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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

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

INNOLAB do Brasil Ltda.
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Projeto : PAI-Projeto de Avaliação de Impactos da Bacia de Santos
 Gerente do Projeto : Cristina Falcão

Parâmetro	TB# 11-R1 (0-2cm) (µg/kg)	TB# 11-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	<10	nd	10	5
n-C15	<10	<10	10	5
n-C16	17	21	10	5
n-C17	43	33	10	5
n-C18	112	64	10	5
n-C19	108	139	10	5
n-C20	96	89	10	5
n-C21	39	125	10	5
n-C22	58	58	10	5
n-C23	<10	50	10	5
n-C24	19	36	10	5
n-C25	11	13	10	5
n-C26	11	16	10	5
n-C27	36	97	10	5
n-C28	17	78	10	5
n-C29	22	55	10	5
n-C30	11	67	10	5

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Parâmetro	TB# 11-R1 (0-2cm) (µg/kg)	TB# 11-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	34	58	10	5
n-C32	nd	<10	10	5
n-C33	<10	nd	10	5
n-C34	nd	nd	10	5
n-C35	<10	18	10	5
n-C36	56	34	10	5
n-C37	nd	nd	10	5
n-C38	nd	13	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 11-R1 (0-2cm) (µg/kg)	TB# 11-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	259	953	2	1
MCNR	245	911	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

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Parâmetro	TB# 11-R3 (0-2cm) (µg/kg)	TB# 12-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	<10	nd	10	5
n-C17	17	nd	10	5
n-C18	49	nd	10	5
n-C19	43	nd	10	5
n-C20	53	nd	10	5
n-C21	16	nd	10	5
n-C22	11	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	<10	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

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Parâmetro	TB# 11-R3 (0-2cm) (µg/kg)	TB# 12-R1 (0-2Cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	21	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	<10	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	28	24	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 11-R3 (0-2cm) (µg/kg)	TB# 12-R1 (0-2Cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	129	3	2	1
MCNR	122	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

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Parâmetro	TB# 12-R2 (0-2cm) (µg/kg)	TB# 12-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

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Parâmetro	TB# 12-R2 (0-2cm) (µg/kg)	TB# 12-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	14	10	5
n-C32	nd	nd	10	5
n-C33	<10	<10	10	5
n-C34	nd	nd	10	5
n-C35	nd	<10	10	5
n-C36	nd	26	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5
Parâmetro	TB# 12-R2 (0-2cm) (µg/kg)	TB# 12-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	2	3	2	1
MCNR	<2	<2	2	1
Diluição (N.º vezes)				

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Parâmetro	TB# 13-R1 (0-2cm) (µg/kg)	TB# 13-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	<10	nd	10	5
n-C19	nd	nd	10	5
n-C20	<10	nd	10	5
n-C21	<10	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	nd	10	5
n-C30	nd	nd	10	5

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Parâmetro	TB# 13-R1 (0-2cm) (µg/kg)	TB# 13-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	11	<10	10	5
n-C32	nd	nd	10	5
n-C33	<10	nd	10	5
n-C34	nd	nd	10	5
n-C35	<10	nd	10	5
n-C36	19	22	10	5
n-C37	nd	nd	10	5
n-C38	<10	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 13-R1 (0-2cm) (µg/kg)	TB# 13-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	5	4	2	1
MCNR	4	2	2	1
Diluição (N.º vezes)				

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Parâmetro	TB# 13-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C8	nd	10	5
n-C9	nd	10	5
n-C10	nd	10	5
n-C11	nd	10	5
n-C12	nd	10	5
n-C13	nd	10	5
n-C14	nd	10	5
n-C15	nd	10	5
n-C16	nd	10	5
n-C17	nd	10	5
n-C18	nd	10	5
n-C19	nd	10	5
n-C20	<10	10	5
n-C21	nd	10	5
n-C22	nd	10	5
n-C23	nd	10	5
n-C24	nd	10	5
n-C25	nd	10	5
n-C26	nd	10	5
n-C27	nd	10	5
n-C28	nd	10	5
n-C29	nd	10	5
n-C30	nd	10	5

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Parâmetro	TB# 13-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C31	<10	10	5
n-C32	nd	10	5
n-C33	nd	10	5
n-C34	nd	10	5
n-C35	nd	10	5
n-C36	22	10	5
n-C37	nd	10	5
n-C38	nd	10	5
n-C39	nd	10	5
n-C40	nd	10	5

Parâmetro	TB# 13-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	4	2	1
MCNR	3	2	1
Diluição (N.º vezes)			

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Parâmetro	TB# 14-R1 (0-2cm) (µg/kg)	TB# 14-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	<10	<10	10	5
n-C17	12	12	10	5
n-C18	20	21	10	5
n-C19	15	16	10	5
n-C20	23	24	10	5
n-C21	<10	<10	10	5
n-C22	<10	<10	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	<10	<10	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	<10	<10	10	5
n-C29	<10	<10	10	5
n-C30	nd	nd	10	5

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Parâmetro	TB# 14-R1 (0-2cm) (µg/kg)	TB# 14-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	17	18	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	13	13	10	5
n-C36	11	11	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 14-R1 (0-2cm) (µg/kg)	TB# 14-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	35	35	2	1
MCNR	31	32	2	1
Diluição (N.º vezes)				

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Parâmetro	TB# 14-R3 (0-2cm) (µg/kg)	TB# 21-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	<10	nd	10	5
n-C15	<10	nd	10	5
n-C16	16	nd	10	5
n-C17	53	nd	10	5
n-C18	147	nd	10	5
n-C19	33	nd	10	5
n-C20	172	nd	10	5
n-C21	15	nd	10	5
n-C22	18	nd	10	5
n-C23	19	nd	10	5
n-C24	<10	nd	10	5
n-C25	13	nd	10	5
n-C26	nd	nd	10	5
n-C27	27	nd	10	5
n-C28	<10	nd	10	5
n-C29	21	nd	10	5
n-C30	nd	nd	10	5

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Parâmetro	TB# 14-R3 (0-2cm) (µg/kg)	TB# 21-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	11	nd	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	<10	nd	10	5
n-C35	<10	nd	10	5
n-C36	13	nd	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 14-R3 (0-2cm) (µg/kg)	TB# 21-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	441	6	2	1
MCNR	441	4	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

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Parâmetro	TB# 21-R2 (0-2cm) (µg/kg)	TB# 21-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	<10	nd	10	5
n-C19	nd	nd	10	5
n-C20	<10	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	nd	10	5
n-C30	<10	nd	10	5

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Parâmetro	TB# 21-R2 (0-2cm) (µg/kg)	TB# 21-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	12	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	<10	<10	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 21-R2 (0-2cm) (µg/kg)	TB# 21-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	5	<2	2	1
MCNR	4	2	2	1
Diluição (N.º vezes)				

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Parâmetro	TB# 22-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C8	nd	10	5
n-C9	nd	10	5
n-C10	nd	10	5
n-C11	nd	10	5
n-C12	nd	10	5
n-C13	nd	10	5
n-C14	nd	10	5
n-C15	nd	10	5
n-C16	nd	10	5
n-C17	nd	10	5
n-C18	nd	10	5
n-C19	nd	10	5
n-C20	nd	10	5
n-C21	nd	10	5
n-C22	nd	10	5
n-C23	nd	10	5
n-C24	nd	10	5
n-C25	nd	10	5
n-C26	nd	10	5
n-C27	nd	10	5
n-C28	nd	10	5
n-C29	nd	10	5
n-C30	nd	10	5

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Parâmetro	TB# 22-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C31	<10	10	5
n-C32	nd	10	5
n-C33	nd	10	5
n-C34	nd	10	5
n-C35	nd	10	5
n-C36	10	10	5
n-C37	nd	10	5
n-C38	nd	10	5
n-C39	nd	10	5
n-C40	nd	10	5

Parâmetro	TB# 22-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	<2	2	1
MCNR	<2	2	1
Diluição (N.º vezes)			

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Resp. Téc.: **Carina Casal**

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Parâmetro	TB# 22-R2 (0-2cm) (µg/kg)	TB# 22-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	<10	10	5
n-C16	nd	nd	10	5
n-C17	nd	<10	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	<10	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	<10	10	5
n-C26	nd	nd	10	5
n-C27	nd	<10	10	5
n-C28	nd	<10	10	5
n-C29	nd	nd	10	5
n-C30	nd	10	10	5

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Parâmetro	TB# 22-R2 (0-2cm) (µg/kg)	TB# 22-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	46	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	<10	10	5
n-C35	nd	nd	10	5
n-C36	<10	34	10	5
n-C37	nd	nd	10	5
n-C38	nd	<10	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 22-R2 (0-2cm) (µg/kg)	TB# 22-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	<2	7	2	1
MCNR	<2	3	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 23-R1 (0-2cm) (µg/kg)	TB# 23-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	21	10	5
n-C16	nd	13	10	5
n-C17	nd	18	10	5
n-C18	nd	27	10	5
n-C19	nd	nd	10	5
n-C20	nd	15	10	5
n-C21	nd	nd	10	5
n-C22	nd	<10	10	5
n-C23	nd	nd	10	5
n-C24	nd	21	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	<10	10	5
n-C29	nd	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 23-R1 (0-2cm) (µg/kg)	TB# 23-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	nd	14	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	nd	165	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 23-R1 (0-2cm) (µg/kg)	TB# 23-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	3	7	2	1
MCNR	<2	2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 23-R3 (0-2cm) (µg/kg)	TB# 24-R1 (0-2cm) (µg/kg)	L.Q. (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	<10	10	5
n-C16	nd	13	10	5
n-C17	nd	12	10	5
n-C18	nd	19	10	5
n-C19	nd	<10	10	5
n-C20	nd	12	10	5
n-C21	nd	nd	10	5
n-C22	nd	<10	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 23-R3 (0-2cm) (µg/kg)	TB# 24-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	13	16	10	5
n-C32	nd	nd	10	5
n-C33	nd	<10	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	14	71	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 23-R3 (0-2cm) (µg/kg)	TB# 24-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	3	4	2	1
MCNR	<2	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 24-R2 (0-2cm) (µg/kg)	TB# 24-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	<10	nd	10	5
n-C18	<10	nd	10	5
n-C19	<10	nd	10	5
n-C20	<10	nd	10	5
n-C21	<10	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	<10	nd	10	5
n-C26	nd	nd	10	5
n-C27	<10	nd	10	5
n-C28	<10	nd	10	5
n-C29	18	nd	10	5
n-C30	12	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 24-R2 (0-2cm) (µg/kg)	TB# 24-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	43	nd	10	5
n-C32	nd	nd	10	5
n-C33	13	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	27	nd	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 24-R2 (0-2cm) (µg/kg)	TB# 24-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	9	5	2	1
MCNR	7	3	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 31-R1 (0-2cm) (µg/kg)	TB# 31-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 31-R1 (0-2cm) (µg/kg)	TB# 31-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	10	15	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 31-R1 (0-2cm) (µg/kg)	TB# 31-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	<2	3	2	1
MCNR	<2	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 31-R3 (0-2cm) (µg/kg)	TB# 32 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd		5
n-C9	nd	nd		5
n-C10	nd	nd		5
n-C11	nd	nd		5
n-C12	nd	nd		5
n-C13	nd	nd		5
n-C14	nd	nd		5
n-C15	nd	nd		5
n-C16	nd	nd		5
n-C17	nd	nd		5
n-C18	nd	nd		5
n-C19	nd	nd		5
n-C20	nd	nd		5
n-C21	nd	nd		5
n-C22	nd	nd		5
n-C23	nd	nd		5
n-C24	nd	nd		5
n-C25	nd	nd		5
n-C26	nd	nd		5
n-C27	nd	nd		5
n-C28	nd	nd		5
n-C29	<10	nd		5
n-C30	<10	nd		5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 31-R3 (0-2cm) (µg/kg)	TB# 32 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	17	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	29	17	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 31-R3 (0-2cm) (µg/kg)	TB# 32 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	3	<2	2	1
MCNR	<2	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 32 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C8	nd	10	5
n-C9	nd	10	5
n-C10	nd	10	5
n-C11	nd	10	5
n-C12	nd	10	5
n-C13	nd	10	5
n-C14	nd	10	5
n-C15	nd	10	5
n-C16	nd	10	5
n-C17	nd	10	5
n-C18	nd	10	5
n-C19	nd	10	5
n-C20	nd	10	5
n-C21	nd	10	5
n-C22	nd	10	5
n-C23	nd	10	5
n-C24	nd	10	5
n-C25	nd	10	5
n-C26	nd	10	5
n-C27	nd	10	5
n-C28	nd	10	5
n-C29	<10	10	5
n-C30	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 32 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C31	14	10	5
n-C32	nd	10	5
n-C33	nd	10	5
n-C34	nd	10	5
n-C35	nd	10	5
n-C36	14	10	5
n-C37	nd	10	5
n-C38	<10	10	5
n-C39	nd	10	5
n-C40	nd	10	5

Parâmetro	TB# 32 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	3	2	1
MCNR	<2	2	1
Diluição (N.º vezes)			

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 32 R3 (0-2cm) (µg/kg)	TB# 33-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	nd	10	5
n-C30	<10	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 32 R3 (0-2cm) (µg/kg)	TB# 33-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	12	nd	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	<10	<10	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 32 R3 (0-2cm) (µg/kg)	TB# 33-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	2	nd	2	1
MCNR	<2	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 33-R2 (0-2cm) (µg/kg)	TB# 33-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	<10	10	5
n-C16	nd	nd	10	5
n-C17	nd	<10	10	5
n-C18	nd	<10	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	<10	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 33-R2 (0-2cm) (µg/kg)	TB# 33-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	nd	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	<10	41	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 33-R2 (0-2cm) (µg/kg)	TB# 33-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	<2	2	1
MCNR	nd	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 34-R1 (0-2cm) (µg/kg)	TB# 34-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	<10	10	5
n-C30	<10	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 34-R1 (0-2cm) (µg/kg)	TB# 34-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	17	14	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	<10	<10	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 34-R1 (0-2cm) (µg/kg)	TB# 34-R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	2	<2	2	1
MCNR	<2	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 34-R3 (0-2cm) (µg/kg)	TB# 41-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	<10	10	5
n-C15	nd	27	10	5
n-C16	nd	25	10	5
n-C17	nd	22	10	5
n-C18	nd	36	10	5
n-C19	nd	nd	10	5
n-C20	nd	24	10	5
n-C21	nd	nd	10	5
n-C22	nd	15	10	5
n-C23	nd	nd	10	5
n-C24	nd	17	10	5
n-C25	nd	nd	10	5
n-C26	nd	15	10	5
n-C27	nd	nd	10	5
n-C28	nd	18	10	5
n-C29	nd	nd	10	5
n-C30	nd	19	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 34-R3 (0-2cm) (µg/kg)	TB# 41-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	nd	<10	10	5
n-C32	nd	21	10	5
n-C33	nd	nd	10	5
n-C34	nd	15	10	5
n-C35	nd	nd	10	5
n-C36	nd	160	10	5
n-C37	nd	nd	10	5
n-C38	nd	11	10	5
n-C39	nd	nd	10	5
n-C40	nd	<10	10	5

Parâmetro	TB# 34-R3 (0-2cm) (µg/kg)	TB# 41-R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	5	2	1
MCNR	nd	2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 41-R2 (0-2cm) (µg/kg)	TB# 41-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 41-R2 (0-2cm) (µg/kg)	TB# 41-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	nd	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	nd	11	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 41-R2 (0-2cm) (µg/kg)	TB# 41-R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	nd	2	1
MCNR	nd	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 42 R1 (0-2cm) (µg/kg)	TB# 42 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 42 R1 (0-2cm) (µg/kg)	TB# 42 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	nd	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	<10	<10	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 42 R1 (0-2cm) (µg/kg)	TB# 42 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	nd	2	1
MCNR	nd	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 42 R3 (0-2cm) (µg/kg)	TB# 43 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 42 R3 (0-2cm) (µg/kg)	TB# 43 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	nd	10	5
n-C32	26	<10	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	11	nd	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 42 R3 (0-2cm) (µg/kg)	TB# 43 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	nd	2	1
MCNR	<2	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 43 R2 (0-2cm) (µg/kg)	TB# 43 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	<10	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 43 R2 (0-2cm) (µg/kg)	TB# 43 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	19	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	20	31	10	5
n-C37	nd	nd	10	5
n-C38	<10	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 43 R2 (0-2cm) (µg/kg)	TB# 43 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	3	2	1
MCNR	nd	2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 44 R1 (0-2cm) (µg/kg)	TB# 44 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	20	10	5
n-C16	nd	<10	10	5
n-C17	nd	<10	10	5
n-C18	nd	15	10	5
n-C19	nd	nd	10	5
n-C20	nd	<10	10	5
n-C21	nd	nd	10	5
n-C22	nd	<10	10	5
n-C23	nd	nd	10	5
n-C24	nd	13	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 44 R1 (0-2cm) (µg/kg)	TB# 44 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	<10	10	5
n-C32	nd	nd	10	5
n-C33	<10	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	16	99	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 44 R1 (0-2cm) (µg/kg)	TB# 44 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	6	4	2	1
MCNR	3	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 44 R3 (0-2cm) (µg/kg)	TB# 51 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	<10	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 44 R3 (0-2cm) (µg/kg)	TB# 51 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	nd	19	10	5
n-C32	17	63	10	5
n-C33	13	41	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	nd	17	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	<10	10	5

Parâmetro	TB# 44 R3 (0-2cm) (µg/kg)	TB# 51 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	<2	2	1
MCNR	nd	2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 51 R2 (0-2cm) (µg/kg)	TB# 51 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 51 R2 (0-2cm) (µg/kg)	TB# 51 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	<10	10	5
n-C32	nd	38	10	5
n-C33	<10	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	<10	<10	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 51 R2 (0-2cm) (µg/kg)	TB# 51 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	nd	nd	2	1
MCNR	nd	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 52 R1 (0-2cm) (µg/kg)	TB# 52 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	nd	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	nd	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 52 R1 (0-2cm) (µg/kg)	TB# 52 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	15	<10	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	<10	nd	10	5
n-C36	18	21	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 52 R1 (0-2cm) (µg/kg)	TB# 52 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	3	<2	2	1
MCNR	2	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 52 R3 (0-2cm) (µg/kg)	TB# 53 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	31	10	5
n-C16	nd	<10	10	5
n-C17	nd	<10	10	5
n-C18	nd	19	10	5
n-C19	nd	12	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	<10	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	nd	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 52 R3 (0-2cm) (µg/kg)	TB# 53 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	<10	11	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	10	24	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 52 R3 (0-2cm) (µg/kg)	TB# 53 R1 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	<2	<2	2	1
MCNR	<2	nd	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 53 R2 (0-2cm) (µg/kg)	TB# 53 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	10	nd	10	5
n-C16	<10	nd	10	5
n-C17	<10	nd	10	5
n-C18	19	nd	10	5
n-C19	nd	nd	10	5
n-C20	<10	nd	10	5
n-C21	nd	nd	10	5
n-C22	<10	nd	10	5
n-C23	nd	nd	10	5
n-C24	<10	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	nd	10	5
n-C28	nd	nd	10	5
n-C29	<10	<10	10	5
n-C30	nd	nd	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 53 R2 (0-2cm) (µg/kg)	TB# 53 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	18	14	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	nd	10	5
n-C36	63	19	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 53 R2 (0-2cm) (µg/kg)	TB# 53 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	4	<2	2	1
MCNR	<2	<2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 54 R1 (0-2cm) (µg/kg)	TB# 54 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C8	nd	nd	10	5
n-C9	nd	nd	10	5
n-C10	nd	nd	10	5
n-C11	nd	nd	10	5
n-C12	nd	nd	10	5
n-C13	nd	nd	10	5
n-C14	nd	nd	10	5
n-C15	nd	nd	10	5
n-C16	nd	nd	10	5
n-C17	nd	<10	10	5
n-C18	nd	nd	10	5
n-C19	nd	nd	10	5
n-C20	nd	nd	10	5
n-C21	nd	nd	10	5
n-C22	nd	nd	10	5
n-C23	nd	nd	10	5
n-C24	nd	nd	10	5
n-C25	nd	nd	10	5
n-C26	nd	nd	10	5
n-C27	nd	<10	10	5
n-C28	nd	nd	10	5
n-C29	<10	<10	10	5
n-C30	nd	<10	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 54 R1 (0-2cm) (µg/kg)	TB# 54 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40				
n-C31	14	22	10	5
n-C32	nd	nd	10	5
n-C33	nd	nd	10	5
n-C34	nd	nd	10	5
n-C35	nd	12	10	5
n-C36	15	16	10	5
n-C37	nd	nd	10	5
n-C38	nd	nd	10	5
n-C39	nd	nd	10	5
n-C40	nd	nd	10	5

Parâmetro	TB# 54 R1 (0-2cm) (µg/kg)	TB# 54 R2 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	2	3	2	1
MCNR	<2	2	2	1
Diluição (N.º vezes)				

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 54 R3 (0-2cm) (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C8	nd	10	5
n-C9	nd	10	5
n-C10	nd	10	5
n-C11	nd	10	5
n-C12	nd	10	5
n-C13	nd	10	5
n-C14	nd	10	5
n-C15	nd	10	5
n-C16	nd	10	5
n-C17	<10	10	5
n-C18	nd	10	5
n-C19	nd	10	5
n-C20	nd	10	5
n-C21	nd	10	5
n-C22	nd	10	5
n-C23	nd	10	5
n-C24	nd	10	5
n-C25	nd	10	5
n-C26	nd	10	5
n-C27	<10	10	5
n-C28	nd	10	5
n-C29	15	10	5
n-C30	<10	10	5

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Resp. Téc.: **Carina Casal**

Emitido em: **08.03.2010**

Lab-nº: **09/3749B**

Parâmetro	TB# 54 R3 (0-2cm (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
n-Alcanos C8 - C40			
n-C31	43	10	5
n-C32	nd	10	5
n-C33	nd	10	5
n-C34	nd	10	5
n-C35	20	10	5
n-C36	19	10	5
n-C37	nd	10	5
n-C38	nd	10	5
n-C39	nd	10	5
n-C40	nd	10	5

Parâmetro	TB# 54 R3 (0-2cm (µg/kg)	L.Q (µg/kg)	L.D. (µg/kg)
TPH	6	2	1
MCNR	3	2	1
Diluição (N.º vezes)			

Padrões de Controle Analítico – (PCA)

(Faixa de Aceitação: 70-130%)


Taxa de Recuperação (%)	
PCA	81

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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