



Laboratório de Ensaio acreditado  
pela Cgcre/Inmetro de acordo com  
a ABNT NBR ISO/IEC 17025.



## Boletim de Ensaio

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749D**

### Análise em amostras de solo

Cliente : Fundação Bio-Rio / Petrobras – UN-BS  
Endereço : Av. Carlos Chagas Filho, nº 791  
Cidade Universitária - Rio de Janeiro - RJ  
Localização do Projeto : Bacia de Santos  
Data da Coleta : 06, 07, 08, 09 e 10.12.2009  
Entrega das amostras : 18.12.2009  
Início dos ensaios/extração : 18.12.2009 11:52  
Término dos ensaios : 08.03.2010  
  
Projeto : PAI-Projeto de Avaliação de Impactos da Bacia de Santos  
Gerente do Projeto : Cristina Falção

INNOLAB do Brasil Ltda.  
Rua Sacadura Cabral - 236  
Saúde - Rio de Janeiro - RJ  
Cep. 20.221-161  
CNPJ. 04.183.043/0001-00  
Tel. (21) 3509-1750  
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Parâmetro	TB# 11-R1 (0-2cm) (µg/kg)	TB# 11-R2 (0-2cm) (µg/kg)	TB# 11-R3 (0-2cm) (µg/kg)	TB# 12-R1 (0-2cm) (µg/kg)	L.D. (µg/kg)
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#### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 12-R2 (0-2cm) (µg/kg)	TB# 12-R3 (0-2cm) (µg/kg)	TB# 13-R1 (0-2cm) (µg/kg)	TB# 13-R2 (0-2cm) (µg/kg)	L.D. (µg/kg)
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#### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 13-R3 (0-2cm) (µg/kg)	TB# 14-R1 (0-2cm) (µg/kg)	TB# 14-R2 (0-2cm) (µg/kg)	TB# 14-R3 (0-2cm) (µg/kg)	L.D. (µg/kg)
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#### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 21-R1 (0-2cm) (µg/kg)	TB# 21-R2 (0-2cm) (µg/kg)	TB# 21-R3 (0-2cm) (µg/kg)	TB# 22-R1 (0-2cm) (µg/kg)	L.D. (µg/kg)
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#### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Conferido (L)



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Parâmetro	TB# 22-R2 (0-2cm) (µg/kg)	TB# 22-R3 (0-2cm) (µg/kg)	TB# 23-R1 (0-2cm) (µg/kg)	TB# 23-R2 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 23-R3 (0-2cm) (µg/kg)	TB# 24-R1 (0-2cm) (µg/kg)	TB# 24-R2 (0-2cm) (µg/kg)	TB# 24-R3 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 31-R1 (0-2cm) (µg/kg)	TB# 31-R2 (0-2cm) (µg/kg)	TB# 31-R3 (0-2cm) (µg/kg)	TB# 32-R1 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 32-R2 (0-2cm) (µg/kg)	TB# 32-R3 (0-2cm) (µg/kg)	TB# 33-R1 (0-2cm) (µg/kg)	TB# 33-R2 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 33-R3 (0-2cm) (µg/kg)	TB# 34-R1 (0-2cm) (µg/kg)	TB# 34-R2 (0-2cm) (µg/kg)	TB# 34-R3 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

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Parâmetro	TB# 41-R1 (0-2cm) (µg/kg)	TB# 41-R2 (0-2cm) (µg/kg)	TB# 41-R3 (0-2cm) (µg/kg)	TB# 42-R1 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 42-R2 (0-2cm) (µg/kg)	TB# 42-R3 (0-2cm) (µg/kg)	TB# 43-R1 (0-2cm) (µg/kg)	TB# 43-R2 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 43-R3 (0-2cm) (µg/kg)	TB# 44-R1 (0-2cm) (µg/kg)	TB# 44-R2 (0-2cm) (µg/kg)	TB# 44-R3 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 51-R1 (0-2cm) (µg/kg)	TB# 51-R2 (0-2cm) (µg/kg)	TB# 51-R3 (0-2cm) (µg/kg)	TB# 52-R1 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

Parâmetro	TB# 52-R2 (0-2cm) (µg/kg)	TB# 52-R3 (0-2cm) (µg/kg)	TB# 53-R1 (0-2cm) (µg/kg)	TB# 53-R2 (0-2cm) (µg/kg)	L.D. (µg/kg)
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### n-Alcanos C5 – C7

n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

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Parâmetro	TB# 53-R3 (0-2cm) (µg/kg)	TB# 54-R1 (0-2cm) (µg/kg)	TB# 54-R2 (0-2cm) (µg/kg)	TB# 54-R3 (0-2cm) (µg/kg)	L.D. (µg/kg)
<b>n-Alcanos C5 – C7</b>					
n-C5 (N-Pentano)	nd	nd	nd	nd	1
n-C6 (N-Hexano)	nd	nd	nd	nd	1
n-C7 (N-Heptano)	nd	nd	nd	nd	1

### Padrões de Controle Analítico – (PCA)

(Faixa de Aceitação: 70-130%)


Taxa de Recuperação (%)	
PCA	83

FM-004-L3N – Rev.00 18/02/2009– Apr. FEV/09

### Observações

1. Ref. Método – ISO 16703:2001
2. Foram utilizados Brancos de Controle conforme metodologia informada conferido

  
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