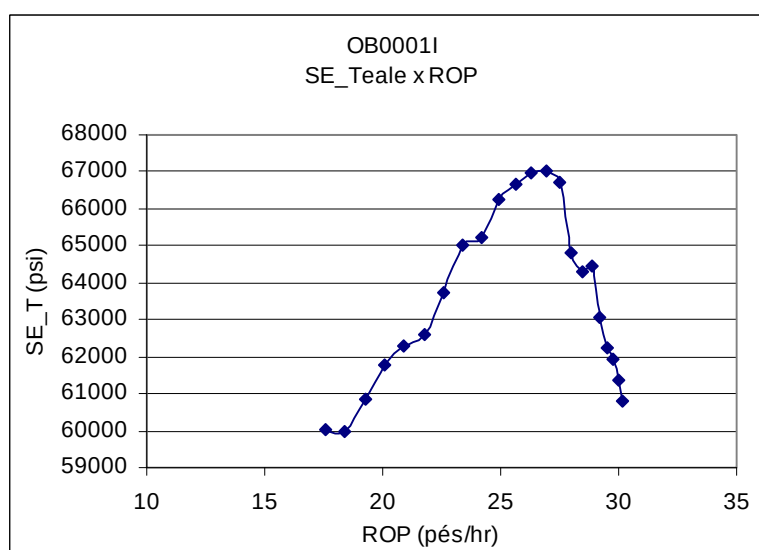


Figura A49: curvas T x WOB.Db/36 para o ensaio OB0002A.

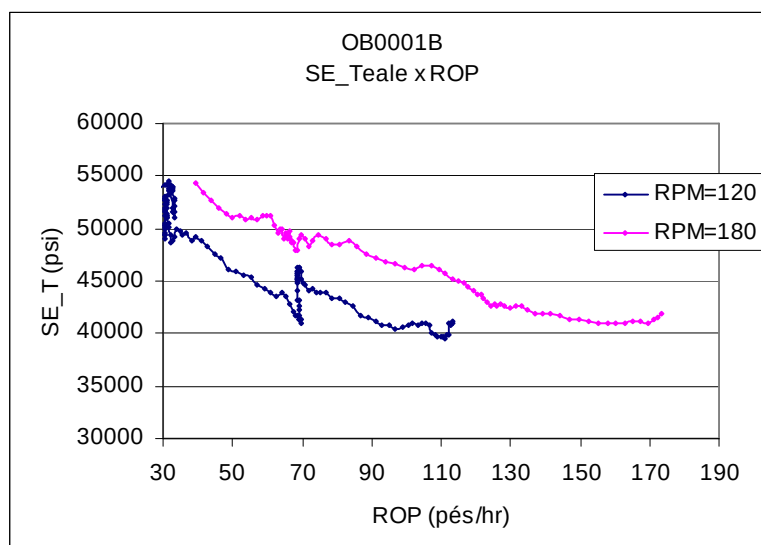
A.9.**Curvas SE_Teale x ROP para Ensaios de Laboratório**

(a)

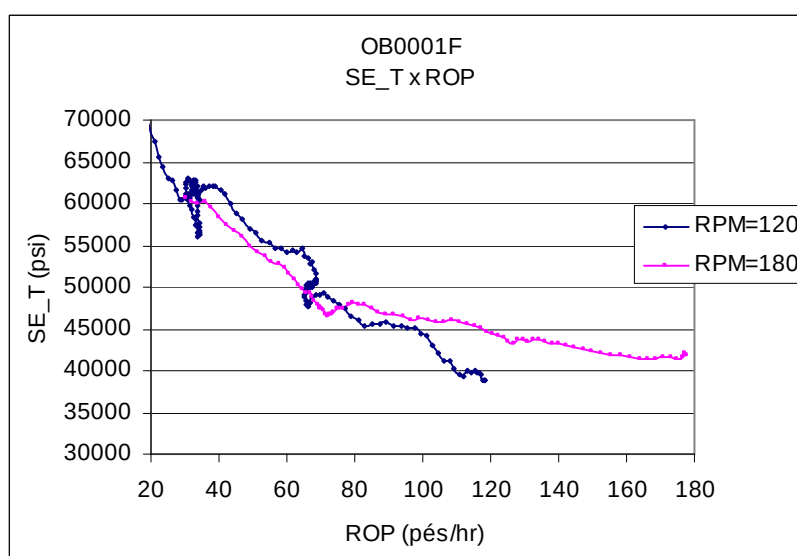


(b)

Figura A50: SE_T x ROP para os ensaios OB0001A e OB0001I.

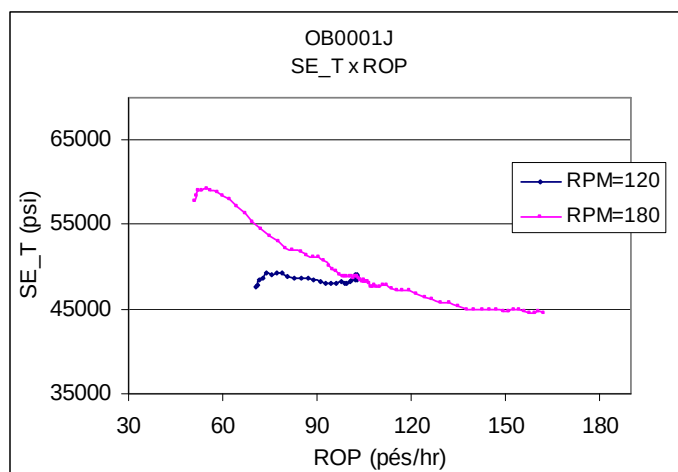


(a)

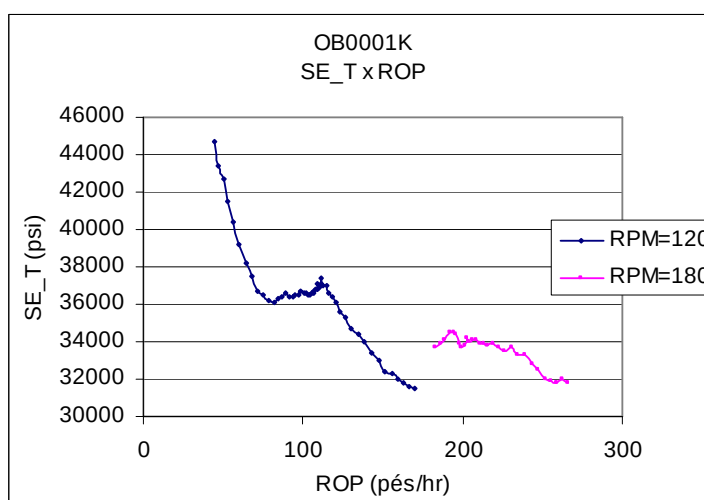


(b)

Figura A51: SE_T x ROP para os ensaios OB0001B e OB0001F.



(a)



(b)

Figura A52: SE_T x ROP para os ensaios OB0001J e OB0001K.

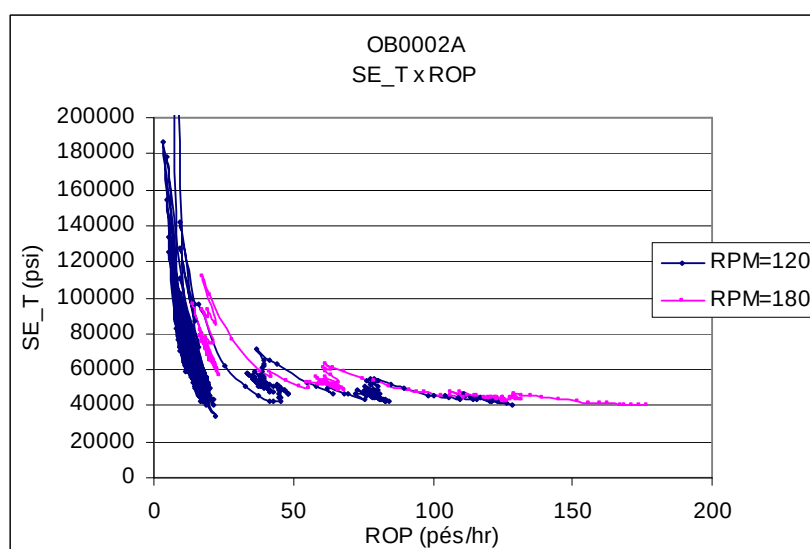


Figura A53: curva SE_T x ROP para o ensaio OB0002A.

A.10. Curvas SE x CCS para Trechos dos Poços

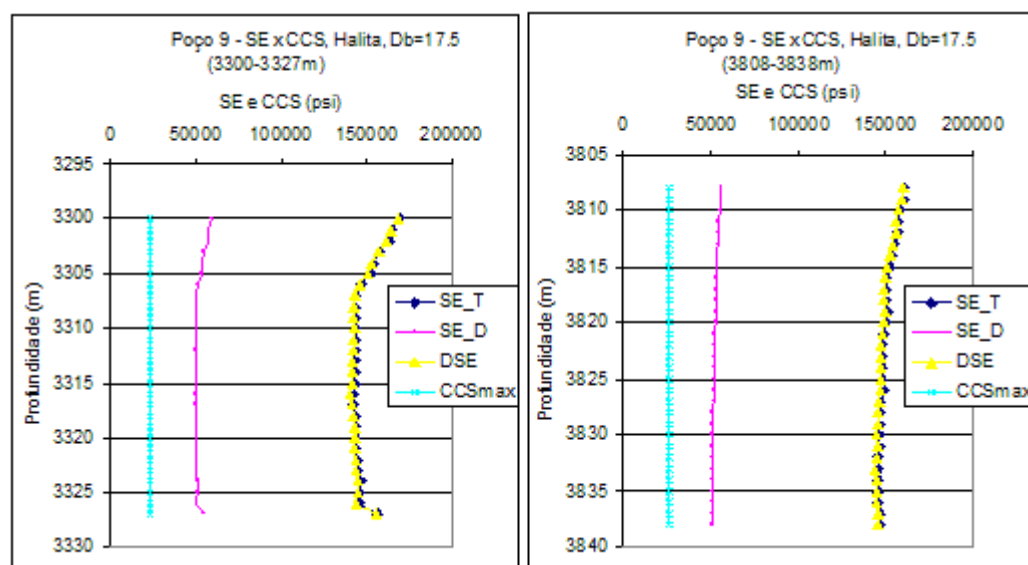


Figura A54: curva SE x CCS para os trechos do Poço 9.

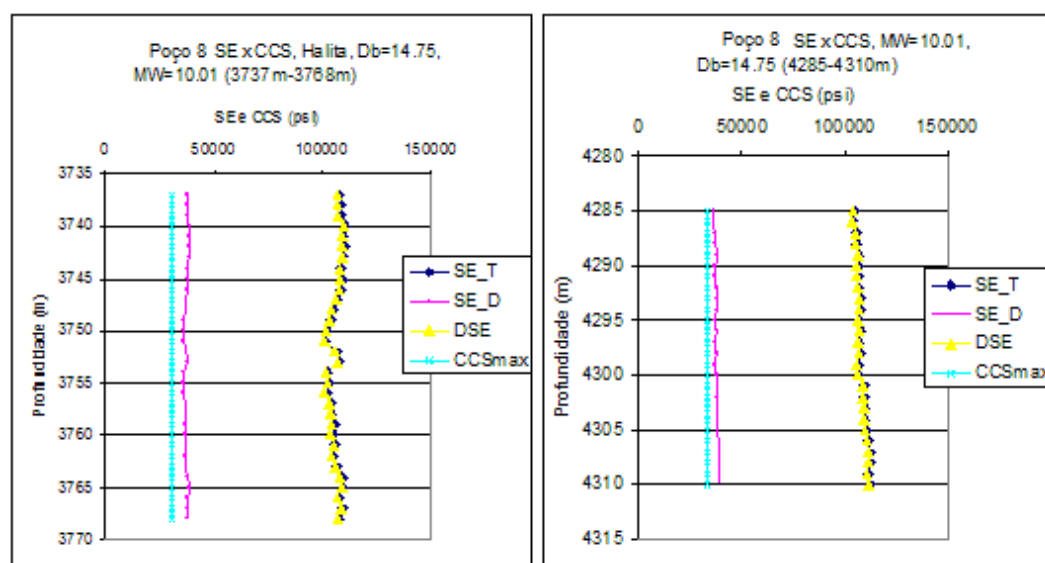


Figura A55: curva SE x CCS para os trechos do Poço 8.

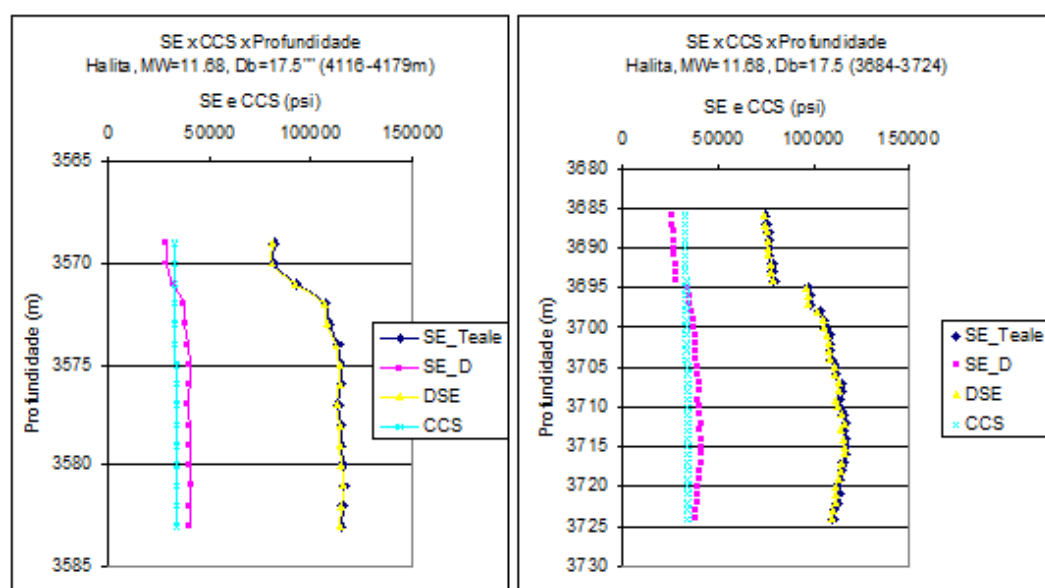


Figura A56: curva SE x CCS para os trechos do Poço 7.

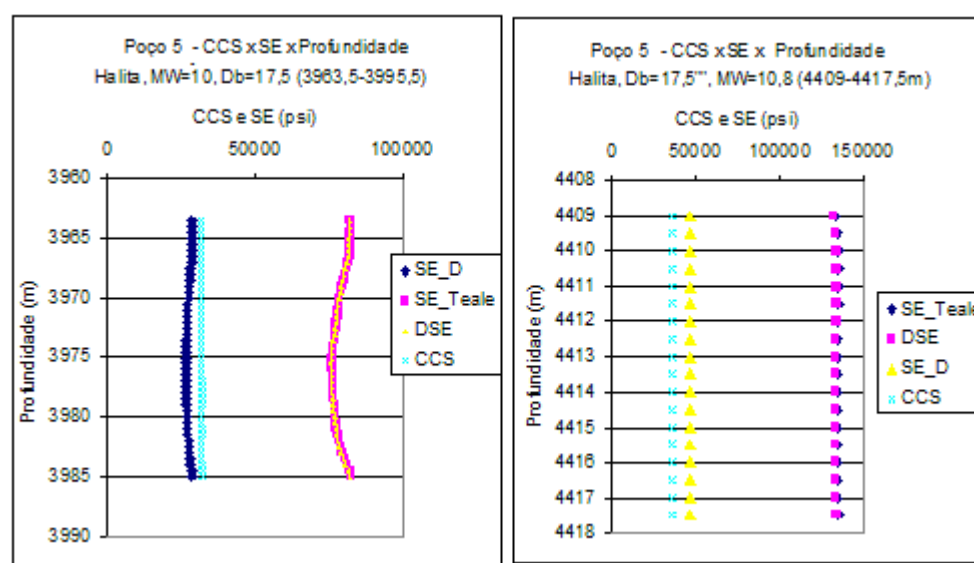


Figura A57: curva SE x CCS para os trechos do Poço 5.

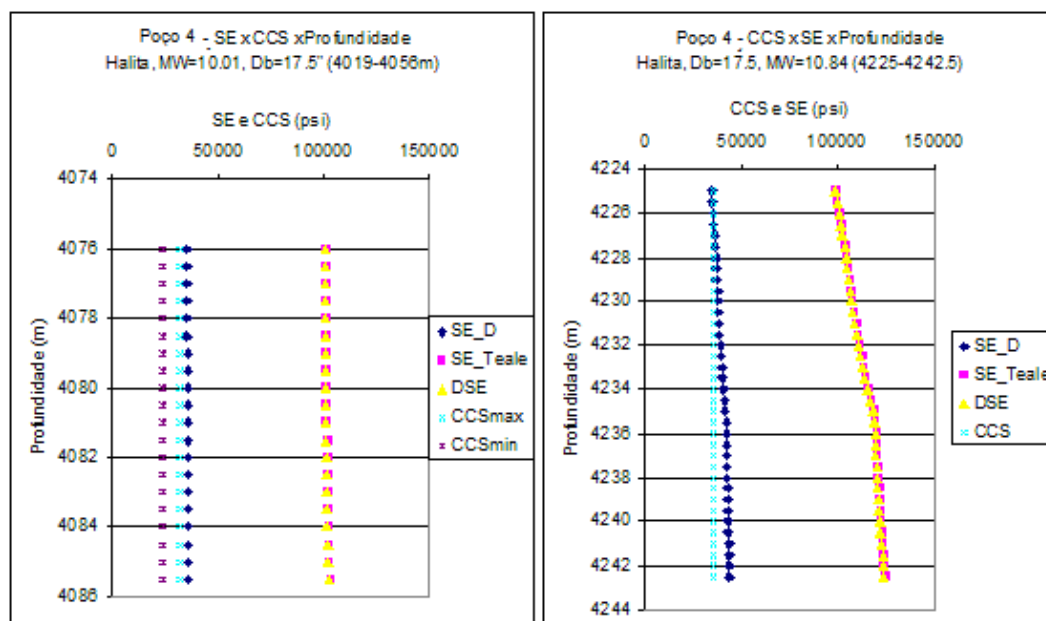
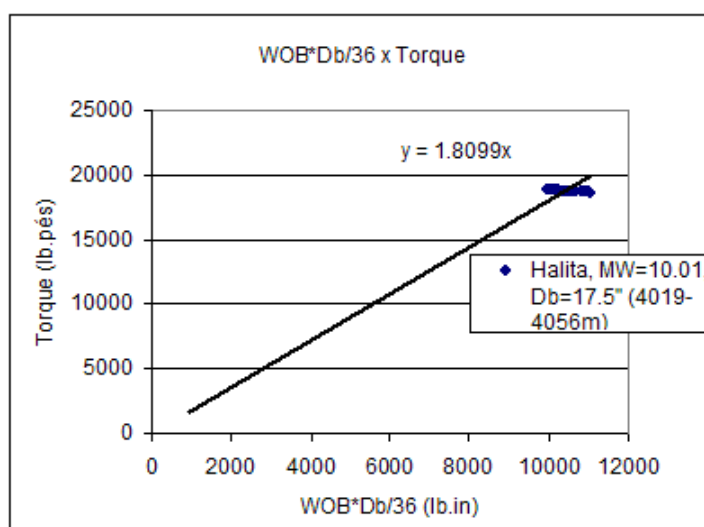


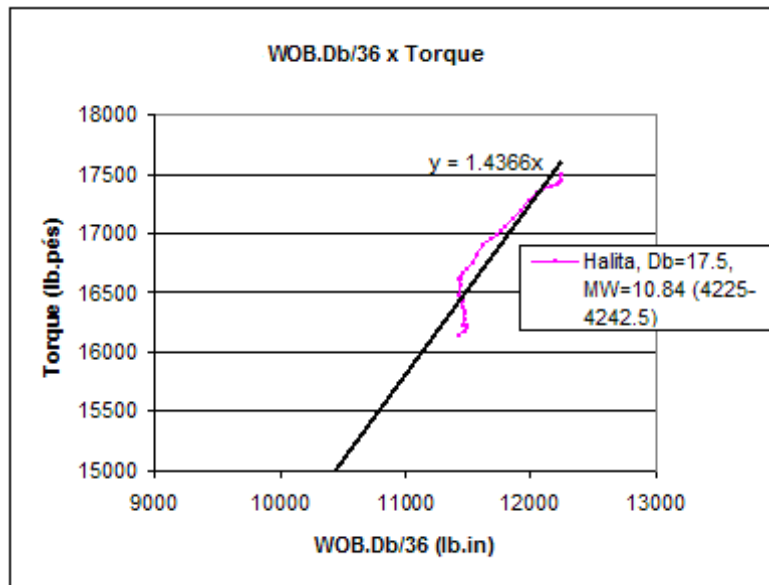
Figura A58: curva SE x CCS para os trechos do Poço 4.

A.11

Curvas T x WOB.Db/36 para trechos dos poços

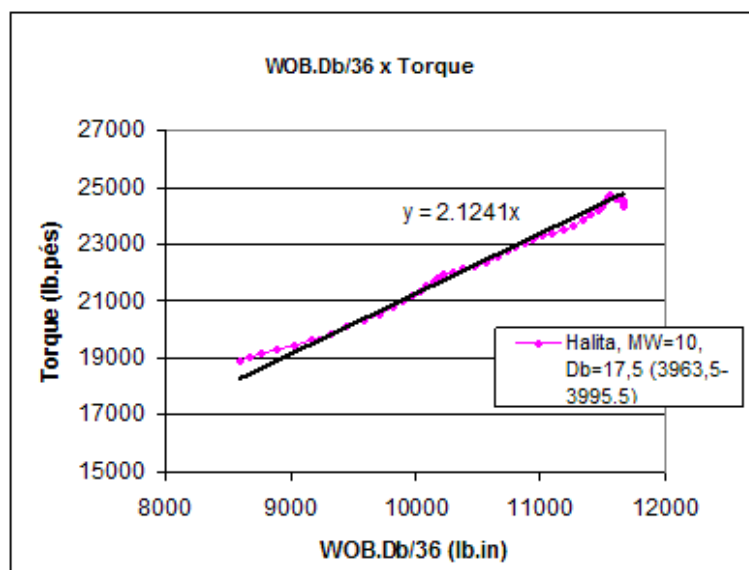


(a)

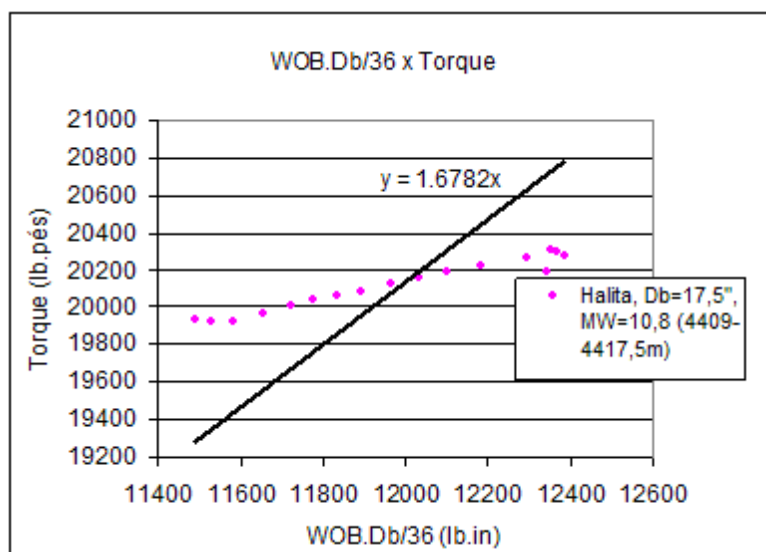


(b)

Figura A59: curva T x WOB.Db/36 para os trechos do Poço 4.

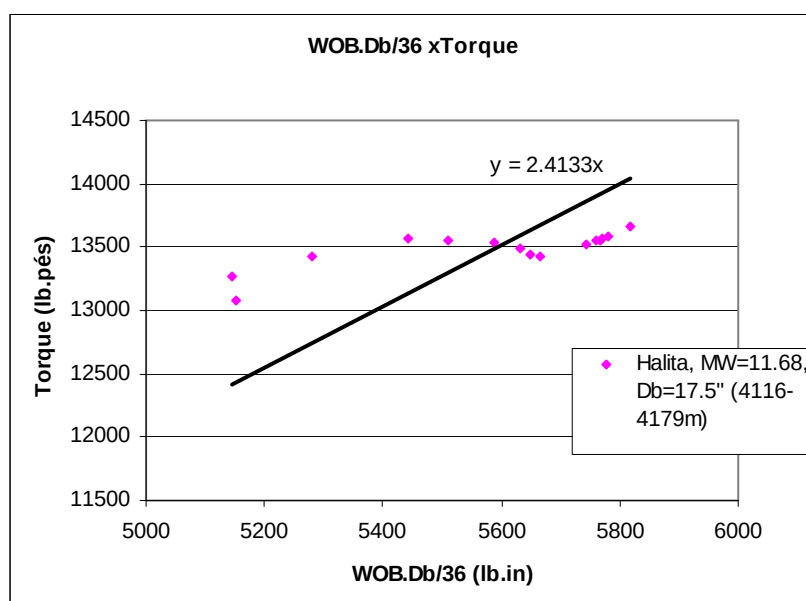


(a)

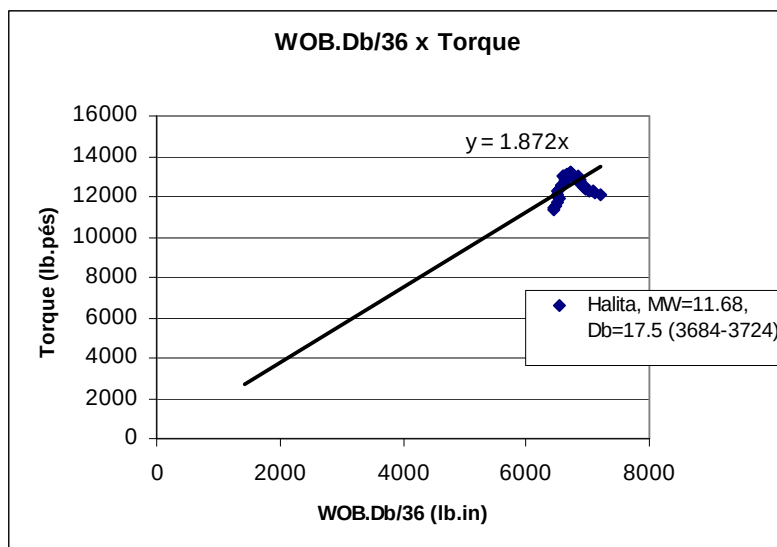


(b)

Figura A60: curva T x WOB.Db/36 para os trechos do Poço 5.

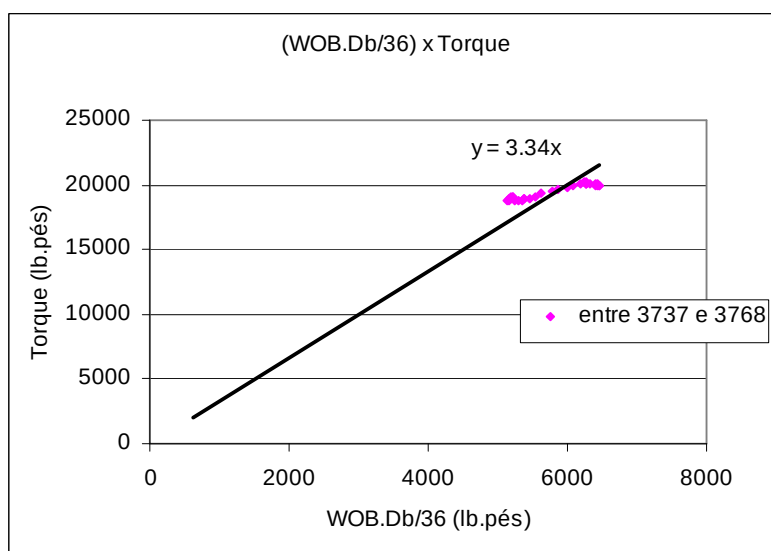


(a)

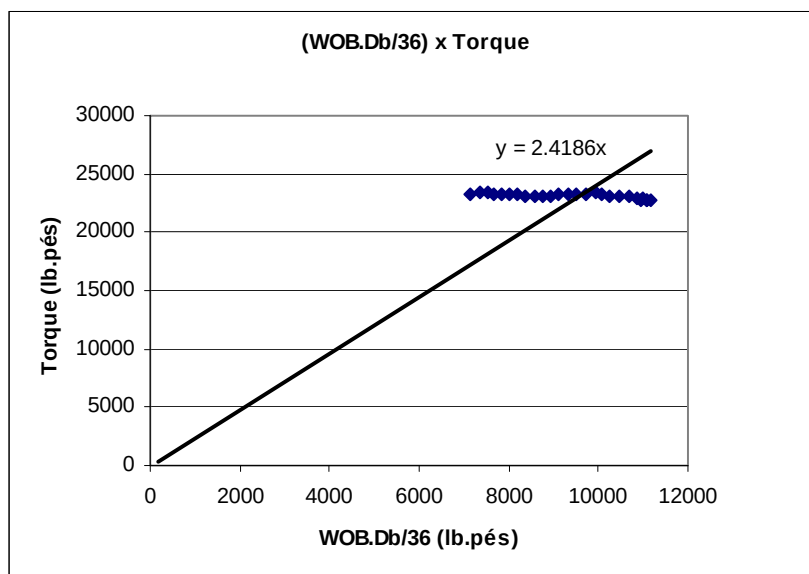


(b)

Figura A61: curva T x WOB.Db/36 para os trechos do Poço 7.

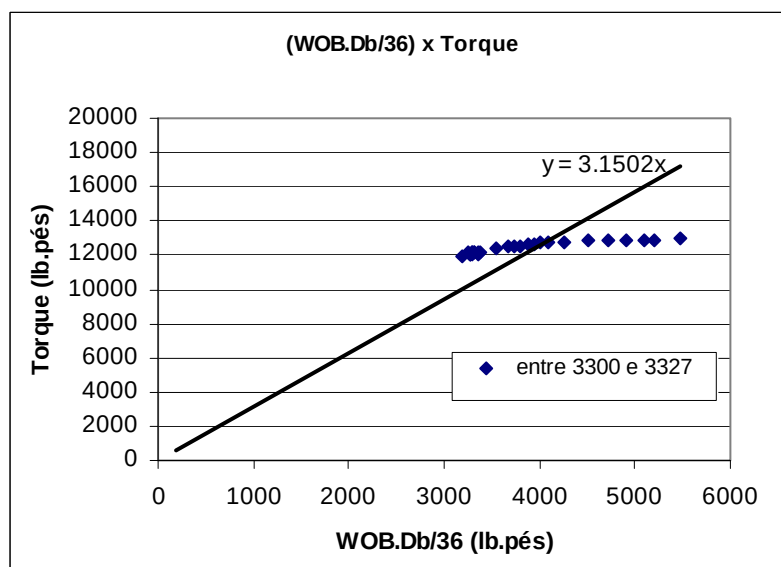


(a)

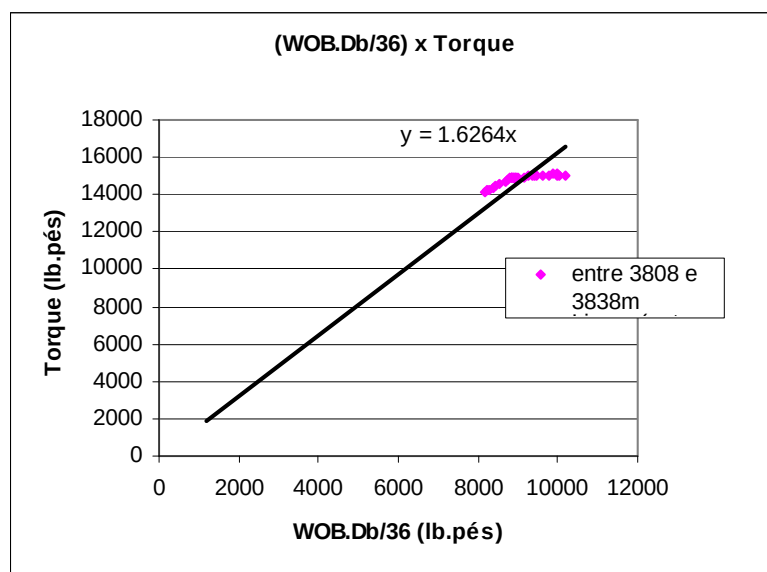


(b)

Figura A62: curva T x WOB.Db/36 para os trechos do Poço 8.

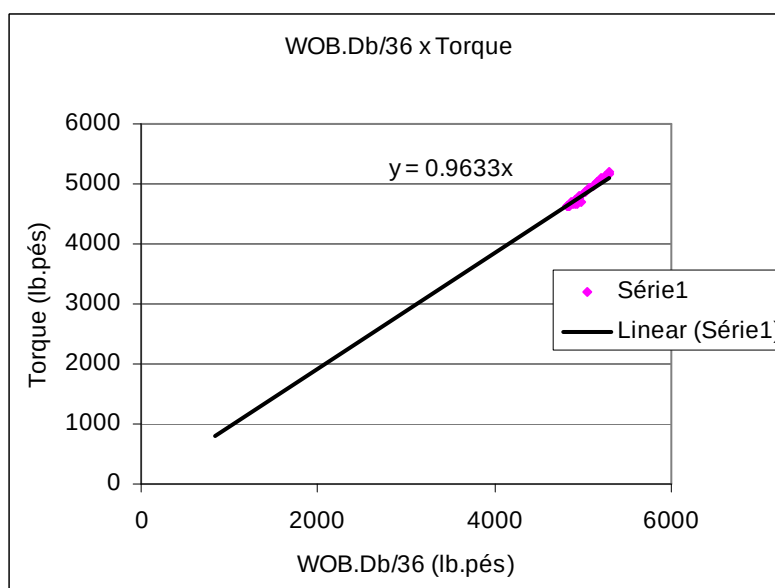


(a)

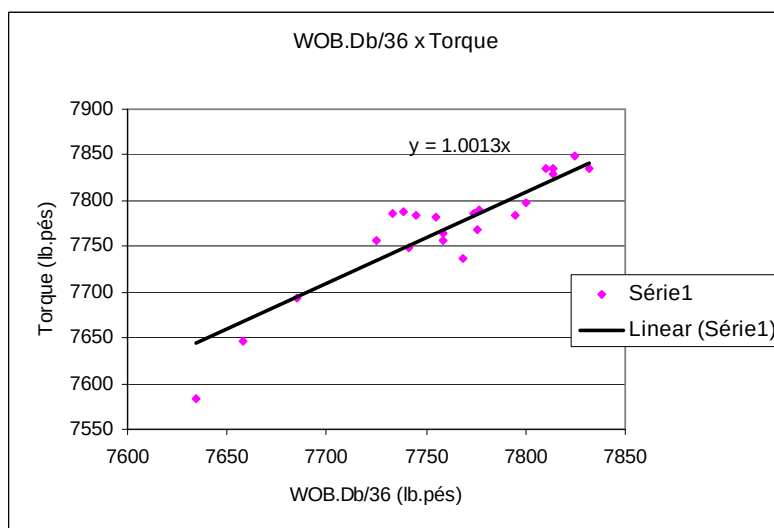


(b)

Figura A63: curva T x WOB.Db/36 para os trechos do Poço 9.

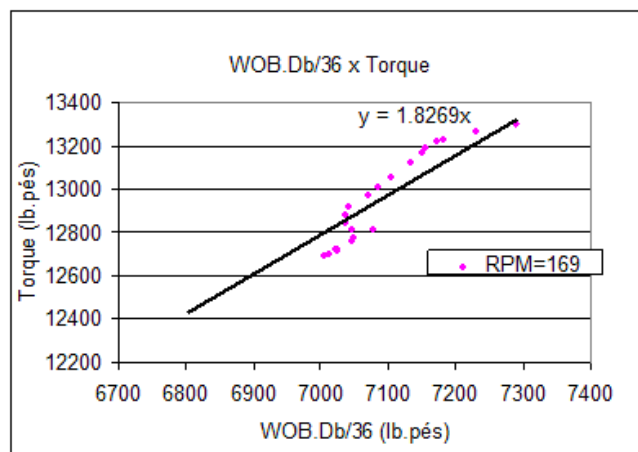


(a)

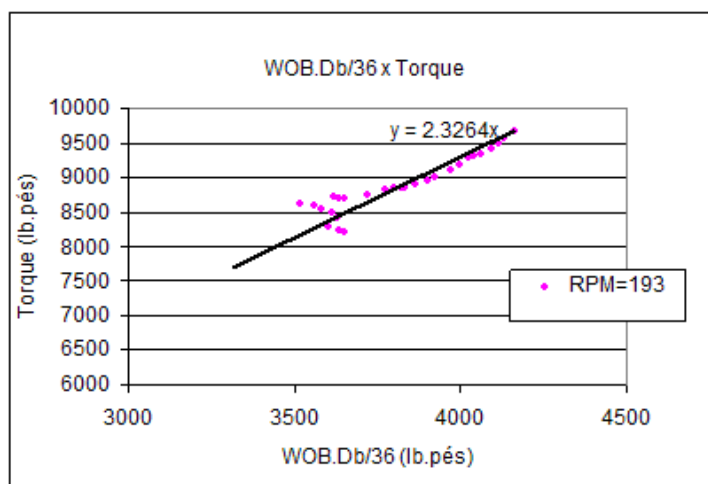


(b)

Figura A64: curva T x WOB.Db/36 para os trechos do Poço 10.



(a)



(b)

Figura A65: curva T x WOB.Db/36 para os trechos do Poço 2.