Appendix B

Organic Data

2004 Data

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-4C-01-PHC-S	04-5E-01-PHC-S	04-N04-01-PHC-S	04-5A-01-PHC-S
Battelle ID	S3902-P1	S4117-P	S4118-P	S4119-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/04	08/09/04	08/09/04	08/09/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date				
Analytical Instrument	MS	MS	MS	MS
% Moisture	20.99	26.65	36.72	38.77
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.71	23.12	19.77	18.81
Size Unit-Basis	L_DRY	L_DRY	L_DRY	L_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	0.07 J	0.35	0.6	0.71
C29 tricyclictriterpane (T9)	ND	0.15 J	0.25 J	0.22
C29 tricyclictriterpane (T10)	ND	0.11 J	0.19 J	0.3
18a(H)-22,29,30-trisnorneohopane -TS (T11	0.3	0.34	0.73	1.24
17a(H)-22,29,30-trisnorhopane -TM (T12)	0.25	1.11	2.19	2.61
17a(H),21b(H)-30-norhopane (T15)	0.43	2.1	4.45	5.05
18a(H)-oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	0.65	3.43	7.04	8.15
22S-17a(H),21,b(H)-30-homohopane (T21)	0.34	1.62	3.1	3.38
22R-17a(H),21b(H)-30-homohopane (T22)	0.51	2.12	5.61	6.13
13b,17a-diacholestane-20S (S4)	0.11 J	0.55	1.26	1.37
13b,17a-diacholestane-20R (S5)	0.09 J	0.3	0.81	0.78
5a,14a,17a,24-methylcholestane -20R (S24)	0.24	1.04	2.04	2.28
5a,14a,17a,24-ethylcholestane-20S (S25)	0.12	0.55	1.25	1.49
5a,14a,17a,24-20R-ethylcholestane (S28)	0.35	2.35	5.33	5.57
S28a	0.56	3.46	12.50	16.73
Surrogate Recoveries (%)				
5b(H)-Cholane	98	115	112	109

*The data presented for sample S4115-P1 is from a re-extracted aliquot. The original sample appeared to not have been spiked with SIS compounds was was later r

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-N15-01-PHC-S		04-N7-01-PHC-S		04-N8-01-PHC-S
Battelle ID		S4120-P		S4121-P		S4122-P
Sample Type		SA		SA		SA
Collection Date		08/09/04		08/06/04		08/06/04
Extraction Date		12/20/04		12/20/04		12/20/04
Analysis Date						
Analytical Instrument		MS		MS		MS
% Moisture		9.17		29.57		48.14
% Lipid		NA		NA		NA
Matrix		SEDIMENT		SEDIMENT		SEDIMENT
Sample Size		28.04		21.74		15.50
Size Unit-Basis		L_DRY		L_DRY		L_DRY
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY
C23 diterpane (T4)		0.03	J	0.22	J	1.76
C29 tricyclictriterpane (T9)	J		ND	0.1	J	0.6
C29 tricyclictriterpane (T10)	J		ND	0.08	J	0.66
18a(H)-22,29,30-trisnorneohopane -TS (T11		0.19	J	0.54		1.23
17a(H)-22,29,30-trisnorhopane -TM (T12)		0.1	J	0.92		4.62
17a(H),21b(H)-30-norhopane (T15)		0.21		1.62		10.02
18a(H)-oleanane (T18)	ND		ND		ND	0.73
17a(H),21b(H)-hopane (T19)		0.33		2.64		13.97
22S-17a(H),21,b(H)-30-homohopane (T21)		0.17	J	1.11		6.96
22R-17a(H),21b(H)-30-homohopane (T22)		0.46		2.67		11.65
13b,17a-diacholestane-20S (S4)			ND	0.49		2.69
13b,17a-diacholestane-20R (S5)			ND	0.25		2.43
5a,14a,17a,24-methylcholestane -20R (S24)		0.07	J	0.77		5.35
5a,14a,17a,24-ethylcholestane-20S (S25)		0.06	J	0.48		3.91
5a,14a,17a,24-20R-ethylcholestane (S28)		0.16		1.9		12.21
S28a		0.24		4.55		26.18
Surrogate Recoveries (%)						
5b(H)-Cholane		107		111		113

*The data presented for sample S4115-P1 ise-extracted with B05-0010 using a soxhlet method.

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-N9-01-PHC-S	04-N18-01-PHC-S	04-QC-01-PHC-OTHER-EW	04-L01A-01-PHC-S
Battelle ID	S4123-P	S4124-P	S4125-P	S4389-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	07/30/04	08/11/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date				
Analytical Instrument	MS	MS	MS	MS
% Moisture	29.62	33.37	NA	36.66
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	WIPE	SEDIMENT
Sample Size	20.78	20.04	1.00	19.63
Size Unit-Basis	L_DRY	L_DRY	L_DRY	L_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	0.26 J	0.51	ND	0.69
C29 tricyclictriterpane (T9)	0.14 J	0.18 J	1012.53	0.26
C29 tricyclictriterpane (T10)	0.15 J	0.19 J	926.02	0.23
18a(H)-22,29,30-trisnorneohopane -TS (T11	0.4	0.69	1557.8	0.76
17a(H)-22,29,30-trisnorhopane -TM (T12)	0.86	2.38	1264.81	2.19
17a(H),21b(H)-30-norhopane (T15)	1.58	3.89	4444.53	3.99
18a(H)-oleanane (T18)	ND	ND	484.22	
17a(H),21b(H)-hopane (T19)	3.05	7.04	4508.76	6.87
22S-17a(H),21,b(H)-30-homohopane (T21)	1.27	3.04	2146.75	3.05
22R-17a(H),21b(H)-30-homohopane (T22)	2.14	7.81	1391.43	4.66
13b,17a-diacholestane-20S (S4)	0.65	0.92	2536.11	1.4
13b,17a-diacholestane-20R (S5)	0.29	0.63	1440.29	0.8
5a,14a,17a,24-methylcholestane -20R (S24)	0.93	2.07	1012.31	2.1
5a,14a,17a,24-ethylcholestane-20S (S25)	0.49	1.57	935.04	1.11
5a,14a,17a,24-20R-ethylcholestane (S28)	2.11	7.1	1473.43	5
S28a	3.80	14.92	1817.46	10.23
Surrogate Recoveries (%)				
5b(H)-Cholane	107	110	65	105

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-5(1)-01-PHC-S		04-N14-01-PHC-S		04-QC-02-PHC-OTHER-DW	
Battelle ID		S4390-P		S4391-P		S4724-P	
Sample Type		SA		SA		SA	
Collection Date		08/05/04		08/09/04		08/16/04	
Extraction Date		12/20/04		12/20/04		12/20/04	
Analysis Date						01/09/05	
Analytical Instrument		MS		MS		MS	
% Moisture		16.4		37.03		NA	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		WIPE	
Sample Size		25.90		19.56		1.00	
Size Unit-Basis		L_DRY		L_DRY		L_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
C23 diterpane (T4)		0.04	J	0.58		DND	
C29 tricyclictriterpane (T9)	J	ND		0.26	J	DND	
C29 tricyclictriterpane (T10)	J	ND		0.17	J	DND	
18a(H)-22,29,30-trisnorneohopane -TS (T11		0.17	J	0.84		DND	
17a(H)-22,29,30-trisnorhopane -TM (T12)		0.14	J	2.98		DND	
17a(H),21b(H)-30-norhopane (T15)		0.26		5.26		DND	
18a(H)-oleanane (T18)	ND	ND		ND		DND	
17a(H),21b(H)-hopane (T19)		0.39		8.74		DND	
22S-17a(H),21,b(H)-30-homohopane (T21)		0.25		3.36		DND	
22R-17a(H),21b(H)-30-homohopane (T22)		0.32		14.62		DND	
13b,17a-diacholestane-20S (S4)		0.1	J	1.28		DND	
13b,17a-diacholestane-20R (S5)		0.05	J	0.72		DND	
5a,14a,17a,24-methylcholestane -20R (S24)		0.11		2.34		DND	
5a,14a,17a,24-ethylcholestane-20S (S25)		0.07	J	1.58		DND	
5a,14a,17a,24-20R-ethylcholestane (S28)		0.21		8.29		DND	
S28a		0.38		26.90			
Surrogate Recoveries (%)							
5b(H)-Cholane		107		113		74	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	Kuparuk	ANS PS1	North Star	Endicott
Battelle ID	S6872-P	S6873-P	S6874-P	S6875-P
Sample Type	SA	SA	SA	SA
Collection Date	01/26/05	01/26/05	01/26/05	01/26/05
Extraction Date	01/26/05	01/26/05	01/26/05	01/26/05
Analysis Date	01/30/05	01/30/05	01/30/05	01/30/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	NA	NA	NA	NA
% Lipid	NA	NA	NA	NA
Matrix	NAPL	NAPL	NAPL	NAPL
Sample Size	54.40	54.30	50.40	52.80
Size Unit-Basis	MG_OIL	MG_OIL	MG_OIL	MG_OIL
Units	UG/KG_OIL	UG/KG_OIL	UG/KG_OIL	UG/KG_OIL
C23 diterpane (T4)	63.45	21.22	34.77	48.91
C29 tricyclictriterpane (T9)	15.09	6.49	17.54	16.08
C29 tricyclictriterpane (T10)	16.86	6.82	15.83	15.94
18a(H)-22,29,30-trisnorneohopane -TS (T11	16.43	7.7	7.04	21.73
17a(H)-22,29,30-trisnorhopane -TM (T12)	33.37	12.15	6.58	28.65
17a(H),21b(H)-30-norhopane (T15)	77.34	29.83	17.86	79.71
18a(H)-oleanane (T18)	U	U	U	
17a(H),21b(H)-hopane (T19)	102.29	53.71	41.98	144.88
22S-17a(H),21,b(H)-30-homohopane (T21)	50.69	25.65	31.52	74.12
22R-17a(H),21b(H)-30-homohopane (T22)	35.42	17.44	14.49	51.39
13b,17a-diacholestane-20S (S4)	39.61	27.11	55.31	70.28
13b,17a-diacholestane-20R (S5)	20.22	15.61	35.43	41.69
5a,14a,17a,24-methylcholestane -20R (S24)	25.5	16.22	13.67	52.47
5a,14a,17a,24-ethylcholestane-20S (S25)	33.46	18.72	22.41	56.87
5a,14a,17a,24-20R-ethylcholestane (S28)	37.01	21.63	20.94	57.9
S28a				
Surrogate Recoveries (%)				
5b(H)-Cholane	122 N	127 N	128 N	126

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-L18-01-PHC-S		04-L17-01-PHC-S		04-L09-01-PHC-S	
Battelle ID		S3888-P		S3889-P		S3890-P	
Sample Type		SA		SA		SA	
Collection Date		08/03/04		08/03/04		08/02/04	
Extraction Date		11/18/04		11/18/04		11/18/04	
Analysis Date		12/10/04		12/10/04		12/10/04	
Analytical Instrument		MS		MS		MS	
% Moisture		45.04		30.18		31.79	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		16.66		21.14		20.76	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
C23 diterpane (T4)		0.71		0.37		0.55	
C29 tricyclictriterpane (T9)		0.23		0.09	J	0.20	
C29 tricyclictriterpane (T10)		0.22		0.11	J	0.20	
18a(H)-22,29,30-trisnorneohopane -TS (T11		0.79		0.36		0.52	
17a(H)-22,29,30-trisnorhopane -TM (T12)		2.65		1.04		1.45	
17a(H),21b(H)-30-norhopane (T15)		5.49		2.16		2.95	
18a(H)-oleanane (T18)	U	ND		ND		ND	
17a(H),21b(H)-hopane (T19)		8.50		3.20		5.00	
22S-17a(H),21,b(H)-30-homohopane (T21)		3.75		1.41		2.15	
22R-17a(H),21b(H)-30-homohopane (T22)		6.23		2.42		3.98	
13b,17a-diacholestane-20S (S4)		1.39		0.61		0.90	
13b,17a-diacholestane-20R (S5)		0.85		0.34		0.58	
5a,14a,17a,24-methylcholestane -20R (S24)		2.40		1.00		1.56	
5a,14a,17a,24-ethylcholestane-20S (S25)		1.56		0.55		0.79	
5a,14a,17a,24-20R-ethylcholestane (S28)		6.79		2.33		3.77	
S28a		20.35		4.73		11.27	
Surrogate Recoveries (%)							
5b(H)-Cholane	N	101		95		106	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-L07-01-PHC-S	04-L01-01-PHC-S	04-L06-03-PHC-S	04-L06-02-PHC-S
Battelle ID	S3891-P	S3892-P	S3893-P	S3894-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	08/02/04	08/02/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/10/04	12/10/04	12/11/04	12/11/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	45.46	24.26	48.43	47.7
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	16.39	22.72	15.50	15.69
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	1.08	0.38	1.14	0.98
C29 tricyclictriterpane (T9)	0.37	0.12 J	0.41	0.37
C29 tricyclictriterpane (T10)	0.26	0.10 J	0.33	0.29
18a(H)-22,29,30-trisnorneohopane -TS (T11	1.14	0.51	1.33	1.14
17a(H)-22,29,30-trisnorhopane -TM (T12)	3.56	0.62	3.30	3.05
17a(H),21b(H)-30-norhopane (T15)	6.48	1.26	6.42	6.08
18a(H)-oleanane (T18)	ND	0.23	ND	
17a(H),21b(H)-hopane (T19)	10.93	2.04	11.52	10.54
22S-17a(H),21,b(H)-30-homohopane (T21)	4.46	0.72	4.79	4.51
22R-17a(H),21b(H)-30-homohopane (T22)	6.88	0.87	7.24	6.79
13b,17a-diacholestane-20S (S4)	1.89	0.67	1.95	1.81
13b,17a-diacholestane-20R (S5)	1.35	0.42	1.16	1.13
5a,14a,17a,24-methylcholestane -20R (S24)	3.22	0.51	3.40	3.06
5a,14a,17a,24-ethylcholestane-20S (S25)	1.90	0.33	1.96	1.92
5a,14a,17a,24-20R-ethylcholestane (S28)	7.81	1.22	8.86	7.91
S28a	33.37	2.10	26.32	21.74
Surrogate Recoveries (%)				
5b(H)-Cholane	101	91	94	98

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-L06-01-PHC-S	04-L04-01-PHC-S	04-3A-01-PHC-S
Battelle ID	S3895-P	S3896-P	S3897-P
Sample Type	SA	SA	SA
Collection Date	08/02/04	08/02/04	07/30/04
Extraction Date	11/18/04	11/18/04	11/18/04
Analysis Date	12/11/04	12/11/04	12/11/04
Analytical Instrument	MS	MS	MS
% Moisture	41.04	31.09	36.56
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.71	20.73	19.10
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	0.75	0.38	0.61
C29 tricyclictriterpane (T9)	0.29	0.14	0.20
C29 tricyclictriterpane (T10)	0.19	0.09 J	0.19
18a(H)-22,29,30-trisnorneohopane -TS (T11	0.96	0.54	0.85
17a(H)-22,29,30-trisnorhopane -TM (T12)	2.65	1.34	1.60
17a(H),21b(H)-30-norhopane (T15)	5.16	2.89	3.67
18a(H)-oleanane (T18) ND	0.69	ND	0.45
17a(H),21b(H)-hopane (T19)	8.44	4.51	5.16
22S-17a(H),21,b(H)-30-homohopane (T21)	3.65	1.98	2.42
22R-17a(H),21b(H)-30-homohopane (T22)	6.75	4.10	3.35
13b,17a-diacholestane-20S (S4)	1.41	0.79	1.05
13b,17a-diacholestane-20R (S5)	0.93	0.42	0.61
5a,14a,17a,24-methylcholestane -20R (S24)	2.43	1.27	1.60
5a,14a,17a,24-ethylcholestane-20S (S25)	1.69	0.86	0.96
5a,14a,17a,24-20R-ethylcholestane (S28)	7.16	3.91	3.85
S28a	18.26	11.81	10.69
Surrogate Recoveries (%)			
5b(H)-Cholane	88	96	91

*The data presented for sample S4115-P1 is

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-5H-01-PHC-S	04-3B-01-PHC-S	04-5(5)-01-PHC-S	04-4A-01-PHC-S
Battelle ID	S3898-P	S3899-P	S3900-P	S3901-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	07/30/04	08/03/04	08/03/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/11/04	12/11/04	12/11/04	12/11/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	26.28	34.94	36.52	31.18
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.12	19.52	19.11	20.68
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	0.26	0.57	1.13	0.49
C29 tricyclictriterpane (T9)	0.11 J	0.22	0.31	0.15
C29 tricyclictriterpane (T10)	ND	0.17	0.29	0.13
18a(H)-22,29,30-trisnorneohopane -TS (T11	0.39	0.83	1.13	1.00
17a(H)-22,29,30-trisnorhopane -TM (T12)	0.86	1.62	2.53	2.71
17a(H),21b(H)-30-norhopane (T15)	1.42	3.37	5.03	5.54
18a(H)-oleanane (T18)	ND	0.31	ND	0.50
17a(H),21b(H)-hopane (T19)	2.66	5.29	7.77	9.18
22S-17a(H),21,b(H)-30-homohopane (T21)	1.23	2.26	3.57	4.30
22R-17a(H),21b(H)-30-homohopane (T22)	4.41	3.25	4.76	4.92
13b,17a-diacholestane-20S (S4)	0.50	0.98	1.56	1.30
13b,17a-diacholestane-20R (S5)	0.24	0.51	0.80	0.77
5a,14a,17a,24-methylcholestane -20R (S24)	0.74	1.56	2.44	1.50
5a,14a,17a,24-ethylcholestane-20S (S25)	0.45	0.78	1.22	1.76
5a,14a,17a,24-20R-ethylcholestane (S28)	2.12	3.71	4.92	4.94
S28a	4.90	9.57	8.70	9.77
Surrogate Recoveries (%)				
5b(H)-Cholane	94	94	108	90

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-4B-01-PHC-S	04-L08-01-PHC-S	04-5(0)-01-PHC-S
Battelle ID	S3903-P	S3904-P	S3905-P
Sample Type	SA	SA	SA
Collection Date	08/03/04	08/02/04	08/03/04
Extraction Date	11/18/04	11/18/04	11/18/04
Analysis Date	12/11/04	12/11/04	12/11/04
Analytical Instrument	MS	MS	MS
% Moisture	21.37	40.37	27.14
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.59	17.98	22.25
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	0.13	2.13	0.24
C29 tricyclictriterpane (T9)	ND	0.81	0.11 J
C29 tricyclictriterpane (T10) J	ND	0.77	ND
18a(H)-22,29,30-trisnorneohopane -TS (T11	ND	2.33	0.44
17a(H)-22,29,30-trisnorhopane -TM (T12)	0.26	3.50	0.66
17a(H),21b(H)-30-norhopane (T15)	0.60	9.43	1.65
18a(H)-oleanane (T18)	ND	0.81	0.22
17a(H),21b(H)-hopane (T19)	0.97	13.03	2.47
22S-17a(H),21,b(H)-30-homohopane (T21)	0.44	5.75	1.01
22R-17a(H),21b(H)-30-homohopane (T22)	0.79	7.55	1.90
13b,17a-diacholestane-20S (S4)	ND	3.87	0.53
13b,17a-diacholestane-20R (S5)	0.12	2.34	0.28
5a,14a,17a,24-methylcholestane -20R (S24)	0.27	4.92	0.66
5a,14a,17a,24-ethylcholestane-20S (S25)	0.19	3.65	0.37
5a,14a,17a,24-20R-ethylcholestane (S28)	0.65	8.40	1.63
S28a	1.30	19.07	5.54
Surrogate Recoveries (%)			
5b(H)-Cholane	101	100	95

*The data presented for sample S4115-P1 is

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Project Number: G004974-DUXLAB

Client ID	04-N02-01-PHC-S	04-5F-01-PHC-S	04-N16-01-PHC-S	04-5D-01-PHC-S
Battelle ID	S4088-P	S4089-P	S4090-P	S4091-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/09/04	08/07/04	08/08/04
Extraction Date	11/18/04	11/18/04	12/14/04	12/14/04
Analysis Date	12/11/04	12/11/04	12/26/04	12/26/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	39	35.33	41.22	51.9
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	18.60	19.41	16.69	14.73
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	0.52	0.64	1.27	0.62
C29 tricyclictriterpane (T9)	ND	0.20	0.44	0.23
C29 tricyclictriterpane (T10)	ND	0.21	0.46	0.16
18a(H)-22,29,30-trisnorneohopane -TS (T11	0.76	1.09	2.29	0.80
17a(H)-22,29,30-trisnorhopane -TM (T12)	1.87	3.27	4.25	2.58
17a(H),21b(H)-30-norhopane (T15)	3.98	6.41	8.82	4.67
18a(H)-oleanane (T18)	ND	ND	1.00	
17a(H),21b(H)-hopane (T19)	4.76	9.50	15.03	6.67
22S-17a(H),21,b(H)-30-homohopane (T21)	2.18	3.45	5.20	2.56
22R-17a(H),21b(H)-30-homohopane (T22)	4.56	17.88	8.64	13.84
13b,17a-diacholestane-20S (S4)	0.78	0.97	2.38	0.87
13b,17a-diacholestane-20R (S5)	0.58	0.65	1.59	0.67
5a,14a,17a,24-methylcholestane -20R (S24)	1.58	3.39	3.23	1.40
5a,14a,17a,24-ethylcholestane-20S (S25)	1.14	2.30	1.87	1.08
5a,14a,17a,24-20R-ethylcholestane (S28)	4.39	10.56	7.98	5.18
S28a	8.20	30.14	34.17	48.28
Surrogate Recoveries (%)				
5b(H)-Cholane	38 N	87	87	99

*The data presented for sample S4115-P1 is

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Client ID		04-5(10)-01-PHC-S		04-N6-01-PHC-S		04-N6-02-PHC-S
Battelle ID		S4092-P		S4093-P		S4094-P
Sample Type		SA		SA		SA
Collection Date		08/08/04		08/07/04		08/07/04
Extraction Date		12/14/04		12/14/04		12/14/04
Analysis Date		12/26/04		12/26/04		12/25/04
Analytical Instrument		MS		MS		MS
% Moisture		26.52		39.52		45.93
% Lipid		NA		NA		NA
Matrix		SEDIMENT		SEDIMENT		SEDIMENT
Sample Size		21.36		18.20		16.16
Size Unit-Basis		G_DRY		G_DRY		G_DRY
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY
C23 diterpane (T4)		0.19	J	1.10		1.20
C29 tricyclictriterpane (T9)	J		ND	0.36		0.43
C29 tricyclictriterpane (T10)	J		ND	0.30	J	0.39
18a(H)-22,29,30-trisnorneohopane -TS (T11			ND	1.25		1.52
17a(H)-22,29,30-trisnorhopane -TM (T12)		0.67		3.60		3.84
17a(H),21b(H)-30-norhopane (T15)		1.03		7.21		7.87
18a(H)-oleanane (T18)	ND		ND	0.51		0.57
17a(H),21b(H)-hopane (T19)		1.90		12.27		12.20
22S-17a(H),21,b(H)-30-homohopane (T21)		0.87		5.21		5.40
22R-17a(H),21b(H)-30-homohopane (T22)		4.01		9.85		9.05
13b,17a-diacholestane-20S (S4)		0.36		1.69		1.86
13b,17a-diacholestane-20R (S5)		0.17		1.06		1.20
5a,14a,17a,24-methylcholestane -20R (S24)		0.48		3.37		3.51
5a,14a,17a,24-ethylcholestane-20S (S25)		0.34		2.57		2.20
5a,14a,17a,24-20R-ethylcholestane (S28)		1.10		10.74		9.31
S28a		14.97		21.60		20.25
Surrogate Recoveries (%)						
5b(H)-Cholane		100		95		93

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Client ID	04-N6-03-PHC-S	04-N05-01-PHC-S	04-N12-01-PHC-S	04-N11-01-PHC-S
Battelle ID	S4095-P	S4096-P	S4097-P	S4098-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/07/04	08/06/04	08/06/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/25/04	12/25/04	12/25/04	12/25/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	43.05	39.27	21.09	16.95
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	16.70	18.40	23.55	25.43
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	1.02	0.68	0.28	0.13
C29 tricyclictriterpane (T9)	0.41	0.20 J	0.10 J	
C29 tricyclictriterpane (T10)	0.31 J	0.20 J	0.09 J	
18a(H)-22,29,30-trisnorneohopane -TS (T11	1.07	0.64	0.42	0.15
17a(H)-22,29,30-trisnorhopane -TM (T12)	3.63	2.32	0.96	0.29
17a(H),21b(H)-30-norhopane (T15)	7.70	5.93	2.52	0.74
18a(H)-oleanane (T18)	0.44	0.39	ND	
17a(H),21b(H)-hopane (T19)	11.26	7.45	3.11	0.99
22S-17a(H),21,b(H)-30-homohopane (T21)	4.79	3.19	1.22	0.46
22R-17a(H),21b(H)-30-homohopane (T22)	8.75	6.60	3.07	1.03
13b,17a-diacholestane-20S (S4)	1.53	1.05	0.43	0.18
13b,17a-diacholestane-20R (S5)	0.97	0.73	0.27	0.12
5a,14a,17a,24-methylcholestane -20R (S24)	3.22	2.16	0.77	0.27
5a,14a,17a,24-ethylcholestane-20S (S25)	2.11	1.29	0.58	0.18
5a,14a,17a,24-20R-ethylcholestane (S28)	8.91	5.87	2.53	0.83
S28a	22.96	13.32	7.34	2.09
Surrogate Recoveries (%)				
5b(H)-Cholane	96	97	103	100

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Project Number: G004974-DUXLAB

Client ID		04-N20-01-PHC-S		04-N17-01-PHC-S	04-N23-01-PHC-S
Battelle ID		S4099-P		S4100-P	S4101-P
Sample Type		SA		SA	SA
Collection Date		08/06/04		08/06/04	08/06/04
Extraction Date		12/14/04		12/14/04	12/14/04
Analysis Date		12/25/04		12/25/04	12/25/04
Analytical Instrument		MS		MS	MS
% Moisture		24.28		45.37	41.74
% Lipid		NA		NA	NA
Matrix		SEDIMENT		SEDIMENT	SEDIMENT
Sample Size		22.49		16.50	17.03
Size Unit-Basis		G_DRY		G_DRY	G_DRY
Units		UG/KG_DRY		UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	J	0.39		1.55	1.24
C29 tricyclictriterpane (T9)	ND	0.11	J	0.49	0.49
C29 tricyclictriterpane (T10)	ND	0.11	J	0.51	0.37
18a(H)-22,29,30-trisnorneohopane -TS (T11	J	0.37		1.81	1.42
17a(H)-22,29,30-trisnorhopane -TM (T12)		1.71		4.54	4.32
17a(H),21b(H)-30-norhopane (T15)		3.37		11.59	11.83
18a(H)-oleanane (T18)	ND		ND	0.88	0.47
17a(H),21b(H)-hopane (T19)		4.71		15.87	13.44
22S-17a(H),21,b(H)-30-homohopane (T21)		1.98		6.33	5.72
22R-17a(H),21b(H)-30-homohopane (T22)		5.31		9.06	10.74
13b,17a-diacholestane-20S (S4)		0.56		2.38	1.88
13b,17a-diacholestane-20R (S5)		0.38		1.47	1.22
5a,14a,17a,24-methylcholestane -20R (S24)		1.50		4.22	3.70
5a,14a,17a,24-ethylcholestane-20S (S25)		1.29		2.21	2.38
5a,14a,17a,24-20R-ethylcholestane (S28)		5.61		9.21	10.00
S28a		13.03		28.34	31.70
Surrogate Recoveries (%)					
5b(H)-Cholane		95		93	101

*The data presented for sample S4115-P1 is

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Project Number: G004974-DUXLAB

Client ID	04-N10-01-PHC-S	04-N19-01-PHC-S	04-N03-01-PHC-S	04-N01-01-PHC-S
Battelle ID	S4102-P	S4103-P	S4110-P	S4111-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/07/04	08/08/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/25/04	12/25/04	12/26/04	12/26/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	49.56	31.66	55.73	24.67
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	15.14	21.62	13.03	22.45
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
C23 diterpane (T4)	1.30	0.46	2.07	0.17
C29 tricyclictriterpane (T9)	0.40	0.14 J	0.62	
C29 tricyclictriterpane (T10)	0.33 J	0.14 J	0.64	
18a(H)-22,29,30-trisnorneohopane -TS (T11	1.58	0.64	2.25	0.24
17a(H)-22,29,30-trisnorhopane -TM (T12)	3.98	1.45	5.46	0.40
17a(H),21b(H)-30-norhopane (T15)	10.91	3.41	12.91	0.82
18a(H)-oleanane (T18)	1.00	0.26 J	0.59	
17a(H),21b(H)-hopane (T19)	12.62	4.54	17.59	1.20
22S-17a(H),21,b(H)-30-homohopane (T21)	5.34	1.87	7.65	0.60
22R-17a(H),21b(H)-30-homohopane (T22)	9.67	4.14	11.46	0.87
13b,17a-diacholestane-20S (S4)	2.08	0.78	2.59	0.25
13b,17a-diacholestane-20R (S5)	1.21	0.44	1.84	0.12
5a,14a,17a,24-methylcholestane -20R (S24)	3.32	1.39	5.10	0.38
5a,14a,17a,24-ethylcholestane-20S (S25)	2.09	0.75	2.65	0.19
5a,14a,17a,24-20R-ethylcholestane (S28)	9.14	3.25	11.24	0.87
S28a	35.01	7.20	24.50	1.35
Surrogate Recoveries (%)				
5b(H)-Cholane	98	102	97	100

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
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Project Number: G004974-DUXLAB

Client ID		04-N21-01-PHC-S		04-5B-01-PHC-S		04-5(5A)-01-PHC-S	
Battelle ID		S4112-P		S4113-P		S4114-P	
Sample Type		SA		SA		SA	
Collection Date		08/09/04		08/09/04		08/08/04	
Extraction Date		12/14/04		12/14/04		12/14/04	
Analysis Date		12/26/04		12/26/04		12/26/04	
Analytical Instrument		MS		MS		MS	
% Moisture		30.86		22.48		26.86	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		21.10		24.19		22.86	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
C23 diterpane (T4)	J	0.28		ND		0.31	
C29 tricyclictriterpane (T9)	ND	0.12	J	ND		0.10	J
C29 tricyclictriterpane (T10)	ND	0.11	J	ND		0.12	J
18a(H)-22,29,30-trisnorneohopane -TS (T11	J	0.66		ND		0.38	
17a(H)-22,29,30-trisnorhopane -TM (T12)		1.23		0.16	J	1.41	
17a(H),21b(H)-30-norhopane (T15)		2.04		0.28		1.98	
18a(H)-oleanane (T18)	ND	ND		ND		ND	
17a(H),21b(H)-hopane (T19)		3.87		0.39		3.84	
22S-17a(H),21,b(H)-30-homohopane (T21)		1.53		0.23	J	1.53	
22R-17a(H),21b(H)-30-homohopane (T22)		5.10		0.21	J	8.16	
13b,17a-diacholestane-20S (S4)		0.65		ND		0.51	
13b,17a-diacholestane-20R (S5)	J	0.42		ND		0.32	
5a,14a,17a,24-methylcholestane -20R (S24)		1.01		0.09	J	0.94	
5a,14a,17a,24-ethylcholestane-20S (S25)		0.82		ND		0.58	
5a,14a,17a,24-20R-ethylcholestane (S28)		3.25		0.18		2.72	
S28a		10.31		0.28		11.82	
Surrogate Recoveries (%)							
5b(H)-Cholane		90		102		103	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
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Project Number: G004974-DUXLAB

Client ID	04-N13-01-PHC-S	
Battelle ID	S4115-P*	
Sample Type	SA	
Collection Date	08/09/04	
Extraction Date	01/18/05	
Analysis Date	01/29/05	
Analytical Instrument	MS	
% Moisture	43.65	
% Lipid	NA	
Matrix	SEDIMENT	
Sample Size	17.06	
Size Unit-Basis	G_DRY	
Units	UG/KG_DRY	
C23 diterpane (T4)	0.42	B
C29 tricyclictriterpane (T9)	0.17	J
C29 tricyclictriterpane (T10)	0.22	J
18a(H)-22,29,30-trisnorneohopane -TS (T11		ND
17a(H)-22,29,30-trisnorhopane -TM (T12)	2.03	B
17a(H),21b(H)-30-norhopane (T15)	3.71	B
18a(H)-oleanane (T18)		ND
17a(H),21b(H)-hopane (T19)	5.96	B
22S-17a(H),21,b(H)-30-homohopane (T21)	2.29	B
22R-17a(H),21b(H)-30-homohopane (T22)	8.95	
13b,17a-diacholestane-20S (S4)		ND
13b,17a-diacholestane-20R (S5)	0.71	B
5a,14a,17a,24-methylcholestane -20R (S24)	2.13	
5a,14a,17a,24-ethylcholestane-20S (S25)	1.75	
5a,14a,17a,24-20R-ethylcholestane (S28)	6.39	
S28a	33.69	

Surrogate Recoveries (%)

5b(H)-Cholane	94

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	
Battelle ID	
Sample Type	
Collection Date	
Extraction Date	
Analysis Date	
Analytical Instrument	
% Moisture	
% Lipid	
Matrix	
Sample Size	
Size Unit-Basis	
Units	
C23 diterpane (T4)	
C29 tricyclictriterpane (T9)	
C29 tricyclictriterpane (T10)	
18a(H)-22,29,30-trisnorneohopane -TS (T11	
17a(H)-22,29,30-trisnorhopane -TM (T12)	
17a(H),21b(H)-30-norhopane (T15)	
18a(H)-oleanane (T18)	
17a(H),21b(H)-hopane (T19)	
22S-17a(H),21,b(H)-30-homohopane (T21)	
22R-17a(H),21b(H)-30-homohopane (T22)	
13b,17a-diacholestane-20S (S4)	
13b,17a-diacholestane-20R (S5)	
5a,14a,17a,24-methylcholestane -20R (S24)	
5a,14a,17a,24-ethylcholestane-20S (S25)	
5a,14a,17a,24-20R-ethylcholestane (S28)	
S28a	
Surrogate Recoveries (%)	
5b(H)-Cholane	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-4C-01-PHC-S		04-5E-01-PHC-S		04-N04-01-PHC-S		04-5A-01-PHC-S	
Battelle Sample ID	S3902-P1		S4117-P		S4118-P		S4119-P	
Sample Type	SA		SA		SA		SA	
Collection Date	08/03/04		08/09/04		08/09/04		08/09/04	
Extraction Date	12/20/04		12/20/04		12/20/04		12/20/04	
Analysis Date	01/08/05		01/08/05		01/08/05		01/08/05	
Analytical Instrument	MS		MS		MS		MS	
% Moisture	20.99		26.65		36.72		38.77	
% Lipid	NA		NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	23.71		23.12		19.77		18.81	
Size Unit-Basis	G_DRY		G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	1.43	B	3.42	B	9.04		8.71	
C1-Naphthalenes	3.15	B	8.02		20.99		21.48	
C2-Naphthalenes	6.7	B	13.09		31.09		32.08	
C3-Naphthalenes	5.71		10.82		25.11		25.14	
C4-Naphthalenes	2.64	B	6.71		15.22		15.25	
Acenaphthene	0.08	J	0.37		0.75		0.77	
Acenaphthylene	ND		ND		ND			
Biphenyl	0.8	B	2.17		6.17		6	
Fluorene	0.44		1.37		3.71		3.54	
C1-Fluorenes	0.67	B	2.97		7.43		7.33	
C2-Fluorenes	0.63		3.95		9.95		9.57	
C3-Fluorenes	ND		5.07		11.28		11.33	
Dibenzothiophene	0.31		1.34		3.33		3.22	
C1-Dibenzothiophenes	0.41		2.46		6.99		6.86	
C2-Dibenzothiophenes	0.48		3.58		8.74		8.53	
C3-Dibenzothiophenes	0.4		2.83		6.78		6.53	
Phenanthrene	1.26		7.87		21.6		22.48	
Anthracene	0.07	J	0.28		0.63		0.63	
C1-Phenanthrenes/Anthracenes	1.75		12.86		35.32		36.22	
C2-Phenanthrenes/Anthracenes	1.58		11.32		30.16		31.07	
C3-Phenanthrenes/Anthracenes	0.93		7.52		19.05		20.41	
C4-Phenanthrenes/Anthracenes	0.55		4.77		12.8		13.21	
Fluoranthene	0.26		1.99		4.33		4.71	
Pyrene	0.42		3.15		6.8		7.47	
C1-Fluoranthenes/Pyrenes	0.79		7.16		16.99		17.8	
C2-Fluoranthenes/Pyrenes	0.81		7.23		16.52		16.84	
C3-Fluoranthenes/Pyrenes	0.79		5.69		13.16		14.48	
Benzo(a)anthracene	0.13		0.85		1.91		2.14	
Chrysene	0.73		5.46		12.58		13.07	
C1-Chrysenes	0.69		5.9		13.84		14.45	
C2-Chrysenes	0.61		5.06		12.18		13.12	
C3-Chrysenes	ND		3.34		7.91		8.59	
C4-Chrysenes	ND		2.57		5.39		5.15	
Benzo(b)fluoranthene	0.4		3		6.67		6.66	
Benzo(k)fluoranthene	0.15	J	0.75		1.5		1.57	
Benzo(a)pyrene	0.12		0.77		1.71		1.67	
Benzo(e)pyrene	0.52		4.07		8.95		9.14	
Perylene	3.2		18.26		63.85		65.72	
Indeno(1,2,3-cd)pyrene	0.14		0.86		1.58		1.65	
Dibenz(a,h)anthracene	0.09	J	0.5		1.13		1.06	
Benzo(g,h,i)perylene	0.43		3.27		6.76		6.85	
Surrogate Recoveries (%)								
Naphthalene-d8	64		56		63		67	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-4C-01-PHC-S	04-5E-01-PHC-S	04-N04-01-PHC-S	04-5A-01-PHC-S
Battelle Sample ID	S3902-P1	S4117-P	S4118-P	S4119-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/04	08/09/04	08/09/04	08/09/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date	01/08/05	01/08/05	01/08/05	01/08/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	20.99	26.65	36.72	38.77
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.71	23.12	19.77	18.81
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	71	73	76	78
Phenanthrene-d10	76	82	81	81
Benzo(a)pyrene-d12	77	96	84	88

*The data presented for sample S4115-P1 is from a re-extracted aliquot. The original sample appeared to not have been spiked with SIS compounds was was later r

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-N15-01-PHC-S		04-N7-01-PHC-S		04-N8-01-PHC-S	
Battelle Sample ID		S4120-P		S4121-P		S4122-P	
Sample Type		SA		SA		SA	
Collection Date		08/09/04		08/06/04		08/06/04	
Extraction Date		12/20/04		12/20/04		12/20/04	
Analysis Date		01/08/05		01/08/05		01/08/05	
Analytical Instrument		MS		MS		MS	
% Moisture		9.17		29.57		48.14	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		28.04		21.74		15.50	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	B	1.67	B	4.15	B	0.53	B
C1-Naphthalenes		1.09	B	8.71		0.59	B
C2-Naphthalenes		0.97	B	12.65		0.69	B
C3-Naphthalenes		0.8	B	10.2		0.67	B
C4-Naphthalenes		0.44	B	6.03		0.47	B
Acenaphthene		0.03	J	0.33			ND
Acenaphthylene	ND		ND		ND		ND
Biphenyl		0.24	B	2.43		0.22	B
Fluorene		0.08	J	1.39		0.08	J
C1-Fluorenes		0.18	B	2.65		0.2	B
C2-Fluorenes		0.22		3.51		0.64	
C3-Fluorenes			ND	4.64		0.93	
Dibenzothiophene		0.08	J	1.3		0.15	J
C1-Dibenzothiophenes		0.17		2.26		0.25	
C2-Dibenzothiophenes		0.25		3.77		0.33	
C3-Dibenzothiophenes		0.17	ME	2.75	ME	0.33	
Phenanthrene		0.35	B	8.15		0.85	
Anthracene			ND	0.24		0.02	J
C1-Phenanthrenes/Anthracenes		0.61		13.36		0.92	
C2-Phenanthrenes/Anthracenes		0.66		11.81		0.72	
C3-Phenanthrenes/Anthracenes		0.44		7.4		0.5	
C4-Phenanthrenes/Anthracenes		0.48		4.92			ND
Fluoranthene		0.12		1.7		0.26	
Pyrene		0.19		2.62		0.38	
C1-Fluoranthenes/Pyrenes		0.33		6.28		0.73	
C2-Fluoranthenes/Pyrenes		0.29		5.77		1.46	
C3-Fluoranthenes/Pyrenes			ND	4.36		1.16	
Benzo(a)anthracene		0.04	J	0.73		0.13	J
Chrysene		0.59		4.92		1.1	
C1-Chrysenes		0.33		5.2		0.86	
C2-Chrysenes		0.34		4.45		0.56	
C3-Chrysenes			ND	2.86			ND
C4-Chrysenes			ND	1.46			ND
Benzo(b)fluoranthene		0.15		2.35		0.72	
Benzo(k)fluoranthene		0.06	J	0.52		0.22	J
Benzo(a)pyrene		0.03	J	0.55		0.18	
Benzo(e)pyrene		0.17		3.26		1.13	
Perylene		1.33		21.71		8.41	
Indeno(1,2,3-cd)pyrene		0.04	J	0.56		0.25	
Dibenz(a,h)anthracene		0.03	J	0.34		0.13	J
Benzo(g,h,i)perylene		0.1		2.28		1.06	
Surrogate Recoveries (%)							
Naphthalene-d8		49		63		1	N

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N15-01-PHC-S	04-N7-01-PHC-S	04-N8-01-PHC-S	
Battelle Sample ID	S4120-P	S4121-P	S4122-P	
Sample Type	SA	SA	SA	
Collection Date	08/09/04	08/06/04	08/06/04	
Extraction Date	12/20/04	12/20/04	12/20/04	
Analysis Date	01/08/05	01/08/05	01/08/05	
Analytical Instrument	MS	MS	MS	
% Moisture	9.17	29.57	48.14	
% Lipid	NA	NA	NA	
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	
Sample Size	28.04	21.74	15.50	
Size Unit-Basis	G_DRY	G_DRY	G_DRY	
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	
Acenaphthene-d10	67	77	1	N
Phenanthrene-d10	75	82	3	N
Benzo(a)pyrene-d12	89	90	7	N

*The data presented for sample S4115-P1 ise-extracted with B05-0010 using a soxhlet method.

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N9-01-PHC-S	04-N18-01-PHC-S	04-L01A-01-PHC-S	04-5(1)-01-PHC-S
Battelle Sample ID	S4123-P	S4124-P	S4389-P	S4390-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/11/04	08/05/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date	01/08/05	01/08/05	01/09/05	01/09/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	29.62	33.37	36.66	16.4
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.78	20.04	19.63	25.90
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	3.76 B	10.52	8.98 B	1.66
C1-Naphthalenes	7.88	24.5	20.38	1.57
C2-Naphthalenes	11.55	35.49	30.23	1.95
C3-Naphthalenes	9.39	27.73	23.67	1.43
C4-Naphthalenes	5.87	16.33	13.65	0.84
Acenaphthene	0.33	0.76	0.74	0.04
Acenaphthylene	ND	ND	ND	
Biphenyl	2.54	5.78	5.91	0.39
Fluorene	1.38	3.62	3.64	0.21
C1-Fluorenes	2.8	7.13	6.83	0.37
C2-Fluorenes	3.44	9.14	8.53	0.45
C3-Fluorenes	4.22	10.65	9.71	
Dibenzothiophene	1.3	3.16	2.87	0.15
C1-Dibenzothiophenes	2.3	7.15	5.26	0.26
C2-Dibenzothiophenes	3.44	8.34	6.99	0.45
C3-Dibenzothiophenes	3.09	6.61	5.73	0.36
Phenanthrene	7.91	20.3	19.04	0.81
Anthracene	0.28	0.52	0.54	0.03
C1-Phenanthrenes/Anthracenes	12.81	32.45	30.24	1.28
C2-Phenanthrenes/Anthracenes	11.26	27.46	26.52	1.33
C3-Phenanthrenes/Anthracenes	7.14	18.56	16.44	0.81
C4-Phenanthrenes/Anthracenes	4.23	14.91	9.84	0.48
Fluoranthene	1.58	4.32	3.66	0.18
Pyrene	2.54	6.51	6.05	0.31
C1-Fluoranthenes/Pyrenes	5.8	17.05	14.48	0.75
C2-Fluoranthenes/Pyrenes	5.7	15.9	14.29	0.74
C3-Fluoranthenes/Pyrenes	4.3	12.23	11	0.59
Benzo(a)anthracene	0.63	2.07	1.79	0.08
Chrysene	4.58	10.95	11.56	0.54
C1-Chrysenes	5.02	12.3	12.65	0.67
C2-Chrysenes	4.16	10.3	10.92	0.64
C3-Chrysenes	2.62	7.26	6.88	
C4-Chrysenes	ND	3.92	4.61	
Benzo(b)fluoranthene	2.21	5.79	6.13	0.27
Benzo(k)fluoranthene	0.47	1.42	1.4	0.07
Benzo(a)pyrene	0.5	1.7	1.58	0.06
Benzo(e)pyrene	3.14	7.33	8.52	0.37
Perylene	20.51	51.95	54.78	2.5
Indeno(1,2,3-cd)pyrene	0.56	1.47	1.57	0.08
Dibenz(a,h)anthracene	0.34	0.92	1.03	0.05
Benzo(g,h,i)perylene	2.28	5.61	6.21	0.28
Surrogate Recoveries (%)				
Naphthalene-d8	61	64	55	57

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N9-01-PHC-S	04-N18-01-PHC-S	04-L01A-01-PHC-S	04-5(1)-01-PHC-S
Battelle Sample ID	S4123-P	S4124-P	S4389-P	S4390-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/11/04	08/05/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date	01/08/05	01/08/05	01/09/05	01/09/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	29.62	33.37	36.66	16.4
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.78	20.04	19.63	25.90
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	74	79	68	74
Phenanthrene-d10	79	84	71	80
Benzo(a)pyrene-d12	83	94	70	88

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-N14-01-PHC-S	Kuparuk	ANS PS1
Battelle Sample ID		S4391-P	S6872-P	S6873-P
Sample Type		SA	SA	SA
Collection Date		08/09/04	01/26/05	01/26/05
Extraction Date		12/20/04	01/26/05	01/26/05
Analysis Date		01/09/05	01/30/05	01/30/05
Analytical Instrument		MS	MS	MS
% Moisture		37.03	NA	NA
% Lipid		NA	NA	NA
Matrix		SEDIMENT	NAPL	NAPL
Sample Size		19.56	54.40	54.30
Size Unit-Basis		G_DRY	MG_OIL	MG_OIL
Units		UG/KG_DRY	UG/KG_OIL	UG/KG_OIL
Naphthalene	B	14.82	687.26	510.93
C1-Naphthalenes	B	29.13	1252.12	963.22
C2-Naphthalenes	B	41.66	1645.89	1161.12
C3-Naphthalenes	B	34.48	1229.6	805.98
C4-Naphthalenes	B	21.65	753.66	443.31
Acenaphthene	J	0.93	15.32	12.95
Acenaphthylene	ND	ND	U	U
Biphenyl	B	7.36	135.05	122.53
Fluorene	B	4.26	64.56	61.18
C1-Fluorenes	B	8.85	177.02	131.46
C2-Fluorenes		12.35	324.7	196.3
C3-Fluorenes	ND	14.58	298.81	170
Dibenzothiophene	B	3.89	187.56	118.29
C1-Dibenzothiophenes		10.01	419.93	230.47
C2-Dibenzothiophenes		14.19	684.06	301.48
C3-Dibenzothiophenes		11.09	678.72	244.72
Phenanthrene		26.38	260.55	174.99
Anthracene	J	0.47	U	U
C1-Phenanthrenes/Anthracenes		44.16	519.18	345.31
C2-Phenanthrenes/Anthracenes		39.02	589.28	364.15
C3-Phenanthrenes/Anthracenes		27.17	444.17	242.54
C4-Phenanthrenes/Anthracenes		21.84	178.1	97.19
Fluoranthene		6.4	5.65	4.09
Pyrene		8.96	16.67	11.57
C1-Fluoranthenes/Pyrenes		23.15	86.16	58.16
C2-Fluoranthenes/Pyrenes		21.31	116.7	80.05
C3-Fluoranthenes/Pyrenes		16.28	139.13	86.96
Benzo(a)anthracene	J	2.85	5.59	3.44
Chrysene		14.93	50.23	35.21
C1-Chrysenes		16.84	89.61	56.55
C2-Chrysenes		16	114.73	68.14
C3-Chrysenes	ND	10.75	108.41	54.03
C4-Chrysenes	ND	5.55	67.27	38.88
Benzo(b)fluoranthene		7.63	6.44	4.12
Benzo(k)fluoranthene	J	1.99	U	U
Benzo(a)pyrene	J	2.43	2.46	0.91 J
Benzo(e)pyrene		8.78	9.73	7.62
Perylene		84.95	9.75	2.34
Indeno(1,2,3-cd)pyrene	J	2.11	U	U
Dibenz(a,h)anthracene	J	1.18	2.48	U
Benzo(g,h,i)perylene		6.54	4.58	2.77
Surrogate Recoveries (%)				
Naphthalene-d8		58	82	82

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N14-01-PHC-S	Kuparuk	ANS PS1
Battelle Sample ID	S4391-P	S6872-P	S6873-P
Sample Type	SA	SA	SA
Collection Date	08/09/04	01/26/05	01/26/05
Extraction Date	12/20/04	01/26/05	01/26/05
Analysis Date	01/09/05	01/30/05	01/30/05
Analytical Instrument	MS	MS	MS
% Moisture	37.03	NA	NA
% Lipid	NA	NA	NA
Matrix	SEDIMENT	NAPL	NAPL
Sample Size	19.56	54.40	54.30
Size Unit-Basis	G_DRY	MG_OIL	MG_OIL
Units	UG/KG_DRY	UG/KG_OIL	UG/KG_OIL
Acenaphthene-d10	72	86	87
Phenanthrene-d10	78	79	77
Benzo(a)pyrene-d12	92	87	82

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	North Star	Endicott	04-L18-01-PHC-S	04-L17-01-PHC-S
Battelle Sample ID	S6874-P	S6875-P	S3888-P	S3889-P
Sample Type	SA	SA	SA	SA
Collection Date	01/26/05	01/26/05	08/03/04	08/03/04
Extraction Date	01/26/05	01/26/05	11/18/04	11/18/04
Analysis Date	01/30/05	01/30/05	12/08/04	12/09/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	NA	NA	45.04	30.18
% Lipid	NA	NA	NA	NA
Matrix	NAPL	NAPL	SEDIMENT	SEDIMENT
Sample Size	50.40	52.80	16.66	21.14
Size Unit-Basis	MG_OIL	MG_OIL	G_DRY	G_DRY
Units	UG/KG_OIL	UG/KG_OIL	UG/KG_DRY	UG/KG_DRY
Naphthalene	1505.54	1548.95	19.13	6.13
C1-Naphthalenes	2997.56	2745.85	46.24	14.33
C2-Naphthalenes	3551.56	2926.05	67.09	19.67
C3-Naphthalenes	2260.99	1875.11	55.71	15.07
C4-Naphthalenes	1081.2	999.14	29.72	8.45
Acenaphthene	33.09	23.43	1.52	0.51
Acenaphthylene	U	U	ND	
Biphenyl	494.59	437.2	12.1	4.25
Fluorene	213.94	167.63	9.29	2.62
C1-Fluorenes	366.28	355.92	15.65	4
C2-Fluorenes	445.84	501.67	19.07	4.51
C3-Fluorenes	337.91	418.53	15.15	3.86
Dibenzothiophene	135.26	475.91	5.6	2.03
C1-Dibenzothiophenes	269.56	808.7	12.03	3.12
C2-Dibenzothiophenes	283.76	908.28	14.76	4.44
C3-Dibenzothiophenes	171.34	710.73	9.23	3.01
Phenanthrene	504.42	503.91	42.57	13.55
Anthracene	U	U	1.25	0.42
C1-Phenanthrenes/Anthracenes	947.17	979.28	75	21.65
C2-Phenanthrenes/Anthracenes	930.35	973.53	55.14	15.79
C3-Phenanthrenes/Anthracenes	568.92	643.66	31.69	8.75
C4-Phenanthrenes/Anthracenes	202.35	241.33	19.49	5.36
Fluoranthene	9.3	7.98	7.68	2.55
Pyrene	31.89	26.31	11.47	3.98
C1-Fluoranthenes/Pyrenes	140.01	176.28	32.72	9.55
C2-Fluoranthenes/Pyrenes	190.79	250.77	29.22	8.29
C3-Fluoranthenes/Pyrenes	186.25	266.35	21.16	6.35
Benzo(a)anthracene	7.72	6.73	3.44	1.04
Chrysene	81.49	113.07	21.73	7.01
C1-Chrysenes	137.48	176.85	24.27	7.09
C2-Chrysenes	167.99	194.45	19.91	5.58
C3-Chrysenes	142.58	167.34	13.76	3.86
C4-Chrysenes	89.74	115.18	7.46	2.98
Benzo(b)fluoranthene	7.01	15.48	9.77	3.28
Benzo(k)fluoranthene	U	U	1.84	0.76
Benzo(a)pyrene	1.99	1.7	2.44	0.8
Benzo(e)pyrene	20.71	28.24	13.2	4.53
Perylene	U	U	94.41	34.75
Indeno(1,2,3-cd)pyrene	U	U	2.32	0.86
Dibenz(a,h)anthracene	1.71	2.83	1.63	0.52
Benzo(g,h,i)perylene	2.33	9.23	8.78	3.37
Surrogate Recoveries (%)				
Naphthalene-d8	80	82	50	50

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	North Star	Endicott	04-L18-01-PHC-S	04-L17-01-PHC-S
Battelle Sample ID	S6874-P	S6875-P	S3888-P	S3889-P
Sample Type	SA	SA	SA	SA
Collection Date	01/26/05	01/26/05	08/03/04	08/03/04
Extraction Date	01/26/05	01/26/05	11/18/04	11/18/04
Analysis Date	01/30/05	01/30/05	12/08/04	12/09/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	NA	NA	45.04	30.18
% Lipid	NA	NA	NA	NA
Matrix	NAPL	NAPL	SEDIMENT	SEDIMENT
Sample Size	50.40	52.80	16.66	21.14
Size Unit-Basis	MG_OIL	MG_OIL	G_DRY	G_DRY
Units	UG/KG_OIL	UG/KG_OIL	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	89	92	63	61
Phenanthrene-d10	75	78	72	66
Benzo(a)pyrene-d12	81	88	84	76

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-L09-01-PHC-S		04-L07-01-PHC-S		04-L01-01-PHC-S	
Battelle Sample ID		S3890-P		S3891-P		S3892-P	
Sample Type		SA		SA		SA	
Collection Date		08/02/04		08/02/04		08/02/04	
Extraction Date		11/18/04		11/18/04		11/18/04	
Analysis Date		12/09/04		12/09/04		12/09/04	
Analytical Instrument		MS		MS		MS	
% Moisture		31.79		45.46		24.26	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		20.76		16.39		22.72	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		8.71		21.34		2.9	B
C1-Naphthalenes		19.9		49.03		5.2	
C2-Naphthalenes		29.39		71.89		7.03	
C3-Naphthalenes		24.17		60.04		5.9	
C4-Naphthalenes		13.28		33.42		3.41	
Acenaphthene		0.78		1.92		0.2	B
Acenaphthylene	ND		ND		ND		ND
Biphenyl		6.24		13.31		1.77	B
Fluorene		4.13		9.7		0.99	
C1-Fluorenes		7.3		15.59		2.23	
C2-Fluorenes		8.64		19.73		2.69	
C3-Fluorenes		7.24		15.44		2.43	
Dibenzothiophene		2.55		5.56		0.67	
C1-Dibenzothiophenes		5.23		10.88		1.17	
C2-Dibenzothiophenes		6.61		14.22		1.98	
C3-Dibenzothiophenes		4.38		9.62		1.46	
Phenanthrene		19.52		46.22		4.74	
Anthracene		0.63		1.64		0.13	
C1-Phenanthrenes/Anthracenes		35.03		79.11		7.77	
C2-Phenanthrenes/Anthracenes		25.95		59.1		6.12	
C3-Phenanthrenes/Anthracenes		14.91		34.11		3.86	
C4-Phenanthrenes/Anthracenes		9.14		21.42		2.85	
Fluoranthene		3.64		8.4		0.93	
Pyrene		5.92		12.89		1.45	
C1-Fluoranthenes/Pyrenes		15.18		36.08		3.44	
C2-Fluoranthenes/Pyrenes		13.22		32.08		3.04	
C3-Fluoranthenes/Pyrenes		9.66		25.09		2.32	
Benzo(a)anthracene		1.57		3.85		0.34	
Chrysene		10.91		24.38		2.4	
C1-Chrysenes		11.35		26.87		2.51	
C2-Chrysenes		9.51		23.61		2.23	
C3-Chrysenes		6.3		16.32		1.55	
C4-Chrysenes		3.56		8.69			ND
Benzo(b)fluoranthene		4.46		11.49		1	
Benzo(k)fluoranthene		0.99		2.59		0.25	
Benzo(a)pyrene		1.17		2.71		0.29	
Benzo(e)pyrene		7.04		15.79		1.46	
Perylene		46.39		119.9		8.97	
Indeno(1,2,3-cd)pyrene		1.08		2.64		0.27	
Dibenz(a,h)anthracene		0.63		1.91		0.14	
Benzo(g,h,i)perylene		4.17		10.04		1.04	
Surrogate Recoveries (%)							
Naphthalene-d8		54		52		43	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-L09-01-PHC-S	04-L07-01-PHC-S	04-L01-01-PHC-S
Battelle Sample ID	S3890-P	S3891-P	S3892-P
Sample Type	SA	SA	SA
Collection Date	08/02/04	08/02/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04
Analysis Date	12/09/04	12/09/04	12/09/04
Analytical Instrument	MS	MS	MS
% Moisture	31.79	45.46	24.26
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.76	16.39	22.72
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	67	66	56
Phenanthrene-d10	74	73	63
Benzo(a)pyrene-d12	76	79	73

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-L06-03-PHC-S	04-L06-02-PHC-S	04-L06-01-PHC-S	04-L04-01-PHC-S
Battelle Sample ID	S3893-P	S3894-P	S3895-P	S3896-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	08/02/04	08/02/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/21/04	12/09/04	12/09/04	12/09/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	48.43	47.7	41.04	31.09
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	15.50	15.69	17.71	20.73
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	23.9	19.34	18.18	11
C1-Naphthalenes	56.78	36.56	44.34	24.13
C2-Naphthalenes	80.66	64.78	63.48	34.72
C3-Naphthalenes	63.52	56.82	51.06	28.33
C4-Naphthalenes	34.2	31.08	27.48	16.01
Acenaphthene	1.95	1.68	1.53	0.87
Acenaphthylene	ND	ND	ND	
Biphenyl	15.86	11.98	11.96	6.99
Fluorene	11.5	9.76	8.63	4.77
C1-Fluorenes	21.04	16.31	14.02	9.9
C2-Fluorenes	23.23	20.69	17.6	11.81
C3-Fluorenes	18.96	16.19	14.39	8.96
Dibenzothiophene	6.68	6.01	5.79	3.16
C1-Dibenzothiophenes	11.15	12.85	12.32	7.27
C2-Dibenzothiophenes	17.41	15.23	16.05	9.54
C3-Dibenzothiophenes	11.43	10.7	10.65	6.76
Phenanthrene	50.07	44.33	40.56	22.48
Anthracene	1.63	1	0.85	0.64
C1-Phenanthrenes/Anthracenes	86.98	77.87	70.86	43.16
C2-Phenanthrenes/Anthracenes	63.36	58.38	53.4	29.62
C3-Phenanthrenes/Anthracenes	34.77	31.85	31.21	17
C4-Phenanthrenes/Anthracenes	22.04	19.56	20.38	10.68
Fluoranthene	8.57	7.87	7.51	4.24
Pyrene	13.53	12.76	11.59	6.18
C1-Fluoranthenes/Pyrenes	38	35.68	33.24	17.67
C2-Fluoranthenes/Pyrenes	34.64	33.31	29.4	15.18
C3-Fluoranthenes/Pyrenes	25.06	23.77	23.16	11.11
Benzo(a)anthracene	3.89	3.92	3.38	1.92
Chrysene	26.07	25.21	21.86	11.43
C1-Chrysenes	29.82	27.49	24.49	12.83
C2-Chrysenes	25.7	23.71	20.28	10.89
C3-Chrysenes	19.65	17.46	14.38	8.32
C4-Chrysenes	11.09	9.44	8.82	4.5
Benzo(b)fluoranthene	12.18	11.97	10.63	5.35
Benzo(k)fluoranthene	2.07	2.6	2.08	1.16
Benzo(a)pyrene	2.81	2.71	2.65	1.34
Benzo(e)pyrene	16.81	16.37	14.22	6.92
Perylene	106.19	111.59	97.83	52.28
Indeno(1,2,3-cd)pyrene	2.81	2.78	2.62	1.31
Dibenz(a,h)anthracene	2.06	1.93	1.8	0.83
Benzo(g,h,i)perylene	11.08	11.39	10.14	4.97
Surrogate Recoveries (%)				
Naphthalene-d8	52	21 N	48	46

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-L06-03-PHC-S	04-L06-02-PHC-S	04-L06-01-PHC-S	04-L04-01-PHC-S
Battelle Sample ID	S3893-P	S3894-P	S3895-P	S3896-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	08/02/04	08/02/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/21/04	12/09/04	12/09/04	12/09/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	48.43	47.7	41.04	31.09
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	15.50	15.69	17.71	20.73
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	60	59	59	60
Phenanthrene-d10	66	68	64	67
Benzo(a)pyrene-d12	75	77	71	77

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-3A-01-PHC-S	04-5H-01-PHC-S	04-3B-01-PHC-S	
Battelle Sample ID		S3897-P	S3898-P	S3899-P	
Sample Type		SA	SA	SA	
Collection Date		07/30/04	08/02/04	07/30/04	
Extraction Date		11/18/04	11/18/04	11/18/04	
Analysis Date		12/09/04	12/09/04	12/09/04	
Analytical Instrument		MS	MS	MS	
% Moisture		36.56	26.28	34.94	
% Lipid		NA	NA	NA	
Matrix		SEDIMENT	SEDIMENT	SEDIMENT	
Sample Size		19.10	22.12	19.52	
Size Unit-Basis		G_DRY	G_DRY	G_DRY	
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	
Naphthalene		9.23	4.74	9.66	
C1-Naphthalenes		21.06	10.41	22.67	
C2-Naphthalenes		31.41	15.12	33.71	
C3-Naphthalenes		26.02	12.52	27.31	
C4-Naphthalenes		15.02	7.07	15.37	
Acenaphthene		0.93	0.45	0.85	
Acenaphthylene	ND	ND	ND	ND	
Biphenyl		6.71	3.5	6.9	
Fluorene		4.44	2.2	4.44	
C1-Fluorenes		7.67	3.74	8.14	
C2-Fluorenes		9.99	4.76	10.75	
C3-Fluorenes		9.23	4.04	8.4	
Dibenzothiophene		3.04	1.64	3.15	
C1-Dibenzothiophenes		5.69	2.98	6.15	
C2-Dibenzothiophenes		7.47	4.47	7.91	
C3-Dibenzothiophenes		5	2.99	5.18	
Phenanthrene		21.51	10.08	21.97	
Anthracene		0.8	0.48	0.68	
C1-Phenanthrenes/Anthracenes		38.39	18	39.42	
C2-Phenanthrenes/Anthracenes		29.02	14.11	28.96	
C3-Phenanthrenes/Anthracenes		16.64	8.3	16.6	
C4-Phenanthrenes/Anthracenes		9.99	5.34	10.09	
Fluoranthene		4.27	2.05	4.32	
Pyrene		6.78	3.39	6.81	
C1-Fluoranthenes/Pyrenes		17.16	8.1	17.3	
C2-Fluoranthenes/Pyrenes		15.98	7.18	15.73	
C3-Fluoranthenes/Pyrenes		12.58	5.53	12.67	
Benzo(a)anthracene		1.82	0.87	1.89	
Chrysene		12.37	6.17	12.22	
C1-Chrysenes		13.5	6.23	13.55	
C2-Chrysenes		11.45	5.46	11.19	
C3-Chrysenes		8.93	4.37	8.93	
C4-Chrysenes		5.07	2.31	4.23	
Benzo(b)fluoranthene		5.77	2.77	5.71	
Benzo(k)fluoranthene		1.11	0.68	1.35	
Benzo(a)pyrene		1.32	0.62	1.39	
Benzo(e)pyrene		7.99	3.7	7.87	
Perylene		51.64	25.29	49.34	
Indeno(1,2,3-cd)pyrene		1.53	0.75	1.47	
Dibenz(a,h)anthracene		0.99	0.43	0.92	
Benzo(g,h,i)perylene		5.81	2.72	5.76	
Surrogate Recoveries (%)					
Naphthalene-d8		46	44	46	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-3A-01-PHC-S	04-5H-01-PHC-S	04-3B-01-PHC-S
Battelle Sample ID	S3897-P	S3898-P	S3899-P
Sample Type	SA	SA	SA
Collection Date	07/30/04	08/02/04	07/30/04
Extraction Date	11/18/04	11/18/04	11/18/04
Analysis Date	12/09/04	12/09/04	12/09/04
Analytical Instrument	MS	MS	MS
% Moisture	36.56	26.28	34.94
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.10	22.12	19.52
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	59	56	57
Phenanthrene-d10	66	64	65
Benzo(a)pyrene-d12	76	73	75

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-5(5)-01-PHC-S	04-4A-01-PHC-S	04-4B-01-PHC-S	04-L08-01-PHC-S
Battelle Sample ID	S3900-P	S3901-P	S3903-P	S3904-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/04	08/03/04	08/03/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/09/04	12/09/04	12/09/04	12/10/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	36.52	31.18	21.37	40.37
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.11	20.68	23.59	17.98
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	8.79	24.19	2.5 B	21.2
C1-Naphthalenes	22.34	63.77	3.99	46.76
C2-Naphthalenes	33.13	87.42	5.92	68.49
C3-Naphthalenes	27.27	64.26	4.92	53.4
C4-Naphthalenes	16.59	31.5	2.57	30.06
Acenaphthene	1.04	1.4	0.2 B	1.42
Acenaphthylene	ND	ND	ND	
Biphenyl	6.64	23.45	1.62 B	12.2
Fluorene	4.55	9.56	0.87	7.4
C1-Fluorenes	7.67	17.28	1.52	12.07
C2-Fluorenes	10.56	20.45	1.6	13.37
C3-Fluorenes	9.07	15.87	1.55	12.69
Dibenzothiophene	3.72	9.16	0.69	4.97
C1-Dibenzothiophenes	7.2	16.34	1.13	9.92
C2-Dibenzothiophenes	9.29	18.05	1.85	13.23
C3-Dibenzothiophenes	6.66	10.67	1.3	7.94
Phenanthrene	22.26	65.44	4.04	31.86
Anthracene	0.96	1.5	0.15	1.14
C1-Phenanthrenes/Anthracenes	39.52	106.32	6.67	57.02
C2-Phenanthrenes/Anthracenes	30.24	69.58	5.37	41.72
C3-Phenanthrenes/Anthracenes	18.34	35.95	3.02	23.83
C4-Phenanthrenes/Anthracenes	10.38	21.05	1.73	15.79
Fluoranthene	5.71	9.31	0.75	6.18
Pyrene	9.67	15.41	1.22	10.24
C1-Fluoranthenes/Pyrenes	20.05	36.73	2.91	23.71
C2-Fluoranthenes/Pyrenes	18.06	31.22	2.57	21.2
C3-Fluoranthenes/Pyrenes	13.97	22.61	2.15	16.18
Benzo(a)anthracene	2.33	3.39	0.3	2.75
Chrysene	14.13	30.05	2.42	17.38
C1-Chrysenes	15.04	30.83	2.53	18.65
C2-Chrysenes	11.83	22.41	2.16	14.78
C3-Chrysenes	10.03	14.37	1.56	11.31
C4-Chrysenes	5.88	7.91	ND	5.9
Benzo(b)fluoranthene	7.34	19.31	1.04	8.47
Benzo(k)fluoranthene	1.85	2.72	0.28	1.59
Benzo(a)pyrene	2.06	2.93	0.26	2.06
Benzo(e)pyrene	10.19	26.88	1.45	11.14
Perylene	54.44	44.9	9.09	70.38
Indeno(1,2,3-cd)pyrene	2.15	2.94	0.37	1.8
Dibenz(a,h)anthracene	1.2	2.54	0.15	1.19
Benzo(g,h,i)perylene	7.97	15.47	1.03	6.86
Surrogate Recoveries (%)				
Naphthalene-d8	52	46	47	55

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-5(5)-01-PHC-S	04-4A-01-PHC-S	04-4B-01-PHC-S	04-L08-01-PHC-S
Battelle Sample ID	S3900-P	S3901-P	S3903-P	S3904-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/04	08/03/04	08/03/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/09/04	12/09/04	12/09/04	12/10/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	36.52	31.18	21.37	40.37
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.11	20.68	23.59	17.98
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	65	56	62	65
Phenanthrene-d10	73	60	72	70
Benzo(a)pyrene-d12	86	49	82	74

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-5(0)-01-PHC-S		04-N02-01-PHC-S		04-5F-01-PHC-S	
Battelle Sample ID		S3905-P		S4088-P		S4089-P	
Sample Type		SA		SA		SA	
Collection Date		08/03/04		08/07/04		08/09/04	
Extraction Date		11/18/04		11/18/04		11/18/04	
Analysis Date		12/10/04		12/10/04		12/10/04	
Analytical Instrument		MS		MS		MS	
% Moisture		27.14		39		35.33	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		22.25		18.60		19.41	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		4.89		11.82		17.56	
C1-Naphthalenes		10.11		28.1		39.52	
C2-Naphthalenes		14.75		38.63		55.25	
C3-Naphthalenes		12		29.83		44.9	
C4-Naphthalenes		6.77		16.54		25.68	
Acenaphthene		0.39		0.86		1.11	
Acenaphthylene	ND	ND		ND		ND	
Biphenyl		3.2		7		8.77	
Fluorene		2.14		4.74		4.9	
C1-Fluorenes		4.2		7.66		11.06	
C2-Fluorenes	ME	4.38	ME	9.72		12.57	ME
C3-Fluorenes		3.72		8.29		10.52	
Dibenzothiophene		1.48		3.7		4.72	
C1-Dibenzothiophenes		2.77		6.66		11.25	
C2-Dibenzothiophenes		4.52		8.83		15.36	
C3-Dibenzothiophenes	ME	2.76	ME	6.06		9.46	ME
Phenanthrene		9.59		22.39		31.52	
Anthracene		0.22		0.61		0.71	
C1-Phenanthrenes/Anthracenes	ME	18.67	ME	37.32		54.38	ME
C2-Phenanthrenes/Anthracenes		12.94		27.41		42.63	
C3-Phenanthrenes/Anthracenes		6.81		15.53		26.76	
C4-Phenanthrenes/Anthracenes		3.89		11.6		23.07	
Fluoranthene		1.74		4.78		7.2	
Pyrene		2.59		6.99		10.43	
C1-Fluoranthenes/Pyrenes		6.65		17.75		27.92	
C2-Fluoranthenes/Pyrenes		5.82		14.79		23.32	
C3-Fluoranthenes/Pyrenes		4.21		11.34		17.31	
Benzo(a)anthracene		0.65		1.99		2.92	
Chrysene		4.81		11.74		15.68	
C1-Chrysenes		5.08		11.67		17.78	
C2-Chrysenes		4.23		9.21		13.84	
C3-Chrysenes		2.83		7.03		9.86	
C4-Chrysenes		1.94		3.88		5.78	
Benzo(b)fluoranthene		2.07		5.56		8.79	
Benzo(k)fluoranthene		0.45		1.42		2.19	
Benzo(a)pyrene		0.48		1.56		2.8	
Benzo(e)pyrene		2.82		7.2		10.14	
Perylene		21.5		48.13		85.71	
Indeno(1,2,3-cd)pyrene		0.45		1.33		2.47	
Dibenz(a,h)anthracene		0.28		0.72		1.2	
Benzo(g,h,i)perylene		1.72		5.25		6.67	
Surrogate Recoveries (%)							
Naphthalene-d8		49		48		42	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-5(0)-01-PHC-S	04-N02-01-PHC-S	04-5F-01-PHC-S
Battelle Sample ID	S3905-P	S4088-P	S4089-P
Sample Type	SA	SA	SA
Collection Date	08/03/04	08/07/04	08/09/04
Extraction Date	11/18/04	11/18/04	11/18/04
Analysis Date	12/10/04	12/10/04	12/10/04
Analytical Instrument	MS	MS	MS
% Moisture	27.14	39	35.33
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.25	18.60	19.41
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	61	60	54
Phenanthrene-d10	68	68	61
Benzo(a)pyrene-d12	73	78	70

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N16-01-PHC-S	04-5D-01-PHC-S	04-5(10)-01-PHC-S	04-N6-01-PHC-S
Battelle Sample ID	S4090-P	S4091-P	S4092-P	S4093-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/08/04	08/08/04	08/07/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/23/04	12/23/04	12/23/04	12/23/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	41.22	51.9	26.52	39.52
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	16.69	14.73	21.36	18.20
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	12.28	12.96	2.94 B	17.92
C1-Naphthalenes	26.92	17.2	5.3	40.86
C2-Naphthalenes	37.99	26.06	7.71	55.62
C3-Naphthalenes	31.1	22.2	6.47	42.91
C4-Naphthalenes	17.04	13.9	4.07	23.06
Acenaphthene	1.02	0.68	0.22	1.36
Acenaphthylene	ND	ND	ND	
Biphenyl	7.83	5.43	1.88	10.28
Fluorene	5.79	3.48	1.23	7.75
C1-Fluorenes	9.08	5.3	1.97	11.9
C2-Fluorenes	12	5.91 ME	2.28	16.55
C3-Fluorenes	9.8	7.39	2.53	15.2
Dibenzothiophene	4.5	3.01	1.02	5.62
C1-Dibenzothiophenes	7.35	6.33	1.86	9.21
C2-Dibenzothiophenes	10.96	10.41	3.01	13.34
C3-Dibenzothiophenes	8.15	6.18 ME	1.76	9.24
Phenanthrene	28.43	20.52	6.27	37.85
Anthracene	0.98	0.72	0.22	1.05
C1-Phenanthrenes/Anthracenes	48.27	37.57 ME	11.28	62.52
C2-Phenanthrenes/Anthracenes	36.14	27.49	8.95	46.2
C3-Phenanthrenes/Anthracenes	21.94	17.25	5.2	26.51
C4-Phenanthrenes/Anthracenes	14.32	13.65	3.58	20.64
Fluoranthene	6.04	4.87	1.26	7.65
Pyrene	9.15	6.82	2.08	11.57
C1-Fluoranthenes/Pyrenes	23.5	16.27	4.91	30.91
C2-Fluoranthenes/Pyrenes	21.19	13.89	4.16	28.19
C3-Fluoranthenes/Pyrenes	15.6	10.14	3.31	21.93
Benzo(a)anthracene	2.57	1.96	0.49 B	3.25
Chrysene	17.5	11.27	4.14	22.07
C1-Chrysenes	18.77	13.11	4.41	23.76
C2-Chrysenes	15.88	11.61	4.12	18.8
C3-Chrysenes	12.23	7.61	2.54	12.87
C4-Chrysenes	6.33	5.13	ND	8.52
Benzo(b)fluoranthene	9.93	5.64	1.74	12.82
Benzo(k)fluoranthene	2.15	1.57	0.41	3.04
Benzo(a)pyrene	2.49	1.77	0.48	3.46
Benzo(e)pyrene	13.24	6.6	2.48	16.62
Perylene	94.5	69.66	15.92	115.49
Indeno(1,2,3-cd)pyrene	2.8	1.71	0.43	3.36
Dibenz(a,h)anthracene	1.72	0.87	0.25	2.12
Benzo(g,h,i)perylene	10.32	4.78	1.71	12.83
Surrogate Recoveries (%)				
Naphthalene-d8	44	48	52	51

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N16-01-PHC-S	04-5D-01-PHC-S	04-5(10)-01-PHC-S	04-N6-01-PHC-S
Battelle Sample ID	S4090-P	S4091-P	S4092-P	S4093-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/08/04	08/08/04	08/07/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/23/04	12/23/04	12/23/04	12/23/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	41.22	51.9	26.52	39.52
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	16.69	14.73	21.36	18.20
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	60	70	68	66
Phenanthrene-d10	66	76	78	70
Benzo(a)pyrene-d12	67	86	83	71

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-N6-02-PHC-S		04-N6-03-PHC-S		04-N05-01-PHC-S	
Battelle Sample ID		S4094-P		S4095-P		S4096-P	
Sample Type		SA		SA		SA	
Collection Date		08/07/04		08/07/04		08/07/04	
Extraction Date		12/14/04		12/14/04		12/14/04	
Analysis Date		12/23/04		12/23/04		12/23/04	
Analytical Instrument		MS		MS		MS	
% Moisture		45.93		43.05		39.27	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		16.16		16.70		18.40	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		18.35		16.89		11.58	
C1-Naphthalenes		38.65		38.38		22.47	
C2-Naphthalenes		53.39		53.43		34.88	
C3-Naphthalenes		42.58		41.86		28.72	
C4-Naphthalenes		23.05		23.1		15.77	
Acenaphthene		1.52		1.27		0.91	
Acenaphthylene	ND	ND		ND		ND	
Biphenyl		12.44		10.68		7.11	
Fluorene		8.89		7.66		5.28	
C1-Fluorenes		13.47		11.86		8.38	
C2-Fluorenes		15.08	ME	13.18		9.08	ME
C3-Fluorenes		16.72		11.73		9.34	
Dibenzothiophene		6.02		5.69		4.03	
C1-Dibenzothiophenes		9.68		9.5		6.73	
C2-Dibenzothiophenes		14.34		13.89		10.09	
C3-Dibenzothiophenes		7.76	ME	9.54		6.09	ME
Phenanthrene		40.71		38.77		26.45	
Anthracene		1.25		1.21		0.79	
C1-Phenanthrenes/Anthracenes		69.65	ME	66.43		47.56	ME
C2-Phenanthrenes/Anthracenes		49.45		48.37		33.27	
C3-Phenanthrenes/Anthracenes		27.5		27.38		18.85	
C4-Phenanthrenes/Anthracenes		16.85		19.02		12.32	
Fluoranthene		7.93		7.61		5.12	
Pyrene		12.12		11.62		7.92	
C1-Fluoranthenes/Pyrenes		30.26		30.05		19.65	
C2-Fluoranthenes/Pyrenes		31.01		26.14		16.66	
C3-Fluoranthenes/Pyrenes		25.92		19.56		12.01	
Benzo(a)anthracene		3.61		3.37		2.15	
Chrysene		25.2		22.1		14.63	
C1-Chrysenes		26.56		23.97		15.74	
C2-Chrysenes		22.46		20.71		13.25	
C3-Chrysenes		16.29		15.93		9.99	
C4-Chrysenes		9.49		8.34		5.18	
Benzo(b)fluoranthene		12.57		11.24		7.38	
Benzo(k)fluoranthene		2.63		2.67		1.54	
Benzo(a)pyrene		2.96		2.79		1.77	
Benzo(e)pyrene		17.11		15.06		10.19	
Perylene		108.91		97.72		64.51	
Indeno(1,2,3-cd)pyrene		3.24		2.94		1.77	
Dibenz(a,h)anthracene		2.02		1.72		1.08	
Benzo(g,h,i)perylene		12.87		11.21		7.13	
Surrogate Recoveries (%)							
Naphthalene-d8		28	N	49		42	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N6-02-PHC-S	04-N6-03-PHC-S	04-N05-01-PHC-S
Battelle Sample ID	S4094-P	S4095-P	S4096-P
Sample Type	SA	SA	SA
Collection Date	08/07/04	08/07/04	08/07/04
Extraction Date	12/14/04	12/14/04	12/14/04
Analysis Date	12/23/04	12/23/04	12/23/04
Analytical Instrument	MS	MS	MS
% Moisture	45.93	43.05	39.27
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	16.16	16.70	18.40
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	38 N	65	71
Phenanthrene-d10	44	70	80
Benzo(a)pyrene-d12	50	76	83

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N12-01-PHC-S	04-N11-01-PHC-S	04-N20-01-PHC-S	04-N17-01-PHC-S
Battelle Sample ID	S4097-P	S4098-P	S4099-P	S4100-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/06/04	08/06/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/23/04	12/23/04	12/23/04	12/24/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	21.09	16.95	24.28	45.37
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.55	25.43	22.49	16.50
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	5.7 B	2.07 B	10.28	15.3
C1-Naphthalenes	11.85	3.56	19.59	33.47
C2-Naphthalenes	16.21	4.87	28.22	47.5
C3-Naphthalenes	12.84	3.92	22.23	37.84
C4-Naphthalenes	6.65	2.11	12.23	21.39
Acenaphthene	0.41	0.12	0.56	1.3
Acenaphthylene	ND	ND	ND	
Biphenyl	3.29	1.09	4.68	10.48
Fluorene	2.45	0.74	3.78	7.28
C1-Fluorenes	3.71	1.3	5.85	11.01
C2-Fluorenes	5.9	1.45 ME	8.23	18.91
C3-Fluorenes	4.37	2.13	6.48	12.1
Dibenzothiophene	1.71	0.52	2.67	5.32
C1-Dibenzothiophenes	3.15	1	4.79	8.58
C2-Dibenzothiophenes	4.75	1.53	6.8	12.27
C3-Dibenzothiophenes	3.09	1.05 ME	4.5	8.59
Phenanthrene	11.93	3.58	18.42	34.99
Anthracene	0.33	0.1 J	0.56	1.09
C1-Phenanthrenes/Anthracenes	21.87	7.47 ME	30.27	61.7
C2-Phenanthrenes/Anthracenes	14.97	4.32	21.86	43.26
C3-Phenanthrenes/Anthracenes	8.48	2.54	12.64	25.01
C4-Phenanthrenes/Anthracenes	5.72	1.56	11.28	15.4
Fluoranthene	2.28	0.66	3.65	7
Pyrene	3.38	1.03	5.23	11.15
C1-Fluoranthenes/Pyrenes	9.07	2.6	14.57	26.32
C2-Fluoranthenes/Pyrenes	8.15	2.08	12.78	23.56
C3-Fluoranthenes/Pyrenes	6.32	1.52	8.79	18.03
Benzo(a)anthracene	1.09	0.32 B	1.53	3.05
Chrysene	6.36	1.92	9.46	21.15
C1-Chrysenes	6.73	2.01	9.94	22.38
C2-Chrysenes	5.97	1.85	9.08	18.84
C3-Chrysenes	4.83	1.38	5.61	14.71
C4-Chrysenes	2.18	ND	3.28	6.14
Benzo(b)fluoranthene	3.55	1.06	5.42	10.69
Benzo(k)fluoranthene	0.77	0.27	1	2.21
Benzo(a)pyrene	0.97	0.3	1.51	2.64
Benzo(e)pyrene	4.51	1.38	6.47	15.24
Perylene	33.47	9.44	44.49	97.92
Indeno(1,2,3-cd)pyrene	0.99	0.3	1.37	2.66
Dibenz(a,h)anthracene	0.52	0.15	0.71	1.56
Benzo(g,h,i)perylene	3.66	1.05	4.99	11.19
Surrogate Recoveries (%)				
Naphthalene-d8	52	48	44	53

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N12-01-PHC-S	04-N11-01-PHC-S	04-N20-01-PHC-S	04-N17-01-PHC-S
Battelle Sample ID	S4097-P	S4098-P	S4099-P	S4100-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/06/04	08/06/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/23/04	12/23/04	12/23/04	12/24/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	21.09	16.95	24.28	45.37
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.55	25.43	22.49	16.50
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	68	65	71	70
Phenanthrene-d10	75	78	80	81
Benzo(a)pyrene-d12	78	75	84	86

*The data presented for sample S4115-P1 is

Battelle
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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-N23-01-PHC-S		04-N10-01-PHC-S		04-N19-01-PHC-S	
Battelle Sample ID		S4101-P		S4102-P		S4103-P	
Sample Type		SA		SA		SA	
Collection Date		08/06/04		08/06/04		08/06/04	
Extraction Date		12/14/04		12/14/04		12/14/04	
Analysis Date		12/24/04		12/24/04		12/24/04	
Analytical Instrument		MS		MS		MS	
% Moisture		41.74		49.56		31.66	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		17.03		15.14		21.62	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		15.99		16.85		7.5	B
C1-Naphthalenes		36.32		36.11		13.64	
C2-Naphthalenes		52.66		53.74		21.4	
C3-Naphthalenes		41.62		43.22		18.08	
C4-Naphthalenes		23.55		24.26		10.47	
Acenaphthene		1.4		1.41		0.59	
Acenaphthylene	ND		ND		ND		ND
Biphenyl		10.65		11.05		4.64	
Fluorene		7.2		7.95		3.5	
C1-Fluorenes		11.04		12.45		5.43	
C2-Fluorenes			ND	14.45	ME	7.31	
C3-Fluorenes		13.07		13.91		6.06	
Dibenzothiophene		5.8		5.92		2.64	
C1-Dibenzothiophenes		10.92		9.76		4.32	
C2-Dibenzothiophenes		13.91		14.25		6.62	
C3-Dibenzothiophenes		19		9.34	ME	4.45	
Phenanthrene		39.6		40.63		17.49	
Anthracene		1.3		1.15		0.5	
C1-Phenanthrenes/Anthracenes			ND	74.56	ME	30.18	
C2-Phenanthrenes/Anthracenes		52.52		50.52		22.26	
C3-Phenanthrenes/Anthracenes		27.01		28.63		11.82	
C4-Phenanthrenes/Anthracenes		17.61		18.1		7.69	
Fluoranthene		7.58		7.78		3.26	
Pyrene		11.34		12.2		5.06	
C1-Fluoranthenes/Pyrenes		28.16		30.51		12.35	
C2-Fluoranthenes/Pyrenes		25.41		27.23		11.15	
C3-Fluoranthenes/Pyrenes		18.26		20.72		8.21	
Benzo(a)anthracene		3.75		3.3		1.39	
Chrysene		23.32		23.39		10.27	
C1-Chrysenes		24.5		25.18		10.83	
C2-Chrysenes		23.83		21.42		9.26	
C3-Chrysenes		16.41		15.83		6.44	
C4-Chrysenes		8.57		7.92		3.68	
Benzo(b)fluoranthene		11.39		12.57		4.85	
Benzo(k)fluoranthene		2.53		2.54		1.11	
Benzo(a)pyrene		3		2.91		1.12	
Benzo(e)pyrene		15.82		17.44		6.79	
Perylene		118.15		121.13		41.3	
Indeno(1,2,3-cd)pyrene		2.96		3.13		1.14	
Dibenz(a,h)anthracene		1.83		1.92		0.75	
Benzo(g,h,i)perylene		11.98		13.11		4.72	
Surrogate Recoveries (%)							
Naphthalene-d8		58		44		37	N

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N23-01-PHC-S	04-N10-01-PHC-S	04-N19-01-PHC-S
Battelle Sample ID	S4101-P	S4102-P	S4103-P
Sample Type	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/06/04
Extraction Date	12/14/04	12/14/04	12/14/04
Analysis Date	12/24/04	12/24/04	12/24/04
Analytical Instrument	MS	MS	MS
% Moisture	41.74	49.56	31.66
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.03	15.14	21.62
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	76	68	64
Phenanthrene-d10	81	73	74
Benzo(a)pyrene-d12	89	73	76

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N03-01-PHC-S	04-N01-01-PHC-S	04-N21-01-PHC-S	04-5B-01-PHC-S
Battelle Sample ID	S4110-P	S4111-P	S4112-P	S4113-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/08/04	08/09/04	08/09/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/24/04	12/24/04	12/24/04	12/24/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	55.73	24.67	30.86	22.48
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	13.03	22.45	21.10	24.19
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	19.97	2.16 B	7.64 B	1.05
C1-Naphthalenes	45.4	3.8	14.98	0.89
C2-Naphthalenes	64.99	4.92	21.6	1.16
C3-Naphthalenes	51.47	3.84	18.72	1.02
C4-Naphthalenes	29.87	1.93	10.62	0.68
Acenaphthene	1.77	0.13	0.57	0.05
Acenaphthylene	ND	ND	ND	
Biphenyl	14.19	1.06	4.53	0.27
Fluorene	9.87	0.73	3.09	0.19
C1-Fluorenes	14.96	1.11	4.97	0.41
C2-Fluorenes	17.63 ME	1.35	6.9 ME	0.41
C3-Fluorenes	17	1.22	6.33	
Dibenzothiophene	7.94	0.55	2.32	0.13
C1-Dibenzothiophenes	12.84	0.89	4.77	0.23
C2-Dibenzothiophenes	18.13	1.31	7.73	0.35
C3-Dibenzothiophenes	12.07 ME	0.89	4.74 ME	0.26
Phenanthrene	50.2	3.52	16.31	0.84
Anthracene	1.61	0.15	0.5	0.02
C1-Phenanthrenes/Anthracenes	85.2 ME	5.45	29.71 ME	1.27
C2-Phenanthrenes/Anthracenes	63.32	4.22	21.81	1.1
C3-Phenanthrenes/Anthracenes	34.7	2.54	12.59	0.58
C4-Phenanthrenes/Anthracenes	21.66	1.44	8.21	0.37
Fluoranthene	10.09	0.69	3.26	0.16
Pyrene	16.29	1.11	4.82	0.25
C1-Fluoranthenes/Pyrenes	38.58	2.64	12.36	0.63
C2-Fluoranthenes/Pyrenes	34.21	2.34	10.62	0.65
C3-Fluoranthenes/Pyrenes	26.63	1.91	7.38	0.5
Benzo(a)anthracene	4.26	0.35 B	1.34	0.14
Chrysene	30.15	2.16	9.11	0.52
C1-Chrysenes	32.41	2.19	9.86	0.51
C2-Chrysenes	27.44	1.78	8.73	0.53
C3-Chrysenes	19.02	1.34	5.6	
C4-Chrysenes	10.19	ND	3.2	
Benzo(b)fluoranthene	16.36	1.2	4.21	0.36
Benzo(k)fluoranthene	3.33	0.33	1.05	0.15
Benzo(a)pyrene	4.02	0.36	1.2	0.13
Benzo(e)pyrene	22.68	1.64	5.58	0.43
Perylene	144.3	7.87	43.02	1.56
Indeno(1,2,3-cd)pyrene	4.3	0.36	1.14	0.15
Dibenz(a,h)anthracene	2.3	0.18	0.61	0.1
Benzo(g,h,i)perylene	17.54	1.44	4.03	0.4
Surrogate Recoveries (%)				
Naphthalene-d8	48	57	43	38

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-N03-01-PHC-S	04-N01-01-PHC-S	04-N21-01-PHC-S	04-5B-01-PHC-S
Battelle Sample ID	S4110-P	S4111-P	S4112-P	S4113-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/08/04	08/09/04	08/09/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/24/04	12/24/04	12/24/04	12/24/04
Analytical Instrument	MS	MS	MS	MS
% Moisture	55.73	24.67	30.86	22.48
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	13.03	22.45	21.10	24.19
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Acenaphthene-d10	66	71	59	62
Phenanthrene-d10	72	77	69	73
Benzo(a)pyrene-d12	73	81	74	80

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID		04-5(5A)-01-PHC-S		04-N13-01-PHC-S	
Battelle Sample ID		S4114-P		S4115-P1*	
Sample Type		SA		SA	
Collection Date		08/08/04		08/09/04	
Extraction Date		12/14/04		01/18/05	
Analysis Date		12/24/04		01/29/05	
Analytical Instrument		MS		MS	
% Moisture		26.86		43.65	
% Lipid		NA		NA	
Matrix		SEDIMENT		SEDIMENT	
Sample Size		22.86		17.06	
Size Unit-Basis		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY	
Naphthalene	B	5.1	B	17.27	
C1-Naphthalenes		9.36		40.14	
C2-Naphthalenes		14.15		51.18	
C3-Naphthalenes		12.06		36.34	
C4-Naphthalenes		7.28		19.59	
Acenaphthene	J	0.45		1.05	
Acenaphthylene	ND		ND		U
Biphenyl	B	3.25		9.52	
Fluorene		2.25		5.12	
C1-Fluorenes		3.57		9.31	
C2-Fluorenes		5.49	ME	10.74	
C3-Fluorenes	ND	5.44		8.54	
Dibenzothiophene		1.65		4.42	
C1-Dibenzothiophenes		3.1		6.8	
C2-Dibenzothiophenes		4.83		12.03	
C3-Dibenzothiophenes		2.72	ME	7.92	
Phenanthrene		11.05		32.11	
Anthracene	J	0.43		0.45	
C1-Phenanthrenes/Anthracenes		22.42	ME	45.54	
C2-Phenanthrenes/Anthracenes		15.12		34.81	
C3-Phenanthrenes/Anthracenes		8.83		20.43	
C4-Phenanthrenes/Anthracenes		6.22		15.4	
Fluoranthene		2.21		5.28	
Pyrene	B	3.78		7.58	
C1-Fluoranthenes/Pyrenes		8.9		19.17	
C2-Fluoranthenes/Pyrenes		7.39		15.07	
C3-Fluoranthenes/Pyrenes		5.76		10.59	
Benzo(a)anthracene	B	0.95		2.27	
Chrysene		6.76		12.21	
C1-Chrysenes		7.46		13.77	
C2-Chrysenes		6.3		11.02	
C3-Chrysenes	ND	5.2		7.3	
C4-Chrysenes	ND	2.71		4.7	
Benzo(b)fluoranthene		3.3		5.82	
Benzo(k)fluoranthene	J	0.8		1.6	
Benzo(a)pyrene		0.82		2.06	
Benzo(e)pyrene		4.47		7.56	
Perylene		30.6		63.52	
Indeno(1,2,3-cd)pyrene	B	0.75		1.51	
Dibenz(a,h)anthracene	J	0.43		1.07	
Benzo(g,h,i)perylene		3.11		5.09	
Surrogate Recoveries (%)				73	
				79	
Naphthalene-d8	N	45		77	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client Sample ID	04-5(5A)-01-PHC-S	04-N13-01-PHC-S	
Battelle Sample ID	S4114-P	S4115-P1*	
Sample Type	SA	SA	
Collection Date	08/08/04	08/09/04	
Extraction Date	12/14/04	01/18/05	
Analysis Date	12/24/04	01/29/05	
Analytical Instrument	MS	MS	
% Moisture	26.86	43.65	
% Lipid	NA	NA	
Matrix	SEDIMENT	SEDIMENT	
Sample Size	22.86	17.06	
Size Unit-Basis	G_DRY	G_DRY	
Units	UG/KG_DRY	UG/KG_DRY	
Acenaphthene-d10	63	76	
Phenanthrene-d10	72	0	N
Benzo(a)pyrene-d12	74	0	N

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-4C-01-PHC-S	04-5E-01-PHC-S	04-N04-01-PHC-S	04-5A-01-PHC-S
Battelle ID	S3902-P1	S4117-P	S4118-P	S4119-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/04	08/09/04	08/09/04	08/09/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date	01/13/05	01/13/05	01/13/05	01/13/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	20.99	26.65	36.72	38.77
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.71	23.12	19.77	18.81
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	1.6 J	1.32 J	11.35 J	12.69
n-Decane	2.87 J	3.67 J	21.76 J	23.41
n-Undecane	5.18 J	6.71 J	27.91 J	28.46
n-Dodecane	12.6 J	11.68 J	32.56	34.32
n-Tridecane	27.75	16.6 J	39.93	40.94
Isoprenoid RRT 1380	8.59 J	5.15 J	11.13 J	12.55
n-Tetradecane	34.38	21.48 J	45.15	45.15
Isoprenoid RRT 1470	14.87 J	11.79 J	25.96 J	26.64
n-Pentadecane	35.42	27.57 B	57.81	57.88
Norpristane (1650)	6.7 J	8.24 J	17.69 J	18.83
n-Hexadecane	28.1 B	28.35 B	55.24 B	57.28
n-Heptadecane	12.56 J	25.65	77.32	78.89
Pristane	11.26 J	24.43 J	52.32	57.97
n-Octadecane	6.06 J	20.68 J	53.18	54.9
Phytane	2.84 J	10.47 J	22.84 J	25.04
n-Nonadecane	5.04 J	27.39	78.47	84.19
n-Eicosane	4.28 J	24.07 J	72.73	78.05
n-Heneicosane	7.79 J	38.02	131.23	139.96
n-Docosane	6.68 J	30.79	100.69	107.94
n-Tricosane	13.99 J	60.35	223.79	237.07
n-Tetracosane	7.8 J	31.02 B	108.44	107.46
n-Pentacosane	28.07 B	76.01	281	300.33
n-Hexacosane	7.34 J	24.78 J	99.03	84.89
n-Heptacosane	20.39 J	83.53	386.05	398.46
n-Octacosane	5.67 J	20.06 J	90.15	67.26
n-Nonacosane	19.71 J	80.95	343.85	340.81
n-Triacontane	4.62 J	15.86 J	68.92	56.38
n-Hentriacontane	16.4 J	72.76	297.71	302.44
n-Dotriacontane	1.85 J	8.87 J	34.87	21.92
n-Tritriacontane	5.74 J	28.09	114.13	106.07
n-Tetratriacontane	0.59 J	2.74 J	13.01 J	8.21
n-Pentatriacontane	0.6 J	4.66 J	18.42 J	15.79
n-Hexatriacontane	U	1.29 J	5.87 J	3.6
n-Heptatriacontane	U	1.08 J	4.76 J	3.29
n-Octatriacontane	U	1.15 J	4.14 J	3.32
n-Nonatriacontane	U	0.65 J	3.93 J	1.98
n-Tetracontane	U	0.56 J	2.56 J	1.19
SHC(total)	1329.37	1749.75	5149.27	5374.39
Surrogate Recoveries (%)				
n-Tetracosane-d50	76	76	76	73
5a-androstane	75	77	76	75

*The data presented for sample S4115-P1 is from a re-extracted aliquot. The original sample appeared to not have been spiked with SIS compounds was was later r

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-N15-01-PHC-S		04-N7-01-PHC-S		04-N8-01-PHC-S	
Battelle ID		S4120-P		S4121-P		S4122-P	
Sample Type		SA		SA		SA	
Collection Date		08/09/04		08/06/04		08/06/04	
Extraction Date		12/20/04		12/20/04		12/20/04	
Analysis Date		01/13/05		01/13/05		01/13/05	
Analytical Instrument		FID		FID		FID	
% Moisture		9.17		29.57		48.14	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		28.04		21.74		15.50	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	33.02		3.35	J	27.78	J
n-Decane	J	25.21	J	7.99	J	35.52	J
n-Undecane	J	11.26	J	11.2	J	63.01	
n-Dodecane		7.81	J	15.49	J	58.75	
n-Tridecane		4.99	J	21.28	J	75	
Isoprenoid RRT 1380	J	0.96	J	6.06	J	28.75	J
n-Tetradecane		19.78	J	23.1	J	84.65	
Isoprenoid RRT 1470	J	2.04	J	12.53	J	48.51	
n-Pentadecane		22.93	B	28.51	B	124.95	
Norpristane (1650)	J	4.61	J	8.5	J	37.1	J
n-Hexadecane		11.61	J	28.38	B	117.32	
n-Heptadecane		4.79	J	29.41		171.09	
Pristane		1.93	J	24.9	J	95.48	
n-Octadecane		4.33	J	21.05	J	124.07	
Phytane	J	1.1	J	9.47	J	51.74	
n-Nonadecane		3.61	J	30.87		142.45	
n-Eicosane		3.53	J	27.89		127.65	
n-Heneicosane		4.14	J	51.28		242.69	
n-Docosane		3.91	J	38.22		175.81	
n-Tricosane		8.29	J	85.98		394.39	
n-Tetracosane		4.8	J	37.51		196.08	
n-Pentacosane		16.08	J	106.8		434.66	
n-Hexacosane		7.18	J	29.62	B	229.77	
n-Heptacosane		10.13	J	128.32		1208.65	
n-Octacosane		3.8	J	21.66	J	209.6	
n-Nonacosane		8.7	J	107.72		617.63	
n-Triacontane		3.04	J	18.66	J	57.8	
n-Hentriacontane		6.36	J	92.07		503.6	
n-Dotriacontane	J	1.76	J	10.18	J	417.06	
n-Tritriacontane		3.18	J	32.9		504.84	
n-Tetratriacontane	J	0.4	J	2.46	J		U
n-Pentatriacontane	J	0.85	J	4.21	J	85.46	
n-Hexatriacontane	J		U	0.58	J	74.41	
n-Heptatriacontane	J		U	0.62	J		U
n-Octatriacontane	J		U	0.53	J	10.28	J
n-Nonatriacontane	J		U		U	33.02	J
n-Tetracontane	J		U		U		U
SHC(total)		1153.71		1039.55		84699.89	
Surrogate Recoveries (%)							
n-Tetracosane-d50		72		75		75	
5a-androstane		71		77		75	

*The data presented for sample S4115-P1 ise-extracted with B05-0010 using a soxhlet method.

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-N9-01-PHC-S	04-N18-01-PHC-S	04-L01A-01-PHC-S	04-5(1)-01-PHC-S
Battelle ID	S4123-P	S4124-P	S4389-P	S4390-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/11/04	08/05/04
Extraction Date	12/20/04	12/20/04	12/20/04	12/20/04
Analysis Date	01/13/05	01/14/05	01/13/05	01/13/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	29.62	33.37	36.66	16.4
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.78	20.04	19.63	25.90
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	4.72 J	10.57 J	7.34 J	1.92
n-Decane	8.67 J	21.38 J	16.72 J	2.58
n-Undecane	11.86 J	28.78	24.86 J	2.63
n-Dodecane	14.54 J	35.11	33.01	3.51
n-Tridecane	17.45 J	42.53	41.83	4.37
Isoprenoid RRT 1380	5.66 J	12.85 J	12.33 J	1.36
n-Tetradecane	21.64 J	49.7	47.5	5.11
Isoprenoid RRT 1470	11.65 J	29.09	26.23 J	2.41
n-Pentadecane	27.29 J	60.68	60.41	5.65
Norpristane (1650)	8.14 J	18.25 J	18.11 J	1.6
n-Hexadecane	26.72 J	57.81	59.12	6.45
n-Heptadecane	29.08	67.77	74.71	3.73
Pristane	20.75 J	47.7	51.63	2.78
n-Octadecane	21.31 J	49.37	49.82	2.49
Phytane	9.26 J	20.22 J	22.98 J	1.15
n-Nonadecane	30.28	74.32	69.78	3.1
n-Eicosane	27.64 J	67.89	63.61	2.83
n-Heneicosane	47.74	130.68	104.6	5.49
n-Docosane	37.85	100.51	81.68	5.32
n-Tricosane	77.62	251.45	162.64	10.7
n-Tetracosane	38.28	105.22	80.23	6.12
n-Pentacosane	101.02	297.87	201.13	17.08
n-Hexacosane	31.29 B	88.15	63.56	5.38
n-Heptacosane	123.63	416.95	262.44	15.54
n-Octacosane	25.3 J	72.18	50.22	4.96
n-Nonacosane	111.02	297.85	237.13	15.32
n-Triacontane	19.45 J	60.14	40.06	4
n-Hentriacontane	95.85	254.51	205.4	12.78
n-Dotriacontane	7.74 J	24.7 J	16.16 J	1.98
n-Tritriacontane	33.87	101.68	70.92	4.84
n-Tetratriacontane	3.93 J	8.32 J	6.64 J	0.82
n-Pentatriacontane	12.83 J	16.28 J	9.42 J	1.52
n-Hexatriacontane	1.85 J	3.75 J	3.7 J	0.29
n-Heptatriacontane	1.57 J	3.81 J	4.76 J	0.74
n-Octatriacontane	1.14 J	3.47 J	4.58 J	
n-Nonatriacontane	U	2.11 J	2.28 J	
n-Tetracontane	U	2.3 J	2.99 J	
SHC(total)	12501.26	6964.99	7293.71	1135.82
Surrogate Recoveries (%)				
n-Tetracosane-d50	74	76	73	74
5a-androstane	75	77	73	74

*The data presented for sample S4115-P1 is

Battelle
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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-N14-01-PHC-S		Kuparuk		ANS PS1	
Battelle ID		S4391-P		S6872-P		S6873-P	
Sample Type		SA		SA		SA	
Collection Date		08/09/04		01/26/05		01/26/05	
Extraction Date		12/20/04		01/26/05		01/26/05	
Analysis Date		01/13/05		02/09/05		02/09/05	
Analytical Instrument		FID		FID		FID	
% Moisture		37.03		NA		NA	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		NAPL		NAPL	
Sample Size		19.56		54.40		54.30	
Size Unit-Basis		G_DRY		MG_OIL		MG_OIL	
Units		UG/KG_DRY		UG/KG_OIL		UG/KG_OIL	
n-Nonane	J	18.95	J	2957.79		3790.17	
n-Decane	J	31.4	J	3401.74	B	4207.66	
n-Undecane	J	40.06		2740.36		3041.3	
n-Dodecane	J	48		2480.46		2749.7	
n-Tridecane	J	56.69		2017.62		2490.82	
Isoprenoid RRT 1380	J	17.18	J	687.24		654.81	
n-Tetradecane	J	62.06		1980.89		2262.01	
Isoprenoid RRT 1470	J	36.59		842.68		921.13	
n-Pentadecane	J	72.35		2165.47		2372.87	
Norpristane (1650)	J	21.65	J	687.12		754.21	
n-Hexadecane	J	72.97		1661.42		1901.24	
n-Heptadecane	J	106.97		1152.9		1458.84	
Pristane	J	58		1243.12		1481.09	
n-Octadecane	J	69.78		1062.04		1313.98	
Phytane	J	25.47	J	895.06		906.54	
n-Nonadecane	J	126.42		1057.47		1289.89	
n-Eicosane	J	108.37		1067.85		1379.68	
n-Heneicosane	J	247.51		959.71		1087.16	
n-Docosane	J	177.79		810.19		1024.12	
n-Tricosane	J	460.66		689.08		890.92	
n-Tetracosane	J	178.87		621.51		903.64	
n-Pentacosane	J	541.58		722.81		811.91	
n-Hexacosane	J	142.61		455.83		678.04	
n-Heptacosane	J	725.31		415.25		567.42	
n-Octacosane	J	113.1		304.86		383.72	
n-Nonacosane	J	497.89		284.09		377.24	
n-Triacontane	J	93.16		246.39		309.58	
n-Hentriacontane	J	417.75		196.99	J	244.39	
n-Dotriacontane	J	40.68		212.29		290.21	
n-Tritriacontane	J	164.72		235.76		213.4	
n-Tetratriacontane	J	18.26	J	168.4	J	183.31	J
n-Pentatriacontane	J	27.18	J	111.69	J	134.09	J
n-Hexatriacontane	J	6.14	J	69.93	J	96.87	J
n-Heptatriacontane	J	12.83	J	61.53	J	91.83	J
n-Octatriacontane	U	5.87	J	59.8	J	91.78	J
n-Nonatriacontane	U	5.13	J	51.9	J	66.69	J
n-Tetracontane	U		U	40.43	J	75.52	J
SHC(total)		14566.35		406836.63		244388.52	
Surrogate Recoveries (%)							
n-Tetracosane-d50		73		100		101	
5a-androstane		74		103		103	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	North Star	Endicott	04-L18-01-PHC-S
Battelle ID	S6874-P	S6875-P	S3888-P
Sample Type	SA	SA	SA
Collection Date	01/26/05	01/26/05	08/03/04
Extraction Date	01/26/05	01/26/05	11/18/04
Analysis Date	02/09/05	02/09/05	12/15/04
Analytical Instrument	FID	FID	FID
% Moisture	NA	NA	45.04
% Lipid	NA	NA	NA
Matrix	NAPL	NAPL	SEDIMENT
Sample Size	50.40	52.80	16.66
Size Unit-Basis	MG_OIL	MG_OIL	G_DRY
Units	UG/KG_OIL	UG/KG_OIL	UG/KG_DRY
n-Nonane	14363.82	3529.52	20.85 J
n-Decane	14788.45	4658.47	38.73 J
n-Undecane	12676.1	3946.38	54.75
n-Dodecane	11011.55	3850.95	58.69
n-Tridecane	10018.52	3557.68	72.41
Isoprenoid RRT 1380	2274.84	955.36	19.43 J
n-Tetradecane	9231.93	3538.6	75.77
Isoprenoid RRT 1470	3554.25	1479.15	42.24
n-Pentadecane	9358.71	3968.23	92.57
Norpristane (1650)	2898.68	1112.51	28.23 J
n-Hexadecane	7730.12	3379.16	86
n-Heptadecane	5969.72	2666.48	137.76
Pristane	5141.25	2598.61	85.46
n-Octadecane	5183.41	2620.42	96.9
Phytane	3220.23	1929.92	37.62
n-Nonadecane	4859.8	2826.74	149.69
n-Eicosane	4958.09	2977.79	131.03
n-Heneicosane	3630.3	2697.13	265.03
n-Docosane	3068.28	2600.94	190.22
n-Tricosane	2393.38	2467.24	442.59
n-Tetracosane	1735.33	2643	192.33
n-Pentacosane	1260.94	2337.39	492.49
n-Hexacosane	616.84	2126.59	137.16
n-Heptacosane	375.33	1723.08	724.67
n-Octacosane	112.95 J	1309.93	113.57
n-Nonacosane	U	1194.61	583.21
n-Triacontane	124.06 J	965.27	87.68
n-Hentriacontane	89.38 J	739.9	514.38
n-Dotriacontane	U	905.92	32.8 J
n-Tritriacontane	76.16 J	683.93	221.59
n-Tetratriacontane	U	595.19	11.37 J
n-Pentatriacontane	92.65 J	598.93	22.69 J
n-Hexatriacontane	U	345.98	4.88 J
n-Heptatriacontane	U	354.3	5.26 J
n-Octatriacontane	67.89 J	383.7	5.85 J
n-Nonatriacontane	U	290.3	4.47 J
n-Tetracontane	U	324.67	4.35 J
SHC(total)	609037.26	566714.17	18520.41
Surrogate Recoveries (%)			
n-Tetracosane-d50	105	105	75
5a-androstane	109	109	75

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-L17-01-PHC-S	04-L09-01-PHC-S	04-L07-01-PHC-S	04-L01-01-PHC-S
Battelle ID	S3889-P	S3890-P	S3891-P	S3892-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/04	08/02/04	08/02/04	08/02/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/15/04	12/15/04	12/15/04	12/15/04
Analytical Instrument	FID	FID	FID	FID
% Moisture	30.18	31.79	45.46	24.26
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.14	20.76	16.39	22.72
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	8.72 J	9.28 J	21.99 J	3.32
n-Decane	14.45 J	18.3 J	41.93 J	4.97
n-Undecane	17.43 J	24.66 J	58.36	5.71
n-Dodecane	20.36 J	29.28	66.37	6.99
n-Tridecane	21.96 J	36.75	83.73	6.79
Isoprenoid RRT 1380	5.91 J	9.08 J	22.86 J	2.15
n-Tetradecane	26.48 J	40.9	87.53	10.35
Isoprenoid RRT 1470	15.81 J	24.42 J	50.17	9.04
n-Pentadecane	31.03	50.4	105.69	12.24
Norpristane (1650)	9.62 J	16.16 J	33.61 J	5.78
n-Hexadecane	29.6	49.27	99.65	14.73
n-Heptadecane	39.66	65.93	154.15	17.26
Pristane	27.56	47.12	106.17	14.29
n-Octadecane	33.54	59.11	107.23	18.19
Phytane	14.76 J	23.93 J	47.58	9.38
n-Nonadecane	46.7	70.47	166.59	17.19
n-Eicosane	44.57	71.8	150.22	27.53
n-Heneicosane	83.7	114.85	307.2	25.19
n-Docosane	72.25	97.64	221.71	45.78
n-Tricosane	137.45	188.36	526.09	63.34
n-Tetracosane	70.92	109.61	235.46	104.37
n-Pentacosane	154.1	246.32	688.49	155.03
n-Hexacosane	53.69	82.65	164.83	195.92
n-Heptacosane	223.19	335.45	1071.37	265.83
n-Octacosane	42.76	67.93	140.87	224.62
n-Nonacosane	190.24	241.81	770.68	242.99
n-Triacontane	30.14	47.91	104.36	175.05
n-Hentriacontane	154.96	199.04	657.59	193.24
n-Dotriacontane	13.13 J	21.2 J	43.73	120.56
n-Tritriacontane	68.28	73.39	259.96	102.44
n-Tetratriacontane	5.28 J	8.34 J	14.66 J	49.39
n-Pentatriacontane	8.46 J	11.34 J	25.38 J	32.88
n-Hexatriacontane	2.7 J	4.21 J	7.15 J	19.1
n-Heptatriacontane	2.04 J	2.96 J	6.67 J	14.04
n-Octatriacontane	2.47 J	3.06 J	6.62 J	10.38
n-Nonatriacontane	1.14 J	1.65 J	4.66 J	6.61
n-Tetracontane	1.73 J	1.86 J	4.71 J	4.79
SHC(total)	9257.73	13085.15	24734.34	12734.35
Surrogate Recoveries (%)				
n-Tetracosane-d50	69	78	73	66
5a-androstane	67	77	73	64

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-L06-03-PHC-S	04-L06-02-PHC-S	04-L06-01-PHC-S
Battelle ID		S3893-P	S3894-P	S3895-P
Sample Type		SA	SA	SA
Collection Date		08/02/04	08/02/04	08/02/04
Extraction Date		11/18/04	11/18/04	11/18/04
Analysis Date		12/15/04	12/15/04	12/15/04
Analytical Instrument		FID	FID	FID
% Moisture		48.43	47.7	41.04
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		15.50	15.69	17.71
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	J	25.39 J	19.62 J	21.98 J
n-Decane	J	48.68 J	39.73 J	39.98 J
n-Undecane	J	65.94	55.4	52.78
n-Dodecane	J	73.82	65.68	60.51
n-Tridecane	J	92.23	83.47	72.42
Isoprenoid RRT 1380	J	21.85 J	20.72 J	18.79 J
n-Tetradecane	J	95.75	87.44	78.28
Isoprenoid RRT 1470	J	68.79	52.26	45.78
n-Pentadecane	J	117.09	108.05	93.05
Norpristane (1650)	J	37.38	31.75 J	27.98 J
n-Hexadecane	J	114.99	100.74	92.8
n-Heptadecane	J	174.33	154.92	123.76
Pristane	J	111.62	99.76	81.92
n-Octadecane	J	170.1	107.66	92.8
Phytane	J	63.28	45.76	37.22
n-Nonadecane	J	189.36	159.86	133.59
n-Eicosane		216.5	143.76	120
n-Heneicosane	J	313.62	269.66	226.93
n-Docosane		310.46	203.92	178.3
n-Tricosane		517.85	438.77	392.02
n-Tetracosane		369.9	205.75	181.72
n-Pentacosane		596.57	505.69	442.65
n-Hexacosane		294.19	155.44	134.9
n-Heptacosane		851.1	729.33	651.51
n-Octacosane		246.98	133.27	111.16
n-Nonacosane		703.15	610.59	520.59
n-Triacontane		176.26	95.77	85.22
n-Hentriacontane		596.06	535.52	453.81
n-Dotriacontane		83.54	41.05	33.9
n-Tritriacontane		241.43	234.89	183.76
n-Tetratriacontane		31.85 J	14.37 J	12.47 J
n-Pentatriacontane		33.66 J	25.75 J	24.54 J
n-Hexatriacontane	J	14.64 J	7.02 J	6.82 J
n-Heptatriacontane	J	8.58 J	6.64 J	6.5 J
n-Octatriacontane	J	10.88 J	7.37 J	6.21 J
n-Nonatriacontane	J	7.31 J	4.88 J	3.56 J
n-Tetracontane	J	6.57 J	4.65 J	4.07 J
SHC(total)		30135.62	21280.52	16476.35
Surrogate Recoveries (%)				
n-Tetracosane-d50		69	70	63
5a-androstane		68	70	62

*The data presented for sample S4115-P1 is

Battelle
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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-L04-01-PHC-S	04-3A-01-PHC-S	04-5H-01-PHC-S	04-3B-01-PHC-S
Battelle ID	S3896-P	S3897-P	S3898-P	S3899-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	07/30/04	08/02/04	07/30/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/16/04	12/16/04	12/16/04	12/16/04
Analytical Instrument	FID	FID	FID	FID
% Moisture	31.09	36.56	26.28	34.94
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.73	19.10	22.12	19.52
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	12.1 J	8.33 J	5.34 J	9.68
n-Decane	20.75 J	16.77 J	8.7 J	17.27
n-Undecane	30	20.9 J	10.37 J	22.5
n-Dodecane	32.36	26.38 J	13.66 J	28.1
n-Tridecane	38.59	35.22	16.5 J	34.13
Isoprenoid RRT 1380	9.9 J	9.35 J	4.95 J	9.04
n-Tetradecane	41.47	38.36	18.41 J	38.17
Isoprenoid RRT 1470	30.32	23.78 J	12.43 J	26.72
n-Pentadecane	50.31	48.37	23.19 J	48.82
Norpristane (1650)	17.51 J	14.85 J	7.49 J	14.84
n-Hexadecane	50.49	48.33	24.38 J	49.09
n-Heptadecane	68.75	69.79	30.58	68.8
Pristane	47.28	46.67	21.87 J	45.42
n-Octadecane	63.55	49.03	25.96 J	56.49
Phytane	26.3 J	22.56 J	10.86 J	23.99
n-Nonadecane	78.79	69.26	32.8	66.96
n-Eicosane	91.19	64.61	32.96	69.45
n-Heneicosane	133.3	116.47	52	109.02
n-Docosane	138.05	89.64	45.61	96.96
n-Tricosane	233.97	192.29	90.33	184.1
n-Tetracosane	164.89	93.61	51.04	107.35
n-Pentacosane	262.09	237.1	107.13	221.46
n-Hexacosane	137.96	67.56	38.43	85.18
n-Heptacosane	363.7	330.29	141.9	314.99
n-Octacosane	111.69	60.65	30.71 B	71.15
n-Nonacosane	294.09	272.13	115.97	262.89
n-Triacontane	79.58	45.19	26.6	54
n-Hentriacontane	252.76	228.7	98.73	217.76
n-Dotriacontane	36.84	19.11 J	10.73 J	24.21
n-Tritriacontane	106.75	83.56	36.7	81.99
n-Tetratriacontane	14 J	7.81 J	4.57 J	11.1
n-Pentatriacontane	14.07 J	11.22 J	6.29 J	11.36
n-Hexatriacontane	5.77 J	3.68 J	1.9 J	4.9
n-Heptatriacontane	4.15 J	2.53 J	1.04 J	3.17
n-Octatriacontane	4.88 J	2.92 J	1.3 J	4.25
n-Nonatriacontane	2.69 J	1.56 J	0.56 J	1.5
n-Tetracontane	2.63 J	1.95 J	0.89 J	1.91
SHC(total)	12288.9	9788.27	5946.5 B	10840.7
Surrogate Recoveries (%)				
n-Tetracosane-d50	69	68	66	67
5a-androstane	67	67	64	66

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-5(5)-01-PHC-S		04-4A-01-PHC-S		04-4B-01-PHC-S	
Battelle ID		S3900-P		S3901-P		S3903-P	
Sample Type		SA		SA		SA	
Collection Date		08/03/04		08/03/04		08/03/04	
Extraction Date		11/18/04		11/18/04		11/18/04	
Analysis Date		12/16/04		12/16/04		12/16/04	
Analytical Instrument		FID		FID		FID	
% Moisture		36.52		31.18		21.37	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		19.11		20.68		23.59	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	9.02	J	35.67		2.61	J
n-Decane	J	17.24	J	64.55	J	3.41	J
n-Undecane	J	23.45	J	82.95		3.07	J
n-Dodecane	J	29.87	J	95.15		6.34	J
n-Tridecane		37.77		109.73		7.24	J
Isoprenoid RRT 1380	J	10.11	J	26.03	J	1.93	J
n-Tetradecane		44.76		117.7		9.92	J
Isoprenoid RRT 1470	J	24.42	J	63.47		5.42	J
n-Pentadecane		55.37		150.15		10.73	J
Norpristane (1650)	J	19.39	J	39.34		4.3	J
n-Hexadecane		53.29		127.14		11.1	J
n-Heptadecane		63.04		153.11		12.11	J
Pristane		54.25		110.13		9.11	J
n-Octadecane		54.96		122.75		10.8	J
Phytane	J	31.76		46.32		5.04	J
n-Nonadecane		70.9		156.76		12.66	J
n-Eicosane		66.28		151.37		13.36	J
n-Heneicosane		93.59		230.85		19.58	J
n-Docosane		76.43		191.74		18.75	J
n-Tricosane		130.59		329.48		32.97	
n-Tetracosane		73.33		189.19		20.63	J
n-Pentacosane		146.55		351.33		45.12	
n-Hexacosane		56.71		146.5		14.74	J
n-Heptacosane		183.07		476.56		51.04	
n-Octacosane		43.16		112.47		10.48	J
n-Nonacosane		160.83		520.38		42.46	
n-Triacontane		34.33		79.43		7.39	J
n-Hentriacontane		138.73		489.62		36.85	
n-Dotriacontane	J	14.52	J	37.4		2.71	J
n-Tritriacontane		71.82		183.9		15.02	J
n-Tetratriacontane	J	6.64	J	16.03	J	1.09	J
n-Pentatriacontane	J	11.68	J	25.11	J	1.91	J
n-Hexatriacontane	J	3.45	J	7.64	J	0.54	J
n-Heptatriacontane	J	3.46	J	7.21	J	0.36	J
n-Octatriacontane	J	3.31	J	5.8	J		U
n-Nonatriacontane	J	1.88	J	4.69	J		U
n-Tetracontane	J	1.99	J	3.99	J		U
SHC(total)		9230.85		15203.31		3619.46	B
Surrogate Recoveries (%)							
n-Tetracosane-d50		75		62		75	
5a-androstane		71		61		71	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-L08-01-PHC-S	04-5(0)-01-PHC-S	04-N02-01-PHC-S	04-5F-01-PHC-S
Battelle ID	S3904-P	S3905-P	S4088-P	S4089-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	08/03/04	08/07/04	08/09/04
Extraction Date	11/18/04	11/18/04	11/18/04	11/18/04
Analysis Date	12/16/04	12/16/04	12/16/04	12/16/04
Analytical Instrument	FID	FID	FID	FID
% Moisture	40.37	27.14	39	35.33
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.98	22.25	18.60	19.41
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	23.67 J	5.43 J	8.21 J	13.36
n-Decane	43.28 J	8.81 J	14.62 J	26.31
n-Undecane	55.94	11.13 J	14.31 J	34.61
n-Dodecane	68.48	14.35 J	21.85 J	43.28
n-Tridecane	84.98	20.28 J	29.35 J	48.08
Isoprenoid RRT 1380	32.03 J	4.55 J	7.71 J	14.21
n-Tetradecane	97.27	20.05 J	33.4	58.05
Isoprenoid RRT 1470	70.5	14.33 J	21.13 J	39.89
n-Pentadecane	110.88	23.98 J	41.52	67.2
Norpristane (1650)	43.31	8.07 J	12.74 J	22.68
n-Hexadecane	101.86	24.43 J	48.16	68.84
n-Heptadecane	114.95	30.44	47.87	98.9
Pristane	111.48	22.17 J	43.28	58.53
n-Octadecane	84.09	33.16	41.51	82.45
Phytane	60.63	11.92 J	19.67 J	29.71
n-Nonadecane	111.99	34.29	60.17	135.61
n-Eicosane	101.43	41.1	58.85	131.54
n-Heneicosane	195.48	56.81	101.25	294.99
n-Docosane	133.49	66.13	84.44	218.14
n-Tricosane	304.34	102.98	182.72	601.19
n-Tetracosane	139.61	86.77	84.44	239.77
n-Pentacosane	380.69	137.33	205.12	665.66
n-Hexacosane	101.43	88.84	65.94	178.08
n-Heptacosane	536.75	195.61	247.53	964.24
n-Octacosane	95.87	73.72	46.68	138.88
n-Nonacosane	425.63	154.45	202.1	666.76
n-Triacontane	68.44	51.78	36.09	119.01
n-Hentriacontane	375.51	131.33	170.4	584.6
n-Dotriacontane	25.72 J	28.9	12.44 J	42.28
n-Tritriacontane	132.32	53.89	73.78	274.1
n-Tetratriacontane	11.25 J	12.61 J	4.89 J	15.63
n-Pentatriacontane	26.02 J	12.01 J	9.31 J	32.89
n-Hexatriacontane	5.52 J	5.79 J	1.84 J	6.18
n-Heptatriacontane	5.17 J	4.95 J	1.62 J	4.54
n-Octatriacontane	8.43 J	3.5 J	2.37 J	5.16
n-Nonatriacontane	3.67 J	1.91 J	U	2.76
n-Tetracontane	3.04 J	1.95 J	U	2.63
SHC(total)	25576.28	6798.14 B	3334.69 B	16789.43
Surrogate Recoveries (%)				
n-Tetracosane-d50	73	68	27 N	60
5a-androstane	73	66	26 N	58

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-N16-01-PHC-S		04-5D-01-PHC-S		04-5(10)-01-PHC-S	
Battelle ID		S4090-P		S4091-P		S4092-P	
Sample Type		SA		SA		SA	
Collection Date		08/07/04		08/08/04		08/08/04	
Extraction Date		12/14/04		12/14/04		12/14/04	
Analysis Date		12/23/04		12/23/04		12/23/04	
Analytical Instrument		FID		FID		FID	
% Moisture		41.22		51.9		26.52	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		16.69		14.73		21.36	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	1.52	J	3.72	J	1.38	J
n-Decane	J	7.67	J	9.56	J	3.79	J
n-Undecane		17.31	J	17.15	J	5.79	J
n-Dodecane		27.38	J	25.23	J	7.84	J
n-Tridecane		41.36		35.55	J	11.79	J
Isoprenoid RRT 1380	J	12.95	J	13.76	J	3.81	J
n-Tetradecane		54.27		43.52		12.55	J
Isoprenoid RRT 1470		33.41	J	36.28	J	9.21	J
n-Pentadecane		74.25		61.17		17.17	J
Norpristane (1650)	J	23.78	J	15.94	J	5.58	J
n-Hexadecane		73.25		54.42		19.28	J
n-Heptadecane		103.42		183.57		22.03	J
Pristane		81.01		45.20		15.75	J
n-Octadecane		77.81		72.55		17.92	J
Phytane	J	32.82	J	28.15	J	7.33	J
n-Nonadecane		113.90		168.25		23.64	J
n-Eicosane		126.77		151.94		21.98	J
n-Heneicosane		324.56		448.32		37.15	
n-Docosane		472.43		264.98		32.10	
n-Tricosane		763.08		868.12		68.79	
n-Tetracosane		644.17		278.25		34.85	
n-Pentacosane		729.73		1238.10		90.67	
n-Hexacosane		453.15		167.12		25.10	J
n-Heptacosane		694.96		1715.90		165.01	
n-Octacosane		309.83		110.92		20.53	J
n-Nonacosane		535.73		831.46		95.36	
n-Triacontane		218.32		103.98		17.35	J
n-Hentriacontane		464.64		577.07		71.40	
n-Dotriacontane		108.33		37.61	J	5.93	J
n-Tritriacontane		177.04		230.50		32.68	
n-Tetratriacontane	J	45.22		10.00	J	2.19	J
n-Pentatriacontane		39.66		26.51	J	5.24	J
n-Hexatriacontane	J	15.20	J	3.28	J	0.49	J
n-Heptatriacontane	J	9.29	J	3.12	J	0.43	J
n-Octatriacontane	J	7.28	J	6.40	J	0.46	J
n-Nonatriacontane	J	5.33	J	2.84	J		ND
n-Tetracontane	J	18.74	J	2.64	J		ND
SHC(total)		33016.79		25173.62		8017.67	B
Surrogate Recoveries (%)							
n-Tetracosane-d50		68		77		81	
5a-androstane		71		78		81	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-N6-01-PHC-S	04-N6-02-PHC-S	04-N6-03-PHC-S	04-N05-01-PHC-S
Battelle ID	S4093-P	S4094-P	S4095-P	S4096-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/04	08/07/04	08/07/04	08/07/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/23/04	12/23/04	12/23/04	12/23/04
Analytical Instrument	FID	FID	FID	FID
% Moisture	39.52	45.93	43.05	39.27
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	18.20	16.16	16.70	18.40
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	0.61 J	10.22 J	10.29 J	3.41
n-Decane	5.07 J	27.71 J	23.42 J	8.45
n-Undecane	17.12 J	45.05	37.96	14.94
n-Dodecane	31.20 J	53.65	45.35	22.87
n-Tridecane	49.21	68.04	60.70	35.82
Isoprenoid RRT 1380	15.43 J	20.34 J	16.49 J	11.35
n-Tetradecane	60.43	76.64	68.57	45.97
Isoprenoid RRT 1470	37.64	45.15	39.98	27.64
n-Pentadecane	80.91	96.72	85.58	60.03
Norpristane (1650)	26.58 J	28.65 J	24.95 J	19.33
n-Hexadecane	78.91	91.15	82.93	56.57
n-Heptadecane	114.51	133.63	119.38	80.94
Pristane	77.56	89.85	81.29	54.31
n-Octadecane	85.93	94.83	84.67	59.95
Phytane	35.44	40.43	35.04	24.70
n-Nonadecane	125.65	147.30	132.94	87.54
n-Eicosane	113.16	133.49	123.63	81.23
n-Heneicosane	221.51	264.63	246.33	149.84
n-Docosane	164.76	198.92	182.19	117.03
n-Tricosane	400.94	458.91	446.56	259.61
n-Tetracosane	161.54	195.52	185.45	116.93
n-Pentacosane	406.85	532.39	505.81	291.56
n-Hexacosane	118.71	141.65	133.76	85.14
n-Heptacosane	547.29	800.21	770.03	417.32
n-Octacosane	89.44	120.85	115.50	68.59
n-Nonacosane	455.20	667.10	631.95	345.28
n-Triacontane	73.85	91.41	88.37	52.37
n-Hentriacontane	389.90	571.97	545.19	292.90
n-Dotriacontane	26.08 J	37.45	34.77	20.35
n-Tritriacontane	174.85	203.12	194.36	114.61
n-Tetratriacontane	9.19 J	14.44 J	12.74 J	7.97
n-Pentatriacontane	19.40 J	28.34 J	25.20 J	15.99
n-Hexatriacontane	3.61 J	6.71 J	5.18 J	3.37
n-Heptatriacontane	3.09 J	6.17 J	5.59 J	3.94
n-Octatriacontane	2.97 J	6.00 J	5.48 J	3.73
n-Nonatriacontane	1.50 J	3.45 J	3.27 J	2.63
n-Tetracontane	1.00 J	2.83 J	3.03 J	2.01
SHC(total)	18212.32 B	19680.93 B	18067.72 B	11386.64
Surrogate Recoveries (%)				
n-Tetracosane-d50	75	78	77	83
5a-androstane	77	77	77	82

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-N12-01-PHC-S		04-N11-01-PHC-S		04-N20-01-PHC-S	
Battelle ID		S4097-P		S4098-P		S4099-P	
Sample Type		SA		SA		SA	
Collection Date		08/06/04		08/06/04		08/06/04	
Extraction Date		12/14/04		12/14/04		12/14/04	
Analysis Date		12/23/04		12/24/04		12/24/04	
Analytical Instrument		FID		FID		FID	
% Moisture		21.09		16.95		24.28	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		23.55		25.43		22.49	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	3.96	J	0.82	J	2.71	J
n-Decane	J	7.93	J	1.63	J	7.23	J
n-Undecane	J	10.50	J	1.22	J	11.10	J
n-Dodecane	J	13.30	J	3.78	J	14.94	J
n-Tridecane		17.07	J	4.15	J	20.00	J
Isoprenoid RRT 1380	J	4.99	J	1.44	J	6.63	J
n-Tetradecane		18.61	J	5.94	J	27.14	
Isoprenoid RRT 1470	J	12.00	J	3.97	J	17.65	J
n-Pentadecane		24.37	J	7.67	J	34.50	
Norpristane (1650)	J	6.97	J	2.38	J	10.69	J
n-Hexadecane		26.40		9.97	J	36.01	
n-Heptadecane		37.93		9.89	J	50.67	
Pristane		21.98	J	7.58	J	32.13	
n-Octadecane		27.46		7.63	J	38.31	
Phytane	J	9.29	J	3.22	J	13.81	J
n-Nonadecane		48.69		12.03	J	64.80	
n-Eicosane		44.40		10.85	J	56.40	
n-Heneicosane		99.43		23.54		127.36	
n-Docosane		72.09		18.68	J	91.71	
n-Tricosane		184.38		43.96		246.67	
n-Tetracosane		72.56		20.99	J	92.38	
n-Pentacosane		201.95		56.22	B	253.06	
n-Hexacosane		49.95		15.58	J	65.33	
n-Heptacosane		286.67		68.16		357.77	
n-Octacosane		42.49		11.43	J	50.91	
n-Nonacosane		226.18		50.92		268.19	
n-Triacontane		31.45		8.62	J	41.26	
n-Hentriacontane		209.44		42.10		242.65	
n-Dotriacontane	J	12.76	J	3.99	J	13.91	J
n-Tritriacontane		76.21		13.24	J	86.05	
n-Tetratriacontane	J	4.32	J	ND		3.93	J
n-Pentatriacontane	J	8.45	J	ND		7.78	J
n-Hexatriacontane	J	1.31	J	ND		1.21	J
n-Heptatriacontane	J	1.53	J	ND		0.59	J
n-Octatriacontane	J	1.69	J	ND		ND	
n-Nonatriacontane	J	1.16	J	ND		ND	
n-Tetracontane	J	0.78	J	ND		ND	
SHC(total)	B	9628.93	B	5558.50	B	8130.17	B
Surrogate Recoveries (%)							
n-Tetracosane-d50		84		77		81	
5a-androstane		84		76		80	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-N17-01-PHC-S	04-N23-01-PHC-S	04-N10-01-PHC-S	04-N19-01-PHC-S
Battelle ID	S4100-P	S4101-P	S4102-P	S4103-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/04	08/06/04	08/06/04	08/06/04
Extraction Date	12/14/04	12/14/04	12/14/04	12/14/04
Analysis Date	12/24/04	12/24/04	12/24/04	12/24/04
Analytical Instrument	FID	FID	FID	FID
% Moisture	45.37	41.74	49.56	31.66
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	16.50	17.03	15.14	21.62
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	4.82 J	10.44 J	4.14 J	1.97
n-Decane	15.33 J	24.21 J	14.18 J	4.95
n-Undecane	25.87 J	36.63	28.50 J	9.91
n-Dodecane	36.30	47.09	42.03	12.75
n-Tridecane	52.07	68.06	66.83	21.71
Isoprenoid RRT 1380	15.68 J	20.25 J	19.15 J	6.92
n-Tetradecane	63.94	75.13	73.97	27.39
Isoprenoid RRT 1470	37.93	46.82	46.41	17.79
n-Pentadecane	86.05	97.14	98.73	37.22
Norpristane (1650)	27.68 J	30.59 J	30.04 J	12.54
n-Hexadecane	83.54	88.88	92.82	41.28
n-Heptadecane	122.06	142.55	156.25	54.26
Pristane	94.29	92.24	93.08	35.59
n-Octadecane	89.57	96.62	99.52	38.25
Phytane	41.67	43.51	41.66	15.42
n-Nonadecane	136.69	159.29	157.46	57.75
n-Eicosane	139.03	152.31	147.18	52.43
n-Heneicosane	317.57	324.45	301.66	96.72
n-Docosane	345.79	237.45	213.24	73.87
n-Tricosane	616.69	569.27	512.35	165.23
n-Tetracosane	422.54	236.83	213.71	72.45
n-Pentacosane	641.21	682.83	625.62	187.22
n-Hexacosane	296.65	168.13	148.25	55.04
n-Heptacosane	785.35	1054.67	909.13	261.13
n-Octacosane	213.85	148.33	122.82	43.95
n-Nonacosane	669.59	924.80	684.45	227.99
n-Triacontane	154.03	116.67	97.54	33.68
n-Hentriacontane	583.76	809.78	567.10	192.22
n-Dotriacontane	73.98	44.99	34.88 J	12.84
n-Tritriacontane	220.42	279.68	207.33	74.69
n-Tetratriacontane	28.13 J	15.18 J	11.94 J	4.62
n-Pentatriacontane	34.18 J	35.17	23.39 J	8.82
n-Hexatriacontane	10.91 J	6.20 J	4.33 J	1.49
n-Heptatriacontane	7.97 J	6.02 J	3.80 J	1.13
n-Octatriacontane	5.35 J	5.99 J	4.46 J	
n-Nonatriacontane	2.80 J	3.93 J	1.63 J	
n-Tetracontane	5.63 J	2.55 J	1.26 J	
SHC(total)	24662.89	30331.29	22650.89 B	9831.73
Surrogate Recoveries (%)				
n-Tetracosane-d50	79	76	76	79
5a-androstane	78	76	77	79

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID		04-N03-01-PHC-S		04-N01-01-PHC-S		04-N21-01-PHC-S	
Battelle ID		S4110-P		S4111-P		S4112-P	
Sample Type		SA		SA		SA	
Collection Date		08/07/04		08/08/04		08/09/04	
Extraction Date		12/14/04		12/14/04		12/14/04	
Analysis Date		12/24/04		12/24/04		12/24/04	
Analytical Instrument		FID		FID		FID	
% Moisture		55.73		24.67		30.86	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		13.03		22.45		21.10	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	11.12	J	0.96	J	2.88	J
n-Decane	J	28.60	J	1.79	J	8.41	J
n-Undecane	J	45.60		2.83	J	15.01	J
n-Dodecane	J	57.73		4.63	J	18.46	J
n-Tridecane	J	80.26		6.15	J	25.78	J
Isoprenoid RRT 1380	J	22.81	J	1.50	J	7.66	J
n-Tetradecane		92.96		6.86	J	30.05	
Isoprenoid RRT 1470	J	56.58		4.79	J	19.99	J
n-Pentadecane		124.92		9.38	J	37.25	
Norpristane (1650)	J	36.94	J	2.55	J	11.92	J
n-Hexadecane		116.63		11.04	J	41.16	
n-Heptadecane		178.11		9.61	J	53.03	
Pristane		120.75		14.66	J	33.05	
n-Octadecane		125.76		9.44	J	40.14	
Phytane	J	57.26		4.21	J	14.11	J
n-Nonadecane		194.68		11.05	J	64.11	
n-Eicosane		179.65		11.11	J	59.95	
n-Heneicosane		350.14		17.40	J	121.47	
n-Docosane		259.70		17.84	J	92.48	
n-Tricosane		562.04		29.82		225.12	
n-Tetracosane		253.25		18.32	J	96.65	
n-Pentacosane		623.57		35.46	B	251.43	
n-Hexacosane		177.15		14.20	J	66.19	
n-Heptacosane		929.05		42.04		335.68	
n-Octacosane		153.72		10.03	J	51.15	
n-Nonacosane		841.01		39.57		254.79	
n-Triacontane		119.25		7.66	J	40.02	
n-Hentriacontane		725.78		35.72		223.89	
n-Dotriacontane	J	50.82		2.69	J	14.75	J
n-Tritriacontane		266.71		15.02	J	77.14	
n-Tetratriacontane	J	18.18	J	0.79	J	4.22	J
n-Pentatriacontane	J	35.71	J		ND	7.22	J
n-Hexatriacontane	J	7.37	J	0.30	J	0.76	J
n-Heptatriacontane	J	7.13	J		ND		ND
n-Octatriacontane	ND	6.38	J		ND		ND
n-Nonatriacontane	ND	3.25	J		ND		ND
n-Tetracontane	ND	2.18	J		ND		ND
SHC(total)	B	25454.91		4914.52	B	9958.70	B
Surrogate Recoveries (%)							
n-Tetracosane-d50		76		81		69	
5a-androstane		77		80		70	

*The data presented for sample S4115-P1 is

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task 002
Project Number: G004974-DUXLAB

Client ID	04-5B-01-PHC-S	04-5(5A)-01-PHC-S	04-N13-01-PHC-S
Battelle ID	S4113-P	S4114-P	S4115-P1*
Sample Type	SA	SA	SA
Collection Date	08/09/04	08/08/04	08/09/04
Extraction Date	12/14/04	12/14/04	01/18/05
Analysis Date	12/24/04	12/24/04	01/29/05
Analytical Instrument	FID	FID	MS
% Moisture	22.48	26.86	43.65
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.19	22.86	17.06
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	ND	1.63 J	33.8
n-Decane	ND	4.90 J	43.41 J
n-Undecane	ND	6.34 J	40.53
n-Dodecane	ND	10.02 J	41.83
n-Tridecane	ND	15.36 J	37.46
Isoprenoid RRT 1380	ND	5.16 J	12.37 J
n-Tetradecane	ND	18.62 J	39.54
Isoprenoid RRT 1470	1.34 J	14.22 J	6.37 J
n-Pentadecane	2.05 J	25.64	51.33
Norpristane (1650)	0.81 J	8.55 J	16.44 J
n-Hexadecane	7.37 J	27.63	61.54
n-Heptadecane	1.06 J	35.71	74.17
Pristane	3.35 J	24.30 J	56.12
n-Octadecane	2.73 J	25.80	62.02
Phytane	1.17 J	10.98 J	22.7 J
n-Nonadecane	1.88 J	41.35	128.68
n-Eicosane	2.86 J	39.42	111.63
n-Heneicosane	3.61 J	68.53	312.67 B
n-Docosane	6.37 J	53.24	213.59 B
n-Tricosane	8.03 J	133.28	611.65 B
n-Tetracosane	6.39 J	56.27	215.14 B
n-Pentacosane	18.54 J	168.79	651.78 B
n-Hexacosane	4.84 J	44.53	151.52 B
n-Heptacosane	9.42 J	240.60	945.45
n-Octacosane	3.71 J	34.09	126.11 B
n-Nonacosane	7.86 J	187.14	675.3
n-Triacontane	2.38 J	35.42	76.02 B
n-Hentriacontane	ND	154.17	621.98
n-Dotriacontane	ND	10.50 J	40.13 B
n-Tritriacontane	0.63 J	55.11	174.97 B
n-Tetratriacontane	ND	3.38 J	11.24 J
n-Pentatriacontane	ND	7.31 J	22.27 J
n-Hexatriacontane	ND	ND	3.41 J
n-Heptatriacontane	ND	ND	1.86 J
n-Octatriacontane	ND	ND	U
n-Nonatriacontane	ND	ND	U
n-Tetracontane	ND	ND	U
SHC(total)	4491.42 B	8163.59 B	21167.16 B
Surrogate Recoveries (%)			
n-Tetracosane-d50	80	79	83
5a-androstane	79	79	84

*The data presented for sample S4115-P1 is

2005 Data

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	02-N16-01-PHC-S	02-L08-01-PHC-S	02-5A-01-PHC-S	05-3B-01-PHC-S
Battelle ID	S8767-P	S8768-P	S8774-P	S8895-P
Sample Type	SA	SA	SA	SA
Collection Date	08/05/02	07/30/02	08/03/02	07/30/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/23/05	10/23/05	10/24/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	32.61	21.75	38.97	37.77
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.70	24.12	18.39	18.71
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	26.88 T	5.96 T	30.82 T	9.62
C1-Naphthalenes	83.9 T	15.38 T	97.57 T	28.26
C2-Naphthalenes	119.28 T	24.54 T	138.3 T	43.08
C3-Naphthalenes	91.55 T	20.49 T	104.56 T	34.76
C4-Naphthalenes	56.42 T	13.62 T	64.63 T	22.04
Biphenyl	15.33 T	3.64 T	18.19 T	8.01
Acenaphthylene	NDT	NDT	NDT	
Acenaphthene	1.92 T	0.39 T	2.54 T	1.24
Fluorene	10.08 T	1.86 T	10.84 T	4.56
C1-Fluorenes	21.41 T	3.88 T	24.43 T	9.37
C2-Fluorenes	33.16 T	5.41 T	42.74 T	20.59
C3-Fluorenes	26.43 T	4.51 T	40.94 T	20.29
Anthracene	0.88 T	0.23 T	0.81 T	0.44
Phenanthrene	48.1 T	7.83 T	53.38 T	22.81
C1-Phenanthrenes/Anthracenes	75.95 T	12.18 T	86.54 T	33.27
C2-Phenanthrenes/Anthracenes	66.17 T	12.58 T	74.88 T	31
C3-Phenanthrenes/Anthracenes	46.48 T	8.58 T	56.53 T	22.64
C4-Phenanthrenes/Anthracenes	13.16 T	2.49 T	16.61 T	6.02
Dibenzothiophene	7.92 T	1.51 T	8.49 T	3.39
C1-Dibenzothiophenes	20.46 T	2.5 T	22.84 T	8.18
C2-Dibenzothiophenes	23.77 T	4.62 T	26.64 T	9.47
C3-Dibenzothiophenes	14.96 T	3.1 T	18.21 T	6.12
Fluoranthene	6.61 T	1.2 T	7.44 T	3.06
Pyrene	11.7 T	2.29 T	13.66 T	5.79
C1-Fluoranthenes/Pyrenes	37.65 T	6.06 T	42.92 T	16.19
C2-Fluoranthenes/Pyrenes	38.52 T	5.16 T	47.71 T	20.35
C3-Fluoranthenes/Pyrenes	27.39 T	3.75 T	33.57 T	13.53
Benzo(a)anthracene	4.01 T	0.53 T	4.37 T	1.78
Chrysene	27.05 T	4.24 T	31.32 T	13.34
C1-Chrysenes	35.25 T	5.06 T	39.82 T	17.15
C2-Chrysenes	33.12 T	4.07 T	39.04 T	16.47
C3-Chrysenes	20.74 T	3.11 T	23.21 T	10.5
C4-Chrysenes	NDT	NDT	NDT	
Benzo(b)fluoranthene	12.77 T	2.18 T	16.51 T	6.81
Benzo(k)fluoranthene	2.86 T	0.5 T	2.71 T	1.41
Benzo(e)pyrene	19.42 T	3.48 T	20.42 T	10.2
Benzo(a)pyrene	4.4 T	0.6 T	5.22 T	2.07
Perylene	112.69 T	19.28 T	136.39 T	63.32
Indeno(1,2,3-cd)pyrene	3.62 T	0.63 T	4.24 T	1.71
Dibenz(a,h)anthracene	1.85 T	0.28 T	2.21 T	0.95
Benzo(g,h,i)perylene	14.81 T	2.43 T	16.45 T	7.57
C23 diterpane (T4)	1.18 T	1.22 T	1.47 T	
C29 Tricyclictriterpane (T9)	0.58 T	0.64 T	0.39 T	
C29 Tricyclictriterpane (T10)	0.43 T	0.41 T	0.47 T	
18a(H)-22,29,30-Trisnorneohopane -TS (T1	0.98 T	0.71 T	1.16 T	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.57 T	1.39 T	4.41 T	1.95

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	02-N16-01-PHC-S	02-L08-01-PHC-S	02-5A-01-PHC-S	05-3B-01-PHC-S
Battelle ID	S8767-P	S8768-P	S8774-P	S8895-P
Sample Type	SA	SA	SA	SA
Collection Date	08/05/02	07/30/02	08/03/02	07/30/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/23/05	10/23/05	10/24/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	32.61	21.75	38.97	37.77
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.70	24.12	18.39	18.71
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	8.29 T	3.88 T	8.88 T	5.3
18a(H)-Oleanane (T18)	NDT	NDT	NDT	
17a(H),21b(H)-hopane (T19)	16.65 T	7.25 T	14.12 T	9.37
22S-17a(H),21b(H)-30-Homohopane (T21)	5.28 T	2.52 T	5.89 T	2.74
22R-17a(H),21b(H)-30-Homohopane (T22)	9.68 T	3.06 T	12.69 T	3.84
13b,17a-Diacholestane -20S (S4)	1.4 T	1.09 T	1.69 T	0.99
13b,17a-Diacholestane-20R (S5)	1.22 T	0.91 T	1.39 T	0.9
5a,14a,17a--methylcholestane-20R (S24)	4.75 T	2.7 T	4.44 T	2.31
5a,14a,17a-Ethylcholestane-20S (S25)	3.7 T	1.64 T	4.78 T	1.27
5a,14a,17a-Ethylcholestane-20R (S28)	10.57 T	2.6 T	12.09 T	3.12
S28a	9.51 T	3.64 T	14.07 T	9.24
Surrogate Recoveries (%)				
Naphthalene-d8	74	79	76	76
Acenaphthene-d10	74	80	74	75
Phenanthrene-d10	73	86	73	75
Benzo(a)pyrene-d12	97	87	93	80
5b(H)-Cholane	94	101	94	100

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-3A-01-PHC-S	05-L08-01-PHC-S	05-L07-01-PHC-S
Battelle ID		S8896-P	S8897-P	S8898-P
Sample Type		SA	SA	SA
Collection Date		07/30/05	07/30/05	07/30/05
Extraction Date		10/07/05	10/07/05	10/07/05
Analysis Date		10/24/05	10/23/05	10/24/05
Analytical Instrument		MS	MS	MS
% Moisture		40.36	25.13	48.28
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		18.01	22.56	15.72
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene		13.75	7.3	21.65
C1-Naphthalenes		43.91	19.15	67.94
C2-Naphthalenes		65.59	29.6	103.09
C3-Naphthalenes		52.35	24.93	83.36
C4-Naphthalenes		31.12	16.31	49.28
Biphenyl		10.2	4.78	16.07
Acenaphthylene	ND	ND	ND	ND
Acenaphthene		1.3	0.55	2.05
Fluorene		6.28	2.48	9.8
C1-Fluorenes		12.09	5.05	19.59
C2-Fluorenes		16.71	6.99	25.33
C3-Fluorenes		13.58	6.21	20.64
Anthracene		0.58	0.2	0.55
Phenanthrene		29.75	11.35	46.91
C1-Phenanthrenes/Anthracenes		45.14	18.27	76.47
C2-Phenanthrenes/Anthracenes		40.87	19.57	77.63
C3-Phenanthrenes/Anthracenes		27.29	12.68	45.48
C4-Phenanthrenes/Anthracenes		8.53	4.18	13.08
Dibenzothiophene		4.33	1.96	5.98
C1-Dibenzothiophenes		11.8	3.67	16.41
C2-Dibenzothiophenes		12.83	6	20.05
C3-Dibenzothiophenes		8.04	4.32	15.91
Fluoranthene		3.92	1.82	6.91
Pyrene		7.11	3.21	11.9
C1-Fluoranthenes/Pyrenes		21.2	8.81	33.78
C2-Fluoranthenes/Pyrenes		19.69	8.05	28.71
C3-Fluoranthenes/Pyrenes		12.58	5.51	19.68
Benzo(a)anthracene		2.07	0.77	3.05
Chrysene		16.01	6.55	25.12
C1-Chrysenes		21.68	7.96	35.08
C2-Chrysenes		20.35	7.01	31.77
C3-Chrysenes		11.86	4.23	22.16
C4-Chrysenes	ND	ND	ND	ND
Benzo(b)fluoranthene		7.78	3.74	11.16
Benzo(k)fluoranthene		1.49	0.77	2.43
Benzo(e)pyrene		13.54	5.61	19.53
Benzo(a)pyrene		2.27	0.88	3.1
Perylene		70.78	31.76	113.61
Indeno(1,2,3-cd)pyrene		1.93	0.74	2.49
Dibenz(a,h)anthracene		1.06	0.42	1.65
Benzo(g,h,i)perylene		8.63	3.13	11.46
C23 diterpane (T4)	ND	1.3	0.93	1.96
C29 Tricyclictriterpane (T9)	ND	0.32	0.28	0.52
C29 Tricyclictriterpane (T10)	ND	0.66	0.4	0.39
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND	0.51	0.69	1.21
17a(H)-22,29,30-Trisnorhopane -TM (T12)		2.08	1.26	3.67

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-3A-01-PHC-S	05-L08-01-PHC-S	05-L07-01-PHC-S
Battelle ID		S8896-P	S8897-P	S8898-P
Sample Type		SA	SA	SA
Collection Date		07/30/05	07/30/05	07/30/05
Extraction Date		10/07/05	10/07/05	10/07/05
Analysis Date		10/24/05	10/23/05	10/24/05
Analytical Instrument		MS	MS	MS
% Moisture		40.36	25.13	48.28
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		18.01	22.56	15.72
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)		5.31	3.94	9.33
18a(H)-Oleanane (T18)	ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)		10.04	6.78	17.92
22S-17a(H),21b(H)-30-Homohopane (T21)		3.74	2.57	5.22
22R-17a(H),21b(H)-30-Homohopane (T22)		5.6	3.51	8.07
13b,17a-Diacholestane -20S (S4)		0.94	0.85	2.7
13b,17a-Diacholestane-20R (S5)		1.11	0.86	2.02
5a,14a,17a--methylcholestane-20R (S24)		2.87	1.7	4.43
5a,14a,17a-Ethylcholestane-20S (S25)		1.54	1.17	2.54
5a,14a,17a-Ethylcholestane-20R (S28)		4.13	2.12	7.58
S28a		8.97	3.08	71.67
Surrogate Recoveries (%)				
Naphthalene-d8		74	72	78
Acenaphthene-d10		73	73	81
Phenanthrene-d10		77	80	81
Benzo(a)pyrene-d12		96	75	109
5b(H)-Cholane		90	90	105

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-4B-01-PHC-S	05-4A-01-PHC-S	05-N14-01-PHC-S	05-N04-01-PHC-S
Battelle ID	S8899-P	S8900-P	S8901-P	S8902-P
Sample Type	SA	SA	SA	SA
Collection Date	07/30/05	07/30/05	08/04/05	08/04/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/23/05	10/24/05	10/22/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	23.93	22.16	72.95	21.64
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.13	23.42	8.24	23.91
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	3.26	5.99	19.76	3.68
C1-Naphthalenes	8.75	12.99	38.83	11.22
C2-Naphthalenes	13.34	19.57	80.85	15.97
C3-Naphthalenes	11.34	14.6	112.45	12.96
C4-Naphthalenes	7.02	15.9	93.71	7.75
Biphenyl	2.47	7.57	17.28	2.35
Acenaphthylene	ND	ND	ND	
Acenaphthene	0.31	0.94	5.66	0.3
Fluorene	1.57	3.21	11.36	1.52
C1-Fluorenes	3.16	7.52	30.83	3.17
C2-Fluorenes	4.13	39.71	81.87	4.36
C3-Fluorenes	3.48	43.39	90.59	3.65
Anthracene	0.22	0.42	1.16	0.22
Phenanthrene	7.1	16.61	42.86	7.02
C1-Phenanthrenes/Anthracenes	11.15	21.22	83.64	11.23
C2-Phenanthrenes/Anthracenes	10.47	18.04	97.06	10.08
C3-Phenanthrenes/Anthracenes	6.71	9.67	78.13	6.39
C4-Phenanthrenes/Anthracenes	2.23	3.67	24.49	2.04
Dibenzothiophene	1.16	1.64	5.11	1.17
C1-Dibenzothiophenes	2.23	3.44	16.95	2.53
C2-Dibenzothiophenes	3.56	4.58	32.4	3.97
C3-Dibenzothiophenes	2.29	2.99	22.82	2.57
Fluoranthene	1	2.55	10.19	1.03
Pyrene	1.88	4.11	16.82	1.77
C1-Fluoranthenes/Pyrenes	5.01	9.99	52.05	5
C2-Fluoranthenes/Pyrenes	4.8	19.73	58.27	4.22
C3-Fluoranthenes/Pyrenes	3.27	14.83	44.08	3.39
Benzo(a)anthracene	0.48	1.26	5.5	0.68
Chrysene	3.98	15.53	34.88	4.78
C1-Chrysenes	4.56	15.52	32.62	5.36
C2-Chrysenes	3.79	12.93	37.47	7.15
C3-Chrysenes	2.57	7.98	ND	3.94
C4-Chrysenes	ND	ND	ND	
Benzo(b)fluoranthene	2.21	5.88	16.05	2.08
Benzo(k)fluoranthene	0.34	1.19	4.72	0.38
Benzo(e)pyrene	3.73	7.46	17.34	3.58
Benzo(a)pyrene	0.58	1.07	8.55	0.64
Perylene	18.85	27.8	327.72	19.66
Indeno(1,2,3-cd)pyrene	0.49	1.37	ND	0.62
Dibenz(a,h)anthracene	0.28	0.86	ND	0.32
Benzo(g,h,i)perylene	2.23	5.03	ND	2.4
C23 diterpane (T4)	ND	ND	3.3	
C29 Tricyclictriterpane (T9)	ND	ND	3.17	
C29 Tricyclictriterpane (T10)	ND	ND	ND	
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND	0.46	1.26	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.45	1.55	9.55	0.6

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-4B-01-PHC-S	05-4A-01-PHC-S	05-N14-01-PHC-S	05-N04-01-PHC-S
Battelle ID	S8899-P	S8900-P	S8901-P	S8902-P
Sample Type	SA	SA	SA	SA
Collection Date	07/30/05	07/30/05	08/04/05	08/04/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/23/05	10/24/05	10/22/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	23.93	22.16	72.95	21.64
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.13	23.42	8.24	23.91
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	1.23	2.48	27.13	1.11
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	2.69	3.79	29.93	3.1
22S-17a(H),21b(H)-30-Homohopane (T21)	0.96	1.74	7.86	0.8
22R-17a(H),21b(H)-30-Homohopane (T22)	1.6	2.66	68.01	2.09
13b,17a-Diacholestane -20S (S4)	0.41	0.72	8.33	0.3
13b,17a-Diacholestane-20R (S5)	0.33	0.5	1.21	0.24
5a,14a,17a--methylcholestane-20R (S24)	0.51	0.95	6.41	0.6
5a,14a,17a-Ethylcholestane-20S (S25)	0.32	1.46	7.24	0.37
5a,14a,17a-Ethylcholestane-20R (S28)	0.84	3.46	ND	1.1
S28a	1.42	3.86	483.78	1.82
Surrogate Recoveries (%)				
Naphthalene-d8	72	8 N	44	68
Acenaphthene-d10	76	10 N	62	65
Phenanthrene-d10	86	21 N	81	64
Benzo(a)pyrene-d12	77	32 N	91	102
5b(H)-Cholane	98	108	82	89

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-N06-01-PHC-S	05-N18-01-PHC-S	05-N11-01-PHC-S
Battelle ID		S8904-P	S8905-P	S8906-P
Sample Type		SA	SA	SA
Collection Date		08/04/05	08/04/05	08/04/05
Extraction Date		10/07/05	10/07/05	10/07/05
Analysis Date		10/23/05	10/24/05	10/23/05
Analytical Instrument		MS	MS	MS
% Moisture		28	36.64	32.81
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		22.15	19.12	20.37
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene		8.53	10.67	8.86
C1-Naphthalenes		26.23	32.9	27.69
C2-Naphthalenes		38.51	49.43	42.21
C3-Naphthalenes		30.85	38.3	34.36
C4-Naphthalenes		19.06	25.36	20.94
Biphenyl		5.86	7.56	6.5
Acenaphthylene	ND	ND	ND	ND
Acenaphthene		0.74	1.14	0.83
Fluorene		3.36	4.34	4
C1-Fluorenes		7.23	9.08	8.6
C2-Fluorenes		9.77	19.23	11.2
C3-Fluorenes		8.43	19.24	9.18
Anthracene		0.44	0.59	0.37
Phenanthrene		17.16	22.52	19.93
C1-Phenanthrenes/Anthracenes		26.73	35.38	32.01
C2-Phenanthrenes/Anthracenes		24.42	32.23	30.91
C3-Phenanthrenes/Anthracenes		16.84	23	20.47
C4-Phenanthrenes/Anthracenes		4.92	6.72	6.61
Dibenzothiophene		2.78	3.42	3.02
C1-Dibenzothiophenes		5.52	8.76	5.71
C2-Dibenzothiophenes		8.18	11.07	9.84
C3-Dibenzothiophenes		5.64	7.55	7.09
Fluoranthene		2.5	2.91	3.03
Pyrene		4.4	5.93	5.36
C1-Fluoranthenes/Pyrenes		13.13	16.48	15.84
C2-Fluoranthenes/Pyrenes		11.88	19.54	14.71
C3-Fluoranthenes/Pyrenes		8.28	14.74	10.25
Benzo(a)anthracene		1.17	1.94	1.62
Chrysene		9.03	14.09	11.76
C1-Chrysenes		11.18	18.17	15.07
C2-Chrysenes		9.54	19.1	10.59
C3-Chrysenes		6.5	9.76	7.84
C4-Chrysenes	ND	ND	ND	ND
Benzo(b)fluoranthene		4.75	7.17	5.19
Benzo(k)fluoranthene		0.97	1.57	0.98
Benzo(e)pyrene		7.45	10	10
Benzo(a)pyrene		1.21	1.95	1.8
Perylene		40.21	68.72	56.82
Indeno(1,2,3-cd)pyrene		1.2	1.57	1.8
Dibenz(a,h)anthracene		0.62	1.05	0.97
Benzo(g,h,i)perylene		5.03	7.54	7.73
C23 diterpane (T4)	ND	0.65	1.18	0.91
C29 Tricyclictriterpane (T9)	ND	0.27	ND	0.28
C29 Tricyclictriterpane (T10)	ND	0.32	ND	0.29
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND	0.44	0.35	0.34
17a(H)-22,29,30-Trisnorhopane -TM (T12)		1.53	1.97	1.72

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N06-01-PHC-S	05-N18-01-PHC-S	05-N11-01-PHC-S
Battelle ID	S8904-P	S8905-P	S8906-P
Sample Type	SA	SA	SA
Collection Date	08/04/05	08/04/05	08/04/05
Extraction Date	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/24/05	10/23/05
Analytical Instrument	MS	MS	MS
% Moisture	28	36.64	32.81
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.15	19.12	20.37
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	3.96	3.36	4.02
18a(H)-Oleanane (T18) ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)	6.76	8.75	9.04
22S-17a(H),21b(H)-30-Homohopane (T21)	2.62	3.19	2.63
22R-17a(H),21b(H)-30-Homohopane (T22)	4.16	5.38	6.09
13b,17a-Diacholestane -20S (S4)	0.74	0.7	0.68
13b,17a-Diacholestane-20R (S5)	0.53	0.69	0.59
5a,14a,17a--methylcholestane-20R (S24)	1.78	1.8	1.89
5a,14a,17a-Ethylcholestane-20S (S25)	1.33	1.25	1.13
5a,14a,17a-Ethylcholestane-20R (S28)	2.9	2.69	2.78
S28a	3.72	6.4	5.47
Surrogate Recoveries (%)			
Naphthalene-d8	73	61	60
Acenaphthene-d10	73	60	62
Phenanthrene-d10	78	58	65
Benzo(a)pyrene-d12	95	69	68
5b(H)-Cholane	100	81	96

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N11-02-PHC-S	05-N08-01-PHC-S	05-BP01-01-PAC-S-0-1	05-E01-01-PHC-S-0-1
Battelle ID	S8907-P	S8908-P	S8944-P	S8945-P
Sample Type	SA	SA	SA	SA
Collection Date	08/04/05	08/04/05	08/01/05	08/01/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/23/05	10/23/05	10/24/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	10.73	33.27	31.33	44.52
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	26.96	20.22	20.70	17.17
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	1.56	6.52	4.89	21.4
C1-Naphthalenes	3.43	19.25	14.03	70.43
C2-Naphthalenes	4.92	29.7	21.91	105.47
C3-Naphthalenes	4.65	24.26	18.54	84.96
C4-Naphthalenes	2.84	15.03	11.52	49.68
Biphenyl	0.82	4.89	3.77	17.63
Acenaphthylene	ND	ND	ND	
Acenaphthene	0.21	0.7	0.47	2.42
Fluorene	0.55	2.91	2.34	10.68
C1-Fluorenes	1.22	6	4.52	19.17
C2-Fluorenes	1.59	7.95	5.59	33.49
C3-Fluorenes	1.41	6.38	5.11	31.7
Anthracene	0.1	0.37	0.24	0.62
Phenanthrene	2.68	15.2	11.03	49.94
C1-Phenanthrenes/Anthracenes	4.2	23.24	17.09	79.69
C2-Phenanthrenes/Anthracenes	4.59	20.97	15.59	67.57
C3-Phenanthrenes/Anthracenes	2.8	14.33	10.38	47.8
C4-Phenanthrenes/Anthracenes	0.95	4.91	3.47	13.92
Dibenzothiophene	0.45	2.32	1.63	6.88
C1-Dibenzothiophenes	0.9	4.14	2.97	20.54
C2-Dibenzothiophenes	1.4	6.96	4.91	30.57
C3-Dibenzothiophenes	1.2	4.89	3.19	18.71
Fluoranthene	0.59	2.12	1.62	6.71
Pyrene	1	3.92	2.86	11.56
C1-Fluoranthenes/Pyrenes	2.3	10.92	8.15	38.19
C2-Fluoranthenes/Pyrenes	1.97	9.63	7.44	36.66
C3-Fluoranthenes/Pyrenes	1.55	6.49	5.22	24.88
Benzo(a)anthracene	0.31	1.04	0.75	4.09
Chrysene	1.52	8.58	5.9	26.35
C1-Chrysenes	1.86	11.26	7.16	35.9
C2-Chrysenes	1.86	9.79	6.23	34.84
C3-Chrysenes	ND	5.75	4.05	21.41
C4-Chrysenes	ND	ND	ND	
Benzo(b)fluoranthene	1.05	4.6	2.96	12.14
Benzo(k)fluoranthene	0.25	0.84	0.69	2.59
Benzo(e)pyrene	1.43	7.43	5.26	16.23
Benzo(a)pyrene	0.35	1.07	0.87	4.05
Perylene	11.81	41.42	27.1	172.36
Indeno(1,2,3-cd)pyrene	0.32	0.93	0.71	3.19
Dibenz(a,h)anthracene	0.13	0.57	0.39	1.67
Benzo(g,h,i)perylene	0.99	4.59	3.55	11.95
C23 diterpane (T4)	ND	0.57	0.53	1.09
C29 Tricyclictriterpane (T9)	ND	ND	ND	
C29 Tricyclictriterpane (T10)	ND	ND	ND	0.46
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND	ND	ND	0.9
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.34	1.13	0.96	2.41

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N11-02-PHC-S	05-N08-01-PHC-S	05-BP01-01-PAC-S-0-1	05-E01-01-PHC-S-0-1
Battelle ID	S8907-P	S8908-P	S8944-P	S8945-P
Sample Type	SA	SA	SA	SA
Collection Date	08/04/05	08/04/05	08/01/05	08/01/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/07/05
Analysis Date	10/23/05	10/23/05	10/23/05	10/24/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	10.73	33.27	31.33	44.52
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	26.96	20.22	20.70	17.17
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	0.6	2.66	2.31	5.35
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	1.42	5.9	4.38	14.58
22S-17a(H),21b(H)-30-Homohopane (T21)	0.48	2.23	2.15	3.36
22R-17a(H),21b(H)-30-Homohopane (T22)	2.17	3.4	2.21	10.44
13b,17a-Diacholestane -20S (S4)	ND	0.57	0.54	1.08
13b,17a-Diacholestane-20R (S5)	ND	0.45	0.49	0.92
5a,14a,17a--methylcholestane-20R (S24)	ND	0.93	0.91	2.35
5a,14a,17a-Ethylcholestane-20S (S25)	ND	0.82	0.59	2.33
5a,14a,17a-Ethylcholestane-20R (S28)	0.7	1.78	1.49	4.82
S28a	0.96	6.31	2.74	12.2
Surrogate Recoveries (%)				
Naphthalene-d8	59	67	73	71
Acenaphthene-d10	60	72	76	68
Phenanthrene-d10	70	76	86	63
Benzo(a)pyrene-d12	71	86	87	83
5b(H)-Cholane	75	90	97	83

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-BP01-01-PHC-S-C		05-BP01-02-PHC-S-C		05-BP01-03-PHC-S-C	
Battelle ID		S8880-P		S8881-P		S8882-P	
Sample Type		SA		SA		SA	
Collection Date		08/01/05		08/01/05		08/01/05	
Extraction Date		02/20/06		02/20/06		02/20/06	
Analysis Date		03/04/06		03/04/06		03/04/06	
Analytical Instrument		MS		MS		MS	
% Moisture		21.07		20.15		17.83	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		24.11		24.11		24.78	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		4.95	B	6.66	B	5.22	B
C1-Naphthalenes		14.21	B	17.26	B	16.67	B
C2-Naphthalenes		24.61	B	29.01	B	27.54	B
C3-Naphthalenes		22.89	B	26.57	B	24.35	B
C4-Naphthalenes		15.35	B	17.99	B	15.68	B
Biphenyl		4.08	B	4.61	B	4.85	B
Acenaphthylene	ND	ND		ND		ND	
Acenaphthene		0.58	B	0.58	B	0.55	B
Fluorene		2.74	B	2.91	B	2.83	B
C1-Fluorenes		5.94	B	6.89	B	6	B
C2-Fluorenes		9.2	B	10.37	B	8.93	B
C3-Fluorenes		8.68	B	9.37	B	7.21	B
Anthracene		0.22	B	0.26	B	0.32	B
Phenanthrene		11.66	B	12.87	B	12.68	B
C1-Phenanthrenes/Anthracenes		21.1	B	23.78	B	22.24	B
C2-Phenanthrenes/Anthracenes		22.09	B	24.56	B	22.41	B
C3-Phenanthrenes/Anthracenes		13.6	B	15.04	B	13.35	B
C4-Phenanthrenes/Anthracenes		8.24	B	9.12	B	8.18	B
Dibenzothiophene		1.76	B	2	B	2.06	B
C1-Dibenzothiophenes		4	B	4.6	B	4.32	B
C2-Dibenzothiophenes		5.47	B	6.7	B	6.16	B
C3-Dibenzothiophenes		3.71	B	4.27	B	4.19	B
Fluoranthene		2.1	B	2.3	B	1.93	B
Pyrene		3.36	B	3.56	B	3.25	B
C1-Fluoranthenes/Pyrenes		8.84	B	9.93	B	8.77	B
C2-Fluoranthenes/Pyrenes		8.32	B	9.63	B	8.31	B
C3-Fluoranthenes/Pyrenes		6.52	B	6.78	B	6.34	B
Benzo(a)anthracene		0.78	B	0.86	B	0.88	B
Chrysene		5.07	B	5.41	B	5.77	B
C1-Chrysenes		6.4	B	6.71	B	7.25	B
C2-Chrysenes		6.2	B	6.54	B	7	B
C3-Chrysenes		3.59	B	3.46	B	3.73	B
C4-Chrysenes	ND	1.59	B	1.41	B	1.66	B
Benzo(b)fluoranthene		3.72	B	4.18	B	3.98	B
Benzo(k)fluoranthene		0.65	B	0.68	B	0.66	B
Benzo(e)pyrene		4.83	B	5.17	B	5.05	B
Benzo(a)pyrene		0.99	B	1.11	B	1	B
Perylene		28.56	B	30.98	B	31.12	B
Indeno(1,2,3-cd)pyrene		0.97	B	0.96	B	1.07	B
Dibenz(a,h)anthracene		0.59	B	0.53	B	0.61	B
Benzo(g,h,i)perylene		3.65	B	3.78	B	3.88	B
C23 diterpane (T4)		0.37		0.32		0.32	
C29 Tricyclictriterpane (T9)	ND	0.14	J	0.16	J	0.16	J
C29 Tricyclictriterpane (T10)		0.1	J	0.08	J	0.11	J
18a(H)-22,29,30-Trisnorneohopane -TS (T1		0.29		0.3		0.32	
17a(H)-22,29,30-Trisnorhopane -TM (T12)		1.13		1.15		1.13	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-BP01-01-PHC-S-C	05-BP01-02-PHC-S-C	05-BP01-03-PHC-S-C
Battelle ID	S8880-P	S8881-P	S8882-P
Sample Type	SA	SA	SA
Collection Date	08/01/05	08/01/05	08/01/05
Extraction Date	02/20/06	02/20/06	02/20/06
Analysis Date	03/04/06	03/04/06	03/04/06
Analytical Instrument	MS	MS	MS
% Moisture	21.07	20.15	17.83
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.11	24.11	24.78
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	2.32	2.31	2.24
18a(H)-Oleanane (T18) ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)	3.56	3.55	3.54
22S-17a(H),21b(H)-30-Homohopane (T21)	1.75	1.61	1.61
22R-17a(H),21b(H)-30-Homohopane (T22)	2.74	2.98	2.49
13b,17a-Diacholestane -20S (S4)	0.65	0.62	0.67
13b,17a-Diacholestane-20R (S5)	0.44	0.4	0.44
5a,14a,17a--methylcholestane-20R (S24)	1.24	1.13	1.03
5a,14a,17a-Ethylcholestane-20S (S25)	0.67	0.68	0.6
5a,14a,17a-Ethylcholestane-20R (S28)	2.5	2.64	2.46
S28a	3.06	3.16	3.25
Surrogate Recoveries (%)			
Naphthalene-d8	64	59	68
Acenaphthene-d10	66	66	67
Phenanthrene-d10	95	98	87
Benzo(a)pyrene-d12	84	83	82
5b(H)-Cholane	83	84	83

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-BP01-04-PHC-S-C	05-1C-03-PHC-S-C	05-1C-02-PHC-S-C	05-1C-01-PHC-S-C
Battelle ID	S8883-P	S9189-P	S9190-P	S9191-P
Sample Type	SA	SA	SA	SA
Collection Date	08/01/05	08/07/05	08/07/05	08/07/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/20/06
Analysis Date	03/04/06	03/05/06	03/05/06	03/05/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	16.95	32.4	30.24	31.92
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	25.14	20.83	21.23	20.70
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	5.75 B	9.42 B	10.34 B	10.07
C1-Naphthalenes	17.17 B	28.43 B	31.89 B	29.11
C2-Naphthalenes	30.9 B	51.69 B	56.92 B	52.66
C3-Naphthalenes	28.63 B	53.58 B	58 B	54.05
C4-Naphthalenes	19.88 B	40.54 B	42.82 B	41.3
Biphenyl	5.21 B	8.31 B	9.31 B	8.48
Acenaphthylene	ND	ND	ND	
Acenaphthene	0.69 B	1.62 B	1.7 B	1.55
Fluorene	3.52 B	5.97 B	6.29 B	6.03
C1-Fluorenes	7.68 B	14.54 B	15.03 B	14.52
C2-Fluorenes	11.46 B	22.8 B	23.44 B	22.59
C3-Fluorenes	10.54 B	22.53 B	20.71 B	21.81
Anthracene	0.36 B	1.09 B	1.22 B	0.9
Phenanthrene	14.31 B	24.81 B	26.82 B	24.88
C1-Phenanthrenes/Anthracenes	27.47 B	49.52 B	49.67 B	50.23
C2-Phenanthrenes/Anthracenes	27.46 B	53.73 B	53.5 B	52.45
C3-Phenanthrenes/Anthracenes	16.74 B	36.22 B	36.17 B	34.89
C4-Phenanthrenes/Anthracenes	10.61 B	20.22 B	19.62 B	19.87
Dibenzothiophene	2.35 B	4.61 B	5.02 B	4.68
C1-Dibenzothiophenes	5.38 B	10.55 B	11.19 B	10.4
C2-Dibenzothiophenes	7.53 B	15.32 B	15.41 B	15.38
C3-Dibenzothiophenes	4.83 B	11.6 B	11.59 B	11.25
Fluoranthene	2.5 B	5.92 B	6.04 B	5.88
Pyrene	4.03 B	10.35 B	10.46 B	10.11
C1-Fluoranthenes/Pyrenes	11.16 B	24.28 B	24.07 B	24.08
C2-Fluoranthenes/Pyrenes	10.96 B	24.21 B	23.7 B	23.75
C3-Fluoranthenes/Pyrenes	7.9 B	20.32 B	19.62 B	18.66
Benzo(a)anthracene	1.03 B	2.55 B	2.98 B	2.37
Chrysene	6.18 B	13.67 B	16.31 B	13.15
C1-Chrysenes	7.81 B	17.71 B	21.3 B	16.52
C2-Chrysenes	7.57 B	15.9 B	18.4 B	15.23
C3-Chrysenes	4.11 B	10.45 B	12.14 B	9.94
C4-Chrysenes	1.59 B	5.69 B	6.48 B	4.79
Benzo(b)fluoranthene	4.74 B	11.66 B	12.52 B	11.58
Benzo(k)fluoranthene	0.73 B	2.43 B	2.96 B	2.26
Benzo(e)pyrene	6 B	15.06 B	16.77 B	14.99
Benzo(a)pyrene	1.19 B	3.56 B	3.93 B	3.35
Perylene	37.59 B	79.29 B	89.83 B	77.17
Indeno(1,2,3-cd)pyrene	1.17 B	3.74 B	4.22 B	3.8
Dibenz(a,h)anthracene	0.75 B	2.05 B	2.24 B	2.05
Benzo(g,h,i)perylene	4.36 B	13.31 B	15.23 B	12.84
C23 diterpane (T4)	0.36	2.3	2.45	2.18
C29 Tricyclictriterpane (T9)	0.17 J	0.73	0.77	0.71
C29 Tricyclictriterpane (T10)	0.16 J	0.65	0.76	0.6
18a(H)-22,29,30-Trisnorneohopane -TS (T1	0.31	1.42	1.48	1.42
17a(H)-22,29,30-Trisnorhopane -TM (T12)	1.33	4.41	4.74	4.49

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-BP01-04-PHC-S-C	05-1C-03-PHC-S-C	05-1C-02-PHC-S-C	05-1C-01-PHC-S-C
Battelle ID	S8883-P	S9189-P	S9190-P	S9191-P
Sample Type	SA	SA	SA	SA
Collection Date	08/01/05	08/07/05	08/07/05	08/07/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/20/06
Analysis Date	03/04/06	03/05/06	03/05/06	03/05/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	16.95	32.4	30.24	31.92
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	25.14	20.83	21.23	20.70
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	2.57	8.98	9.41	9.05
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	4.08	14.3	14.75	14.23
22S-17a(H),21b(H)-30-Homohopane (T21)	1.8	6.6	6.93	6.48
22R-17a(H),21b(H)-30-Homohopane (T22)	3.14	7.92	8.14	7.77
13b,17a-Diacholestane -20S (S4)	0.72	3.16	3.34	3.13
13b,17a-Diacholestane-20R (S5)	0.53	2.08	2.18	2.01
5a,14a,17a--methylcholestane-20R (S24)	1.22	5.98	6.3	5.99
5a,14a,17a-Ethylcholestane-20S (S25)	0.75	2.55	2.93	2.52
5a,14a,17a-Ethylcholestane-20R (S28)	2.9	9.79	10.29	9.54
S28a	3.95	6.66	6.45	6.75
Surrogate Recoveries (%)				
Naphthalene-d8	58	57	56	61
Acenaphthene-d10	62	64	61	67
Phenanthrene-d10	90	91	82	96
Benzo(a)pyrene-d12	76	83	82	84
5b(H)-Cholane	79	80	84	77

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-1C-06-PHC-S-C	05-1C-05-PHC-S-C	05-1C-04-PHC-S-C
Battelle ID		S9192-P	S9193-P	S9194-P
Sample Type		SA	SA	SA
Collection Date		08/07/05	08/07/05	08/07/05
Extraction Date		02/20/06	02/20/06	02/20/06
Analysis Date		03/05/06	03/05/06	03/05/06
Analytical Instrument		MS	MS	MS
% Moisture		32.37	31.02	29.32
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		20.45	20.83	21.42
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	B	10.21 B	9.73 B	9.65 B
C1-Naphthalenes	B	31.39 B	30.43 B	31.27 B
C2-Naphthalenes	B	55.18 B	53.21 B	54.95 B
C3-Naphthalenes	B	55.03 B	54.84 B	56.37 B
C4-Naphthalenes	B	40.22 B	41.02 B	42.59 B
Biphenyl	B	8.92 B	8.57 B	8.69 B
Acenaphthylene	ND	ND	ND	ND
Acenaphthene	B	1.66 B	1.67 B	1.68 B
Fluorene	B	6.07 B	6.19 B	6.06 B
C1-Fluorenes	B	14.29 B	14.66 B	15.18 B
C2-Fluorenes	B	22.59 B	22.92 B	24.35 B
C3-Fluorenes	B	21.22 B	21.84 B	22.52 B
Anthracene	B	1.08 B	1.08 B	1.19 B
Phenanthrene	B	26.15 B	25.47 B	26.15 B
C1-Phenanthrenes/Anthracenes	B	47.62 B	48.85 B	49.44 B
C2-Phenanthrenes/Anthracenes	B	52.83 B	53.45 B	55.06 B
C3-Phenanthrenes/Anthracenes	B	36.37 B	35.95 B	37.17 B
C4-Phenanthrenes/Anthracenes	B	20.39 B	19.81 B	20.87 B
Dibenzothiophene	B	4.88 B	4.82 B	4.76 B
C1-Dibenzothiophenes	B	10.89 B	10.85 B	10.86 B
C2-Dibenzothiophenes	B	15.28 B	15.72 B	15.5 B
C3-Dibenzothiophenes	B	11.3 B	11.21 B	12.32 B
Fluoranthene	B	5.99 B	6.02 B	6.09 B
Pyrene	B	10.33 B	10.36 B	10.66 B
C1-Fluoranthenes/Pyrenes	B	24.72 B	24.44 B	25.38 B
C2-Fluoranthenes/Pyrenes	B	24.81 B	24.68 B	25.44 B
C3-Fluoranthenes/Pyrenes	B	19.02 B	20.53 B	21.29 B
Benzo(a)anthracene	B	2.76 B	2.57 B	2.65 B
Chrysene	B	15.03 B	13.94 B	14.35 B
C1-Chrysenes	B	19.29 B	18.04 B	19.02 B
C2-Chrysenes	B	17.74 B	16.14 B	17.1 B
C3-Chrysenes	B	11.71 B	11.03 B	11.7 B
C4-Chrysenes	B	6.8 B	5.36 B	6.08 B
Benzo(b)fluoranthene	B	11.85 B	11.39 B	12.07 B
Benzo(k)fluoranthene	B	2.72 B	2.65 B	2.75 B
Benzo(e)pyrene	B	15.88 B	15.28 B	15.86 B
Benzo(a)pyrene	B	3.67 B	3.65 B	3.74 B
Perylene	B	83.43 B	79.85 B	85.78 B
Indeno(1,2,3-cd)pyrene	B	4.27 B	3.76 B	4.04 B
Dibenz(a,h)anthracene	B	2.18 B	2.01 B	2.18 B
Benzo(g,h,i)perylene	B	14.47 B	13.42 B	14.05 B
C23 diterpane (T4)		2.36	2.3	2.39
C29 Tricyclictriterpane (T9)		0.78	0.76	0.69
C29 Tricyclictriterpane (T10)		0.82	0.7	0.68
18a(H)-22,29,30-Trisnorneohopane -TS (T1		1.48	1.39	1.29
17a(H)-22,29,30-Trisnorhopane -TM (T12)		4.74	4.33	4.36

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-1C-06-PHC-S-C	05-1C-05-PHC-S-C	05-1C-04-PHC-S-C
Battelle ID	S9192-P	S9193-P	S9194-P
Sample Type	SA	SA	SA
Collection Date	08/07/05	08/07/05	08/07/05
Extraction Date	02/20/06	02/20/06	02/20/06
Analysis Date	03/05/06	03/05/06	03/05/06
Analytical Instrument	MS	MS	MS
% Moisture	32.37	31.02	29.32
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.45	20.83	21.42
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	9.5	8.88	9.32
18a(H)-Oleanane (T18) ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)	15.07	14.42	14.77
22S-17a(H),21b(H)-30-Homohopane (T21)	7.09	6.48	6.91
22R-17a(H),21b(H)-30-Homohopane (T22)	8.31	7.78	8.28
13b,17a-Diacholestane -20S (S4)	3.29	3.19	3.07
13b,17a-Diacholestane-20R (S5)	2.11	2.07	1.98
5a,14a,17a--methylcholestane-20R (S24)	6.16	5.82	5.84
5a,14a,17a-Ethylcholestane-20S (S25)	2.69	2.6	2.47
5a,14a,17a-Ethylcholestane-20R (S28)	10.02	9.31	9.51
S28a	6.79	6.78	6.66
Surrogate Recoveries (%)			
Naphthalene-d8	56	62	55
Acenaphthene-d10	59	65	57
Phenanthrene-d10	79	91	80
Benzo(a)pyrene-d12	77	86	74
5b(H)-Cholane	72	79	68

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-1C-07-PHC-S-C	05-1C-10-PHC-S-C	05-2A-01-PHC-S-C	05-2A-02-PHC-S-C
Battelle ID	S9197-P	S9200-P	S9204-P	S9205-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/05	08/07/05	08/08/05	08/08/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/20/06
Analysis Date	03/05/06	03/05/06	03/05/06	03/05/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	30.3	26.68	26.45	31.24
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.53	22.51	22.38	21.06
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	9.1 B	9.08 B	11.8 B	9.12
C1-Naphthalenes	27.61 B	28.65 B	38.18 B	27.38
C2-Naphthalenes	50.73 B	53.01 B	79.53 B	58.54
C3-Naphthalenes	54.13 B	55.63 B	89.83 B	65.73
C4-Naphthalenes	38.65 B	42.6 B	71.46 B	51.2
Biphenyl	8.31 B	8.53 B	15.79 B	11.83
Acenaphthylene	ND	ND	ND	
Acenaphthene	1.59 B	1.73 B	2.5 B	2.25
Fluorene	5.68 B	6.09 B	6.33 B	5.79
C1-Fluorenes	13.78 B	14.47 B	19.28 B	16.15
C2-Fluorenes	22.39 B	23.73 B	36.68 B	27.99
C3-Fluorenes	22.44 B	22.66 B	38.75 B	27.56
Anthracene	1.01 B	1.16 B	1.21 B	0.91
Phenanthrene	24.08 B	24.76 B	48.11 B	35.89
C1-Phenanthrenes/Anthracenes	45.64 B	49.1 B	117.19 B	78.66
C2-Phenanthrenes/Anthracenes	50.82 B	53.42 B	140.75 B	91.26
C3-Phenanthrenes/Anthracenes	35.02 B	35.71 B	84.31 B	55.95
C4-Phenanthrenes/Anthracenes	19.13 B	20.35 B	47.31 B	33.61
Dibenzothiophene	4.44 B	4.78 B	4.44 B	3.88
C1-Dibenzothiophenes	10.92 B	11.62 B	16.36 B	11.54
C2-Dibenzothiophenes	14.85 B	15.59 B	29.94 B	19.09
C3-Dibenzothiophenes	11.77 B	11.83 B	22.51 B	15.35
Fluoranthene	5.63 B	6.15 B	7.82 B	5.98
Pyrene	9.94 B	10.48 B	13.44 B	10.2
C1-Fluoranthenes/Pyrenes	23.1 B	24.88 B	40.17 B	28.35
C2-Fluoranthenes/Pyrenes	23.42 B	25.34 B	41.45 B	28.51
C3-Fluoranthenes/Pyrenes	20.55 B	19.95 B	34.21 B	24.93
Benzo(a)anthracene	2.48 B	2.84 B	3.49 B	2.42
Chrysene	13.37 B	14.31 B	41.31 B	24.25
C1-Chrysenes	17.34 B	18.71 B	53.02 B	29.93
C2-Chrysenes	15.66 B	16.55 B	43.09 B	24.55
C3-Chrysenes	10.57 B	11.23 B	26.27 B	13.18
C4-Chrysenes	5.22 B	6.07 B	11.43 B	5.43
Benzo(b)fluoranthene	11.01 B	11.69 B	13.27 B	9.87
Benzo(k)fluoranthene	2.49 B	2.86 B	1.82 B	1.5
Benzo(e)pyrene	14.45 B	15.2 B	22.25 B	15.36
Benzo(a)pyrene	3.33 B	3.59 B	2.6 B	1.98
Perylene	77.96 B	82.04 B	111.84 B	97.62
Indeno(1,2,3-cd)pyrene	3.81 B	4.07 B	2.15 B	1.77
Dibenz(a,h)anthracene	2.09 B	2.17 B	2.52 B	1.78
Benzo(g,h,i)perylene	12.98 B	13.22 B	8.8 B	6.75
C23 diterpane (T4)	2.24	2.51	1.16	0.99
C29 Tricyclictriterpane (T9)	0.69	0.93	0.53	0.41
C29 Tricyclictriterpane (T10)	0.63	0.7	0.4	0.38
18a(H)-22,29,30-Trisnorneohopane -TS (T1	1.28	1.44	1.38	1.26
17a(H)-22,29,30-Trisnorhopane -TM (T12)	4.36	4.57	3.1	3.13

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-1C-07-PHC-S-C	05-1C-10-PHC-S-C	05-2A-01-PHC-S-C	05-2A-02-PHC-S-C
Battelle ID	S9197-P	S9200-P	S9204-P	S9205-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/05	08/07/05	08/08/05	08/08/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/20/06
Analysis Date	03/05/06	03/05/06	03/05/06	03/05/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	30.3	26.68	26.45	31.24
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.53	22.51	22.38	21.06
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	9	9.49	5.73	4.55
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	13.94	14.99	11.1	10.47
22S-17a(H),21b(H)-30-Homohopane (T21)	6.45	7.08	4.49	4.5
22R-17a(H),21b(H)-30-Homohopane (T22)	7.45	8.31	5.63	5.33
13b,17a-Diacholestane -20S (S4)	3.15	3.32	4.02	3.47
13b,17a-Diacholestane-20R (S5)	1.97	2.06	2.66	2.15
5a,14a,17a--methylcholestane-20R (S24)	5.79	6.18	4.12	4.05
5a,14a,17a-Ethylcholestane-20S (S25)	2.32	2.44	2.48	2.23
5a,14a,17a-Ethylcholestane-20R (S28)	8.81	10.27	7.12	6.8
S28a	6.8	7.33	10.16	15.8
Surrogate Recoveries (%)				
Naphthalene-d8	58	62	68	58
Acenaphthene-d10	65	67	70	65
Phenanthrene-d10	92	96	90	91
Benzo(a)pyrene-d12	85	89	98	85
5b(H)-Cholane	78	79	84	81

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2A-03-PHC-S-C		05-2A-04-PHC-S-C		05-2A-05-PHC-S-C	
Battelle ID		S9206-P		S9207-P		S9208-P	
Sample Type		SA		SA		SA	
Collection Date		08/08/05		08/08/05		08/08/05	
Extraction Date		02/20/06		02/20/06		02/20/06	
Analysis Date		03/05/06		03/05/06		03/05/06	
Analytical Instrument		MS		MS		MS	
% Moisture		33.63		28.63		25.85	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		20.05		22.02		22.97	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	B	8.58	B	12.9	B	11.19	B
C1-Naphthalenes	B	26.22	B	37.69	B	33	B
C2-Naphthalenes	B	49.57	B	72.46	B	70.32	B
C3-Naphthalenes	B	55.51	B	76.47	B	82.61	B
C4-Naphthalenes	B	38.41	B	57.35	B	66.91	B
Biphenyl	B	8.87	B	12.5	B	14.23	B
Acenaphthylene	ND		ND		ND		ND
Acenaphthene	B	1.59	B	2.06	B	2.98	B
Fluorene	B	5.22	B	7.74	B	7.07	B
C1-Fluorenes	B	13.35	B	18.45	B	19.96	B
C2-Fluorenes	B	20.94	B	49.31	B	35.7	B
C3-Fluorenes	B	21.04	B	55.04	B	38.68	B
Anthracene	B	0.63	B	0.97	B	1.27	B
Phenanthrene	B	25.49	B	35.67	B	42.91	B
C1-Phenanthrenes/Anthracenes	B	51.99	B	77.47	B	97.81	B
C2-Phenanthrenes/Anthracenes	B	57.99	B	85.42	B	111.63	B
C3-Phenanthrenes/Anthracenes	B	34.43	B	50.73	B	68.06	B
C4-Phenanthrenes/Anthracenes	B	23.22	B	32.84	B	43.13	B
Dibenzothiophene	B	2.68	B	4.01	B	4.34	B
C1-Dibenzothiophenes	B	7.79	B	12.02	B	15.11	B
C2-Dibenzothiophenes	B	11.72	B	17.58	B	24.31	B
C3-Dibenzothiophenes	B	9.41	B	13.39	B	19.09	B
Fluoranthene	B	3.99	B	5.51	B	7.25	B
Pyrene	B	6.4	B	8.86	B	11.9	B
C1-Fluoranthenes/Pyrenes	B	19.39	B	28.8	B	35.67	B
C2-Fluoranthenes/Pyrenes	B	19.75	B	35.52	B	35.52	B
C3-Fluoranthenes/Pyrenes	B	15.77	B	32.71	B	30.38	B
Benzo(a)anthracene	B	1.71	B	2.46	B	3.16	B
Chrysene	B	13.93	B	20.84	B	29.42	B
C1-Chrysenes	B	17.51	B	27.52	B	37.73	B
C2-Chrysenes	B	15.71	B	24.17	B	31.4	B
C3-Chrysenes	B	8.05	B	13.29	B	17.55	B
C4-Chrysenes	B	3.77	B	6.23	B	7.56	B
Benzo(b)fluoranthene	B	6.6	B	9.56	B	11.64	B
Benzo(k)fluoranthene	B	0.97	B	1.37	B	1.45	B
Benzo(e)pyrene	B	9.75	B	13.93	B	18.16	B
Benzo(a)pyrene	B	1.43	B	2.17	B	2.42	B
Perylene	B	72.46	B	86.47	B	127.72	B
Indeno(1,2,3-cd)pyrene	B	1.26	B	1.8	B	1.81	B
Dibenz(a,h)anthracene	B	1.11	B	1.66	B	2.02	B
Benzo(g,h,i)perylene	B	4.57	B	6.75	B	7.36	B
C23 diterpane (T4)		1.06		0.67		0.9	
C29 Tricyclictriterpane (T9)		0.39		0.24		0.45	
C29 Tricyclictriterpane (T10)		0.33		0.23		0.32	
18a(H)-22,29,30-Trisnorneohopane -TS (T1		1.28		0.75		1.12	
17a(H)-22,29,30-Trisnorhopane -TM (T12)		3.85		2.28		2.59	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2A-03-PHC-S-C	05-2A-04-PHC-S-C	05-2A-05-PHC-S-C
Battelle ID	S9206-P	S9207-P	S9208-P
Sample Type	SA	SA	SA
Collection Date	08/08/05	08/08/05	08/08/05
Extraction Date	02/20/06	02/20/06	02/20/06
Analysis Date	03/05/06	03/05/06	03/05/06
Analytical Instrument	MS	MS	MS
% Moisture	33.63	28.63	25.85
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.05	22.02	22.97
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	5.93	3.82	5.01
18a(H)-Oleanane (T18) ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)	12.21	8.1	10.53
22S-17a(H),21b(H)-30-Homohopane (T21)	5.17	3.42	4.28
22R-17a(H),21b(H)-30-Homohopane (T22)	6.48	3.97	5.49
13b,17a-Diacholestane -20S (S4)	3.23	2.25	3.3
13b,17a-Diacholestane-20R (S5)	2.14	1.36	2.22
5a,14a,17a--methylcholestane-20R (S24)	4.46	2.51	4
5a,14a,17a-Ethylcholestane-20S (S25)	2.77	1.95	2.39
5a,14a,17a-Ethylcholestane-20R (S28)	9.21	6.05	8.37
S28a	20.31	9.76	9.44
Surrogate Recoveries (%)			
Naphthalene-d8	62	58	57
Acenaphthene-d10	66	65	65
Phenanthrene-d10	95	90	92
Benzo(a)pyrene-d12	86	86	91
5b(H)-Cholane	81	82	84

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2A-10-PHC-S-C	05-2A-15-PHC-S-C	05-1C-15-PHC-S-C	05-BP01-05-PHC-S-C
Battelle ID	S9213-P	S9218-P	S9260-P	S8884-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/08/05	08/07/05	08/01/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/23/06
Analysis Date	03/09/06	03/09/06	03/06/06	03/07/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	35.37	39.91	22.94	15.8
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.89	18.26	23.15	25.33
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	14.51 B	13.08 B	10.14 B	5.86
C1-Naphthalenes	52.39 B	47.31 B	31.17 B	18.49
C2-Naphthalenes	107.95 B	97.81 B	58.19 B	31.32
C3-Naphthalenes	112.07 B	100.48 B	62.36 B	29.32
C4-Naphthalenes	77.46 B	72.61 B	47.12 B	19.19
Biphenyl	20.15 B	17.78 B	9.46 B	5.96
Acenaphthylene	ND	ND	ND	
Acenaphthene	4.16 B	2.96 B	1.91 B	0.7
Fluorene	9.66 B	8.9 B	6.47 B	3.37
C1-Fluorenes	26.25 B	24 B	16.48 B	8.06
C2-Fluorenes	44.77 B	51.76 B	27.96 B	17.31
C3-Fluorenes	40.81 B	54.63 B	25.17 B	17.55
Anthracene	2.03 B	1.67 B	1.28 B	0.4
Phenanthrene	55.78 B	49.23 B	27.97 B	14.74
C1-Phenanthrenes/Anthracenes	112.72 B	98.1 B	53.87 B	26.88
C2-Phenanthrenes/Anthracenes	125.11 B	106.97 B	58.87 B	26.69
C3-Phenanthrenes/Anthracenes	80.58 B	68.35 B	40.46 B	15.72
C4-Phenanthrenes/Anthracenes	58.72 B	50.58 B	22.52 B	10.45
Dibenzothiophene	5.48 B	5.02 B	5.32 B	2.5
C1-Dibenzothiophenes	16.52 B	14.35 B	12.83 B	5.63
C2-Dibenzothiophenes	22.99 B	20.09 B	17.01 B	7.15
C3-Dibenzothiophenes	18.7 B	15.43 B	12.87 B	5.18
Fluoranthene	12.12 B	10.32 B	6.73 B	2.31
Pyrene	17.56 B	14.25 B	11.81 B	3.91
C1-Fluoranthenes/Pyrenes	48.57 B	41.48 B	27.69 B	10.71
C2-Fluoranthenes/Pyrenes	43.17 B	42.69 B	27.78 B	12.68
C3-Fluoranthenes/Pyrenes	35.4 B	36.76 B	23.68 B	11.02
Benzo(a)anthracene	5.41 B	4.45 B	3.27 B	0.91
Chrysene	39.95 B	32.37 B	16.42 B	6.12
C1-Chrysenes	50.51 B	40.5 B	22.1 B	7.72
C2-Chrysenes	39.29 B	33.62 B	19.57 B	7.45
C3-Chrysenes	23.14 B	17.95 B	13.68 B	4.02
C4-Chrysenes	11.84 B	8.79 B	8.59 B	2.21
Benzo(b)fluoranthene	21.49 B	16.43 B	13.77 B	5.26
Benzo(k)fluoranthene	4.23 B	2.06 B	3.2 B	0.69
Benzo(e)pyrene	29.27 B	22.42 B	17.56 B	6.73
Benzo(a)pyrene	3.56 B	3.51 B	4.23 B	1.11
Perylene	241.17 B	186.25 B	96.97 B	40.4
Indeno(1,2,3-cd)pyrene	2.55 B	2.63 B	4.88 B	1.12
Dibenz(a,h)anthracene	2.62 B	2.37 B	2.63 B	0.74
Benzo(g,h,i)perylene	9.9 B	9.33 B	16.05 B	4.6
C23 diterpane (T4)	1.27	1.09	2.88	0.32
C29 Tricyclictriterpane (T9)	0.53	0.48	0.95	0.1
C29 Tricyclictriterpane (T10)	0.47	0.48	0.91	0.1
18a(H)-22,29,30-Trisnorneohopane -TS (T1	1.86	1.37	1.87	0.32
17a(H)-22,29,30-Trisnorhopane -TM (T12)	6.12	5.83	5.41	1.12

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2A-10-PHC-S-C	05-2A-15-PHC-S-C	05-1C-15-PHC-S-C	05-BP01-05-PHC-S-C
Battelle ID	S9213-P	S9218-P	S9260-P	S8884-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/08/05	08/07/05	08/01/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/23/06
Analysis Date	03/09/06	03/09/06	03/06/06	03/07/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	35.37	39.91	22.94	15.8
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.89	18.26	23.15	25.33
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	11.86	10.96	11.07	2.53
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	21.41	18.2	16.99	3.65
22S-17a(H),21b(H)-30-Homohopane (T21)	7.69	6.6	8.01	1.62
22R-17a(H),21b(H)-30-Homohopane (T22)	13.7	8.18	9.99	2.61
13b,17a-Diacholestane -20S (S4)	5.2	4.2	3.78	0.64
13b,17a-Diacholestane-20R (S5)	3.13	2.69	2.42	0.49
5a,14a,17a--methylcholestane-20R (S24)	7.31	5.72	7.49	1.08
5a,14a,17a-Ethylcholestane-20S (S25)	4.44	3.95	3.1	0.72
5a,14a,17a-Ethylcholestane-20R (S28)	19.74	15.18	11.59	2.47
S28a	58.43	102.11	7.66	3.46
Surrogate Recoveries (%)				
Naphthalene-d8	67	67	50	61
Acenaphthene-d10	71	71	57	62
Phenanthrene-d10	93	98	81	84
Benzo(a)pyrene-d12	76	86	80	63
5b(H)-Cholane	76	82	73	80

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-BP01-06-PHC-S-C		05-PB1A-01-PHC-S-C		05-PB1A-02-PHC-S-C	
Battelle ID		S8885-P		S9143-P		S9144-P	
Sample Type		SA		SA		SA	
Collection Date		08/01/05		08/10/05		08/10/05	
Extraction Date		02/23/06		02/23/06		02/23/06	
Analysis Date		03/06/06		03/10/06		03/07/06	
Analytical Instrument		MS		MS		MS	
% Moisture		15.56		43.12		38.81	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		25.37		17.37		18.41	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		5.82		19.14		19.26	
C1-Naphthalenes		17.56		61.6		58.14	
C2-Naphthalenes		28.79		102.78		99.21	
C3-Naphthalenes		25.56		94.17		95.99	
C4-Naphthalenes		15.46		58.13		67.01	
Biphenyl		6.43		17.15		17.12	
Acenaphthylene	ND	ND		ND		ND	
Acenaphthene		0.56		1.66		2.06	
Fluorene		3.59		9.28		10.94	
C1-Fluorenes		8.23		20.83		23.96	
C2-Fluorenes		11.02		30		60.23	
C3-Fluorenes		9.97		25.59		62.49	
Anthracene		0.15		0.81		1.18	
Phenanthrene		13.56		42.32		43.61	
C1-Phenanthrenes/Anthracenes		24.06		75.72		82.1	
C2-Phenanthrenes/Anthracenes		23.86		76.96		87.7	
C3-Phenanthrenes/Anthracenes		13.52		48.3		56.24	
C4-Phenanthrenes/Anthracenes		7.87		32.23		36.74	
Dibenzothiophene		2.49		7.02		7.6	
C1-Dibenzothiophenes		5.17		19.48		20.77	
C2-Dibenzothiophenes		6.6		29.3		33.91	
C3-Dibenzothiophenes		4.6		20.72		25.43	
Fluoranthene		1.66		7.18		8.84	
Pyrene		3.17		10.51		11.98	
C1-Fluoranthenes/Pyrenes		8.11		30.29		35.81	
C2-Fluoranthenes/Pyrenes		8.05		27.6		39.35	
C3-Fluoranthenes/Pyrenes		6.26		21.37		31.22	
Benzo(a)anthracene		0.33		3.27		3.56	
Chrysene		4.09		17.42		16.83	
C1-Chrysenes		4.61		22.31		21.62	
C2-Chrysenes		3.88		19.69		19.49	
C3-Chrysenes		2.29		11.17		12.29	
C4-Chrysenes		1.17		5.99		5.22	
Benzo(b)fluoranthene		7.4		10.93		12.25	
Benzo(k)fluoranthene		0.78		2.33		2.66	
Benzo(e)pyrene		11.02		12.62		13.5	
Benzo(a)pyrene		0.86		2.91		3.78	
Perylene		34.46		100.16		132.03	
Indeno(1,2,3-cd)pyrene		0.8		2.89		3.23	
Dibenz(a,h)anthracene		0.58		1.4		1.8	
Benzo(g,h,i)perylene		4.51		8.7		8.98	
C23 diterpane (T4)		0.18	J	0.89		1.06	
C29 Tricyclictriterpane (T9)	J	0.09	J	0.29		0.35	
C29 Tricyclictriterpane (T10)	J	0.04	J	0.22	J	0.28	
18a(H)-22,29,30-Trisnorneohopane -TS (T1		0.17	J	0.9		1.06	
17a(H)-22,29,30-Trisnorhopane -TM (T12)		0.72		4.12		4.45	

Surrogate Corrected

Analyzed by Fredriksson, Julie
2/26/2010

Main: 2005 PAH and Biomarker Data

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-BP01-06-PHC-S-C	05-PB1A-01-PHC-S-C	05-PB1A-02-PHC-S-C
Battelle ID	S8885-P	S9143-P	S9144-P
Sample Type	SA	SA	SA
Collection Date	08/01/05	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06	02/23/06
Analysis Date	03/06/06	03/10/06	03/07/06
Analytical Instrument	MS	MS	MS
% Moisture	15.56	43.12	38.81
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	25.37	17.37	18.41
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	1.22	8.03	6.74
18a(H)-Oleanane (T18)	ND	ND	ND ND
17a(H),21b(H)-hopane (T19)	2.28	11.64	12.61
22S-17a(H),21b(H)-30-Homohopane (T21)	1.06	3.97	4.39
22R-17a(H),21b(H)-30-Homohopane (T22)	1.58	13.96	14.67
13b,17a-Diacholestane -20S (S4)	0.36	1.83	1.69
13b,17a-Diacholestane-20R (S5)	0.25	1.15	1.12
5a,14a,17a--methylcholestane-20R (S24)	0.58	3.13	2.49
5a,14a,17a-Ethylcholestane-20S (S25)	0.42	2.27	2.25
5a,14a,17a-Ethylcholestane-20R (S28)	1.36	8.51	7.59
S28a	2.36	23.81	33.69
Surrogate Recoveries (%)			
Naphthalene-d8	58	69	59
Acenaphthene-d10	60	68	62
Phenanthrene-d10	80	88	86
Benzo(a)pyrene-d12	21 N	87	79
5b(H)-Cholane	78	85	77

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-PB1A-04-PHC-S-C	05-N26-01-PHC-S-C	05-N26-02-PHC-S-C	05-N26-03-PHC-S-C
Battelle ID	S9145-P	S9155-P	S9156-P	S9157-P
Sample Type	SA	SA	SA	SA
Collection Date	08/10/05	08/10/05	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06	02/23/06	02/23/06
Analysis Date	03/06/06	03/06/06	03/06/06	03/06/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	32.17	33.17	24.77	26.52
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.45	20.05	22.79	22.46
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	12.06	8.5	7.28	8.12
C1-Naphthalenes	36.71	27.29	23.9	26.28
C2-Naphthalenes	63.63	47.72	40.36	45.46
C3-Naphthalenes	62.5	45.22	38.29	43.35
C4-Naphthalenes	39.47	31.09	21.74	30.56
Biphenyl	12.89	7.29	6.4	7.03
Acenaphthylene	ND	ND	ND	
Acenaphthene	1.2	1.01	0.83	0.9
Fluorene	6.94	4.75	3.82	4.59
C1-Fluorenes	15.75	11.68	9.15	11.28
C2-Fluorenes	34.81	17.69	13.18	16.53
C3-Fluorenes	36.84	15.62	12.79	15
Anthracene	0.64	0.6	0.61	0.64
Phenanthrene	30.13	20.65	18.16	20.31
C1-Phenanthrenes/Anthracenes	57.25	38.6	32.68	38.16
C2-Phenanthrenes/Anthracenes	60.82	40.96	33.96	40.65
C3-Phenanthrenes/Anthracenes	37.54	25.58	21.68	26.18
C4-Phenanthrenes/Anthracenes	24.85	15.51	12.53	15.56
Dibenzothiophene	5.96	3.82	3.43	3.84
C1-Dibenzothiophenes	16.32	8.94	8.13	9.32
C2-Dibenzothiophenes	25.6	12.32	10.55	12.23
C3-Dibenzothiophenes	18.69	9.11	7.54	12.1
Fluoranthene	5.52	4.12	3.42	4.13
Pyrene	8.13	6.91	5.85	6.81
C1-Fluoranthenes/Pyrenes	23.29	17.26	14.27	17.16
C2-Fluoranthenes/Pyrenes	26.77	17.94	14.07	17.33
C3-Fluoranthenes/Pyrenes	20.54	14.02	10.54	12.83
Benzo(a)anthracene	2.13	1.8	1.54	1.58
Chrysene	12.38	10.32	9.54	9.79
C1-Chrysenes	16.9	12.76	11.41	12.08
C2-Chrysenes	15.03	11.8	10.34	10.42
C3-Chrysenes	9.4	7.05	6.68	6.64
C4-Chrysenes	4.19	3.54	3.94	2.96
Benzo(b)fluoranthene	9.84	7.73	6.97	7.75
Benzo(k)fluoranthene	1.86	1.71	1.27	1.63
Benzo(e)pyrene	10.87	10.25	9.02	10.04
Benzo(a)pyrene	2.62	2.08	1.84	2.04
Perylene	102.46	50.37	43.41	45.93
Indeno(1,2,3-cd)pyrene	2.49	2.42	2.18	2.42
Dibenz(a,h)anthracene	1.45	1.29	1.18	1.29
Benzo(g,h,i)perylene	7.14	8.23	7.81	8.04
C23 diterpane (T4)	0.48	1.06	1	1.03
C29 Tricyclictriterpane (T9)	0.26	0.35	0.38	0.36
C29 Tricyclictriterpane (T10)	0.22 J	0.31	0.29	0.35
18a(H)-22,29,30-Trisnorneohopane -TS (T1	0.57	0.88	0.77	0.88
17a(H)-22,29,30-Trisnorhopane -TM (T12)	2.5	2.67	2.38	2.59

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-PB1A-04-PHC-S-C	05-N26-01-PHC-S-C	05-N26-02-PHC-S-C	05-N26-03-PHC-S-C
Battelle ID	S9145-P	S9155-P	S9156-P	S9157-P
Sample Type	SA	SA	SA	SA
Collection Date	08/10/05	08/10/05	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06	02/23/06	02/23/06
Analysis Date	03/06/06	03/06/06	03/06/06	03/06/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	32.17	33.17	24.77	26.52
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.45	20.05	22.79	22.46
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	3.9	5.37	4.7	5.14
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	6.76	8.59	7.49	8.28
22S-17a(H),21b(H)-30-Homohopane (T21)	2.71	3.87	3.4	3.99
22R-17a(H),21b(H)-30-Homohopane (T22)	9.54	5.42	4.42	4.74
13b,17a-Diacholestane -20S (S4)	1.03	1.6	1.37	1.51
13b,17a-Diacholestane-20R (S5)	0.65	0.97	0.95	1
5a,14a,17a--methylcholestane-20R (S24)	1.37	2.98	2.58	2.77
5a,14a,17a-Ethylcholestane-20S (S25)	1.38	1.26	1.17	1.28
5a,14a,17a-Ethylcholestane-20R (S28)	4.48	5.24	4.78	5.18
S28a	15.6	3.82	2.98	3.14
Surrogate Recoveries (%)				
Naphthalene-d8	49	58	58	57
Acenaphthene-d10	53	62	58	60
Phenanthrene-d10	76	88	76	85
Benzo(a)pyrene-d12	66	86	81	79
5b(H)-Cholane	64	75	76	76

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N26-04-PHC-S-C	05-N26-05-PHC-S-C	05-5(1)-01-PHC-S	
Battelle ID	S9158-P	S9159-P	S9224-P1	
Sample Type	SA	SA	SA	
Collection Date	08/10/05	08/10/05	08/09/05	
Extraction Date	02/23/06	02/23/06	02/23/06	
Analysis Date	03/07/06	03/07/06	03/06/06	
Analytical Instrument	MS	MS	MS	
% Moisture	30.33	26.72	18.61	
% Lipid	NA	NA	NA	
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	
Sample Size	21.42	22.20	24.50	
Size Unit-Basis	G_DRY	G_DRY	G_DRY	
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	
Naphthalene	11.93	10.78	0.85	B
C1-Naphthalenes	40.07	35.92	2.05	
C2-Naphthalenes	69.25	63.1	4.17	
C3-Naphthalenes	67.35	60.21	3.44	
C4-Naphthalenes	44.55	40.67	2.53	
Biphenyl	11.34	10.23	0.64	B
Acenaphthylene	ND	ND	ND	ND
Acenaphthene	1.44	1.19	0.1	
Fluorene	7.22	6.16	0.47	
C1-Fluorenes	17.51	15.46	0.97	
C2-Fluorenes	25.34	23.48	1.42	
C3-Fluorenes	23.51	21.36	1.37	
Anthracene	1.2	1.04	0.05	J
Phenanthrene	30.15	27.16	1.95	
C1-Phenanthrenes/Anthracenes	57.11	51.98	3.21	
C2-Phenanthrenes/Anthracenes	59.78	54.37	3.92	
C3-Phenanthrenes/Anthracenes	39.46	34.46	2.08	
C4-Phenanthrenes/Anthracenes	22.64	20.97	1.24	
Dibenzothiophene	5.82	5.27	0.27	
C1-Dibenzothiophenes	14.12	13.3	0.79	
C2-Dibenzothiophenes	18.88	16.56	1.04	
C3-Dibenzothiophenes	13.23	12.28	0.84	
Fluoranthene	6.05	5.59	0.31	
Pyrene	9.91	9	0.55	
C1-Fluoranthenes/Pyrenes	25.52	23.28	1.35	
C2-Fluoranthenes/Pyrenes	25.76	23.22	1.29	
C3-Fluoranthenes/Pyrenes	21.56	18.77	0.98	
Benzo(a)anthracene	2.49	2.37	0.11	
Chrysene	14.9	13.61	0.76	
C1-Chrysenes	18.29	17.2	0.94	
C2-Chrysenes	15.85	14.22	0.81	
C3-Chrysenes	10.06	9.19	0.59	
C4-Chrysenes	5.31	5.4	ND	
Benzo(b)fluoranthene	11.44	10.28	0.6	
Benzo(k)fluoranthene	2.37	1.97	0.08	J
Benzo(e)pyrene	14.54	13.08	0.73	
Benzo(a)pyrene	3.15	2.67	0.14	
Perylene	67.18	68.31	4.58	
Indeno(1,2,3-cd)pyrene	3.32	2.98	0.16	
Dibenz(a,h)anthracene	1.82	1.8	0.07	J
Benzo(g,h,i)perylene	11.38	10.45	0.55	
C23 diterpane (T4)	1.42	1.27	0.06	J
C29 Tricyclictriterpane (T9)	0.45	0.42	ND	
C29 Tricyclictriterpane (T10)	0.41	0.32	ND	
18a(H)-22,29,30-Trisnorneohopane -TS (T1	1.11	1.11	ND	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.64	3.35	0.17	J

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N26-04-PHC-S-C	05-N26-05-PHC-S-C	05-5(1)-01-PHC-S
Battelle ID	S9158-P	S9159-P	S9224-P1
Sample Type	SA	SA	SA
Collection Date	08/10/05	08/10/05	08/09/05
Extraction Date	02/23/06	02/23/06	02/23/06
Analysis Date	03/07/06	03/07/06	03/06/06
Analytical Instrument	MS	MS	MS
% Moisture	30.33	26.72	18.61
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.42	22.20	24.50
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	7.83	6.87	0.35
18a(H)-Oleanane (T18) ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)	11.88	10.49	0.63
22S-17a(H),21b(H)-30-Homohopane (T21)	5.9	4.84	0.28
22R-17a(H),21b(H)-30-Homohopane (T22)	7.54	6.74	0.7
13b,17a-Diacholestane -20S (S4)	2.17	1.92	0.12 J
13b,17a-Diacholestane-20R (S5)	1.54	1.24	0.08 J
5a,14a,17a--methylcholestane-20R (S24)	3.61	3.4	0.11 J
5a,14a,17a-Ethylcholestane-20S (S25)	2.02	1.77	0.08 J
5a,14a,17a-Ethylcholestane-20R (S28)	7.43	6.74	0.3
S28a	5.1	5.21	0.36
Surrogate Recoveries (%)			
Naphthalene-d8	62	51	65
Acenaphthene-d10	63	54	69
Phenanthrene-d10	88	75	100
Benzo(a)pyrene-d12	86	74	90
5b(H)-Cholane	75	69	81

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2D-01-PHC-S	05-N03-01-PHC-S	05-PB1A-03-PHC-S-C	05-PB1A-05-PHC-S-C
Battelle ID	S9226-P1	S9232-P1	S9233-P	S9234-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/10/05	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06	02/23/06	02/23/06
Analysis Date	03/06/06	03/07/06	03/07/06	03/11/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	20.91	36.65	37.57	35.86
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.25	19.26	19.30	19.63
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	0.85 B	13.43	15.04	12.54
C1-Naphthalenes	2.19	43.72	43.76	40.42
C2-Naphthalenes	4.07	75.24	82.2	67.09
C3-Naphthalenes	3.33	71.87	80.25	63.59
C4-Naphthalenes	2.07	49.73	50.23	40.61
Biphenyl	0.58 B	12.47	15.99	12.03
Acenaphthylene	ND	ND	ND	
Acenaphthene	0.14	1.7	1.55	1.14
Fluorene	0.38	7.8	9.23	6.08
C1-Fluorenes	0.93	18.58	20.14	13.63
C2-Fluorenes	1.37	46	29.74	22.78
C3-Fluorenes	1.2	47.28	28.16	23.79
Anthracene	ND	1.18	0.92	0.72
Phenanthrene	1.84	32.98	37.62	30.03
C1-Phenanthrenes/Anthracenes	3.23	61.65	70.68	54.36
C2-Phenanthrenes/Anthracenes	4.23	62.66	73.32	55.76
C3-Phenanthrenes/Anthracenes	2.13	39.79	45.87	36.51
C4-Phenanthrenes/Anthracenes	1.01	27.2	28.4	23.82
Dibenzothiophene	0.21	5.65	7.59	4.71
C1-Dibenzothiophenes	0.49	13.83	22.27	13.1
C2-Dibenzothiophenes	0.81	18.27	31.47	20.9
C3-Dibenzothiophenes	0.57	12.62	22.17	15.76
Fluoranthene	0.25	6.04	6.71	5.89
Pyrene	0.44	9.53	9.71	8.36
C1-Fluoranthenes/Pyrenes	1.28	26.29	27.97	23.42
C2-Fluoranthenes/Pyrenes	1.2	34.08	26.37	22.53
C3-Fluoranthenes/Pyrenes	0.94	28.42	19.7	18.25
Benzo(a)anthracene	0.12	2.27	2.75	2.62
Chrysene	1.01	14.29	15.7	13.38
C1-Chrysenes	1.19	17.93	20.88	17.32
C2-Chrysenes	0.97	15.27	18.81	14.78
C3-Chrysenes	0.71	10.03	11.55	8.94
C4-Chrysenes	ND	2.56	6.57	4.35
Benzo(b)fluoranthene	0.51	10.83	10.65	9.29
Benzo(k)fluoranthene	0.05 J	2.12	1.79	1.96
Benzo(e)pyrene	0.77	12.74	12.31	10.75
Benzo(a)pyrene	0.11	2.77	2.94	2.58
Perylene	3.33	82.26	118.14	109.46
Indeno(1,2,3-cd)pyrene	0.12	2.62	2.65	2.23
Dibenz(a,h)anthracene	0.09 J	1.53	1.59	1.4
Benzo(g,h,i)perylene	0.51	8.85	8.09	6.97
C23 diterpane (T4)	0.04 J	0.84	0.57	0.51
C29 Tricyclictriterpane (T9)	ND	0.33	0.2 J	0.18
C29 Tricyclictriterpane (T10)	ND	0.28	0.16 J	0.13
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND	0.8	0.7	0.59
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.11 J	3.43	3.11	2.58

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2D-01-PHC-S	05-N03-01-PHC-S	05-PB1A-03-PHC-S-C	05-PB1A-05-PHC-S-C
Battelle ID	S9226-P1	S9232-P1	S9233-P	S9234-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/10/05	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06	02/23/06	02/23/06
Analysis Date	03/06/06	03/07/06	03/07/06	03/11/06
Analytical Instrument	MS	MS	MS	MS
% Moisture	20.91	36.65	37.57	35.86
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.25	19.26	19.30	19.63
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	0.28	7.57	5.21	4
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	0.45	9.78	9.13	7.89
22S-17a(H),21b(H)-30-Homohopane (T21)	0.19 J	4.4	3.23	2.83
22R-17a(H),21b(H)-30-Homohopane (T22)	0.15 J	7.03	11.63	10.84
13b,17a-Diacholestane -20S (S4)	0.14 J	1.46	1.25	1.11
13b,17a-Diacholestane-20R (S5)	0.04 J	1.09	0.7	0.7
5a,14a,17a--methylcholestane-20R (S24)	0.12 J	3.1	1.79	1.95
5a,14a,17a-Ethylcholestane-20S (S25)	0.07 J	1.98	1.46	1.4
5a,14a,17a-Ethylcholestane-20R (S28)	0.25	7.39	5.59	5.27
S28a	0.22	9.87	19.78	15.84
Surrogate Recoveries (%)				
Naphthalene-d8	71	57	43	61
Acenaphthene-d10	68	61	59	60
Phenanthrene-d10	86	86	82	79
Benzo(a)pyrene-d12	87	77	82	76
5b(H)-Cholane	81	75	71	68

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2C-01-PHC-S		05-1C-01-PHC-S		05-1B-01-PHC-S	
Battelle ID		S9175-P		S9176-P		S9177-P	
Sample Type		SA		SA		SA	
Collection Date		08/07/05		08/07/05		08/07/05	
Extraction Date		10/03/05		10/03/05		10/03/05	
Analysis Date		10/08/05		10/08/05		10/09/05	
Analytical Instrument		MS		MS		MS	
% Moisture		42.18		37.16		22.02	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		17.37		19.15		24.13	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		9.71		7.2		2.36	
C1-Naphthalenes		26.57		15.97		5.32	
C2-Naphthalenes		39.17		23.12		7.46	
C3-Naphthalenes		33.26		21.82		6.24	
C4-Naphthalenes		20.57		13.89		4.09	
Biphenyl		7.47		6.55		1.64	
Acenaphthylene	ND	0.21		0.19		0.06	J
Acenaphthene		1.11		1.54		0.32	
Fluorene		4.48		4.74		0.95	
C1-Fluorenes		8.32		9.21		1.7	
C2-Fluorenes		10.18		19.42		2.34	
C3-Fluorenes		9.57		23.65		2.09	
Anthracene		0.74		0.45		0.15	
Phenanthrene		22.23		16.68		4.7	
C1-Phenanthrenes/Anthracenes		31.93		25.52		6.58	
C2-Phenanthrenes/Anthracenes		30.12		23.33		6.64	
C3-Phenanthrenes/Anthracenes		17.52		13.63		3.44	
C4-Phenanthrenes/Anthracenes		5.4		4.99		1.14	
Dibenzothiophene		4.06		2.73		0.7	
C1-Dibenzothiophenes		7.52		4.5		1.33	
C2-Dibenzothiophenes		8.09		5.26		1.53	
C3-Dibenzothiophenes		5.91		4.19		1.1	
Fluoranthene		4.11		3.52		0.79	
Pyrene		6.78		5.79		1.45	
C1-Fluoranthenes/Pyrenes		13.83		12.07		2.84	
C2-Fluoranthenes/Pyrenes		12.73		14.56		2.75	
C3-Fluoranthenes/Pyrenes		8.39		12.73		1.67	
Benzo(a)anthracene		2.02		1.88		0.39	
Chrysene		13.81		12.26		2.72	
C1-Chrysenes		17.37		14.44		3.18	
C2-Chrysenes		16.68		13.82		4.03	
C3-Chrysenes		8.42		9.29		1.85	
C4-Chrysenes		ND		ND		ND	
Benzo(b)fluoranthene		7.52		6.71		1.63	
Benzo(k)fluoranthene		1.91		1.55		0.34	
Benzo(e)pyrene		10.76		9.25		2.17	
Benzo(a)pyrene		2.23		2.07		0.39	
Perylene		57.99		50.3		12.92	
Indeno(1,2,3-cd)pyrene		2.31		2.33		0.49	
Dibenz(a,h)anthracene		1.25		1.29		0.31	
Benzo(g,h,i)perylene		8.55		8.12		1.82	
C23 diterpane (T4)		3.15		2.7		ND	
C29 Tricyclictriterpane (T9)	J	0.7		0.57		ND	
C29 Tricyclictriterpane (T10)	J	0.82		0.62		ND	
18a(H)-22,29,30-Trisnorneohopane -TS (T1		1.39		1.26		ND	
17a(H)-22,29,30-Trisnorhopane -TM (T12)		3.96		3.23		0.69	

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2C-01-PHC-S	05-1C-01-PHC-S	05-1B-01-PHC-S
Battelle ID	S9175-P	S9176-P	S9177-P
Sample Type	SA	SA	SA
Collection Date	08/07/05	08/07/05	08/07/05
Extraction Date	10/03/05	10/03/05	10/03/05
Analysis Date	10/08/05	10/08/05	10/09/05
Analytical Instrument	MS	MS	MS
% Moisture	42.18	37.16	22.02
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.37	19.15	24.13
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	8.42	7.03	1.59
18a(H)-Oleanane (T18) ND	ND	ND	ND
17a(H),21b(H)-hopane (T19)	12.81	9.97	1.89
22S-17a(H),21b(H)-30-Homohopane (T21)	5.6	4.31	0.75
22R-17a(H),21b(H)-30-Homohopane (T22)	7.62	6.23	0.9
13b,17a-Diacholestane -20S (S4)	2.87	2.06	0.49
13b,17a-Diacholestane-20R (S5)	1.69	1.26	0.34
5a,14a,17a--methylcholestane-20R (S24)	4.71	3.45	0.99
5a,14a,17a-Ethylcholestane-20S (S25)	2.25	2.06	0.36
5a,14a,17a-Ethylcholestane-20R (S28)	8	5.89	1.05
S28a	7.91	5.41	2.09
Surrogate Recoveries (%)			
Naphthalene-d8	72	44	70
Acenaphthene-d10	76	53	72
Phenanthrene-d10	82	75	81
Benzo(a)pyrene-d12	92	84	82
5b(H)-Cholane	80	79	79

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2E-01-PHC-S	05-2F-01-PHC-S	05-1A-01-PHC-S	05-1D-01-PHC-S
Battelle ID	S9178-P	S9179-P	S9180-P	S9181-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/05	08/06/05	08/07/05	08/07/05
Extraction Date	10/03/05	10/03/05	10/03/05	10/03/05
Analysis Date	10/09/05	10/09/05	10/09/05	10/09/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	25.61	27.34	31.5	26.28
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.46	21.81	21.11	22.38
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	1.25 B	5.38	3.98	1.02
C1-Naphthalenes	2.92	13.32	8.02	1.21
C2-Naphthalenes	4.24	19.76	11.65	1.77
C3-Naphthalenes	4.18	17.92	11.33	2
C4-Naphthalenes	2.8	10.31	7.56	1.55
Biphenyl	1.09	5.22	3.05	0.75
Acenaphthylene	ND	0.11 J	0.07 J	
Acenaphthene	0.19	0.77	0.52	0.33
Fluorene	0.61	3.47	1.48	0.45
C1-Fluorenes	1.17	6.65	2.65	0.69
C2-Fluorenes	2.06	12.86	4.21	1.59
C3-Fluorenes	2.84	13.61	4.02	1.97
Anthracene	0.09 J	0.2	0.31	
Phenanthrene	2.93	13.12	7.94	1.59
C1-Phenanthrenes/Anthracenes	4.37	21.44	12.22	1.99
C2-Phenanthrenes/Anthracenes	4.96	19.67	12.3	2.56
C3-Phenanthrenes/Anthracenes	2.49	10.35	6.94	1.25
C4-Phenanthrenes/Anthracenes	0.75	2.79	2.54	
Dibenzothiophene	0.38	1.28	1.16	0.24
C1-Dibenzothiophenes	0.79	2.16	2.14	0.39
C2-Dibenzothiophenes	1.12	3.22	3.2	
C3-Dibenzothiophenes	0.82	2.52	1.9	
Fluoranthene	0.35	1.43	1.37	0.31
Pyrene	0.67	2.21	2.35	0.51
C1-Fluoranthenes/Pyrenes	1.84	7.53	4.77	1.19
C2-Fluoranthenes/Pyrenes	1.88	8.36	4.38	1.21
C3-Fluoranthenes/Pyrenes	1.24	7.23	2.82	1.05
Benzo(a)anthracene	0.19	0.79	0.7	0.14
Chrysene	1.98	7.92	4.8	0.91
C1-Chrysenes	2.38	9.77	4.93	1.02
C2-Chrysenes	1.75	10.63	4.32	0.81
C3-Chrysenes	ND	5.61	2.87	
C4-Chrysenes	ND	ND	ND	
Benzo(b)fluoranthene	0.79	2.98	2.81	0.62
Benzo(k)fluoranthene	0.15 J	0.56	0.51	0.05
Benzo(e)pyrene	1.29	4.69	3.48	0.82
Benzo(a)pyrene	ND	0.73	0.74	0.17
Perylene	5.84	23.75	34.63	5.34
Indeno(1,2,3-cd)pyrene	0.22	0.51	0.69	0.17
Dibenz(a,h)anthracene	0.18	0.44	0.52	0.09
Benzo(g,h,i)perylene	0.9	2.71	2.69	0.68
C23 diterpane (T4)	ND	ND	ND	
C29 Tricyclictriterpane (T9)	ND	ND	ND	
C29 Tricyclictriterpane (T10)	ND	ND	ND	
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND	ND	0.45	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.32	0.71	1.76	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2E-01-PHC-S	05-2F-01-PHC-S	05-1A-01-PHC-S	05-1D-01-PHC-S
Battelle ID	S9178-P	S9179-P	S9180-P	S9181-P
Sample Type	SA	SA	SA	SA
Collection Date	08/06/05	08/06/05	08/07/05	08/07/05
Extraction Date	10/03/05	10/03/05	10/03/05	10/03/05
Analysis Date	10/09/05	10/09/05	10/09/05	10/09/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	25.61	27.34	31.5	26.28
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.46	21.81	21.11	22.38
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	0.5	1.9	3.06	0.4
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	1.24	2.64	4.13	0.6
22S-17a(H),21b(H)-30-Homohopane (T21)	0.42	1.27	1.28	
22R-17a(H),21b(H)-30-Homohopane (T22)	0.56	1.36	2.22	
13b,17a-Diacholestane -20S (S4)	0.29	0.51	1.17	0.15
13b,17a-Diacholestane-20R (S5)	0.2 J	0.47	0.7	
5a,14a,17a--methylcholestane-20R (S24)	0.26	0.54	1.81	0.16
5a,14a,17a-Ethylcholestane-20S (S25)	ND	0.52	0.55	
5a,14a,17a-Ethylcholestane-20R (S28)	0.53	1.15	1.85	0.32
S28a	1.12	2.23	11.69	0.8
Surrogate Recoveries (%)				
Naphthalene-d8	70	47	72	46
Acenaphthene-d10	73	56	74	57
Phenanthrene-d10	80	73	82	73
Benzo(a)pyrene-d12	85	73	70	71
5b(H)-Cholane	79	77	78	84

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Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2B-01-PHC-S		05-1E-01-PHC-S		05-2A-01-PHC-S	
Battelle ID		S9182-P		S9183-P		S9184-P	
Sample Type		SA		SA		SA	
Collection Date		08/08/05		08/07/05		08/08/05	
Extraction Date		10/03/05		10/03/05		10/03/05	
Analysis Date		10/09/05		10/09/05		10/09/05	
Analytical Instrument		MS		MS		MS	
% Moisture		24.68		39.2		30.04	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		23.22		18.53		21.04	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	B	1.09	B	3.33		12.32	
C1-Naphthalenes		2.25		5.79		39.92	
C2-Naphthalenes		3.91		8.91		74.23	
C3-Naphthalenes		3.29		8.74		72.41	
C4-Naphthalenes		2.45		5.85		53.26	
Biphenyl		0.8		3.03		16.19	
Acenaphthylene	ND		ND	0.1	J	0.4	
Acenaphthene		0.12		0.55		2.35	
Fluorene		0.47		1.34		6	
C1-Fluorenes		1.06		2.19		16.74	
C2-Fluorenes		1.43		4.51		29.32	
C3-Fluorenes		1.91		6.13		22.95	
Anthracene	ND	0.04	J	0.17		1.44	
Phenanthrene		2.58		6.59		57.68	
C1-Phenanthrenes/Anthracenes		4.52		8.59		113.79	
C2-Phenanthrenes/Anthracenes		5.79		8.36		125.69	
C3-Phenanthrenes/Anthracenes		3.03		4.38		70.23	
C4-Phenanthrenes/Anthracenes	ND	1.08		1.82		17.41	
Dibenzothiophene		0.35		0.83		5.12	
C1-Dibenzothiophenes		0.63		1.34		16.56	
C2-Dibenzothiophenes	ND	1.35		2.17		26.22	
C3-Dibenzothiophenes	ND	1.15		2.02		17.77	
Fluoranthene		0.42		0.88		8.42	
Pyrene		0.85		1.69		13.9	
C1-Fluoranthenes/Pyrenes		2.34		3.63		36.43	
C2-Fluoranthenes/Pyrenes		2.28		4		34.19	
C3-Fluoranthenes/Pyrenes		1.82		2.73		28.46	
Benzo(a)anthracene		0.19		0.62		4.57	
Chrysene		2.33		3.59		63.64	
C1-Chrysenes		2.92		4.09		72.78	
C2-Chrysenes		4.43		3.14		61.78	
C3-Chrysenes	ND	1.62		2.08		32.07	
C4-Chrysenes	ND		ND		ND		ND
Benzo(b)fluoranthene		0.89		1.89		15.58	
Benzo(k)fluoranthene	J		ND	0.3		2.1	
Benzo(e)pyrene		1.36		2.43		27.05	
Benzo(a)pyrene		0.11		0.55		3.33	
Perylene		6.12		25.02		141.39	
Indeno(1,2,3-cd)pyrene		0.23		0.51		2.29	
Dibenz(a,h)anthracene	J	0.15		0.32		3.02	
Benzo(g,h,i)perylene		0.82		2.09		10	
C23 diterpane (T4)	ND		ND		ND	1.93	
C29 Tricyclictriterpane (T9)	ND		ND		ND	0.61	
C29 Tricyclictriterpane (T10)	ND		ND		ND	0.42	
18a(H)-22,29,30-Trisnorneohopane -TS (T1	ND		ND		ND	2.02	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	ND	0.27		1.56		3.48	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2B-01-PHC-S		05-1E-01-PHC-S		05-2A-01-PHC-S	
Battelle ID		S9182-P		S9183-P		S9184-P	
Sample Type		SA		SA		SA	
Collection Date		08/08/05		08/07/05		08/08/05	
Extraction Date		10/03/05		10/03/05		10/03/05	
Analysis Date		10/09/05		10/09/05		10/09/05	
Analytical Instrument		MS		MS		MS	
% Moisture		24.68		39.2		30.04	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		23.22		18.53		21.04	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
17a(H),21b(H)-30-norhopane (T15)		0.58		3.45		7.72	
18a(H)-Oleanane (T18)	ND		ND		ND		ND
17a(H),21b(H)-hopane (T19)		0.99		3.84		13.54	
22S-17a(H),21b(H)-30-Homohopane (T21)	ND	0.45			ND	4.66	
22R-17a(H),21b(H)-30-Homohopane (T22)	ND	0.39		1.71		6.03	
13b,17a-Diacholestane -20S (S4)	J	0.25		0.62		4.42	
13b,17a-Diacholestane-20R (S5)	ND	0.11	J	0.48		2.68	
5a,14a,17a--methylcholestane-20R (S24)	J	0.23		1.34		4.04	
5a,14a,17a-Ethylcholestane-20S (S25)	ND	0.15	J	0.65		2.39	
5a,14a,17a-Ethylcholestane-20R (S28)		0.34		1.17		6.95	
S28a		0.81		24.92		7.05	
Surrogate Recoveries (%)							
Naphthalene-d8		69		69		72	
Acenaphthene-d10		74		70		73	
Phenanthrene-d10		80		76		71	
Benzo(a)pyrene-d12		100		68		79	
5b(H)-Cholane		84		79		79	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2H-01-PHC-S	05-5(1)-01-PHC-S	05-2D-01-PHC-S	05-2G-01-PHC-S
Battelle ID	S9185-P	S9224-P	S9226-P	S9227-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/09/05	08/08/05	08/08/05
Extraction Date	10/03/05	10/03/05	10/03/05	10/03/05
Analysis Date	10/09/05	10/09/05	10/09/05	10/10/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	25.41	19.26	21.86	39.29
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.47	24.54	23.83	18.23
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	5.21	1.45	2.11	41
C1-Naphthalenes	13.52	1.68	1.69	109.18
C2-Naphthalenes	20.2	19.61	3.05	151.66
C3-Naphthalenes	16.93	15.38	ND	129.86
C4-Naphthalenes	10.52	ND	ND	65.41
Biphenyl	4.49	0.69	0.63	20.37
Acenaphthylene	0.09 J	ND	ND	0.57
Acenaphthene	0.61	ND	0.83	2.25
Fluorene	2.29	0.47	0.76	17.01
C1-Fluorenes	4.57	ND	ND	34.71
C2-Fluorenes	5.64	ND	ND	37.56
C3-Fluorenes	5.28	ND	ND	30.66
Anthracene	0.35	ND	ND	0.85
Phenanthrene	12.74	1.49	1.62	61.38
C1-Phenanthrenes/Anthracenes	18.55	1.96	2.49	100.63
C2-Phenanthrenes/Anthracenes	17.25	1.92	2.22	86.51
C3-Phenanthrenes/Anthracenes	9.72	1.35	1.18	46.02
C4-Phenanthrenes/Anthracenes	3.07	ND	ND	13.4
Dibenzothiophene	1.73	ND	ND	5.9
C1-Dibenzothiophenes	3.07	ND	ND	17.1
C2-Dibenzothiophenes	4.02	ND	ND	15.26
C3-Dibenzothiophenes	2.8	ND	ND	8.87
Fluoranthene	1.89	0.25	0.25	6.11
Pyrene	3.24	0.48	0.56	9.1
C1-Fluoranthenes/Pyrenes	7.54	1.28	1.5	34.7
C2-Fluoranthenes/Pyrenes	6.26	1.66	1.69	34.26
C3-Fluoranthenes/Pyrenes	4.34	1.19	ND	25.09
Benzo(a)anthracene	0.96	0.16	0.16	2.77
Chrysene	7.42	1.16	1.78	23.81
C1-Chrysenes	8.27	1.35	1.89	30.7
C2-Chrysenes	9.23	ND	ND	33.24
C3-Chrysenes	4.47	ND	ND	15.37
C4-Chrysenes	ND	ND	ND	
Benzo(b)fluoranthene	3.85	0.49	0.56	11.29
Benzo(k)fluoranthene	0.73	ND	ND	1.99
Benzo(e)pyrene	5.33	0.61	1.02	16.78
Benzo(a)pyrene	0.99	ND	ND	3.09
Perylene	33.18	3.84	4.3	57.69
Indeno(1,2,3-cd)pyrene	0.98	ND	0.24	1.91
Dibenz(a,h)anthracene	0.63	ND	ND	1.72
Benzo(g,h,i)perylene	3.96	0.88	0.89	9.54
C23 diterpane (T4)	1.16	ND	ND	
C29 Tricyclictriterpane (T9)	0.21 J	ND	ND	0.25
C29 Tricyclictriterpane (T10)	ND	ND	ND	
18a(H)-22,29,30-Trisnorneohopane -TS (T1	0.62	ND	ND	0.98
17a(H)-22,29,30-Trisnorhopane -TM (T12)	1.77	0.24	0.29	2.73

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2H-01-PHC-S	05-5(1)-01-PHC-S	05-2D-01-PHC-S	05-2G-01-PHC-S
Battelle ID	S9185-P	S9224-P	S9226-P	S9227-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/09/05	08/08/05	08/08/05
Extraction Date	10/03/05	10/03/05	10/03/05	10/03/05
Analysis Date	10/09/05	10/09/05	10/09/05	10/10/05
Analytical Instrument	MS	MS	MS	MS
% Moisture	25.41	19.26	21.86	39.29
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.47	24.54	23.83	18.23
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	3.55	0.5	0.58	6.37
18a(H)-Oleanane (T18)	ND	ND	ND	
17a(H),21b(H)-hopane (T19)	5.55	0.55	0.77	9.36
22S-17a(H),21b(H)-30-Homohopane (T21)	2.21	ND	ND	3.85
22R-17a(H),21b(H)-30-Homohopane (T22)	2.43	0.42	ND	3.99
13b,17a-Diacholestane -20S (S4)	1.15	ND	0.32	1.18
13b,17a-Diacholestane-20R (S5)	0.75	ND	ND	0.69
5a,14a,17a--methylcholestane-20R (S24)	1.83	ND	ND	1.73
5a,14a,17a-Ethylcholestane-20S (S25)	0.84	ND	ND	1.71
5a,14a,17a-Ethylcholestane-20R (S28)	2.78	0.23	0.5	5.26
S28a	5.4	0.35	ND	6.38
Surrogate Recoveries (%)				
Naphthalene-d8	69	10 N	6 N	74
Acenaphthene-d10	71	11 N	10 N	74
Phenanthrene-d10	81	21 N	20 N	86
Benzo(a)pyrene-d12	80	31 N	30 N	77
5b(H)-Cholane	83	81	82	80

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-5(5)-01-PHC-S		05-PB1-01-PHC-S		05-N26-01-PHC-S	
Battelle ID		S9228-P		S9229-P		S9230-P	
Sample Type		SA		SA		SA	
Collection Date		08/09/05		08/10/05		08/10/05	
Extraction Date		10/03/05		10/03/05		10/03/05	
Analysis Date		10/10/05		10/10/05		10/10/05	
Analytical Instrument		MS		MS		MS	
% Moisture		29.78		24.95		28	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		21.49		22.64		21.96	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene		7.84		3.35		5.76	
C1-Naphthalenes		21.55		9.81		17.28	
C2-Naphthalenes		31.92		14.36		24.69	
C3-Naphthalenes		26.15		12.83		19.87	
C4-Naphthalenes		15.18		6.92		11.53	
Biphenyl		6.09		2.99		4.36	
Acenaphthylene		0.15		0.06	J	0.14	
Acenaphthene		0.73		0.39		0.54	
Fluorene		3.6		1.64		2.63	
C1-Fluorenes		7.38		3.31		5.46	
C2-Fluorenes		8.46		6.06		7.58	
C3-Fluorenes		7.32		6.73		8.16	
Anthracene		0.37		0.11		0.44	
Phenanthrene		17.32		7.96		12.76	
C1-Phenanthrenes/Anthracenes		26.64		12.05		20.24	
C2-Phenanthrenes/Anthracenes		24.98		11.54		18.86	
C3-Phenanthrenes/Anthracenes		13.82		5.9		10.77	
C4-Phenanthrenes/Anthracenes		4.31		1.54		3.28	
Dibenzothiophene		2.71		1.47		2.34	
C1-Dibenzothiophenes		5.03		3.39		4.34	
C2-Dibenzothiophenes		6.66		4.28		5.41	
C3-Dibenzothiophenes		4.03		2.96		3.85	
Fluoranthene		2.71		1.07		2.25	
Pyrene		4.46		1.65		3.99	
C1-Fluoranthenes/Pyrenes		10.44		4.33		9.1	
C2-Fluoranthenes/Pyrenes		9.59		4.42		8.67	
C3-Fluoranthenes/Pyrenes		7.11		3.59		7.08	
Benzo(a)anthracene		1.2		0.55		0.98	
Chrysene		9.37		4.16		6.4	
C1-Chrysenes		11.49		4.97		7.66	
C2-Chrysenes		11.56		6.38		8.26	
C3-Chrysenes		6.43		2.78		3.76	
C4-Chrysenes	ND	ND		ND		ND	
Benzo(b)fluoranthene		5.1		2.04		3.89	
Benzo(k)fluoranthene		0.77		0.39		0.81	
Benzo(e)pyrene		6.46		2.65		5.33	
Benzo(a)pyrene		1.26		0.54		1.09	
Perylene		38.42		17.9		25.58	
Indeno(1,2,3-cd)pyrene		1.06		0.55		1.14	
Dibenz(a,h)anthracene		0.73		0.34		0.64	
Benzo(g,h,i)perylene		4.07		2.02		4.58	
C23 diterpane (T4)	ND	ND		ND		1.73	
C29 Tricyclictriterpane (T9)	J	0.27		ND		0.21	J
C29 Tricyclictriterpane (T10)	ND	0.24		ND		ND	
18a(H)-22,29,30-Trisnorneohopane -TS (T1		0.64		ND		0.53	
17a(H)-22,29,30-Trisnorhopane -TM (T12)		2		0.91		1.8	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-5(5)-01-PHC-S	05-PB1-01-PHC-S	05-N26-01-PHC-S
Battelle ID	S9228-P	S9229-P	S9230-P
Sample Type	SA	SA	SA
Collection Date	08/09/05	08/10/05	08/10/05
Extraction Date	10/03/05	10/03/05	10/03/05
Analysis Date	10/10/05	10/10/05	10/10/05
Analytical Instrument	MS	MS	MS
% Moisture	29.78	24.95	28
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.49	22.64	21.96
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
17a(H),21b(H)-30-norhopane (T15)	4.83	1.57	2.71
18a(H)-Oleanane (T18)	ND	ND	ND ND
17a(H),21b(H)-hopane (T19)	6.04	1.93	5.01
22S-17a(H),21b(H)-30-Homohopane (T21)	2.37	0.65	2.2
22R-17a(H),21b(H)-30-Homohopane (T22)	6.65	2.88	2.83
13b,17a-Diacholestane -20S (S4)	1	0.44	0.93
13b,17a-Diacholestane-20R (S5)	0.68	0.16 J	0.47
5a,14a,17a--methylcholestane-20R (S24)	1.61	0.32	1.24
5a,14a,17a-Ethylcholestane-20S (S25)	0.76	0.27	0.61
5a,14a,17a-Ethylcholestane-20R (S28)	3.49	1.02	2.4
S28a	6.22	3.08	1.91
Surrogate Recoveries (%)			
Naphthalene-d8	68	75	80
Acenaphthene-d10	71	76	76
Phenanthrene-d10	81	80	94
Benzo(a)pyrene-d12	81	89	101
5b(H)-Cholane	76	85	86

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-PB1A-01-PHC-S		05-N03-01-PHC-S	
Battelle ID	S9231-P		S9232-P	
Sample Type	SA		SA	
Collection Date	08/10/05		08/10/05	
Extraction Date	10/03/05		10/03/05	
Analysis Date	10/10/05		10/10/05	
Analytical Instrument	MS		MS	
% Moisture	47.07		36.66	
% Lipid	NA		NA	
Matrix	SEDIMENT		SEDIMENT	
Sample Size	16.22		19.34	
Size Unit-Basis	G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY	
Naphthalene	24.65		0.1	J
C1-Naphthalenes	68.27		0.09	J
C2-Naphthalenes	103.94			ND
C3-Naphthalenes	76.67			ND
C4-Naphthalenes	41.94			ND
Biphenyl	18.84		0.06	J
Acenaphthylene	0.41			ND
Acenaphthene	1.88			ND
Fluorene	10.19		0.05	J
C1-Fluorenes	19.44			ND
C2-Fluorenes	23.55			ND
C3-Fluorenes	20.9			ND
Anthracene	1.34			ND
Phenanthrene	48.98		14.44	
C1-Phenanthrenes/Anthracenes	78.11		19.68	
C2-Phenanthrenes/Anthracenes	71.1			ND
C3-Phenanthrenes/Anthracenes	40.64			ND
C4-Phenanthrenes/Anthracenes	11.16			ND
Dibenzothiophene	8.2			ND
C1-Dibenzothiophenes	21.71			ND
C2-Dibenzothiophenes	25.6			ND
C3-Dibenzothiophenes	15.38			ND
Fluoranthene	7.92		4.23	
Pyrene	11.43		4.89	
C1-Fluoranthenes/Pyrenes	31.53		16.34	
C2-Fluoranthenes/Pyrenes	26			ND
C3-Fluoranthenes/Pyrenes	18.74			ND
Benzo(a)anthracene	4.15		2.46	
Chrysene	26.8		19.38	
C1-Chrysenes	31.65		16.06	
C2-Chrysenes	29.52			ND
C3-Chrysenes	17.04			ND
C4-Chrysenes		ND		ND
Benzo(b)fluoranthene	11.91		13.22	
Benzo(k)fluoranthene	2.62			ND
Benzo(e)pyrene	16		20.07	
Benzo(a)pyrene	4.09			ND
Perylene	121.85		145.49	
Indeno(1,2,3-cd)pyrene	3.27			ND
Dibenz(a,h)anthracene	1.91			ND
Benzo(g,h,i)perylene	11.03		17.14	
C23 diterpane (T4)	2.53		1.82	
C29 Tricyclictriterpane (T9)	0.4		0.48	
C29 Tricyclictriterpane (T10)	0.36			ND
18a(H)-22,29,30-Trisnorneohopane -TS (T1	1.36		1.08	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	5.06		3.84	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-PB1A-01-PHC-S		05-N03-01-PHC-S	
Battelle ID	S9231-P		S9232-P	
Sample Type	SA		SA	
Collection Date	08/10/05		08/10/05	
Extraction Date	10/03/05		10/03/05	
Analysis Date	10/10/05		10/10/05	
Analytical Instrument	MS		MS	
% Moisture	47.07		36.66	
% Lipid	NA		NA	
Matrix	SEDIMENT		SEDIMENT	
Sample Size	16.22		19.34	
Size Unit-Basis	G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY	
17a(H),21b(H)-30-norhopane (T15)	10.12		8.12	
18a(H)-Oleanane (T18)		ND		ND
17a(H),21b(H)-hopane (T19)	13.82		11.44	
22S-17a(H),21b(H)-30-Homohopane (T21)	4.8		4.68	
22R-17a(H),21b(H)-30-Homohopane (T22)	16.23		7.71	
13b,17a-Diacholestane -20S (S4)	1.96		1.57	
13b,17a-Diacholestane-20R (S5)	1.36		0.87	
5a,14a,17a--methylcholestane-20R (S24)	3.64		3.58	
5a,14a,17a-Ethylcholestane-20S (S25)	2.28		1.74	
5a,14a,17a-Ethylcholestane-20R (S28)	8.9		6.66	
S28a	25.28		10.12	
Surrogate Recoveries (%)				
Naphthalene-d8	69		0	N
Acenaphthene-d10	73		0	N
Phenanthrene-d10	75		1	N
Benzo(a)pyrene-d12	93		1	N
5b(H)-Cholane	80		78	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	02-5A-01-PHC-S	02-L08-01-PHC-S	02-N16-01-PHC-S	05-1A-01-PHC-S
Battelle ID	S8774-P	S8768-P	S8767-P	S9180-P
Sample Type	SA	SA	SA	SA
Collection Date	08/03/02	07/30/02	08/05/02	08/07/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/03/05
Analysis Date	10/23/05	10/22/05	10/22/05	10/28/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	38.97	21.75	32.61	31.5
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	18.39	24.12	20.70	21.11
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	20.43 JT	7.06 JT	18.64 JT	10.3
n-Decane	45.66 JT	21.49 JT	41.52 JT	22.3
n-Undecane	67.11 T	39.96 T	59.19 T	18.83
n-Dodecane	77.52 T	57.6 T	68.73 T	11.19
n-Tridecane	95.16 T	79.15 T	84.4 T	14.28
Isoprenoid RRT 1380	26.15 JT	28.39 T	22.07 JT	4.02
n-Tetradecane	101.7 T	98.66 T	90.04 T	18.75
Isoprenoid RRT 1470	63.46 T	50.98 T	57.77 T	12.06
n-Pentadecane	127.51 T	101.87 T	115.74 T	29.25
n-Hexadecane	127.88 T	77.88 T	110.17 T	26.42
Norpristane (1650)	37.31 T	32.18 T	34.48 T	5.71
n-Heptadecane	179.93 T	65.33 T	157.93 T	63.84
Pristane	113.1 T	62.79 T	105.26 T	27.93
n-Octadecane	130.9 T	42.46 T	117.85 T	27.72
Phytane	49.12 T	34.68 T	47.26 T	12.57
n-Nonadecane	188.38 T	40.2 T	161.03 T	57.19
n-Eicosane	174.67 T	30.47 T	149.72 T	49.17
n-Heneicosane	367.65 T	63.62 T	295.66 T	141.6
n-Docosane	282.35 T	41.29 T	231.15 T	94.59
n-Tricosane	781.41 T	97.31 T	613.47 T	270.25
n-Tetracosane	263.73 T	36.74 T	219.61 T	93.74
n-Pentacosane	767.03 T	122.25 T	610.91 T	363.68
n-Hexacosane	216.05 T	33.95 T	173.64 T	73.17
n-Heptacosane	1112.81 T	190.09 T	855.74 T	632.67
n-Octacosane	210.52 T	30.6 T	141.54 T	58.69
n-Nonacosane	927.05 T	150.64 T	727.92 T	447.02
n-Triacontane	98.74 T	16.62 JT	77.63 T	34.49
n-Hentriacontane	743.63 T	122.44 T	598.13 T	356.24
n-Dotriacontane	47.86 T	8.84 JT	43.87 T	20.41
n-Tritriacontane	238.62 T	36.66 T	195.54 T	93.72
n-Tetratriacontane	18.49 JT	4.06 JT	17.36 JT	5.14
n-Pentatriacontane	37.75 T	7.86 JT	33.73 T	10.74
n-Hexatriacontane	10.69 JT	2.3 JT	9.59 JT	1.98
n-Heptatriacontane	10.16 JT	1.92 JT	9.53 JT	2.52
n-Octatriacontane	8.4 JT	2.52 JT	8.35 JT	2.14
n-Nonatriacontane	7.46 JT	1.52 JT	6.58 JT	1.93
n-Tetracontane	7.07 JT	1.47 JT	6.87 JT	2.1
Total SHC	19691.95 T	10016.87 T	14639.93 T	3589.35
Surrogate Recoveries (%)				
5a-androstane	85	92	84	86
n-Tetracosane-d50	85	92	85	87

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-1B-01-PHC-S		05-1C-01-PHC-S		05-1C-01-PHC-S-C	
Battelle ID		S9177-P		S9176-P		S9191-P	
Sample Type		SA		SA		SA	
Collection Date		08/07/05		08/07/05		08/07/05	
Extraction Date		10/03/05		10/03/05		02/20/06	
Analysis Date		10/27/05		10/27/05		02/25/06	
Analytical Instrument		FID		FID		FID	
% Moisture		22.02		37.16		31.92	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		24.13		19.15		20.70	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	9.08	J	ND		12.33	J
n-Decane	J	19.83	J	ND		22.14	J
n-Undecane	J	16.39	J	4.63	J	34.12	
n-Dodecane	J	8.07	J	14.19	J	41.18	
n-Tridecane	J	8.04	J	29.11		55.27	
Isoprenoid RRT 1380	J	2.3	J	8.93	J	16.09	J
n-Tetradecane	J	13.15	J	39.25		63.13	
Isoprenoid RRT 1470	J	6.7	J	25.31	J	37.84	
n-Pentadecane		19.74	J	60.09		83.42	
n-Hexadecane		15.85	J	56.24		81.52	
Norpristane (1650)	J	3.98	J	17.1	J	29.92	
n-Heptadecane		18.05	J	75.93		107.3	
Pristane		13.66	J	63.42		97.48	
n-Octadecane		12.33	J	55.68		88.13	
Phytane	J	7.21	J	32.91		56.48	
n-Nonadecane		17.61	J	67.96		109.03	
n-Eicosane		16.2	J	67.89		104.79	
n-Heneicosane		30.84		105.9		159.39	
n-Docosane		25.25		88.69		131.75	
n-Tricosane		57.11		175.25		234.69	
n-Tetracosane		26.22		92.62		120.38	
n-Pentacosane		69.25		240.06		276.55	
n-Hexacosane		20.1	J	113.01		102.03	
n-Heptacosane		107.51		377.73		412.47	
n-Octacosane		16.8	J	116.9		90.96	
n-Nonacosane		102.3		357.39		419.12	
n-Triacontane		10.23	J	66.47		49.62	
n-Hentriacontane		87.89		286.71		355.94	
n-Dotriacontane	J	6.76	J	ND		40.45	
n-Tritriacontane		26.27		86.33		133.67	
n-Tetratriacontane	J	2.52	J	ND		14.07	J
n-Pentatriacontane	J	4.11	J	16.23	J	24.02	J
n-Hexatriacontane	J	1.42	J	5.77	J	10.7	J
n-Heptatriacontane	J	1.42	J	5.39	J	8.41	J
n-Octatriacontane	J	1.29	J	5.65	J	6.96	J
n-Nonatriacontane	J	1.06	J	3.93	J	6.11	J
n-Tetracontane	J	1.17	J	4.27	J	5.4	J
Total SHC		1590.92		10772.34		12972.93	
Surrogate Recoveries (%)							
5a-androstane		81		82		77	
n-Tetracosane-d50		83		83		77	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-1C-02-PHC-S-C	05-1C-03-PHC-S-C	05-1C-04-PHC-S-C	05-1C-05-PHC-S-C
Battelle ID	S9190-P	S9189-P	S9194-P	S9193-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/05	08/07/05	08/07/05	08/07/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/20/06
Analysis Date	02/25/06	02/25/06	02/25/06	02/25/06
Analytical Instrument	FID	FID	FID	FID
% Moisture	30.24	32.4	29.32	31.02
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.23	20.83	21.42	20.83
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	11.15 J	8.67 J	11.92 J	11.8
n-Decane	21.1 J	18.47 J	22.93 J	23.7
n-Undecane	33.08	31.14	35.99	36.3
n-Dodecane	40.17	38.85	42.75	42.61
n-Tridecane	57.19	53.75	57.52	56.85
Isoprenoid RRT 1380	16.99 J	15.78 J	15.84 J	16.12
n-Tetradecane	63.95	61.05	64.43	63.91
Isoprenoid RRT 1470	40.85	38.99	38.07	38.52
n-Pentadecane	87.6	82.93	86.53	84.53
n-Hexadecane	86.44	80.13	84.02	82.14
Norpristane (1650)	32.26	30.24	33.18	31.3
n-Heptadecane	114.45	106.34	111.79	108.97
Pristane	101.37	97.85	98	98.57
n-Octadecane	94.21	87.73	92.23	89.69
Phytane	61.81	56.66	58.45	58.97
n-Nonadecane	116.31	108.83	114.66	112.17
n-Eicosane	112.69	104.28	110.42	109.07
n-Heneicosane	168.63	155.04	168.62	163.16
n-Docosane	141.3	128.79	139.92	135.9
n-Tricosane	250.37	227.4	248.56	239.44
n-Tetracosane	128.91	118.84	127.58	124.15
n-Pentacosane	300.49	277.85	298.87	282.13
n-Hexacosane	109.91	99.52	107.72	106.32
n-Heptacosane	440.99	413.62	437.27	417.81
n-Octacosane	95.92	88.59	93.82	90.99
n-Nonacosane	454.07	408	448.53	425.67
n-Triacontane	53.91	48.15	52.95	51.47
n-Hentriacontane	382.68	342.15	382	366.48
n-Dotriacontane	40.61	38.63	40.95	40.57
n-Tritriacontane	148.07	130.3	144.74	141.71
n-Tetratriacontane	15.84 J	14.16 J	14.1 J	14.63
n-Pentatriacontane	25.94	23.23 J	25.47	24.77
n-Hexatriacontane	11.45 J	10.06 J	11.57 J	10.77
n-Heptatriacontane	8.97 J	7.76 J	8.69 J	8.49
n-Octatriacontane	7.95 J	6.53 J	7.68 J	7.74
n-Nonatriacontane	7.02 J	5.71 J	6.51 J	6.45
n-Tetracontane	5.73 J	4.59 J	5.78 J	5.45
Total SHC	14030.11	12637.9	13284.04	13744.18
Surrogate Recoveries (%)				
5a-androstane	81	81	70	80
n-Tetracosane-d50	81	80	70	79

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-1C-06-PHC-S-C		05-1C-07-PHC-S-C		05-1C-10-PHC-S-C	
Battelle ID		S9192-P		S9197-P		S9200-P	
Sample Type		SA		SA		SA	
Collection Date		08/07/05		08/07/05		08/07/05	
Extraction Date		02/20/06		02/20/06		02/20/06	
Analysis Date		02/25/06		02/26/06		02/26/06	
Analytical Instrument		FID		FID		FID	
% Moisture		32.37		30.3		26.68	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		20.45		21.53		22.51	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	11.52	J	8.54	J	10.22	J
n-Decane	J	21.02	J	16.1	J	19.48	J
n-Undecane		32.05		26.45		30.87	
n-Dodecane		41.69		33.74		38.46	
n-Tridecane		57.83		48.41		52.38	
Isoprenoid RRT 1380	J	16.54	J	13.75	J	15.23	J
n-Tetradecane		65.26		57.88		61.72	
Isoprenoid RRT 1470		39.44		37.71		37.91	
n-Pentadecane		87.55		79.84		82.37	
n-Hexadecane		84.07		75.97		80.97	
Norpristane (1650)		32.04		30.42		31.96	
n-Heptadecane		113.99		104.54		108.74	
Pristane		103.79		94.16		98.48	
n-Octadecane		92.82		85.57		90.49	
Phytane		60.44		55.66		60.08	
n-Nonadecane		115.35		106.47		110.84	
n-Eicosane		110.83		102.3		108.79	
n-Heneicosane		166.88		154.23		161.06	
n-Docosane		139.45		129.21		134.82	
n-Tricosane		247.34		229.94		233.93	
n-Tetracosane		126.51		122.88		121.35	
n-Pentacosane		301.92		281.55		280.41	
n-Hexacosane		108.7		98.08		102.03	
n-Heptacosane		451.92		400.7		418.52	
n-Octacosane		96.14		85.83		91.66	
n-Nonacosane		453.6		406.12		420.72	
n-Triacontane		53.62		48.42		49.71	
n-Hentriacontane		383.3		347.61		354	
n-Dotriacontane		41.51		40.11		42.02	
n-Tritriacontane		146.35		129.08		135.45	
n-Tetratriacontane	J	15.9	J	13.6	J	14.97	J
n-Pentatriacontane		26.97		23.18	J	24.58	
n-Hexatriacontane	J	11.37	J	10.1	J	10.47	J
n-Heptatriacontane	J	9.24	J	7.74	J	8.38	J
n-Octatriacontane	J	7.55	J	6.89	J	7.01	J
n-Nonatriacontane	J	6.81	J	5.43	J	5.49	J
n-Tetracontane	J	5.77	J	4.04	J	4.48	J
Total SHC		13688.6		13075.97		13676.12	
Surrogate Recoveries (%)							
5a-androstane		70		76		79	
n-Tetracosane-d50		70		75		79	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-1C-15-PHC-S-C	05-1D-01-PHC-S	05-1E-01-PHC-S	05-2A-01-PHC-S
Battelle ID	S9260-P	S9181-P	S9183-P	S9184-P
Sample Type	SA	SA	SA	SA
Collection Date	08/07/05	08/07/05	08/07/05	08/08/05
Extraction Date	02/20/06	10/03/05	10/03/05	10/03/05
Analysis Date	02/26/06	10/28/05	10/28/05	10/28/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	22.94	26.28	39.2	30.04
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.15	22.38	18.53	21.04
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	10.06 J	8 J	10.62 J	24.78
n-Decane	20.41 J	17.93 J	20.24 J	63.36
n-Undecane	32.48	13.26 J	17.28 J	92.09
n-Dodecane	40.02	4.46 J	10.1 J	124.74
n-Tridecane	55.71	2.88 J	13.33 J	164.4
Isoprenoid RRT 1380	17.01 J	1.51 J	3.36 J	52.2
n-Tetradecane	67.01	7.87 J	14.19 J	177.23
Isoprenoid RRT 1470	40.36	23.28	14.23 J	92.66
n-Pentadecane	92.12	12.47 J	28.89	202.16
n-Hexadecane	91.58	4.61 J	28.02	193.24
Norpristane (1650)	34.32	1.18 J	4.8 J	61.16
n-Heptadecane	124.44	13.91 J	224.1	204.78
Pristane	109.43	21.98 J	23.17 J	140.13
n-Octadecane	100.53	6.42 J	46.6	163.67
Phytane	64.32	2.49 J	10.85 J	72.68
n-Nonadecane	124.61	9.46 J	121.97	165.6
n-Eicosane	120.75	10.24 J	99.2	156.63
n-Heneicosane	181.14	25.68	342.48	207.37
n-Docosane	152.07	17.75 J	216.51	165.77
n-Tricosane	266.53	45.49	665.9	273.98
n-Tetracosane	136.84	17.27 J	198.88	145.75
n-Pentacosane	317.58	47.8	817.36	316.15
n-Hexacosane	116.58	13.03 J	152.55	123.01
n-Heptacosane	466.8	73.71	1336.46	446.54
n-Octacosane	99.38	9.1 J	98.27	98.77
n-Nonacosane	481.96	63.32	777.25	359.07
n-Triacontane	55.85	6.04 J	55.46	56.51
n-Hentriacontane	415	57.91	576.08	292.93
n-Dotriacontane	46.91	ND	34	33.24
n-Tritriacontane	154.91	16 J	143.22	86.86
n-Tetratriacontane	18.47 J	ND	11.87 J	20.62
n-Pentatriacontane	27.41	ND	14.35 J	23.6
n-Hexatriacontane	11.98 J	ND	2.37 J	12.29
n-Heptatriacontane	8.7 J	ND	2.65 J	10.93
n-Octatriacontane	7.76 J	ND	2.1 J	11.94
n-Nonatriacontane	6.85 J	ND	2.18 J	7.6
n-Tetracontane	5.59 J	ND	2.77 J	7.6
Total SHC	15336.11	ND	8163.46	20555.25
Surrogate Recoveries (%)				
5a-androstane	73	80	82	80
n-Tetracosane-d50	72	82	83	81

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2A-01-PHC-S-C		05-2A-02-PHC-S-C		05-2A-03-PHC-S-C	
Battelle ID		S9204-P		S9205-P		S9206-P	
Sample Type		SA		SA		SA	
Collection Date		08/08/05		08/08/05		08/08/05	
Extraction Date		02/20/06		02/20/06		02/20/06	
Analysis Date		02/26/06		02/26/06		02/26/06	
Analytical Instrument		FID		FID		FID	
% Moisture		26.45		31.24		33.63	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		22.38		21.06		20.05	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	14.8	J	12.07	J	19.59	J
n-Decane	J	40.08	J	29.01	J	43.53	J
n-Undecane		76.6		47.8		64.08	
n-Dodecane		106.07		65.01		79.55	
n-Tridecane		142.98		90.57		105.64	
Isoprenoid RRT 1380		46.46		26.01		30.96	
n-Tetradecane		167.4		97.03		112.87	
Isoprenoid RRT 1470		81.73		50.08		68.24	
n-Pentadecane		179.16		120.84		136.93	
n-Hexadecane		181.34		112.86		130.51	
Norpristane (1650)		58.19		36.16		44.99	
n-Heptadecane		193.34		162.82		183.72	
Pristane		138.48		96.28		124.91	
n-Octadecane		158.45		113.6		137.48	
Phytane		70.22		48.01		57.31	
n-Nonadecane		170.31		162.8		189.75	
n-Eicosane		159.58		147.2		174.95	
n-Heneicosane		240.92		318.94		357.86	
n-Docosane		186.18		224.34		263.37	
n-Tricosane		357.12		523.54		606.99	
n-Tetracosane		169.38		197.74		242.27	
n-Pentacosane		423.01		603.94		705.47	
n-Hexacosane		129.25		152.82		189.39	
n-Heptacosane		594.9		943.72		1125.94	
n-Octacosane		99.71		127.51		159.52	
n-Nonacosane		439.36		731.58		913.97	
n-Triacontane		47.02		62.78		79.44	
n-Hentriacontane		345.24		588.92		758.77	
n-Dotriacontane		37.93		44.48		57.25	
n-Tritriacontane		114.95		176.23		224.99	
n-Tetratriacontane	J	18.8	J	16.94	J	20.85	J
n-Pentatriacontane	J	23.75		24.02		30.05	
n-Hexatriacontane	J	11.87	J	10.57	J	11.92	J
n-Heptatriacontane	J	9.62	J	7.68	J	9.34	J
n-Octatriacontane	J	9.07	J	8.63	J	9.17	J
n-Nonatriacontane	J	6.49	J	5.64	J	6.62	J
n-Tetracontane	J	5.95	J	5.13	J	5.99	J
Total SHC		24231.91		20040.06		22516.52	
Surrogate Recoveries (%)							
5a-androstane		81		79		80	
n-Tetracosane-d50		80		78		78	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2A-04-PHC-S-C	05-2A-05-PHC-S-C	05-2A-10-PHC-S-C	05-2A-15-PHC-S-C
Battelle ID	S9207-P	S9208-P	S9213-P	S9218-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/08/05	08/08/05	08/08/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/20/06
Analysis Date	02/26/06	02/26/06	02/26/06	02/26/06
Analytical Instrument	FID	FID	FID	FID
% Moisture	28.63	25.85	35.37	39.91
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.02	22.97	19.89	18.26
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	16.17 J	12.48 J	20.82 J	20.22
n-Decane	32.85 J	29.85 J	44.87 J	42.94
n-Undecane	49.93	55.22	75.23	64
n-Dodecane	62.16	71.48	96.39	86.27
n-Tridecane	85.56	97.41	127.67	114.65
Isoprenoid RRT 1380	24.44	31.09	41.54	33.54
n-Tetradecane	87.68	110.2	151.74	136.86
Isoprenoid RRT 1470	50.75	60.26	84.64	76.98
n-Pentadecane	105.73	128.68	186.79	162.1
n-Hexadecane	103.03	134.2	191.6	165.05
Norpristane (1650)	34.67	43.57	62.77	52.16
n-Heptadecane	128.04	151.29	241.76	221.17
Pristane	104.13	116.41	168.69	145.88
n-Octadecane	101.16	123.23	217.26	196.78
Phytane	43.23	57.21	76.78	64.46
n-Nonadecane	132.36	146.12	341.55	333.72
n-Eicosane	123.93	136.1	325.68	331.24
n-Heneicosane	228.12	226.37	813.26	933.2
n-Docosane	176.71	176.25	587.62	666.12
n-Tricosane	377.38	356.46	1487.83	1816.94
n-Tetracosane	159.61	164.15	535.58	592.28
n-Pentacosane	425.63	441.88	1591.51	1920.15
n-Hexacosane	124.91	129.31	418.41	441.97
n-Heptacosane	631.16	686.39	2271.25	2676.83
n-Octacosane	100.67	106.73	320.07	346.73
n-Nonacosane	534.82	537.68	1957.27	2155.67
n-Triacontane	51.65	52.36	185.33	191.17
n-Hentriacontane	427.19	450.7	1831.24	1918.6
n-Dotriacontane	42.58	40.78	123.51	146.27
n-Tritriacontane	132.06	138.58	545.18	526.91
n-Tetratriacontane	13.5 J	15.85 J	36.85	31.66
n-Pentatriacontane	20.3 J	21.84	57.24	53.36
n-Hexatriacontane	9.56 J	10.36 J	21.27 J	24.5
n-Heptatriacontane	7.23 J	7.99 J	16.54 J	11.06
n-Octatriacontane	7.19 J	7.07 J	14.36 J	10.27
n-Nonatriacontane	4.94 J	4.85 J	11.46 J	9.58
n-Tetracontane	4.23 J	4.75 J	11.21 J	10.08
Total SHC	18152.52	20102.59	38012.9	41697.31
Surrogate Recoveries (%)				
5a-androstane	80	82	77	77
n-Tetracosane-d50	78	80	76	76

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2B-01-PHC-S		05-2C-01-PHC-S		05-2D-01-PHC-S	
Battelle ID		S9182-P		S9175-P		S9226-P	
Sample Type		SA		SA		SA	
Collection Date		08/08/05		08/07/05		08/08/05	
Extraction Date		10/03/05		10/03/05		10/03/05	
Analysis Date		10/28/05		10/27/05		10/28/05	
Analytical Instrument		FID		FID		FID	
% Moisture		24.68		42.18		21.86	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		23.22		17.37		23.83	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	5.14	J	ND		32.07	J
n-Decane	J	14.01	J	ND		17.02	J
n-Undecane		11.71	J	0.81	J	15.41	J
n-Dodecane		5.83	J	6.92	J	7.62	J
n-Tridecane		5.22	J	25.65	J	7.5	J
Isoprenoid RRT 1380		1.77	J	10.55	J	ND	
n-Tetradecane		10.01	J	41.89		9.74	J
Isoprenoid RRT 1470		25.34		29.91		24.33	
n-Pentadecane		16.48	J	66.72		22.46	
n-Hexadecane		12.88	J	64.78		13.89	J
Norpristane (1650)		2.85	J	21.78	J	4.57	J
n-Heptadecane		10.99	J	91.91		51.14	
Pristane		8.45	J	80.18		7.36	J
n-Octadecane		7.56	J	69.05		15.6	J
Phytane		3.57	J	40.72		ND	
n-Nonadecane		9.59	J	88.11		6.82	J
n-Eicosane		9.31	J	85.06		10.12	J
n-Heneicosane		14.68	J	142.9		ND	
n-Docosane		11.89	J	112.94		16.48	J
n-Tricosane		24.67		229.16		49.82	
n-Tetracosane		12.49	J	109.15		16.81	J
n-Pentacosane		26.56		280.29		34.78	
n-Hexacosane		9.46	J	89.14		32.61	
n-Heptacosane		37.72		433.17		61.06	
n-Octacosane		7.29	J	79.85		53.61	
n-Nonacosane		34.01		403.19		76.83	
n-Triacontane		4.31	J	45.74		52.31	
n-Hentriacontane		29.18		342.7		63.63	
n-Dotriacontane		2.74	J	26.11	J	44.96	
n-Tritriacontane		9.36	J	104.18		22.8	
n-Tetratriacontane		1.61	J	9.76	J	ND	
n-Pentatriacontane		2.06	J	19.52	J	ND	
n-Hexatriacontane	J	0.95	J	6.06	J	ND	
n-Heptatriacontane	J	0.88	J	5.62	J	ND	
n-Octatriacontane	J	0.84	J	5.63	J	ND	
n-Nonatriacontane	J	0.68	J	4.54	J	ND	
n-Tetracontane	J	0.7	J	4.39	J	ND	
Total SHC		ND		10555.54		14284.4	
Surrogate Recoveries (%)							
5a-androstane		85		87		75	
n-Tetracosane-d50		87		88		76	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-2D-01-PHC-S	05-2E-01-PHC-S	05-2F-01-PHC-S	05-2G-01-PHC-S
Battelle ID	S9226-P1	S9178-P	S9179-P	S9227-P
Sample Type	SA	SA	SA	SA
Collection Date	08/08/05	08/06/05	08/06/05	08/08/05
Extraction Date	02/23/06	10/03/05	10/03/05	10/03/05
Analysis Date	03/04/06	10/28/05	10/28/05	10/28/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	20.91	25.61	27.34	39.29
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.25	22.46	21.81	18.23
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	ND	8.09 J	12.99 J	52.24
n-Decane	0.99 J	17.57 J	28.15 J	101.87
n-Undecane	2 J	14.43 J	29.31	123.99
n-Dodecane	2.9 J	6.95 J	25.6	126.44
n-Tridecane	3.51 J	6.36 J	27.97	137.58
Isoprenoid RRT 1380	0.9 J	2.07 J	9.48 J	37.97
n-Tetradecane	4.96 J	12.03 J	34.74	142.79
Isoprenoid RRT 1470	25.53	5.92 J	18.39 J	81.48
n-Pentadecane	8.29 J	18.24 J	42.12	162.27
n-Hexadecane	6.56 J	14.13 J	42.54	150.96
Norpristane (1650)	1.64 J	2.83 J	10.57 J	47.27
n-Heptadecane	6.85 J	12.13 J	46.95	192.03
Pristane	5.13 J	9.12 J	29.92	142.5
n-Octadecane	5.04 J	8.44 J	33.45	144.12
Phytane	2.09 J	4.14 J	12.99 J	51.21
n-Nonadecane	6.53 J	9.9 J	14.08 J	182.7
n-Eicosane	5.98 J	9.72 J	37.57	158.84
n-Heneicosane	10.57 J	15.52 J	61.94	265.17
n-Docosane	8.32 J	14.16 J	47.91	206.56
n-Tricosane	16.89 J	30.2	106.26	418.67
n-Tetracosane	7.69 J	17.46 J	42.47	201.44
n-Pentacosane	17.11 J	37.92	142.67	501.77
n-Hexacosane	5.73 J	21 J	36.72	162.56
n-Heptacosane	24.63	57.43	202.01	876.6
n-Octacosane	4.9 J	20.65 J	29.2	132.86
n-Nonacosane	21.05 J	51.75	144.08	702.08
n-Triacontane	2.67 J	13.74 J	15.53 J	81.19
n-Hentriacontane	16.58 J	43.5	104.16	521.78
n-Dotriacontane	1.82 J	11.06 J	8.05 J	36.12
n-Tritriacontane	5.47 J	15.96 J	29.5	137.26
n-Tetratriacontane	0.93 J	5.12 J	3.93 J	11.38
n-Pentatriacontane	0.97 J	4.87 J	5.36 J	21.05
n-Hexatriacontane	0.37 J	2.91 J	2.14 J	8.31
n-Heptatriacontane	0.57 J	2.41 J	1.91 J	6.46
n-Octatriacontane	ND	1.97 J	2.01 J	6.89
n-Nonatriacontane	ND	1.99 J	1.25 J	5.87
n-Tetracontane	ND	3.61 J	1.46 J	5.56
Total SHC	ND	ND	2476.44	14528.03
Surrogate Recoveries (%)				
5a-androstane	83	77	82	82
n-Tetracosane-d50	83	79	84	84

Surrogate Corrected

Analyzed by Meara, Michael
2/26/2010

Main: 2005 TPH Data

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-2H-01-PHC-S		05-3A-01-PHC-S		05-3B-01-PHC-S	
Battelle ID		S9185-P		S8896-P		S8895-P	
Sample Type		SA		SA		SA	
Collection Date		08/08/05		07/30/05		07/30/05	
Extraction Date		10/03/05		10/07/05		10/07/05	
Analysis Date		10/28/05		10/23/05		10/23/05	
Analytical Instrument		FID		FID		FID	
% Moisture		25.41		40.36		37.77	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		22.47		18.01		18.71	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	11.84	J	9.56	J	10.54	J
n-Decane	J	25.27	J	24.04	J	24.79	J
n-Undecane		23.96		36.13		33.78	
n-Dodecane		18.77	J	43.34		36.7	
n-Tridecane		22.13	J	56.78		48.88	
Isoprenoid RRT 1380		6.27	J	15.56	J	11.94	J
n-Tetradecane		26.42		59.99		48.11	
Isoprenoid RRT 1470		16.23	J	37.76		33.11	
n-Pentadecane		37.4		82.07		62.97	
n-Hexadecane		32.58		74.86		59.13	
Norpristane (1650)		10.22	J	23.92	J	18.78	J
n-Heptadecane		50.59		113.05		106.07	
Pristane		32.71		74.22		58.48	
n-Octadecane		34.02		78.01		63	
Phytane		16.37	J	33.4		26.71	J
n-Nonadecane		51.79		105.84		86.33	
n-Eicosane		48.17		99.39		82.64	
n-Heneicosane		98.98		198.32		165.22	
n-Docosane		75.7		148.28		125.2	
n-Tricosane		172.17		360.67		309.92	
n-Tetracosane		70.64		141.5		119.45	
n-Pentacosane		215.72		418.97		371.98	
n-Hexacosane		59.49		118		100.78	
n-Heptacosane		339.7		629.84		574.02	
n-Octacosane		48.45		97.47		84.05	
n-Nonacosane		317.98		562.66		503.9	
n-Triacontane		28.78		54.5		48.28	
n-Hentriacontane		273.35		460.06		407.72	
n-Dotriacontane		16.77	J	30.55		25.38	J
n-Tritriacontane		80.76		138.49		119.02	
n-Tetratriacontane	J	5.61	J	11.94	J	10.17	J
n-Pentatriacontane	J	10.61	J	22.01	J	17.17	J
n-Hexatriacontane	J	2.71	J	6.49	J	4.8	J
n-Heptatriacontane	J	3	J	6.55	J	4.92	J
n-Octatriacontane	J	2.69	J	5.97	J	4.74	J
n-Nonatriacontane	J	2.18	J	5.15	J	3.98	J
n-Tetracontane	J	2.17	J	5.04	J	4.14	J
Total SHC		2869.59		9076.33		10544.53	
Surrogate Recoveries (%)							
5a-androstane		87		81		84	
n-Tetracosane-d50		88		82		84	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-4A-01-PHC-S	05-4B-01-PHC-S	05-5(1)-01-PHC-S	05-5(1)-01-PHC-S
Battelle ID	S8900-P	S8899-P	S9224-P	S9224-P1
Sample Type	SA	SA	SA	SA
Collection Date	07/30/05	07/30/05	08/09/05	08/09/05
Extraction Date	10/07/05	10/07/05	10/03/05	02/23/06
Analysis Date	10/23/05	10/23/05	10/28/05	03/03/06
Analytical Instrument	FID	FID	FID	FID
% Moisture	22.16	23.93	19.26	18.61
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.42	23.13	24.54	24.50
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	16.71 J	2.58 J	15.29 J	
n-Decane	18.69 J	6.38 J	14.1 J	0.93
n-Undecane	25.63	9.13 J	12.28 J	1.83
n-Dodecane	28.88	10.51 J	5.79 J	2.31
n-Tridecane	35.97	13.27 J	5.77 J	3.1
Isoprenoid RRT 1380	9.45 J	3.79 J	2.95 J	0.76
n-Tetradecane	41.42	13.93 J	4.27 J	4.06
Isoprenoid RRT 1470	21.81	21.1 J	22.19	24.55
n-Pentadecane	58.23	19.3 J	34.07	5.8
n-Hexadecane	63.87	20.35 J	23.17	7.75
Norpristane (1650)	13.71 J	5.81 J	2.81 J	1.51
n-Heptadecane	86.99	27.2	18.82 J	7.58
Pristane	36.82	17.33 J	5.91 J	4.66
n-Octadecane	81.17	18.5 J	10.77 J	5.16
Phytane	15.36 J	8.17 J	3.46 J	2.23
n-Nonadecane	1790.24	24.28	5.69 J	7.31
n-Eicosane	119.93	22.71	7.82 J	6.72
n-Heneicosane	332.75	41.7	19.65 J	13.89
n-Docosane	285.14	32.24	9.83 J	10.35
n-Tricosane	720.22	74.06	39.03	24.14
n-Tetracosane	345.91	30.96	8.12 J	9.67
n-Pentacosane	864.87	87.03	24.81	24.82
n-Hexacosane	381.88	25.99	8.12 J	7.36
n-Heptacosane	1636.92	136.39	36.07	37.06
n-Octacosane	316.88	22.26	28.17	6.05
n-Nonacosane	1900.58	123.02	26.86	30.62
n-Triacontane	178.82	13.11 J	4.28 J	3.37
n-Hentriacontane	873.16	104.3	27.41	24.35
n-Dotriacontane	116.79	7.76 J	14.74 J	3.13
n-Tritriacontane	305.86	32.87	9.33 J	9.76
n-Tetratriacontane	ND	3.16 J	ND	1.18
n-Pentatriacontane	ND	5.59 J	ND	1.67
n-Hexatriacontane	ND	1.73 J	ND	0.68
n-Heptatriacontane	ND	1.88 J	ND	0.72
n-Octatriacontane	ND	1.63 J	ND	0.33
n-Nonatriacontane	ND	1.5 J	ND	0.45
n-Tetracontane	ND	1.59 J	ND	0.27
Total SHC	37772.21	1447.11	5102.82	85.73
Surrogate Recoveries (%)				
5a-androstane	89	88	76	87
n-Tetracosane-d50	88	89	76	87

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-5(5)-01-PHC-S	05-BP01-01-PAC-S-0-1	05-BP01-01-PHC-S-C
Battelle ID		S9228-P	S8944-P	S8880-P
Sample Type		SA	SA	SA
Collection Date		08/09/05	08/01/05	08/01/05
Extraction Date		10/03/05	10/07/05	02/20/06
Analysis Date		10/28/05	10/24/05	02/25/06
Analytical Instrument		FID	FID	FID
% Moisture		29.78	31.33	21.07
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		21.49	20.70	24.11
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	ND	11.55 J	4.24 J	5.86 J
n-Decane	J	25.71 J	9.74 J	10.65 J
n-Undecane	J	27.97	14.77 J	14.87 J
n-Dodecane	J	26.33	15.47 J	17.67 J
n-Tridecane	J	32.91	20.88 J	24.41
Isoprenoid RRT 1380	J	9.54 J	5.32 J	6.14 J
n-Tetradecane	J	40.26	22.18 J	23.51
Isoprenoid RRT 1470		24.58	14.69 J	14.23 J
n-Pentadecane	J	53.29	30.26	30.63
n-Hexadecane	J	49.09	30.25	29.22
Norpristane (1650)	J	14.8 J	9.43 J	9.81 J
n-Heptadecane	J	66.46	44.98	45.29
Pristane	J	42.59	28.58	30.76
n-Octadecane	J	46.46	30.32	30.44
Phytane	J	18.98 J	13.06 J	13.88 J
n-Nonadecane	J	63.05	39.77	42
n-Eicosane	J	60.1	39.31	40.31
n-Heneicosane	J	108.84	72.54	78.87
n-Docosane	J	84.67	56.68	60.97
n-Tricosane		205.03	134.11	144.61
n-Tetracosane	J	82.34	60.2	56.92
n-Pentacosane		238.6	170.77	176.38
n-Hexacosane	J	66.97	54.63	45.21
n-Heptacosane		351.66	242.8	259.14
n-Octacosane	J	55.12	50.51	37.74
n-Nonacosane		300.84	221.69	222.32
n-Triacontane	J	31.09	27.54	20.23 J
n-Hentriacontane		240.28	177.22	171.92
n-Dotriacontane	J	17.01 J	14.08 J	15.85 J
n-Tritriacontane	J	79.44	53.83	62.74
n-Tetratriacontane	J	7.69 J	5.33 J	5.43 J
n-Pentatriacontane	J	15.66 J	9.52 J	10.32 J
n-Hexatriacontane	J	3.48 J	3.19 J	3.45 J
n-Heptatriacontane	J	2.9 J	3.16 J	2.95 J
n-Octatriacontane	J	3.21 J	2.85 J	2.26 J
n-Nonatriacontane	J	3.3 J	2.29 J	2.1 J
n-Tetracontane	J	3.62 J	2.23 J	2.47 J
Total SHC		5458.38	3770.23	4752.31
Surrogate Recoveries (%)				
5a-androstane		79	90	83
n-Tetracosane-d50		81	90	82

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-BP01-02-PHC-S-C	05-BP01-03-PHC-S-C	05-BP01-04-PHC-S-C	05-BP01-05-PHC-S-C
Battelle ID	S8881-P	S8882-P	S8883-P	S8884-P
Sample Type	SA	SA	SA	SA
Collection Date	08/01/05	08/01/05	08/01/05	08/01/05
Extraction Date	02/20/06	02/20/06	02/20/06	02/23/06
Analysis Date	02/25/06	02/25/06	02/25/06	03/03/06
Analytical Instrument	FID	FID	FID	FID
% Moisture	20.15	17.83	16.95	15.8
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.11	24.78	25.14	25.33
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	4.88 J	5.3 J	6.33 J	6.44
n-Decane	9.95 J	11.46 J	12.26 J	13.31
n-Undecane	14.34 J	15.67 J	17.32 J	21.35
n-Dodecane	16.45 J	18.19 J	19.58 J	25.6
n-Tridecane	22.66	24.26	25.88	32.65
Isoprenoid RRT 1380	5.83 J	5.78 J	6.73 J	7.57
n-Tetradecane	24.5	25.91	27.2	32.72
Isoprenoid RRT 1470	15.06 J	15.26 J	16.56 J	19.06
n-Pentadecane	31.97	32.97	35.33	41.63
n-Hexadecane	30.2	31.67	34.08	40.12
Norpristane (1650)	9.66 J	9.52 J	10.71 J	11.83
n-Heptadecane	45.4	49.67	51.28	54.63
Pristane	31.62	32.27	33.35	37.26
n-Octadecane	31.84	33.11	36.16	39.51
Phytane	13.73 J	14.35 J	15.14 J	16.03
n-Nonadecane	45.26	46.07	50.85	52.49
n-Eicosane	41.39	42.51	47.14	50.01
n-Heneicosane	82.75	83.65	92.77	92.99
n-Docosane	65.2	65.47	73.14	73.07
n-Tricosane	154.6	151.19	172.59	164.35
n-Tetracosane	60.97	60.49	69.58	68.27
n-Pentacosane	189.39	179.75	220.69	194.92
n-Hexacosane	49.57	48.46	57.28	56.91
n-Heptacosane	275.59	277.59	326.41	291.61
n-Octacosane	40.15	40.34	46.69	48.48
n-Nonacosane	233.57	237.35	276.84	279.3
n-Triacontane	21.45	20.95	24.95	27.4
n-Hentriacontane	182.14	190.32	221.23	228.98
n-Dotriacontane	17.51 J	16.34 J	19.05 J	22.95
n-Tritriacontane	66.32	66.69	78.87	78.22
n-Tetratriacontane	5.68 J	5.7 J	6.57 J	6.14
n-Pentatriacontane	10.84 J	10.36 J	13.45 J	11.29
n-Hexatriacontane	3.27 J	2.96 J	3.91 J	3.57
n-Heptatriacontane	2.97 J	2.62 J	3.56 J	3.5
n-Octatriacontane	2.24 J	2.43 J	2.72 J	2.5
n-Nonatriacontane	2.13 J	2.06 J	2.27 J	1.99
n-Tetracontane	1.96 J	2.05 J	2.15 J	1.99
Total SHC	4256.66	4407.93	5024.98	6151.84
Surrogate Recoveries (%)				
5a-androstane	84	82	80	76
n-Tetracosane-d50	83	81	79	75

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-BP01-06-PHC-S-C		05-E01-01-PHC-S-0-1		05-L07-01-PHC-S	
Battelle ID		S8885-P		S8945-P		S8898-P	
Sample Type		SA		SA		SA	
Collection Date		08/01/05		08/01/05		07/30/05	
Extraction Date		02/23/06		10/07/05		10/07/05	
Analysis Date		03/03/06		10/24/05		10/23/05	
Analytical Instrument		FID		FID		FID	
% Moisture		15.56		44.52		48.28	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		25.37		17.17		15.72	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	6.38	J	23.52	J	15.31	J
n-Decane	J	14.45	J	48.62	J	36.28	J
n-Undecane		21.08		73.71		53	
n-Dodecane		24.2		86.03		64.22	
n-Tridecane		28.61		101.05		92.53	
Isoprenoid RRT 1380	J	6.72	J	27.87	J	25.2	J
n-Tetradecane		30.86		103.37		95.64	
Isoprenoid RRT 1470	J	17.7	J	67.55		64.79	
n-Pentadecane		40.05		126.56		126.23	
n-Hexadecane		35.43		113.88		119.28	
Norpristane (1650)	J	11.03	J	33.75		38.01	
n-Heptadecane		46.03		180.21		227.1	
Pristane		32.87		96.38		123.15	
n-Octadecane		33.77		119.23		141.33	
Phytane	J	13.32	J	42.05		55.89	
n-Nonadecane		43.46		183.84		234.08	
n-Eicosane		40.53		163.88		216.38	
n-Heneicosane		71.57		369.4		559.64	
n-Docosane		56.7		267.59		384.53	
n-Tricosane		122.33		700.14		1066.46	
n-Tetracosane		52.84		255.27		379.2	
n-Pentacosane		130.59		780.58		1342.74	
n-Hexacosane		42.15		200.66		299.29	
n-Heptacosane		203.41		1146.64		2032	
n-Octacosane		35.05		164.28		230.21	
n-Nonacosane		207.85		931.73		1579.36	
n-Triacontane		20.09		99.12		146.57	
n-Hentriacontane		165.26		789.98		1251.42	
n-Dotriacontane		15.77	J	48.37		71.41	
n-Tritriacontane		58.4		241.84		343.25	
n-Tetratriacontane	J	5.58	J	17.49	J	24.5	J
n-Pentatriacontane	J	9.16	J	40.62		45.3	
n-Hexatriacontane	J	2.84	J	9.37	J	11.08	J
n-Heptatriacontane	J	2.53	J	8.9	J	11.5	J
n-Octatriacontane	J	1.81	J	9.43	J	11.05	J
n-Nonatriacontane	J	1.56	J	7.01	J	8.58	J
n-Tetracontane	J	1.39	J	6.8	J	9.94	J
Total SHC		3853.69		17103.67		23039.53	
Surrogate Recoveries (%)							
5a-androstane		76		73		91	
n-Tetracosane-d50		76		74		91	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-L08-01-PHC-S	05-N03-01-PHC-S	05-N03-01-PHC-S	05-N04-01-PHC-S
Battelle ID	S8897-P	S9232-P	S9232-P1	S8902-P
Sample Type	SA	SA	SA	SA
Collection Date	07/30/05	08/10/05	08/10/05	08/04/05
Extraction Date	10/07/05	10/03/05	02/23/06	10/07/05
Analysis Date	10/23/05	10/28/05	03/04/06	10/23/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	25.13	36.66	36.65	21.64
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.56	19.34	19.26	23.91
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	5.27 J	23.44 J	12.78 J	2.94
n-Decane	15.74 J	50.07 J	28.42 J	6.61
n-Undecane	29.01	53.36	45.49	9.51
n-Dodecane	42.29	55.92	56.62	10.17
n-Tridecane	61.18	63.54	69.33	12.61
Isoprenoid RRT 1380	23.22	16.63 J	18.81 J	3.36
n-Tetradecane	70.64	71.08	75.6	13.83
Isoprenoid RRT 1470	44.12	37.85	43.73	23.24
n-Pentadecane	77.48	95.36	94.36	18.07
n-Hexadecane	68.86	98.91	88.56	18.94
Norpristane (1650)	26.06	28.3	26.45	5.48
n-Heptadecane	65.75	125.97	127.82	27.01
Pristane	59.17	76.06	87.35	16.8
n-Octadecane	43.17	92	93.08	18.92
Phytane	30.59	33.36	38.28	7.61
n-Nonadecane	45.01	112.51	135.1	27.62
n-Eicosane	36.79	45.5	128.49	25.84
n-Heneicosane	70.46	226.8	256.47	53.39
n-Docosane	49.61	174.28	200.57	40.72
n-Tricosane	114.49	410.99	454.68	102.98
n-Tetracosane	46.16	166.47	182.94	38.65
n-Pentacosane	139.2	478.52	510.76	110.15
n-Hexacosane	38.4	143.74	142.43	31.59
n-Heptacosane	208.5	720.91	740.49	165.69
n-Octacosane	35.28	119.83	115.47	25.39
n-Nonacosane	172.93	614.2	646.86	142.56
n-Triacontane	18.4 J	65.28	65.16	14.43
n-Hentriacontane	141.62	535.17	511.67	122.13
n-Dotriacontane	10.79 J	33.78	54.66	8.57
n-Tritriacontane	43.78	166.91	173	39.43
n-Tetratriacontane	8.67 J	12.82 J	13.49 J	3.16
n-Pentatriacontane	9.46 J	26.4	24.64 J	6.74
n-Hexatriacontane	3.31 J	6.01 J	7.43 J	4.05
n-Heptatriacontane	2.6 J	16.56 J	6.41 J	1.99
n-Octatriacontane	2.69 J	7.6 J	4.93 J	1.66
n-Nonatriacontane	1.77 J	12.89 J	3.96 J	3.21
n-Tetracontane	1.98 J	10.02 J	3.08 J	1.71
Total SHC	7802.04	18673.71	14268.98	2920.4
Surrogate Recoveries (%)				
5a-androstane	84	82	72	81
n-Tetracosane-d50	84	82	72	83

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-N06-01-PHC-S		05-N08-01-PHC-S		05-N11-01-PHC-S	
Battelle ID		S8904-P		S8908-P		S8906-P	
Sample Type		SA		SA		SA	
Collection Date		08/04/05		08/04/05		08/04/05	
Extraction Date		10/07/05		10/07/05		10/07/05	
Analysis Date		10/23/05		10/23/05		10/23/05	
Analytical Instrument		FID		FID		FID	
% Moisture		28		33.27		32.81	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		22.15		20.22		20.37	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	8.37	J	4.63	J	5.34	J
n-Decane	J	18.57	J	11.23	J	13.96	J
n-Undecane	J	27.73		17.28	J	23.89	J
n-Dodecane	J	34.46		20.16	J	29.28	
n-Tridecane	J	45.68		26.36		38.78	
Isoprenoid RRT 1380	J	12.97	J	7.53	J	10.52	J
n-Tetradecane	J	48.07		28.95		46.97	
Isoprenoid RRT 1470		30.02		20.75	J	26.72	
n-Pentadecane	J	59.17		40.69		61.19	
n-Hexadecane	J	54.14		41.32		52.83	
Norpristane (1650)	J	17.6	J	11.97	J	17.69	J
n-Heptadecane		70.41		56.28		79.91	
Pristane	J	46.16		37.47		52.17	
n-Octadecane	J	48.8		39.13		54.81	
Phytane	J	22.25	J	16.55	J	22.79	J
n-Nonadecane		63.78		53.47		78.78	
n-Eicosane		56.95		52.57		75.1	
n-Heneicosane		114.62		103.93		152.73	
n-Docosane		86.44		80.08		115.18	
n-Tricosane		211.11		193.01		287.06	
n-Tetracosane		80.92		78.16		108.35	
n-Pentacosane		228.63		230.57		318.3	
n-Hexacosane		67.93		72.68		90.62	
n-Heptacosane		342.26		366.15		478.08	
n-Octacosane		56.38		74.3		74.59	
n-Nonacosane		303.47		332.48		416.66	
n-Triacontane	J	31.84		49.32		41.93	
n-Hentriacontane		253.45		263.91		354.92	
n-Dotriacontane	J	17.76	J	27.08		25.32	
n-Tritriacontane		79.94		85.85		111.76	
n-Tetratriacontane	J	7.19	J	8.77	J	9.27	J
n-Pentatriacontane	J	13.62	J	14.06	J	18.99	J
n-Hexatriacontane	J	4.73	J	3.88	J	4.68	J
n-Heptatriacontane	J	3.51	J	3.69	J	4.88	J
n-Octatriacontane	J	3.67	J	3.45	J	4.23	J
n-Nonatriacontane	J	2.94	J	3	J	3.71	J
n-Tetracontane	J	3.04	J	2.52	J	4	J
Total SHC		6559.17		5033.83		7200.48	
Surrogate Recoveries (%)							
5a-androstane		92		81		81	
n-Tetracosane-d50		93		82		83	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N11-02-PHC-S	05-N14-01-PHC-S	05-N18-01-PHC-S	05-N26-01-PHC-S
Battelle ID	S8907-P	S8901-P	S8905-P	S9230-P
Sample Type	SA	SA	SA	SA
Collection Date	08/04/05	08/04/05	08/04/05	08/10/05
Extraction Date	10/07/05	10/07/05	10/07/05	10/03/05
Analysis Date	10/23/05	10/23/05	10/23/05	10/28/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	10.73	72.95	36.64	28
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	26.96	8.24	19.12	21.96
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	2.84 J	23.69 J	11.41 J	3
n-Decane	2.52 J	44.77 J	23.23 J	25.99
n-Undecane	3.44 J	65.36	32.79	26.87
n-Dodecane	3.32 J	81.9	37.05	21.85
n-Tridecane	3.89 J	108.95	45.53	24.62
Isoprenoid RRT 1380	1.23 J	16.3 J	11.78 J	6.36
n-Tetradecane	4.48 J	116.65	49.27	29.64
Isoprenoid RRT 1470	27.94	178.36	31.19	16.97
n-Pentadecane	6.09 J	203.71	63.08	38.28
n-Hexadecane	7.59 J	173.21	59.73	34.61
Norpristane (1650)	2.22 J	56.06 J	18.13 J	10.96
n-Heptadecane	9.46 J	367.53	91.07	41.64
Pristane	7.66 J	156.81	59.81	32.76
n-Octadecane	7.22 J	211.2	62.7	33.07
Phytane	2.94 J	68.57	26.12 J	16.79
n-Nonadecane	11.4 J	491.54	88.57	39.57
n-Eicosane	16.58 J	852.46	84.37	37.99
n-Heneicosane	23.23	1426.68	164.37	56.45
n-Docosane	17.83 J	1039.4	126.18	46.2
n-Tricosane	46.84	3468.79	310.38	89.17
n-Tetracosane	18.63	1067.81	120.4	43.1
n-Pentacosane	59.79	5899.76	351.1	96.39
n-Hexacosane	14.55 J	861.07	100.35	36.68
n-Heptacosane	77.08	7659.19	531.51	132.86
n-Octacosane	11.83 J	559.5	82.56	29.76
n-Nonacosane	63.51	3873.36	455.76	128.07
n-Triacontane	7.28 J	294.65	47.22	16.53
n-Hentriacontane	57.65	2137.23	388.34	108.12
n-Dotriacontane	4.62 J	138.23	27.42	10.97
n-Tritriacontane	21.47	709.97	121.39	36.58
n-Tetratriacontane	2.04 J	54.52 J	10.08 J	4.35
n-Pentatriacontane	4.59 J	239.63	20.54 J	8.03
n-Hexatriacontane	0.99 J	ND	5.68 J	2.63
n-Heptatriacontane	1.05 J	ND	5.42 J	2.71
n-Octatriacontane	0.83 J	ND	4.73 J	2.2
n-Nonatriacontane	0.86 J	ND	4.38 J	2.03
n-Tetracontane	0.74 J	ND	4.31 J	2
Total SHC	600.71	104175.07	9046.19	1656.58
Surrogate Recoveries (%)				
5a-androstane	67	67	68	86
n-Tetracosane-d50	70	66	69	88

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-N26-01-PHC-S-C		05-N26-02-PHC-S-C		05-N26-03-PHC-S-C	
Battelle ID		S9155-P		S9156-P		S9157-P	
Sample Type		SA		SA		SA	
Collection Date		08/10/05		08/10/05		08/10/05	
Extraction Date		02/23/06		02/23/06		02/23/06	
Analysis Date		03/03/06		03/03/06		03/03/06	
Analytical Instrument		FID		FID		FID	
% Moisture		33.17		24.77		26.52	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		20.05		22.79		22.46	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	6.16	J	6.46	J	7.78	J
n-Decane	J	14.99	J	13.94	J	17.23	J
n-Undecane		26.39		23.27		27.35	
n-Dodecane	J	33.05		28.21		33.36	
n-Tridecane		42.62		36.38		41.63	
Isoprenoid RRT 1380	J	11.9	J	10.42	J	11.47	J
n-Tetradecane		50.03		43.59		48.73	
Isoprenoid RRT 1470	J	30.89		27.53		30.89	
n-Pentadecane		65.26		55.9		66.35	
n-Hexadecane		64.91		56.96		62.77	
Norpristane (1650)	J	22.14	J	18.05	J	19.83	J
n-Heptadecane		78.48		67.35		75.31	
Pristane		69.06		60.35		66.72	
n-Octadecane		63.55		54.67		61.07	
Phytane	J	34.76		30.72		32.58	
n-Nonadecane		76.76		66.62		74.42	
n-Eicosane		73.36		64.39		72.46	
n-Heneicosane		109.56		95.96		106.17	
n-Docosane		91.46		79.63		88.31	
n-Tricosane		164.76		144.32		157.61	
n-Tetracosane		83.04		71.9		77.49	
n-Pentacosane		184.72		158.5		170.85	
n-Hexacosane		65.89		57.38		60.79	
n-Heptacosane		257.04		223.5		235.97	
n-Octacosane		54.92		48.84		51.77	
n-Nonacosane		248.79		222.66		232.21	
n-Triacontane	J	32.24		27.92		30.4	
n-Hentriacontane		206.7		183.82		189.23	
n-Dotriacontane	J	24.05	J	22.77		25.24	
n-Tritriacontane		83.87		74.78		77.92	
n-Tetratriacontane	J	9.23	J	8.19	J	8.67	J
n-Pentatriacontane	J	14.02	J	13	J	14.11	J
n-Hexatriacontane	J	5.78	J	5.52	J	5.85	J
n-Heptatriacontane	J	4.08	J	4.12	J	4.02	J
n-Octatriacontane	J	3.23	J	3.55	J	3.01	J
n-Nonatriacontane	J	3.03	J	2.61	J	2.8	J
n-Tetracontane	J	2.05	J	2	J	1.93	J
Total SHC		7128.94		6370.74		7166.83	
Surrogate Recoveries (%)							
5a-androstane		76		73		75	
n-Tetracosane-d50		76		73		75	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-N26-04-PHC-S-C	05-N26-05-PHC-S-C	05-PB1-01-PHC-S	05-PB1A-01-PHC-S
Battelle ID	S9158-P	S9159-P	S9229-P	S9231-P
Sample Type	SA	SA	SA	SA
Collection Date	08/10/05	08/10/05	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06	10/03/05	10/03/05
Analysis Date	03/03/06	03/03/06	10/28/05	10/28/05
Analytical Instrument	FID	FID	FID	FID
% Moisture	30.33	26.72	24.95	47.07
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.42	22.20	22.64	16.22
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	11.6 J	10.42 J	10.51 J	10.08
n-Decane	25.5 J	22.77 J	23.29 J	34.85
n-Undecane	43.19	37.29	22.56	60.32
n-Dodecane	51.88	45.07	16.18 J	74.01
n-Tridecane	65.61	57.05	16.65 J	100.27
Isoprenoid RRT 1380	17.89 J	15.16 J	4.33 J	26.07
n-Tetradecane	75.8	66.35	21.02 J	106.65
Isoprenoid RRT 1470	45.02	40.85	9.99 J	61.3
n-Pentadecane	95.37	85.34	28.54	137.59
n-Hexadecane	91.51	81.8	23.47	122.81
Norpristane (1650)	29.79	26.71	5.14 J	33.51
n-Heptadecane	112.29	103.5	38.47	232.89
Pristane	92.27	80.89	14.29 J	91.8
n-Octadecane	91.74	82.33	22.64	143.52
Phytane	47.86	41.3	6.39 J	42.59
n-Nonadecane	113.9	102.54	41.29	265.54
n-Eicosane	108.38	98.71	32	220.86
n-Heneicosane	167.45	152.71	82.67	577.84
n-Docosane	138.01	125.69	57.73	401.09
n-Tricosane	255.39	239.74	159.54	1107.11
n-Tetracosane	124.79	114.48	52.5	363.75
n-Pentacosane	274.48	266.38	157.34	1132.47
n-Hexacosane	97.83	90.32	42.57	288.81
n-Heptacosane	387.25	368.76	212.28	1585.76
n-Octacosane	80.92	75.87	31.62	217.78
n-Nonacosane	386.32	359.88	166.38	1249.16
n-Triacontane	48.8	44.95	18.58 J	130.97
n-Hentriacontane	314.71	298.24	136.55	1047.92
n-Dotriacontane	39.32	34.67	9.69 J	67.66
n-Tritriacontane	124.94	120.24	42.12	314.37
n-Tetratriacontane	12.63 J	12.27 J	3.76 J	21.1
n-Pentatriacontane	20.14 J	19.79 J	8 J	48.94
n-Hexatriacontane	8.77 J	7.3 J	1.8 J	9.2
n-Heptatriacontane	6.54 J	5.92 J	1.79 J	10
n-Octatriacontane	4.91 J	4.87 J	1.42 J	10.71
n-Nonatriacontane	4.3 J	3.98 J	1.64 J	7.66
n-Tetracontane	3.28 J	3.1 J	1.62 J	9
Total SHC	11224.93	9820.63	1596.96	20404.82
Surrogate Recoveries (%)				
5a-androstane	76	65	84	82
n-Tetracosane-d50	76	65	86	83

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID		05-PB1A-01-PHC-S-C		05-PB1A-02-PHC-S-C		05-PB1A-03-PHC-S-C	
Battelle ID		S9143-P		S9144-P		S9233-P	
Sample Type		SA		SA		SA	
Collection Date		08/10/05		08/10/05		08/10/05	
Extraction Date		02/23/06		02/23/06		02/23/06	
Analysis Date		03/03/06		03/03/06		03/04/06	
Analytical Instrument		FID		FID		FID	
% Moisture		43.12		38.81		37.57	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		17.37		18.41		19.30	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	16.21	J	19.63	J	13.03	J
n-Decane	J	40.57	J	41.5	J	34.27	J
n-Undecane		66.44		65.93		58.35	
n-Dodecane		82.16		74.54		65.74	
n-Tridecane		99.17		92.2		83.81	
Isoprenoid RRT 1380	J	24.04	J	23.73	J	19.91	J
n-Tetradecane		101.17		94		88.23	
Isoprenoid RRT 1470		61.73		58.97		51.73	
n-Pentadecane		127.9		113.17		105.62	
n-Hexadecane		119.79		109.94		104.29	
Norpristane (1650)		33.99		44.87		30.74	
n-Heptadecane		222.84		207.09		180.37	
Pristane		100.56		145.14		85.1	
n-Octadecane		138.98		145.76		123.14	
Phytane		42.1		82.04		37.23	
n-Nonadecane		268.93		315.14		249.61	
n-Eicosane		228.65		264.09		209.96	
n-Heneicosane		606.67		754.73		577.44	
n-Docosane		429.31		507.13		392.44	
n-Tricosane		1146.74		1387.86		1051.54	
n-Tetracosane		372.23		433.09		334.5	
n-Pentacosane		1147.94		1377.86		1025.78	
n-Hexacosane		281.86		332.91		240.42	
n-Heptacosane		1605.48		1941.09		1362.48	
n-Octacosane		194.43		217.89		177.61	
n-Nonacosane		1234.29		1515.82		1127.25	
n-Triacontane		125.99		148.19		111.74	
n-Hentriacontane		1006.75		1233.56		898.59	
n-Dotriacontane		86.63		105.06		69.61	
n-Tritriacontane		337.63		390.42		291.39	
n-Tetratriacontane	J	21.27	J	21.11	J	17.54	J
n-Pentatriacontane		48.13		50.35		39.53	
n-Hexatriacontane	J	11.25	J	11.33	J	8.48	J
n-Heptatriacontane	J	9.14	J	8.35	J	7.15	J
n-Octatriacontane	J	7.72	J	7.84	J	5.98	J
n-Nonatriacontane	J	9.11	J	7.77	J	7.48	J
n-Tetracontane	J	7.43	J	6.67	J	4.82	J
Total SHC		22661.18		29696.01		17750.57	
Surrogate Recoveries (%)							
5a-androstane		83		75		71	
n-Tetracosane-d50		82		74		72	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: MMS cANIMIDA - Task Order 003
Project Number: G005001-1000

Client ID	05-PB1A-04-PHC-S-C	05-PB1A-05-PHC-S-C
Battelle ID	S9145-P	S9234-P
Sample Type	SA	SA
Collection Date	08/10/05	08/10/05
Extraction Date	02/23/06	02/23/06
Analysis Date	03/03/06	03/04/06
Analytical Instrument	FID	FID
% Moisture	32.17	35.86
% Lipid	NA	NA
Matrix	SEDIMENT	SEDIMENT
Sample Size	20.45	19.63
Size Unit-Basis	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY
n-Nonane	13.33 J	12.73 J
n-Decane	28.59 J	26.58 J
n-Undecane	48.54	43.73
n-Dodecane	55.37	53.63
n-Tridecane	68.61	63.09
Isoprenoid RRT 1380	17.25 J	16.74 J
n-Tetradecane	74.12	68.9
Isoprenoid RRT 1470	40.28	42.71
n-Pentadecane	86.28	80.54
n-Hexadecane	83.7	80.18
Norpristane (1650)	23.01 J	24.38 J
n-Heptadecane	127.06	134.2
Pristane	68.01	70.91
n-Octadecane	90.54	96.45
Phytane	30.01	30.75
n-Nonadecane	167.66	194.38
n-Eicosane	146.04	169.69
n-Heneicosane	369.79	455.48
n-Docosane	260.95	316.47
n-Tricosane	690.14	847.53
n-Tetracosane	230.31	275.68
n-Pentacosane	706.1	875.46
n-Hexacosane	173.64	210.67
n-Heptacosane	1002.38	1236.05
n-Octacosane	123.95	151.33
n-Nonacosane	808.66	996.92
n-Triacontane	77.7	96
n-Hentriacontane	645.24	802.12
n-Dotriacontane	62.35	58.86
n-Tritriacontane	210.11	261.79
n-Tetratriacontane	12.85 J	15.43 J
n-Pentatriacontane	30.37	35.55
n-Hexatriacontane	7.21 J	7.52 J
n-Heptatriacontane	6.16 J	6.8 J
n-Octatriacontane	5.32 J	5.02 J
n-Nonatriacontane	5.35 J	6.57 J
n-Tetracontane	5.09 J	5.07 J
Total SHC	15673.98	14279.1
Surrogate Recoveries (%)		
5a-androstane	61	67
n-Tetracosane-d50	61	72

2006 Data

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	04-L08-01-PHC-S	04-N14-01-PHC-S	04-N16-01-PHC-S
Battelle ID	S3904-P2	S4391-P1	S4090-P1
Sample Type	SA	SA	SA
Collection Date	08/02/04	08/09/04	08/07/04
Extraction Date	04/10/07	09/20/06	04/02/07
Analysis Date	04/18/07	10/06/06	04/27/07
Analytical Instrument	MS	MS	MS
% Moisture	32.56	35.61	47.83
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.29	19.81	15.91
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	16.62 T	14.09 T	7.81 T
C1-Naphthalenes	39.06 T	39.64 T	22.72 T
C2-Naphthalenes	61.41 T	65.86 T	34.3 T
C3-Naphthalenes	55.31 T	56.64 T	29.12 T
C4-Naphthalenes	32.7 T	37.78 T	17.67 T
Biphenyl	9.89 T	9.39 T	5.76 T
Acenaphthylene	0.22 T	NDT	NDT
Acenaphthene	1.28 T	1.15 T	0.8 T
Fluorene	5.52 T	6.78 T	4.14 T
C1-Fluorenes	9.87 T	12.02 T	7.45 T
C2-Fluorenes	13.61 T	20.42 T	9.79 T
C3-Fluorenes	13.55 T	21.47 T	7.9 T
Anthracene	0.67 T	0.79 T	0.4 T
Phenanthrene	27.02 T	33.06 T	20.43 T
C1-Phenanthrenes/Anthracenes	52.39 T	62.52 T	33.46 T
C2-Phenanthrenes/Anthracenes	44.14 T	64.18 T	33.08 T
C3-Phenanthrenes/Anthracenes	25.58 T	34.18 T	19.4 T
C4-Phenanthrenes/Anthracenes	16.55 T	30.25 T	14.37 T
Dibenzothiophene	4.53 T	4.72 T	2.24 T
C1-Dibenzothiophenes	9.46 T	13.14 T	4.83 T
C2-Dibenzothiophenes	12.57 T	21.86 T	6.04 T
C3-Dibenzothiophenes	9.82 T	15.44 T	4.06 T
Fluoranthene	4.76 T	7.28 T	3.97 T
Pyrene	8.3 T	9.8 T	6.25 T
C1-Fluoranthenes/Pyrenes	20.02 T	31.14 T	15.59 T
C2-Fluoranthenes/Pyrenes	17.72 T	26.31 T	13.63 T
C3-Fluoranthenes/Pyrenes	14.28 T	19.82 T	10.39 T
Benzo(a)anthracene	1.95 T	2.78 T	1.24 T
Chrysene	12.34 T	15.04 T	8.9 T
C1-Chrysenes	15.07 T	18.49 T	10 T
C2-Chrysenes	14.51 T	17.16 T	9.29 T
C3-Chrysenes	8.89 T	11.83 T	6.63 T
C4-Chrysenes	4.85 T	5.57 T	2.5 T
Benzo(b)fluoranthene	6.4 T	10.73 T	5.46 T
Benzo(k)fluoranthene	1.28 T	2.15 T	1.16 T
Benzo(e)pyrene	9.09 T	12.71 T	7.24 T
Benzo(a)pyrene	1.73 T	3.62 T	1.51 T
Perylene	53.42 T	129.69 T	46.82 T
Indeno(1,2,3-cd)pyrene	1.57 T	2.89 T	1.24 T
Dibenz(a,h)anthracene	1.09 T	1.62 T	0.72 T
Benzo(g,h,i)perylene	6.57 T	9.15 T	5.16 T
C23 diterpane (T4)	2.05 T	0.88 T	0.39 T
C29 Tricyclictriterpane (T9)	0.84 T	0.34 T	0.11 JT
C29 Tricyclictriterpane (T10)	0.75 T	0.28 T	0.13 JT
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.75 T	1.09 T	0.46 T
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.29 T	4.53 T	1.32 T
17a(H),21b(H)-30-norhopane (T15)	9.09 T	9.83 T	2.38 T

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	04-L08-01-PHC-S	04-N14-01-PHC-S	04-N16-01-PHC-S
Battelle ID	S3904-P2	S4391-P1	S4090-P1
Sample Type	SA	SA	SA
Collection Date	08/02/04	08/09/04	08/07/04
Extraction Date	04/10/07	09/20/06	04/02/07
Analysis Date	04/18/07	10/06/06	04/27/07
Analytical Instrument	MS	MS	MS
% Moisture	32.56	35.61	47.83
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.29	19.81	15.91
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	NDT	NDT	NDT
17a(H),21b(H)-hopane (T19)	13.2 T	11.61 T	3.55 T
22S-17a(H),21b(H)-30-homohopane (T21)	6.23 T	4.51 T	1.44 T
22R-17a(H),21b(H)-30-homohopane (T22)	8.61 T	20.01 T	2.69 T
13b,17a-20S-Diacholestane (S4)	3.08 T	1.74 T	0.75 T
13b,17a-20R-Diacholestane (S5)	1.93 T	1.11 T	0.39 T
5a,14a,17a,24-methylcholestane-20R (S24)	4.83 T	3.59 T	1.15 T
5a,14a,17a,24-ethylcholestane-20S (S25)	2.54 T	2.18 T	0.7 T
5a,14a,17a,24-ethylcholestane-20R (S28)	7.08 T	11.65 T	2.32 T
S28a	11.03 T	25.61 T	4.62 T
Surrogate Recoveries (%)			
Naphthalene-d8	78	52	65
Acenaphthene-d10	85	58	66
Phenanthrene-d10	99	75	77
Benzo(a)pyrene-d12	99	67	68
5b(H)-Cholane	87	66	106

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	05-L08-01-PHC-S		05-N14-01-PHC-S		06-4A-01-PHC-S	
Battelle ID	S8897-P2		S8901-P1		R2188-P1	
Sample Type	SA		SA		SA	
Collection Date	07/30/05		08/04/05		07/28/06	
Extraction Date	04/10/07		09/20/06		04/10/07	
Analysis Date	04/19/07		10/06/06		04/18/07	
Analytical Instrument	MS		MS		MS	
% Moisture	19.41		53.85		20.55	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	24.28		13.85		24.11	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	4.71	T	12.63	T	7.42	
C1-Naphthalenes	10.83	T	30.63	T	19.66	
C2-Naphthalenes	16.96	T	59.7	T	29.42	
C3-Naphthalenes	16.02	T	79.08	T	25.12	
C4-Naphthalenes	9.96	T	76.74	T	13.54	
Biphenyl	3.12	T	7.68	T	7.45	
Acenaphthylene	0.1	T		NDT	0.11	
Acenaphthene	0.42	T	1.76	T	0.54	
Fluorene	1.57	T	6.95	T	3	
C1-Fluorenes	2.87	T	13.81	T	5.72	
C2-Fluorenes	4.74	T	29.98	T	8.73	
C3-Fluorenes	4.21	T	36.15	T	6.42	
Anthracene	0.17	T	0.9	T	0.3	
Phenanthrene	7.91	T	28.14	T	20.01	
C1-Phenanthrenes/Anthracenes	18.28	T	59.52	T	38.87	
C2-Phenanthrenes/Anthracenes	15.49	T	91.96	T	30.48	
C3-Phenanthrenes/Anthracenes	8.42	T	52.13	T	14.96	
C4-Phenanthrenes/Anthracenes	5.52	T	50.11	T	8.33	
Dibenzothiophene	1.29	T	3.83	T	3.03	
C1-Dibenzothiophenes	2.49	T	14.24	T	6.06	
C2-Dibenzothiophenes	3.84	T	30.48	T	7.31	
C3-Dibenzothiophenes	2.97	T	21.79	T	4.54	
Fluoranthene	1.52	T	7.59	T	2.54	
Pyrene	2.55	T	12.26	T	4.67	
C1-Fluoranthenes/Pyrenes	6.46	T	34.12	T	12.14	
C2-Fluoranthenes/Pyrenes	6.06	T	30.05	T	11.03	
C3-Fluoranthenes/Pyrenes	4.81	T	22.94	T	8.35	
Benzo(a)anthracene	0.54	T	2.66	T	0.93	
Chrysene	4.31	T	12.73	T	9.14	
C1-Chrysenes	5.11	T	18.27	T	10.2	
C2-Chrysenes	4.59	T	18.93	T	8.43	
C3-Chrysenes	3.03	T	13.12	T	4.9	
C4-Chrysenes	1.6	T	5.83	T	2.97	
Benzo(b)fluoranthene	2.22	T	10.22	T	4.91	
Benzo(k)fluoranthene	0.46	T	2.88	T	0.67	
Benzo(e)pyrene	3.21	T	11.08	T	6.99	
Benzo(a)pyrene	0.55	T	3.95	T	0.77	
Perylene	19.67	T	190.57	T	17.75	
Indeno(1,2,3-cd)pyrene	0.54	T	2.71	T	0.78	
Dibenz(a,h)anthracene	0.36	T	1.48	T	0.67	
Benzo(g,h,i)perylene	2.11	T	7.01	T	4.25	
C23 diterpane (T4)	0.75	T	1.82	T	0.24	
C29 Tricyclictriterpane (T9)	0.33	T	0.79	T		ND
C29 Tricyclictriterpane (T10)	0.26	T	0.61	T		ND
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.66	T	1.9	T	0.41	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.98	T	7.18	T	0.97	
17a(H),21b(H)-30-norhopane (T15)	3.06	T	10.1	T	2.03	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	05-L08-01-PHC-S	05-N14-01-PHC-S	06-4A-01-PHC-S
Battelle ID	S8897-P2	S8901-P1	R2188-P1
Sample Type	SA	SA	SA
Collection Date	07/30/05	08/04/05	07/28/06
Extraction Date	04/10/07	09/20/06	04/10/07
Analysis Date	04/19/07	10/06/06	04/18/07
Analytical Instrument	MS	MS	MS
% Moisture	19.41	53.85	20.55
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.28	13.85	24.11
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	NDT	NDT	ND
17a(H),21b(H)-hopane (T19)	4.6 T	15.19 T	3.63
22S-17a(H),21b(H)-30-homohopane (T21)	1.76 T	6.02 T	1.8
22R-17a(H),21b(H)-30-homohopane (T22)	2.63 T	40.29 T	1.85
13b,17a-20S-Diacholestane (S4)	1.1 T	2.6 T	0.5
13b,17a-20R-Diacholestane (S5)	0.67 T	1.56 T	0.26
5a,14a,17a,24-methylcholestane-20R (S24)	1.41 T	4.81 T	0.55
5a,14a,17a,24-ethylcholestane-20S (S25)	1.05 T	3 T	0.5
5a,14a,17a,24-ethylcholestane-20R (S28)	2.38 T	12.9 T	1.59
S28a	2.39 T	111.94 T	4.43
Surrogate Recoveries (%)			
Naphthalene-d8	74	47	69
Acenaphthene-d10	77	55	75
Phenanthrene-d10	94	77	92
Benzo(a)pyrene-d12	86	63	83
5b(H)-Cholane	88	64	95

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-5(1)-01-PHC-S		06-5(5)-01-PHC-S		06-5A-01-PHC-S	
Battelle ID	R2190-P1		R2498-P1		R2556-P	
Sample Type	SA		SA		SA	
Collection Date	07/27/06		07/31/06		08/06/06	
Extraction Date	04/10/07		04/10/07		09/20/06	
Analysis Date	04/18/07		04/18/07		10/06/06	
Analytical Instrument	MS		MS		MS	
% Moisture	19.75		20.77		27.06	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	24.41		23.82		22.55	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	3.13		3.51		7.1	
C1-Naphthalenes	8.4		8.34		19.77	
C2-Naphthalenes	12.82		12.1		35.99	
C3-Naphthalenes	11.34		10.97		32	
C4-Naphthalenes	6.45		6.55		22.15	
Biphenyl	2.59		2.6		5.55	
Acenaphthylene	0.06	J	0.04	J		ND
Acenaphthene	0.35		0.32		0.83	
Fluorene	1.42		1.34		4.86	
C1-Fluorenes	2.7		2.41		8.47	
C2-Fluorenes	3.93		3.65		12.73	
C3-Fluorenes		ND	3.21		13.48	
Anthracene	0.17		0.16		0.46	
Phenanthrene	8.25		8.12		19.23	
C1-Phenanthrenes/Anthracenes	18.7		18.67		34.6	
C2-Phenanthrenes/Anthracenes	14.47		15.3		36.89	
C3-Phenanthrenes/Anthracenes	7.25		8.18		19.61	
C4-Phenanthrenes/Anthracenes	4.04		5.98		13.94	
Dibenzothiophene	1.26		1.23		3.01	
C1-Dibenzothiophenes	2.24		2.64		6.93	
C2-Dibenzothiophenes	3.1		4.02		10.18	
C3-Dibenzothiophenes	2.23		2.65		6.41	
Fluoranthene	1.44		1.59		4.05	
Pyrene	2.47		2.69		6.54	
C1-Fluoranthenes/Pyrenes	6.18		6.3		17.28	
C2-Fluoranthenes/Pyrenes	5.67		5.61		14.95	
C3-Fluoranthenes/Pyrenes	4.45		4.5		10.9	
Benzo(a)anthracene	0.53		0.57		1.43	
Chrysene	4.03		4.24		8.84	
C1-Chrysenes	4.67		4.94		10.43	
C2-Chrysenes	4.28		6.78		9.65	
C3-Chrysenes	2.96		2.91		6.1	
C4-Chrysenes	1.37		1.77		3.04	
Benzo(b)fluoranthene	2.15		2.03		6.64	
Benzo(k)fluoranthene	0.31		0.44		1.5	
Benzo(e)pyrene	3.11		2.74		8.59	
Benzo(a)pyrene	0.48		0.51		1.76	
Perylene	19.13		21.08		67.82	
Indeno(1,2,3-cd)pyrene	0.51		0.49		1.73	
Dibenz(a,h)anthracene	0.34		0.3		1.05	
Benzo(g,h,i)perylene	2.38		1.87		6.39	
C23 diterpane (T4)	0.22		0.14	J	0.57	
C29 Tricyclictriterpane (T9)		ND		ND	0.19	J
C29 Tricyclictriterpane (T10)		ND		ND	0.16	J
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.19	J		ND	0.56	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.71		0.88		2.86	
17a(H),21b(H)-30-norhopane (T15)	1.54		1.4		5.23	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-5(1)-01-PHC-S	06-5(5)-01-PHC-S	06-5A-01-PHC-S
Battelle ID	R2190-P1	R2498-P1	R2556-P
Sample Type	SA	SA	SA
Collection Date	07/27/06	07/31/06	08/06/06
Extraction Date	04/10/07	04/10/07	09/20/06
Analysis Date	04/18/07	04/18/07	10/06/06
Analytical Instrument	MS	MS	MS
% Moisture	19.75	20.77	27.06
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.41	23.82	22.55
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	2.59	2.51	7.21
22S-17a(H),21b(H)-30-homohopane (T21)	1.21	0.96	3.45
22R-17a(H),21b(H)-30-homohopane (T22)	1.62	5.56	6.26
13b,17a-20S-Diacholestane (S4)	0.39	0.33	1.13
13b,17a-20R-Diacholestane (S5)	0.24	0.2 J	0.71
5a,14a,17a,24-methylcholestane-20R (S24)	0.53	0.55	1.82
5a,14a,17a,24-ethylcholestane-20S (S25)	0.35	0.31	1.28
5a,14a,17a,24-ethylcholestane-20R (S28)	1.14	1.47	4.8
S28a	1.75	2.14	6.8
Surrogate Recoveries (%)			
Naphthalene-d8	80	79	53
Acenaphthene-d10	82	82	65
Phenanthrene-d10	97	96	88
Benzo(a)pyrene-d12	98	101	71
5b(H)-Cholane	101	96	73

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-6A-01-PHC-S	06-6B-01-PHC-S	06-6D-01-PHC-S
Battelle ID	R2508-P	R2500-P1	R2510-P
Sample Type	SA	SA	SA
Collection Date	08/03/06	08/01/06	08/03/06
Extraction Date	09/20/06	04/10/07	09/20/06
Analysis Date	10/05/06	04/18/07	10/05/06
Analytical Instrument	MS	MS	MS
% Moisture	40.03	35.03	32.46
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	18.18	19.53	20.59
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	25.07	45.63	13.85
C1-Naphthalenes	69.2	122.99	44.33
C2-Naphthalenes	111.13	165.44	80.1
C3-Naphthalenes	91.92	131.52	70.46
C4-Naphthalenes	58.7	73.45	48.16
Biphenyl	14.29	19.83	10.55
Acenaphthylene	ND	ND	ND
Acenaphthene	1.84	2.56	1.29
Fluorene	11.43	15	9.53
C1-Fluorenes	20.41	27.25	16.89
C2-Fluorenes	31.03	38.64	27.82
C3-Fluorenes	28.24	28.3	27.6
Anthracene	1.07	1.13	1.11
Phenanthrene	50.11	67.34	38.68
C1-Phenanthrenes/Anthracenes	91.09	116.39	70.88
C2-Phenanthrenes/Anthracenes	85.4	94.99	77.52
C3-Phenanthrenes/Anthracenes	46.76	62.04	43
C4-Phenanthrenes/Anthracenes	43.05	58.49	33.71
Dibenzothiophene	7.36	10.07	6.9
C1-Dibenzothiophenes	16.97	25.18	16.73
C2-Dibenzothiophenes	25.13	27.48	24.82
C3-Dibenzothiophenes	17.43	18.3	15.12
Fluoranthene	9.07	11.79	8.89
Pyrene	13.22	18.1	13.45
C1-Fluoranthenes/Pyrenes	44.82	58.36	40.15
C2-Fluoranthenes/Pyrenes	39.85	51.59	34.82
C3-Fluoranthenes/Pyrenes	29.64	37.54	25.1
Benzo(a)anthracene	3.7	4.68	3.26
Chrysene	22.67	25.04	19.92
C1-Chrysenes	27.04	30.23	21.87
C2-Chrysenes	23.9	27.78	18.85
C3-Chrysenes	16.75	16.87	12.55
C4-Chrysenes	9.59	10.97	7.1
Benzo(b)fluoranthene	15.45	15.64	14.15
Benzo(k)fluoranthene	2.85	3.76	2.75
Benzo(e)pyrene	19.97	17.8	17.91
Benzo(a)pyrene	4.91	5.69	4.18
Perylene	154.6	98.29	156.05
Indeno(1,2,3-cd)pyrene	3.91	4.15	3.84
Dibenz(a,h)anthracene	2.3	2.2	2.23
Benzo(g,h,i)perylene	13.04	13.84	14.85
C23 diterpane (T4)	1.26	0.93	1.28
C29 Tricyclictriterpane (T9)	0.42	0.29	0.39
C29 Tricyclictriterpane (T10)	0.39	ND	0.35
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.49	0.86	1.3
17a(H)-22,29,30-Trisnorhopane -TM (T12)	6.63	4.26	5.61
17a(H),21b(H)-30-norhopane (T15)	12.09	8.58	9.81

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-6A-01-PHC-S	06-6B-01-PHC-S	06-6D-01-PHC-S
Battelle ID	R2508-P	R2500-P1	R2510-P
Sample Type	SA	SA	SA
Collection Date	08/03/06	08/01/06	08/03/06
Extraction Date	09/20/06	04/10/07	09/20/06
Analysis Date	10/05/06	04/18/07	10/05/06
Analytical Instrument	MS	MS	MS
% Moisture	40.03	35.03	32.46
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	18.18	19.53	20.59
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	16.33	12.73	14.18
22S-17a(H),21b(H)-30-homohopane (T21)	6.72	5.36	6.72
22R-17a(H),21b(H)-30-homohopane (T22)	14.86	12.25	10.46
13b,17a-20S-Diacholestane (S4)	2.48	0.95	1.93
13b,17a-20R-Diacholestane (S5)	1.64	0.66	1.18
5a,14a,17a,24-methylcholestane-20R (S24)	6.41	4.3	4.08
5a,14a,17a,24-ethylcholestane-20S (S25)	2.82	1.43	2.44
5a,14a,17a,24-ethylcholestane-20R (S28)	18.48	17.4	10.06
S28a	26.2	4.03	8.13
Surrogate Recoveries (%)			
Naphthalene-d8	64	84	45
Acenaphthene-d10	72	88	52
Phenanthrene-d10	87	104	70
Benzo(a)pyrene-d12	78	111	66
5b(H)-Cholane	75	96	61

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-6F-01-PHC-S		06-6G-01-PHC-S		06-6H-01-PHC-S	
Battelle ID	R2501-P		R2509-P		R2503-P	
Sample Type	SA		SA		SA	
Collection Date	08/02/06		08/03/06		08/01/06	
Extraction Date	09/20/06		09/20/06		09/20/06	
Analysis Date	10/04/06		10/05/06		10/04/06	
Analytical Instrument	MS		MS		MS	
% Moisture	23.29		33.11		19.64	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	23.22		20.14		24.41	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	3.56	B	17.98		2.6	B
C1-Naphthalenes	9.27		48.33		5.66	
C2-Naphthalenes	13.74		76.97		8.54	
C3-Naphthalenes	11.75		66.52		7.18	
C4-Naphthalenes	7.84		49.44		5.25	
Biphenyl	2.27		9.19		1.34	
Acenaphthylene	ND		ND		ND	
Acenaphthene	0.29		1.18		0.21	
Fluorene	1.61		7.48		0.82	
C1-Fluorenes	2.74		13.79		1.33	
C2-Fluorenes	4.56		26.78		2.25	
C3-Fluorenes	5.47		24.36		2.85	
Anthracene	0.2		0.81		0.11	
Phenanthrene	7.24		33.66		4.65	
C1-Phenanthrenes/Anthracenes	12.81		58.58		7.84	
C2-Phenanthrenes/Anthracenes	13.41		66.28		8.47	
C3-Phenanthrenes/Anthracenes	6.69		35.83		4.1	
C4-Phenanthrenes/Anthracenes	5.45		50.68		7.6	
Dibenzothiophene	1.14		4.94		0.8	
C1-Dibenzothiophenes	2.56		12.59		1.74	
C2-Dibenzothiophenes	3.81		20.3		2.65	
C3-Dibenzothiophenes	2.89		11.27		2.12	
Fluoranthene	1.46		8.14		1.53	
Pyrene	2.27		11.37		1.75	
C1-Fluoranthenes/Pyrenes	6.17		35		4.6	
C2-Fluoranthenes/Pyrenes	5.48		27.44		3.37	
C3-Fluoranthenes/Pyrenes	4.02		20		2.2	
Benzo(a)anthracene	0.46		2.78		0.34	
Chrysene	3.4		14.52		2.36	
C1-Chrysenes	3.58		18.08		2.23	
C2-Chrysenes	3.18		16.21		1.96	
C3-Chrysenes	2.35		12.21		1.31	
C4-Chrysenes	ND		5.47		ND	
Benzo(b)fluoranthene	2.24		11.41		1.54	
Benzo(k)fluoranthene	0.54		2.82		0.35	
Benzo(e)pyrene	3		12.56		1.49	
Benzo(a)pyrene	0.51		4.24		0.49	
Perylene	17.22		114.06		10.1	
Indeno(1,2,3-cd)pyrene	0.56		3.33		0.33	
Dibenz(a,h)anthracene	0.3		1.58		0.17	
Benzo(g,h,i)perylene	2.58		8.83		1.01	
C23 diterpane (T4)	0.26		0.94		0.23	
C29 Tricyclictriterpane (T9)	0.1	J	0.35		0.08	J
C29 Tricyclictriterpane (T10)	0.09	J	0.4		0.07	J
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.33		1.19		0.28	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	1		7.63		0.71	
17a(H),21b(H)-30-norhopane (T15)	1.83		9.4		1.42	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-6F-01-PHC-S	06-6G-01-PHC-S	06-6H-01-PHC-S
Battelle ID	R2501-P	R2509-P	R2503-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/03/06	08/01/06
Extraction Date	09/20/06	09/20/06	09/20/06
Analysis Date	10/04/06	10/05/06	10/04/06
Analytical Instrument	MS	MS	MS
% Moisture	23.29	33.11	19.64
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.22	20.14	24.41
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	2.87	15.18	2.03
22S-17a(H),21b(H)-30-homohopane (T21)	0.99	6.14	0.79
22R-17a(H),21b(H)-30-homohopane (T22)	1.85	43.9	1.55
13b,17a-20S-Diacholestane (S4)	0.5	1.64	0.24
13b,17a-20R-Diacholestane (S5)	0.23	1.2	0.18 J
5a,14a,17a,24-methylcholestane-20R (S24)	0.74	5.32	0.81
5a,14a,17a,24-ethylcholestane-20S (S25)	0.39	2.23	ND
5a,14a,17a,24-ethylcholestane-20R (S28)	1.66	19.44	2.93
S28a	1.54	16.95	0.73
Surrogate Recoveries (%)			
Naphthalene-d8	55	55	68
Acenaphthene-d10	59	63	70
Phenanthrene-d10	81	84	86
Benzo(a)pyrene-d12	75	73	84
5b(H)-Cholane	77	73	78

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-01-PHC-S	06-7A-01-PHC-SC	06-7A-02-PHC-SC
Battelle ID	R2504-P	R2597-P	R2598-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	09/20/06	04/09/07	04/09/07
Analysis Date	10/05/06	05/03/07	05/03/07
Analytical Instrument	MS	MS	MS
% Moisture	26.85	26.39	25
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.60	22.22	22.92
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	19.39	13.31	16.5
C1-Naphthalenes	49.1	33.76	43.9
C2-Naphthalenes	80.13	47.6	61.49
C3-Naphthalenes	74.5	45.48	56.84
C4-Naphthalenes	43.85	27.61	34.18
Biphenyl	8.43	5.9	7.48
Acenaphthylene	ND	ND	ND
Acenaphthene	1.23	0.9	1.12
Fluorene	6.84	4.15	5.4
C1-Fluorenes	12.6	8.01	10.18
C2-Fluorenes	22.45	11.64	15.48
C3-Fluorenes	24.27	9.87	13.87
Anthracene	1.21	0.87	0.96
Phenanthrene	32.59	22.89	28.95
C1-Phenanthrenes/Anthracenes	59.49	40.76	52.09
C2-Phenanthrenes/Anthracenes	63.87	39.44	49.62
C3-Phenanthrenes/Anthracenes	35.33	30.39	37.31
C4-Phenanthrenes/Anthracenes	0.5	36.47	44.1
Dibenzothiophene	4.84	3.53	4.53
C1-Dibenzothiophenes	12.28	9.21	11.95
C2-Dibenzothiophenes	18.88	12.26	15.06
C3-Dibenzothiophenes	12.54	9.28	11.22
Fluoranthene	9.45	7.06	8.76
Pyrene	11.92	9.36	11.84
C1-Fluoranthenes/Pyrenes	38.62	26.09	32.93
C2-Fluoranthenes/Pyrenes	29.26	20.26	25.98
C3-Fluoranthenes/Pyrenes	20.02	14.82	18.93
Benzo(a)anthracene	3.41	2.65	3.2
Chrysene	15.46	11.65	14.66
C1-Chrysenes	19.38	14.28	17.74
C2-Chrysenes	16.05	13.98	15.84
C3-Chrysenes	10.83	10.02	11.47
C4-Chrysenes	4.9	5.4	6.5
Benzo(b)fluoranthene	11.73	7.86	10.4
Benzo(k)fluoranthene	2.79	2.06	2.55
Benzo(e)pyrene	11.63	7.64	10.18
Benzo(a)pyrene	4.8	3.16	4.04
Perylene	105.46	58.9	78.11
Indeno(1,2,3-cd)pyrene	3.06	2.22	2.9
Dibenz(a,h)anthracene	1.45	1.03	1.39
Benzo(g,h,i)perylene	8.76	5.9	8.02
C23 diterpane (T4)	0.87	0.41	0.45
C29 Tricyclictriterpane (T9)	0.32	0.15 J	0.13 J
C29 Tricyclictriterpane (T10)	0.32	0.11 J	0.11 J
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.99	0.51	0.52
17a(H)-22,29,30-Trisnorhopane -TM (T12)	5.01	1.93	2.47
17a(H),21b(H)-30-norhopane (T15)	8.21	3.86	4.59

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-01-PHC-S	06-7A-01-PHC-SC	06-7A-02-PHC-SC
Battelle ID	R2504-P	R2597-P	R2598-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	09/20/06	04/09/07	04/09/07
Analysis Date	10/05/06	05/03/07	05/03/07
Analytical Instrument	MS	MS	MS
% Moisture	26.85	26.39	25
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.60	22.22	22.92
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	11.45	5.25	6.69
22S-17a(H),21b(H)-30-homohopane (T21)	5.06	2.28	2.62
22R-17a(H),21b(H)-30-homohopane (T22)	12.34	5.06	6.68
13b,17a-20S-Diacholestane (S4)	1.46	0.66	0.68
13b,17a-20R-Diacholestane (S5)	0.95	0.48	0.53
5a,14a,17a,24-methylcholestane-20R (S24)	6.84	2.79	3.61
5a,14a,17a,24-ethylcholestane-20S (S25)	1.1	1.71	2.64
5a,14a,17a,24-ethylcholestane-20R (S28)	25.25	10.98	13.89
S28a	10.28	3.17	4.6
Surrogate Recoveries (%)			
Naphthalene-d8	56	83	87
Acenaphthene-d10	67	85	88
Phenanthrene-d10	88	95	100
Benzo(a)pyrene-d12	85	101	104
5b(H)-Cholane	80	114	111

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-03-PHC-SC	06-7A-04-PHC-SC	06-7A-05-PHC-SC
Battelle ID	R2599-P	R2600-P	R2601-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/03/07	05/03/07	05/03/07
Analytical Instrument	MS	MS	MS
% Moisture	26.91	26.34	26.19
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.20	22.76	22.98
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	23	24	33.71
C1-Naphthalenes	60.26	65.65	89.34
C2-Naphthalenes	83.45	92.47	125.14
C3-Naphthalenes	77.46	85.14	117.79
C4-Naphthalenes	47.59	51.75	73.54
Biphenyl	9.52	10.46	13.04
Acenaphthylene	ND	ND	ND
Acenaphthene	1.43	1.56	2.15
Fluorene	6.79	7.71	8.92
C1-Fluorenes	13.14	15.75	18.3
C2-Fluorenes	19.41	22.82	29.03
C3-Fluorenes	17.71	20.37	25.34
Anthracene	1.27	1.37	1.96
Phenanthrene	36.57	40.92	52.57
C1-Phenanthrenes/Anthracenes	65.49	74.61	95.03
C2-Phenanthrenes/Anthracenes	62.83	70.34	91.99
C3-Phenanthrenes/Anthracenes	47.52	52.7	72.15
C4-Phenanthrenes/Anthracenes	56.96	58.42	87.21
Dibenzothiophene	5.32	6.26	7.63
C1-Dibenzothiophenes	14.96	17.12	22.1
C2-Dibenzothiophenes	18.51	21.47	27
C3-Dibenzothiophenes	13.74	15.77	20.25
Fluoranthene	11.1	12.92	18.5
Pyrene	15.18	17.39	23.83
C1-Fluoranthenes/Pyrenes	41.37	48.3	67.44
C2-Fluoranthenes/Pyrenes	32.98	38.61	51.14
C3-Fluoranthenes/Pyrenes	24.06	28.99	34.83
Benzo(a)anthracene	4.2	4.65	6.74
Chrysene	17.81	20.28	25.13
C1-Chrysenes	22.26	25.65	33.66
C2-Chrysenes	21.54	24.53	31.98
C3-Chrysenes	15.64	18.29	24.01
C4-Chrysenes	7.98	8.93	12.25
Benzo(b)fluoranthene	12.76	14.79	19.31
Benzo(k)fluoranthene	3.22	3.67	5.38
Benzo(e)pyrene	12.75	14.98	18.81
Benzo(a)pyrene	5.06	5.85	8.46
Perylene	100.63	114.6	161.69
Indeno(1,2,3-cd)pyrene	3.48	4.15	5.57
Dibenz(a,h)anthracene	1.69	2.06	2.71
Benzo(g,h,i)perylene	9.98	11.7	14.63
C23 diterpane (T4)	0.56	0.65	0.81
C29 Tricyclictriterpane (T9)	0.16 J	0.26	0.25
C29 Tricyclictriterpane (T10)	0.16 J	0.22	0.32
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.67	0.71	0.89
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.39	3.97	5.54
17a(H),21b(H)-30-norhopane (T15)	6.33	7.45	9.9

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-03-PHC-SC	06-7A-04-PHC-SC	06-7A-05-PHC-SC
Battelle ID	R2599-P	R2600-P	R2601-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/03/07	05/03/07	05/03/07
Analytical Instrument	MS	MS	MS
% Moisture	26.91	26.34	26.19
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.20	22.76	22.98
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	8.5	9.81	13.94
22S-17a(H),21b(H)-30-homohopane (T21)	3.68	4.39	6.1
22R-17a(H),21b(H)-30-homohopane (T22)	10.02	11.13	16.15
13b,17a-20S-Diacholestane (S4)	0.86	0.9	1.4
13b,17a-20R-Diacholestane (S5)	0.63	0.57	0.95
5a,14a,17a,24-methylcholestane-20R (S24)	4.95	4.59	7.66
5a,14a,17a,24-ethylcholestane-20S (S25)	2.88	3.01	4.93
5a,14a,17a,24-ethylcholestane-20R (S28)	18.98	18.15	30.47
S28a	10.88	8.7	15.51
Surrogate Recoveries (%)			
Naphthalene-d8	83	83	79
Acenaphthene-d10	83	84	81
Phenanthrene-d10	96	97	93
Benzo(a)pyrene-d12	98	102	96
5b(H)-Cholane	106	119	116

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-07-PHC-SC	06-7A-09-PHC-SC	06-7C-01-PHC-SC
Battelle ID	R2603-P	R2605-P	R2332-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/03/07	05/03/07	05/02/07
Analytical Instrument	MS	MS	MS
% Moisture	29.36	27.93	33.76
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.29	21.77	19.93
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	33.96	33.76	20.24
C1-Naphthalenes	88.31	89.8	63.36
C2-Naphthalenes	126.03	129.42	94.18
C3-Naphthalenes	124.79	129.38	81.49
C4-Naphthalenes	78.55	82.14	47.83
Biphenyl	12.42	12.23	14.02
Acenaphthylene	ND	ND	ND
Acenaphthene	1.96	2.01	1.84
Fluorene	8.2	8.64	10.79
C1-Fluorenes	16.62	17.94	20.45
C2-Fluorenes	27.4	29.01	28.51
C3-Fluorenes	25.66	26.22	23.88
Anthracene	2.25	2.22	1.52
Phenanthrene	52.78	54.51	49.43
C1-Phenanthrenes/Anthracenes	96.58	99.53	90.6
C2-Phenanthrenes/Anthracenes	94.83	97.28	86.31
C3-Phenanthrenes/Anthracenes	77.59	76.82	52.16
C4-Phenanthrenes/Anthracenes	97.63	91.93	37.12
Dibenzothiophene	7.14	7.44	9.03
C1-Dibenzothiophenes	21.99	22.52	21.74
C2-Dibenzothiophenes	27.28	27.84	27.55
C3-Dibenzothiophenes	20.89	21.14	19.83
Fluoranthene	20.46	21.76	10.65
Pyrene	25.49	26.82	17.18
C1-Fluoranthenes/Pyrenes	70.52	72.54	47.72
C2-Fluoranthenes/Pyrenes	51.96	55.18	43.14
C3-Fluoranthenes/Pyrenes	36.46	38.25	34.36
Benzo(a)anthracene	7.52	7.87	4.36
Chrysene	26.46	27.62	25.79
C1-Chrysenes	34.99	36.07	30.49
C2-Chrysenes	33.84	33.58	28.82
C3-Chrysenes	23.94	25.46	21.64
C4-Chrysenes	12.02	13.33	10.62
Benzo(b)fluoranthene	18.91	20.52	17.17
Benzo(k)fluoranthene	5.44	5.93	3.61
Benzo(e)pyrene	17.53	19.54	21.61
Benzo(a)pyrene	8.55	8.98	4.5
Perylene	149.88	166.57	104.03
Indeno(1,2,3-cd)pyrene	5.41	5.98	4.56
Dibenz(a,h)anthracene	2.55	2.71	2.77
Benzo(g,h,i)perylene	13.23	14.93	16.99
C23 diterpane (T4)	0.73	0.84	1
C29 Tricyclictriterpane (T9)	0.19 J	0.26	0.44
C29 Tricyclictriterpane (T10)	ND	0.31	0.56
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.89	0.91	1.03
17a(H)-22,29,30-Trisnorhopane -TM (T12)	5.63	6.51	4.71
17a(H),21b(H)-30-norhopane (T15)	10.17	11.25	9.11

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-07-PHC-SC	06-7A-09-PHC-SC	06-7C-01-PHC-SC
Battelle ID	R2603-P	R2605-P	R2332-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/03/07	05/03/07	05/02/07
Analytical Instrument	MS	MS	MS
% Moisture	29.36	27.93	33.76
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.29	21.77	19.93
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	12.98	14.59	13.92
22S-17a(H),21b(H)-30-homohopane (T21)	5.89	6.52	6.05
22R-17a(H),21b(H)-30-homohopane (T22)	15.55	18.31	10.51
13b,17a-20S-Diacholestane (S4)	1.19	1.55	1.43
13b,17a-20R-Diacholestane (S5)	1.05	1.1	1.06
5a,14a,17a,24-methylcholestane-20R (S24)	9.74	8.66	3.38
5a,14a,17a,24-ethylcholestane-20S (S25)	5.71	5.02	2.52
5a,14a,17a,24-ethylcholestane-20R (S28)	36.62	33.34	9.13
S28a	11.55	16.16	10.48
Surrogate Recoveries (%)			
Naphthalene-d8	79	75	69
Acenaphthene-d10	82	78	71
Phenanthrene-d10	93	90	81
Benzo(a)pyrene-d12	101	95	82
5b(H)-Cholane	108	112	92

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7C-02-PHC-SC	06-7C-03-PHC-SC	06-7C-04-PHC-SC
Battelle ID	R2333-P	R2334-P	R2335-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/02/07	05/02/07	05/02/07
Analytical Instrument	MS	MS	MS
% Moisture	33.79	32.8	35.36
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.85	20.98	19.81
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	24.21	25.03	20.49
C1-Naphthalenes	76.19	78.82	64.59
C2-Naphthalenes	113.73	114.44	95.93
C3-Naphthalenes	99.27	95.02	83.09
C4-Naphthalenes	56.84	55.7	49.18
Biphenyl	16.93	17.07	14.56
Acenaphthylene	ND	ND	ND
Acenaphthene	2.31	2.28	1.95
Fluorene	12.88	12.67	10.68
C1-Fluorenes	25.28	24.84	19.74
C2-Fluorenes	34.91	34	28.18
C3-Fluorenes	28.88	27.65	23.55
Anthracene	1.86	1.81	1.62
Phenanthrene	60.27	60.37	52.05
C1-Phenanthrenes/Anthracenes	110.95	109.24	94.8
C2-Phenanthrenes/Anthracenes	106.06	105.05	90.14
C3-Phenanthrenes/Anthracenes	64.09	63.01	54.51
C4-Phenanthrenes/Anthracenes	45.67	43.74	40.49
Dibenzothiophene	11.21	10.76	9.18
C1-Dibenzothiophenes	26.78	25.76	22
C2-Dibenzothiophenes	34.52	32.54	27.59
C3-Dibenzothiophenes	24.2	23.4	19.48
Fluoranthene	12.88	12.2	11.21
Pyrene	20.87	20.17	18.06
C1-Fluoranthenes/Pyrenes	57.98	55.96	48.56
C2-Fluoranthenes/Pyrenes	53.49	52.29	44.86
C3-Fluoranthenes/Pyrenes	42.3	40.92	35.32
Benzo(a)anthracene	5.15	4.91	4.57
Chrysene	31.39	30.4	26.58
C1-Chrysenes	37	36.04	31.3
C2-Chrysenes	33.75	33.26	28.08
C3-Chrysenes	25.5	25.68	21.62
C4-Chrysenes	14.04	13.64	11.6
Benzo(b)fluoranthene	21.71	22.14	17.7
Benzo(k)fluoranthene	4.23	4.16	3.69
Benzo(e)pyrene	27.23	27.51	21.76
Benzo(a)pyrene	5.5	5.53	4.66
Perylene	123.55	130.17	120.44
Indeno(1,2,3-cd)pyrene	5.6	5.59	4.78
Dibenz(a,h)anthracene	3.27	3.24	2.71
Benzo(g,h,i)perylene	21.65	21.34	17.68
C23 diterpane (T4)	1.13	1.14	1.1
C29 Tricyclictriterpane (T9)	0.46	0.48	0.52
C29 Tricyclictriterpane (T10)	0.39	0.48	0.44
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.2	1.25	1.06
17a(H)-22,29,30-Trisnorhopane -TM (T12)	5.44	5.47	4.84
17a(H),21b(H)-30-norhopane (T15)	10.64	10.67	9.67

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7C-02-PHC-SC	06-7C-03-PHC-SC	06-7C-04-PHC-SC
Battelle ID	R2333-P	R2334-P	R2335-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/02/07	05/02/07	05/02/07
Analytical Instrument	MS	MS	MS
% Moisture	33.79	32.8	35.36
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	19.85	20.98	19.81
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	15.05	16.18	14.05
22S-17a(H),21b(H)-30-homohopane (T21)	7.59	7.09	6.28
22R-17a(H),21b(H)-30-homohopane (T22)	11.28	11.65	10.83
13b,17a-20S-Diacholestane (S4)	1.57	1.83	1.8
13b,17a-20R-Diacholestane (S5)	1.02	1.02	1.01
5a,14a,17a,24-methylcholestane-20R (S24)	3.98	3.77	3.54
5a,14a,17a,24-ethylcholestane-20S (S25)	2.54	2.92	2.57
5a,14a,17a,24-ethylcholestane-20R (S28)	11.28	11.48	9.97
S28a	12.07	11.62	17.17
Surrogate Recoveries (%)			
Naphthalene-d8	60	43	71
Acenaphthene-d10	62	43	71
Phenanthrene-d10	71	49	79
Benzo(a)pyrene-d12	69	45	79
5b(H)-Cholane	86	56	93

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7C-05-PHC-SC	06-7C-10-PHC-SC	06-7C-15-PHC-SC
Battelle ID	R2336-P	R2341-P	R2346-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/02/07	05/02/07	04/14/07
Analytical Instrument	MS	MS	MS
% Moisture	33.72	30.57	25.96
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.06	20.83	23.01
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	15.91	19.98	23.28
C1-Naphthalenes	49.04	61.28	71.63
C2-Naphthalenes	70.65	88.03	105.37
C3-Naphthalenes	60.9	75.06	91.33
C4-Naphthalenes	36.12	43.6	53.86
Biphenyl	10.89	13.25	14.92
Acenaphthylene	ND	ND	ND
Acenaphthene	1.47	1.72	2.09
Fluorene	8.07	10	11
C1-Fluorenes	14.94	18.5	21.73
C2-Fluorenes	20.53	25.54	32.09
C3-Fluorenes	17.38	21.48	27.61
Anthracene	1.05	1.25	1.75
Phenanthrene	38.89	45.84	52.48
C1-Phenanthrenes/Anthracenes	69.51	83.1	96.98
C2-Phenanthrenes/Anthracenes	66.05	78.24	93.17
C3-Phenanthrenes/Anthracenes	40.26	47.7	57.76
C4-Phenanthrenes/Anthracenes	29.83	36.41	43.14
Dibenzothiophene	6.71	8.18	9.71
C1-Dibenzothiophenes	15.52	19.38	23.9
C2-Dibenzothiophenes	19.63	24.14	30.53
C3-Dibenzothiophenes	14.29	17.62	23.61
Fluoranthene	8.06	9.77	12.18
Pyrene	13.17	15.37	19.39
C1-Fluoranthenes/Pyrenes	35.77	41.97	52.52
C2-Fluoranthenes/Pyrenes	32.07	37.88	46.9
C3-Fluoranthenes/Pyrenes	25.76	30.19	37.48
Benzo(a)anthracene	3.24	3.82	4.88
Chrysene	19.87	23.04	27.6
C1-Chrysenes	22.95	26.72	33.23
C2-Chrysenes	21.51	22.9	31.12
C3-Chrysenes	15.77	18.49	23.9
C4-Chrysenes	8.03	9.68	11.5
Benzo(b)fluoranthene	12.34	15.12	19.09
Benzo(k)fluoranthene	2.68	3.18	3.65
Benzo(e)pyrene	15.67	18.82	22.86
Benzo(a)pyrene	3.31	4.01	5.21
Perylene	86.9	99.92	121.04
Indeno(1,2,3-cd)pyrene	3.27	4.06	5.16
Dibenz(a,h)anthracene	2.01	2.27	3.12
Benzo(g,h,i)perylene	12.7	15.37	18.46
C23 diterpane (T4)	0.72	0.79	1.18
C29 Tricyclictriterpane (T9)	0.35	0.3	0.31
C29 Tricyclictriterpane (T10)	0.26	0.3	0.41
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.79	0.82	1.38
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.36	3.68	5.33
17a(H),21b(H)-30-norhopane (T15)	6.23	6.97	11.73

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7C-05-PHC-SC	06-7C-10-PHC-SC	06-7C-15-PHC-SC
Battelle ID	R2336-P	R2341-P	R2346-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07
Analysis Date	05/02/07	05/02/07	04/14/07
Analytical Instrument	MS	MS	MS
% Moisture	33.72	30.57	25.96
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.06	20.83	23.01
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	9.67	10.83	17.38
22S-17a(H),21b(H)-30-homohopane (T21)	4.38	4.91	7.07
22R-17a(H),21b(H)-30-homohopane (T22)	7.69	8.48	11.13
13b,17a-20S-Diacholestane (S4)	1.18	1.11	2.02
13b,17a-20R-Diacholestane (S5)	0.82	0.68	1.38
5a,14a,17a,24-methylcholestane-20R (S24)	2.73	3.06	3.72
5a,14a,17a,24-ethylcholestane-20S (S25)	2.2	2.29	3.25
5a,14a,17a,24-ethylcholestane-20R (S28)	7.52	8.53	11.28
S28a	8.52	7.37	11.64
Surrogate Recoveries (%)			
Naphthalene-d8	66	67	77
Acenaphthene-d10	65	67	78
Phenanthrene-d10	74	77	91
Benzo(a)pyrene-d12	74	75	93
5b(H)-Cholane	88	97	100

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-01-PHC-S	06-7E-01-PHC-SC	06-7E-02-PHC-SC
Battelle ID	R2502-P	R2532-P	R2533-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	09/20/06	04/02/07	04/02/07
Analysis Date	10/05/06	04/25/07	04/25/07
Analytical Instrument	MS	MS	MS
% Moisture	41.29	37.33	35.38
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.97	19.02	19.56
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	33.36	38.68	100.37
C1-Naphthalenes	89.82	94.97	229.56
C2-Naphthalenes	146.38	136.26	323.56
C3-Naphthalenes	133.16	129.92	332.76
C4-Naphthalenes	91.14	80.49	216.79
Biphenyl	15.67	13.74	22.63
Acenaphthylene	ND	ND	ND
Acenaphthene	2.22	1.98	2.82
Fluorene	13.46	9.85	12.45
C1-Fluorenes	23.96	18.27	23.23
C2-Fluorenes	42.94	22.7	33.66
C3-Fluorenes	40.74	20.36	33.34
Anthracene	1.91	2.05	5.76
Phenanthrene	60.59	52.35	94.87
C1-Phenanthrenes/Anthracenes	127.03	85.03	164.66
C2-Phenanthrenes/Anthracenes	114.44	82.68	171.92
C3-Phenanthrenes/Anthracenes	62.19	60.64	137.5
C4-Phenanthrenes/Anthracenes	76.22	70.48	164.84
Dibenzothiophene	8.84	4.98	7.85
C1-Dibenzothiophenes	22.14	15.23	30.27
C2-Dibenzothiophenes	31.82	16.52	34.64
C3-Dibenzothiophenes	21.62	12.33	25.6
Fluoranthene	15.01	12.07	23.1
Pyrene	20.53	18.9	34.56
C1-Fluoranthenes/Pyrenes	65.77	48.72	91
C2-Fluoranthenes/Pyrenes	53.36	40.35	75.35
C3-Fluoranthenes/Pyrenes	36.53	28	49.48
Benzo(a)anthracene	5.57	5.6	12.76
Chrysene	25.91	22.78	37.3
C1-Chrysenes	31.52	27.82	50.08
C2-Chrysenes	28.17	23.41	43.3
C3-Chrysenes	18.72	18.92	35.92
C4-Chrysenes	9.56	8.92	17.81
Benzo(b)fluoranthene	22.05	16.42	29.39
Benzo(k)fluoranthene	5.06	4.31	8.95
Benzo(e)pyrene	24.56	16.62	25.77
Benzo(a)pyrene	8.61	5.31	10.51
Perylene	241.54	141.75	211.16
Indeno(1,2,3-cd)pyrene	5.28	3.35	6.17
Dibenz(a,h)anthracene	2.87	1.33	2.48
Benzo(g,h,i)perylene	17.14	8.85	12.13
C23 diterpane (T4)	1.57	0.75	1.34
C29 Tricyclictriterpane (T9)	0.48	0.23 J	0.24 J
C29 Tricyclictriterpane (T10)	0.49	0.19 J	ND
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.68	1.05	1.45
17a(H)-22,29,30-Trisnorhopane -TM (T12)	9.3	6.02	13.39
17a(H),21b(H)-30-norhopane (T15)	16.05	8.85	23.29

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-01-PHC-S	06-7E-01-PHC-SC	06-7E-02-PHC-SC
Battelle ID	R2502-P	R2532-P	R2533-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	09/20/06	04/02/07	04/02/07
Analysis Date	10/05/06	04/25/07	04/25/07
Analytical Instrument	MS	MS	MS
% Moisture	41.29	37.33	35.38
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.97	19.02	19.56
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	21.23	11.97	26.29
22S-17a(H),21b(H)-30-homohopane (T21)	9.5	5.58	13.8
22R-17a(H),21b(H)-30-homohopane (T22)	21.01	14.11	34.29
13b,17a-20S-Diacholestane (S4)	2.74	1.12	1.64
13b,17a-20R-Diacholestane (S5)	1.76	0.75	1.34
5a,14a,17a,24-methylcholestane-20R (S24)	9.98	4.59	9.99
5a,14a,17a,24-ethylcholestane-20S (S25)	2.83	3	9.56
5a,14a,17a,24-ethylcholestane-20R (S28)	36.66	17.74	40.54
S28a	37.83	30.69	27.01
Surrogate Recoveries (%)			
Naphthalene-d8	50	70	77
Acenaphthene-d10	58	70	77
Phenanthrene-d10	73	81	89
Benzo(a)pyrene-d12	61	76	81
5b(H)-Cholane	64	90	96

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-03-PHC-SC	06-7E-04-PHC-SC	06-7E-05-PHC-SC
Battelle ID	R2534-P	R2535-P	R2536-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/02/07	04/02/07	04/02/07
Analysis Date	04/25/07	04/25/07	04/25/07
Analytical Instrument	MS	MS	MS
% Moisture	33.06	29.14	31.41
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.53	21.63	21.10
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	79.44	61.32	36.02
C1-Naphthalenes	144.63	146.09	99.86
C2-Naphthalenes	188.87	209.5	150.85
C3-Naphthalenes	195.35	215.91	137.94
C4-Naphthalenes	110.11	141.55	90.48
Biphenyl	20.83	18.48	16.56
Acenaphthylene	ND	ND	ND
Acenaphthene	2	2.06	2.6
Fluorene	11.78	10.26	13.39
C1-Fluorenes	23.81	18.26	24.5
C2-Fluorenes	35.4	26.99	30.84
C3-Fluorenes	34.06	26.32	27.46
Anthracene	4.72	3.71	2.06
Phenanthrene	81.65	69.17	61.26
C1-Phenanthrenes/Anthracenes	133.37	119.69	104.72
C2-Phenanthrenes/Anthracenes	131.05	124.51	101.09
C3-Phenanthrenes/Anthracenes	98.16	98.88	73.71
C4-Phenanthrenes/Anthracenes	103.06	113.11	83.2
Dibenzothiophene	7.21	6.82	6.73
C1-Dibenzothiophenes	21.03	22.56	20.9
C2-Dibenzothiophenes	23.28	24.39	25.25
C3-Dibenzothiophenes	16.38	17.56	18.21
Fluoranthene	22.35	18.84	15.85
Pyrene	27.94	26.6	23.47
C1-Fluoranthenes/Pyrenes	82.74	71.48	65.23
C2-Fluoranthenes/Pyrenes	66.89	57.8	53.19
C3-Fluoranthenes/Pyrenes	44.24	39.44	37.48
Benzo(a)anthracene	13.94	10.59	7.04
Chrysene	36.18	31.06	30.36
C1-Chrysenes	49.73	41.65	37.51
C2-Chrysenes	43.85	34.55	29.33
C3-Chrysenes	33.77	29.66	26.4
C4-Chrysenes	13.87	13.36	12.13
Benzo(b)fluoranthene	22.06	25.34	26.7
Benzo(k)fluoranthene	7.17	7.43	6.72
Benzo(e)pyrene	18.95	22.38	26.24
Benzo(a)pyrene	10.1	8.95	8.02
Perylene	173.33	171.41	225.64
Indeno(1,2,3-cd)pyrene	6.54	5.81	5.4
Dibenz(a,h)anthracene	2.59	2.38	2.51
Benzo(g,h,i)perylene	12.5	12.11	13.2
C23 diterpane (T4)	1.32	1.04	0.95
C29 Tricyclictriterpane (T9)	0.48	0.3	0.23 J
C29 Tricyclictriterpane (T10)	0.56	0.23	0.22 J
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.26	1.46	1.1
17a(H)-22,29,30-Trisnorhopane -TM (T12)	12.82	9.64	6.39
17a(H),21b(H)-30-norhopane (T15)	21.14	15.65	12.32

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-03-PHC-SC	06-7E-04-PHC-SC	06-7E-05-PHC-SC
Battelle ID	R2534-P	R2535-P	R2536-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/02/07	04/02/07	04/02/07
Analysis Date	04/25/07	04/25/07	04/25/07
Analytical Instrument	MS	MS	MS
% Moisture	33.06	29.14	31.41
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.53	21.63	21.10
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	22.38	19.31	15.52
22S-17a(H),21b(H)-30-homohopane (T21)	12.74	9.9	6.67
22R-17a(H),21b(H)-30-homohopane (T22)	30.2	22.23	16.12
13b,17a-20S-Diacholestane (S4)	1.68	1.38	1.32
13b,17a-20R-Diacholestane (S5)	1.17	1.15	0.99
5a,14a,17a,24-methylcholestane-20R (S24)	9.2	6.49	6.38
5a,14a,17a,24-ethylcholestane-20S (S25)	9.21	5.99	3.95
5a,14a,17a,24-ethylcholestane-20R (S28)	35.45	25.51	24.01
S28a	22.49	16.27	13.8
Surrogate Recoveries (%)			
Naphthalene-d8	40	86	89
Acenaphthene-d10	47	87	89
Phenanthrene-d10	72	99	102
Benzo(a)pyrene-d12	89	93	85
5b(H)-Cholane	97	115	108

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-07-PHC-SC	06-7E-09-PHC-SC	06-7E-15-PHC-SC
Battelle ID	R2538-P	R2540-P	R2546-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/02/07	04/09/07	04/09/07
Analysis Date	04/27/07	05/03/07	04/14/07
Analytical Instrument	MS	MS	MS
% Moisture	23.01	25	27.32
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.34	23.17	22.20
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	22.31	33.45	41.34
C1-Naphthalenes	59.82	91.43	111.71
C2-Naphthalenes	91.51	132.88	164.59
C3-Naphthalenes	88.01	127.55	163.78
C4-Naphthalenes	58.54	78.72	103.82
Biphenyl	9.3	13.01	14.99
Acenaphthylene	ND	ND	ND
Acenaphthene	1.23	1.85	2.27
Fluorene	7.09	9.82	11.29
C1-Fluorenes	13.68	20.72	23.68
C2-Fluorenes	18.73	31.96	37.68
C3-Fluorenes	17.54	27.26	33.25
Anthracene	1.51	1.98	2.69
Phenanthrene	38.57	54.36	65.8
C1-Phenanthrenes/Anthracenes	68.9	100.36	122.88
C2-Phenanthrenes/Anthracenes	70.5	97.64	120.37
C3-Phenanthrenes/Anthracenes	50.58	70.26	89.18
C4-Phenanthrenes/Anthracenes	57.23	68.91	95.04
Dibenzothiophene	4.44	7.98	9.41
C1-Dibenzothiophenes	13.45	22.83	27.72
C2-Dibenzothiophenes	16.44	28.22	33.64
C3-Dibenzothiophenes	12.02	21.57	25.19
Fluoranthene	10.93	18.75	24.03
Pyrene	15.58	24.72	32.36
C1-Fluoranthenes/Pyrenes	40.87	66.94	85.68
C2-Fluoranthenes/Pyrenes	33.34	60.59	69.59
C3-Fluoranthenes/Pyrenes	23.36	41	49.04
Benzo(a)anthracene	4.27	7.05	9.39
Chrysene	18.54	27.86	32.98
C1-Chrysenes	22.84	35.91	43.28
C2-Chrysenes	18.91	34.43	41.2
C3-Chrysenes	15.78	26.06	31.64
C4-Chrysenes	8.93	13.53	16.28
Benzo(b)fluoranthene	16.85	21.72	25.78
Benzo(k)fluoranthene	4.1	5.69	7.28
Benzo(e)pyrene	17.2	22.64	25.96
Benzo(a)pyrene	4.83	8.45	10.74
Perylene	104.58	139.96	179.8
Indeno(1,2,3-cd)pyrene	3.19	6.23	7.45
Dibenz(a,h)anthracene	1.6	3.03	3.58
Benzo(g,h,i)perylene	9.27	17.69	19.58
C23 diterpane (T4)	0.7	0.86	0.97
C29 Tricyclictriterpane (T9)	0.22	0.24	0.26
C29 Tricyclictriterpane (T10)	0.18 J	0.21 J	0.24
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.98	1.01	0.94
17a(H)-22,29,30-Trisnorhopane -TM (T12)	5.17	6.7	7.1
17a(H),21b(H)-30-norhopane (T15)	8.37	11.41	13.12

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-07-PHC-SC	06-7E-09-PHC-SC	06-7E-15-PHC-SC
Battelle ID	R2538-P	R2540-P	R2546-P
Sample Type	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06
Extraction Date	04/02/07	04/09/07	04/09/07
Analysis Date	04/27/07	05/03/07	04/14/07
Analytical Instrument	MS	MS	MS
% Moisture	23.01	25	27.32
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.34	23.17	22.20
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	11.83	15.28	17.6
22S-17a(H),21b(H)-30-homohopane (T21)	5.18	7.05	7.86
22R-17a(H),21b(H)-30-homohopane (T22)	10.96	16.81	20.07
13b,17a-20S-Diacholestane (S4)	1.2	1.28	1.43
13b,17a-20R-Diacholestane (S5)	0.87	0.83	0.93
5a,14a,17a,24-methylcholestane-20R (S24)	3.91	5.44	6.62
5a,14a,17a,24-ethylcholestane-20S (S25)	2.87	3.98	5.07
5a,14a,17a,24-ethylcholestane-20R (S28)	13.72	20.98	26.48
S28a	15.5	14.32	18.24
Surrogate Recoveries (%)			
Naphthalene-d8	89	76	69
Acenaphthene-d10	97	79	73
Phenanthrene-d10	116	93	86
Benzo(a)pyrene-d12	87	94	87
5b(H)-Cholane	114	112	109

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7G-01-PHC-S	06-BP01-01-PHC-S	06-COL-03-01-PHC-P
Battelle ID	R2505-P	R2186-P1	R2497-P1
Sample Type	SA	SA	SA
Collection Date	08/02/06	07/28/06	08/03/06
Extraction Date	09/20/06	04/10/07	04/10/07
Analysis Date	10/05/06	04/18/07	04/18/07
Analytical Instrument	MS	MS	MS
% Moisture	40.55	28.96	63.81
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	PEAT
Sample Size	17.97	21.61	10.82
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	22.18	5.33	18.16
C1-Naphthalenes	67.26	13.07	47.84
C2-Naphthalenes	114.5	19.62	67.49
C3-Naphthalenes	98.75	17.69	55.84
C4-Naphthalenes	57.03	10.2	31.6
Biphenyl	15.34	4.2	7.26
Acenaphthylene	ND	0.06 J	0.22 J
Acenaphthene	2	0.5	0.71
Fluorene	12.78	1.88	3.51
C1-Fluorenes	22.4	4.1	7.53
C2-Fluorenes	38.89	5.66	14.35
C3-Fluorenes	36.81	8.92	10.4
Anthracene	1.65	0.26	0.54
Phenanthrene	53.03	12.67	30.97
C1-Phenanthrenes/Anthracenes	100.96	27.69	63.17
C2-Phenanthrenes/Anthracenes	104.94	21.53	49.08
C3-Phenanthrenes/Anthracenes	55.69	11.46	30.47
C4-Phenanthrenes/Anthracenes	44.11	6.34	26.8
Dibenzothiophene	9.64	1.83	4.31
C1-Dibenzothiophenes	22.06	3.65	10.39
C2-Dibenzothiophenes	32.92	4.69	13.49
C3-Dibenzothiophenes	20.26	3.26	10.71
Fluoranthene	11.66	2.31	5.43
Pyrene	17.24	3.74	7
C1-Fluoranthenes/Pyrenes	50.4	9.49	24.88
C2-Fluoranthenes/Pyrenes	44.79	11.6	23.46
C3-Fluoranthenes/Pyrenes	30.81	8.68	16.83
Benzo(a)anthracene	4.27	0.87	2.5
Chrysene	25.89	6.1	13.59
C1-Chrysenes	32.01	7.14	16.6
C2-Chrysenes	26.95	6.46	18.65
C3-Chrysenes	20	3.99	11.42
C4-Chrysenes	9.99	2.59	5.95
Benzo(b)fluoranthene	18.08	2.93	11.14
Benzo(k)fluoranthene	3.49	0.45	2.36
Benzo(e)pyrene	24.43	4.35	11.53
Benzo(a)pyrene	5.31	0.76	3.05
Perylene	136.93	27.14	43.72
Indeno(1,2,3-cd)pyrene	4.96	0.72	2.92
Dibenz(a,h)anthracene	2.76	0.49	1.64
Benzo(g,h,i)perylene	18.78	3.15	9.08
C23 diterpane (T4)	1.72	0.36	0.59
C29 Tricyclictriterpane (T9)	0.55	ND	ND
C29 Tricyclictriterpane (T10)	0.58	ND	ND
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.86	0.36	1.1
17a(H)-22,29,30-Trisnorhopane -TM (T12)	7.81	1.17	6.22
17a(H),21b(H)-30-norhopane (T15)	13.77	2.06	9.26

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7G-01-PHC-S	06-BP01-01-PHC-S	06-COL-03-01-PHC-P
Battelle ID	R2505-P	R2186-P1	R2497-P1
Sample Type	SA	SA	SA
Collection Date	08/02/06	07/28/06	08/03/06
Extraction Date	09/20/06	04/10/07	04/10/07
Analysis Date	10/05/06	04/18/07	04/18/07
Analytical Instrument	MS	MS	MS
% Moisture	40.55	28.96	63.81
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	PEAT
Sample Size	17.97	21.61	10.82
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	19.42	3.25	16.54
22S-17a(H),21b(H)-30-homohopane (T21)	9.11	1.61	5.82
22R-17a(H),21b(H)-30-homohopane (T22)	14.91	2.21	12.55
13b,17a-20S-Diacholestane (S4)	2.68	0.59	0.87
13b,17a-20R-Diacholestane (S5)	1.84	0.4	0.44 J
5a,14a,17a,24-methylcholestane-20R (S24)	6.19	0.81	3.47
5a,14a,17a,24-ethylcholestane-20S (S25)	3.52	0.43	1.62
5a,14a,17a,24-ethylcholestane-20R (S28)	18.04	1.8	15.57
S28a	18.11	3.69	9.05
Surrogate Recoveries (%)			
Naphthalene-d8	59	65	67
Acenaphthene-d10	69	68	77
Phenanthrene-d10	90	80	87
Benzo(a)pyrene-d12	82	82	88
5b(H)-Cholane	81	84	79

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-E01-01-PHC-S		06-E02-01-PHC-S		06-EI01-01-PHC-P	
Battelle ID	R2180-P1		R2191-P1		R2507-P	
Sample Type	SA		SA		SA	
Collection Date	07/27/06		07/28/06		08/02/06	
Extraction Date	04/10/07		04/10/07		09/20/06	
Analysis Date	04/17/07		04/18/07		10/05/06	
Analytical Instrument	MS		MS		MS	
% Moisture	18.9		36.14		58.15	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		PEAT	
Sample Size	24.37		19.27		12.56	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	3.33		26.64		3.71	B
C1-Naphthalenes	8.6		63.02		6.09	
C2-Naphthalenes	13.12		90.1		8.66	
C3-Naphthalenes	12.25		84.9		6.41	
C4-Naphthalenes	6.85		52.85		3.61	
Biphenyl	2.69		12.8		1.95	
Acenaphthylene	0.06	J	ND		ND	
Acenaphthene	0.34		1.7		ND	
Fluorene	1.44		6.39		0.59	
C1-Fluorenes	2.77		12.56		1.18	
C2-Fluorenes	5.23		18.82		2.6	
C3-Fluorenes	5.3		16.78		ND	
Anthracene	0.14		1.08		0.07	J
Phenanthrene	8.62		52.87		8.74	
C1-Phenanthrenes/Anthracenes	20.02		91.89		11.98	
C2-Phenanthrenes/Anthracenes	15.79		85.62		10.35	
C3-Phenanthrenes/Anthracenes	8.12		55.57		5.55	
C4-Phenanthrenes/Anthracenes	4.98		52.57		3.84	
Dibenzothiophene	1.31		6.06		0.98	
C1-Dibenzothiophenes	3.52		17.68		2.45	
C2-Dibenzothiophenes	5.12		22.43		3.23	
C3-Dibenzothiophenes	3.48		16.07		2.92	
Fluoranthene	1.65		12.06		0.94	
Pyrene	2.46		16.13		1.17	
C1-Fluoranthenes/Pyrenes	6.65		44.27		3.2	
C2-Fluoranthenes/Pyrenes	6.39		35.31		2.9	
C3-Fluoranthenes/Pyrenes	5.35		26.08		2.22	
Benzo(a)anthracene	0.64		5.22		0.33	
Chrysene	3.88		21.78		3.55	
C1-Chrysenes	4.79		27.61		3.03	
C2-Chrysenes	6.7		27.41		4.34	
C3-Chrysenes	2.56		20.27		ND	
C4-Chrysenes	ND		9.28		ND	
Benzo(b)fluoranthene	1.98		13.37		3.16	
Benzo(k)fluoranthene	0.34		3.84		1.45	
Benzo(e)pyrene	2.48		15.45		3.26	
Benzo(a)pyrene	0.54		4.99		0.66	
Perylene	32.84		141.07		2.97	
Indeno(1,2,3-cd)pyrene	0.57		3.78		0.62	
Dibenz(a,h)anthracene	0.32		2.06		ND	
Benzo(g,h,i)perylene	1.81		11.55		1.99	
C23 diterpane (T4)	0.2	J	1.01		0.35	J
C29 Tricyclictriterpane (T9)	ND		0.46		ND	
C29 Tricyclictriterpane (T10)	ND		ND		0.58	
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	ND		1.22		1.95	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.79		6.13		17.63	
17a(H),21b(H)-30-norhopane (T15)	1.44		8.53		21.62	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-E01-01-PHC-S	06-E02-01-PHC-S	06-EI01-01-PHC-P
Battelle ID	R2180-P1	R2191-P1	R2507-P
Sample Type	SA	SA	SA
Collection Date	07/27/06	07/28/06	08/02/06
Extraction Date	04/10/07	04/10/07	09/20/06
Analysis Date	04/17/07	04/18/07	10/05/06
Analytical Instrument	MS	MS	MS
% Moisture	18.9	36.14	58.15
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	PEAT
Sample Size	24.37	19.27	12.56
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	18.4
17a(H),21b(H)-hopane (T19)	2.22	16.81	23.15
22S-17a(H),21b(H)-30-homohopane (T21)	0.95	6.09	ND
22R-17a(H),21b(H)-30-homohopane (T22)	2.76	40.77	ND
13b,17a-20S-Diacholestane (S4)	0.37	2.14	0.69
13b,17a-20R-Diacholestane (S5)	0.2 J	1.34	0.52
5a,14a,17a,24-methylcholestane-20R (S24)	0.52	4.76	1.13
5a,14a,17a,24-ethylcholestane-20S (S25)	0.4	2.64	1.29
5a,14a,17a,24-ethylcholestane-20R (S28)	1.28	13.4	ND
S28a	3	23.27	ND
Surrogate Recoveries (%)			
Naphthalene-d8	68	91	48
Acenaphthene-d10	71	102	58
Phenanthrene-d10	85	117	80
Benzo(a)pyrene-d12	91	118	57
5b(H)-Cholane	77	98	68

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-Kup-01-PHC-P		06-L03-01-PHC-S		06-L08-01-PHC-S	
Battelle ID	R2179-P1		R2187-P1		R2182-P1	
Sample Type	SA		SA		SA	
Collection Date	07/28/06		07/28/06		07/28/06	
Extraction Date	04/10/07		04/10/07		04/10/07	
Analysis Date	04/17/07		04/18/07		04/17/07	
Analytical Instrument	MS		MS		MS	
% Moisture	66.36		30.16		28.84	
% Lipid	NA		NA		NA	
Matrix	PEAT		SEDIMENT		SEDIMENT	
Sample Size	10.11		21.14		21.54	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	2.28		5.93		8.61	
C1-Naphthalenes	3.29		14.58		20.19	
C2-Naphthalenes	5.26		22.91		31.94	
C3-Naphthalenes	5.35		21.22		29.06	
C4-Naphthalenes	2.93		12.46		18.26	
Biphenyl	1.28		4.38		5.33	
Acenaphthylene	0.05	J	0.07	J	0.16	
Acenaphthene	0.13	J	0.57		0.72	
Fluorene	0.49		2.58		2.92	
C1-Fluorenes	1.32		4.84		5.28	
C2-Fluorenes	2.13		7.5		7.84	
C3-Fluorenes	ND		5.52		7.47	
Anthracene	0.08	J	0.27		0.4	
Phenanthrene	3.5		14.39		14.7	
C1-Phenanthrenes/Anthracenes	22.85		31.36		30.03	
C2-Phenanthrenes/Anthracenes	10.19		26.17		25.54	
C3-Phenanthrenes/Anthracenes	3.86		14.23		14.04	
C4-Phenanthrenes/Anthracenes	2.47		8.14		9.7	
Dibenzothiophene	0.52		1.89		2.25	
C1-Dibenzothiophenes	1.55		3.9		4.67	
C2-Dibenzothiophenes	2.74		5.51		6.57	
C3-Dibenzothiophenes	2.89		4.03		4.71	
Fluoranthene	0.52		2.38		2.84	
Pyrene	0.89		4.09		4.67	
C1-Fluoranthenes/Pyrenes	2.7		11.07		10.82	
C2-Fluoranthenes/Pyrenes	2.76		10.08		9.61	
C3-Fluoranthenes/Pyrenes	2.41		7.86		7.96	
Benzo(a)anthracene	0.24	J	0.94		1.1	
Chrysene	1.86		7.17		6.88	
C1-Chrysenes	2.85		8.71		8.29	
C2-Chrysenes	ND		7.96		7.64	
C3-Chrysenes	ND		5.11		4.78	
C4-Chrysenes	ND		3.03		ND	
Benzo(b)fluoranthene	1.29		3.3		3.43	
Benzo(k)fluoranthene	0.24	J	0.55		0.76	
Benzo(e)pyrene	1.4		4.92		5.02	
Benzo(a)pyrene	0.43		0.82		0.93	
Perylene	11.78		31.32		29.35	
Indeno(1,2,3-cd)pyrene	0.42		0.72		0.88	
Dibenz(a,h)anthracene	0.23	J	0.49		0.59	
Benzo(g,h,i)perylene	0.94		3.21		3.45	
C23 diterpane (T4)	ND		0.44		0.98	
C29 Tricyclictriterpane (T9)	ND		0.24		0.52	
C29 Tricyclictriterpane (T10)	ND		0.2	J	0.41	
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	ND		0.42		0.88	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.3		1.25		1.76	
17a(H),21b(H)-30-norhopane (T15)	3.95		2.27		4.8	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-Kup-01-PHC-P	06-L03-01-PHC-S	06-L08-01-PHC-S
Battelle ID	R2179-P1	R2187-P1	R2182-P1
Sample Type	SA	SA	SA
Collection Date	07/28/06	07/28/06	07/28/06
Extraction Date	04/10/07	04/10/07	04/10/07
Analysis Date	04/17/07	04/18/07	04/17/07
Analytical Instrument	MS	MS	MS
% Moisture	66.36	30.16	28.84
% Lipid	NA	NA	NA
Matrix	PEAT	SEDIMENT	SEDIMENT
Sample Size	10.11	21.14	21.54
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	6.83	4.09	6.65
22S-17a(H),21b(H)-30-homohopane (T21)	3.24	1.59	2.85
22R-17a(H),21b(H)-30-homohopane (T22)	9.93	2.4	4.21
13b,17a-20S-Diacholestane (S4)	0.54	0.72	1.43
13b,17a-20R-Diacholestane (S5)	ND	0.44	0.9
5a,14a,17a,24-methylcholestane-20R (S24)	ND	0.99	2.15
5a,14a,17a,24-ethylcholestane-20S (S25)	ND	0.81	1.39
5a,14a,17a,24-ethylcholestane-20R (S28)	1.43	2.18	3.39
S28a	6.1	5.92	6.16
Surrogate Recoveries (%)			
Naphthalene-d8	47	64	67
Acenaphthene-d10	53	71	72
Phenanthrene-d10	62	86	86
Benzo(a)pyrene-d12	66	84	81
5b(H)-Cholane	56	85	86

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L19-01-PHC-S		06-L20-01-PHC-S		06-L21-01-PHC-S	
Battelle ID	R2181-P1		R2189-P1		R2185-P1	
Sample Type	SA		SA		SA	
Collection Date	07/27/06		07/27/06		07/27/06	
Extraction Date	04/10/07		04/10/07		04/10/07	
Analysis Date	04/17/07		04/18/07		04/18/07	
Analytical Instrument	MS		MS		MS	
% Moisture	19.18		20.24		18.74	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	24.33		24.10		24.52	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	2.63		3.68		0.83	B
C1-Naphthalenes	6.43		9.14		0.8	
C2-Naphthalenes	9.97		13.07		1.1	
C3-Naphthalenes	9.46		11.95		1.26	
C4-Naphthalenes	5.28		6.77		0.57	
Biphenyl	2.22		2.33		0.32	
Acenaphthylene	0.03	J	0.07	J		ND
Acenaphthene	0.25		0.32			ND
Fluorene	1.14		1.23		0.13	
C1-Fluorenes	1.98		2.37		0.29	
C2-Fluorenes	2.81		3.35		0.61	
C3-Fluorenes	5.05			ND		ND
Anthracene	0.11		0.18			ND
Phenanthrene	6.89		8.64		0.83	
C1-Phenanthrenes/Anthracenes	17.06		19.54		6.3	
C2-Phenanthrenes/Anthracenes	13.26		14.97		2.98	
C3-Phenanthrenes/Anthracenes	6.79		7.91		0.9	
C4-Phenanthrenes/Anthracenes	4.18		5.92		0.68	
Dibenzothiophene	1.07		1.03		0.1	
C1-Dibenzothiophenes	3.02		2.47		0.22	
C2-Dibenzothiophenes	4.58		3.63		0.37	
C3-Dibenzothiophenes	3.03		2.35			ND
Fluoranthene	1.26		1.67		0.19	
Pyrene	1.86		2.34		0.28	
C1-Fluoranthenes/Pyrenes	4.92		6.45		0.69	
C2-Fluoranthenes/Pyrenes	5.11		5.25		1.07	
C3-Fluoranthenes/Pyrenes	4.42		3.96		0.62	
Benzo(a)anthracene	0.43		0.61		0.07	J
Chrysene	3.11		3.88		0.49	
C1-Chrysenes	3.83		4.44		0.52	
C2-Chrysenes	3.47		3.93		0.51	
C3-Chrysenes	2.2		2.73			ND
C4-Chrysenes		ND	1.49			ND
Benzo(b)fluoranthene	1.95		1.82		0.23	
Benzo(k)fluoranthene	0.45		0.37		0.04	J
Benzo(e)pyrene	2.42		2.61		0.31	
Benzo(a)pyrene	0.43		0.47		0.04	J
Perylene	19.13		17.76		1.45	
Indeno(1,2,3-cd)pyrene	0.52		0.45		0.05	J
Dibenz(a,h)anthracene	0.32		0.27		0.03	J
Benzo(g,h,i)perylene	1.62		1.81		0.19	
C23 diterpane (T4)	0.15	J	0.12	J		ND
C29 Tricyclictriterpane (T9)		ND		ND		ND
C29 Tricyclictriterpane (T10)		ND		ND		ND
18a(H)-22,29,30-Trisnorneohopane -TS (T11)		ND	0.26		0.15	J
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.55		0.72		0.22	
17a(H),21b(H)-30-norhopane (T15)	0.84		1.1		0.63	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L19-01-PHC-S	06-L20-01-PHC-S	06-L21-01-PHC-S
Battelle ID	R2181-P1	R2189-P1	R2185-P1
Sample Type	SA	SA	SA
Collection Date	07/27/06	07/27/06	07/27/06
Extraction Date	04/10/07	04/10/07	04/10/07
Analysis Date	04/17/07	04/18/07	04/18/07
Analytical Instrument	MS	MS	MS
% Moisture	19.18	20.24	18.74
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.33	24.10	24.52
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	1.71	2.06	1.1
22S-17a(H),21b(H)-30-homohopane (T21)	0.85	0.87	0.48
22R-17a(H),21b(H)-30-homohopane (T22)	2.28	1.84	0.4
13b,17a-20S-Diacholestane (S4)	0.33	0.34	0.21
13b,17a-20R-Diacholestane (S5)	0.14 J	0.2 J	0.1 J
5a,14a,17a,24-methylcholestane-20R (S24)	0.38	0.45	ND
5a,14a,17a,24-ethylcholestane-20S (S25)	0.23	0.31	ND
5a,14a,17a,24-ethylcholestane-20R (S28)	0.83	1.07	ND
S28a	1.73	3.49	ND
Surrogate Recoveries (%)			
Naphthalene-d8	72	83	70
Acenaphthene-d10	75	85	71
Phenanthrene-d10	89	99	88
Benzo(a)pyrene-d12	77	102	95
5b(H)-Cholane	84	99	90

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-01-PHC-S	06-L22-01-PHC-SC	06-L22-02-PHC-SC
Battelle ID	R2184-P1	R2518-P	R2519-P
Sample Type	SA	SA	SA
Collection Date	07/30/06	07/30/06	07/30/06
Extraction Date	04/10/07	04/02/07	04/02/07
Analysis Date	04/18/07	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	33.17	32.13	29.14
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.00	20.31	22.01
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	8.97	6.93	9.29
C1-Naphthalenes	27.02	21.82	30.22
C2-Naphthalenes	40.17	33.81	48.29
C3-Naphthalenes	35.65	29.39	42.59
C4-Naphthalenes	22.11	19.26	28.11
Biphenyl	7.75	6.04	8.64
Acenaphthylene	0.1 J	ND	ND
Acenaphthene	1.07	0.87	1.28
Fluorene	4.61	4.07	5.73
C1-Fluorenes	8.41	8.33	13.78
C2-Fluorenes	13.6	9.56	14.6
C3-Fluorenes	20.03	8.81	13.45
Anthracene	0.74	0.57	0.87
Phenanthrene	25.14	19.64	28.06
C1-Phenanthrenes/Anthracenes	50.26	32.6	46.79
C2-Phenanthrenes/Anthracenes	44.79	32.8	47.73
C3-Phenanthrenes/Anthracenes	28.81	20.49	29.21
C4-Phenanthrenes/Anthracenes	16.19	11.97	17.08
Dibenzothiophene	4.37	2.76	3.72
C1-Dibenzothiophenes	9.15	5.86	7.83
C2-Dibenzothiophenes	13.6	7.82	10.5
C3-Dibenzothiophenes	13.07	5.84	8.06
Fluoranthene	5.45	4.38	6.32
Pyrene	9.97	7.98	11.27
C1-Fluoranthenes/Pyrenes	23.51	17.68	26.22
C2-Fluoranthenes/Pyrenes	26.76	15.48	24.53
C3-Fluoranthenes/Pyrenes	25.32	12.37	18.3
Benzo(a)anthracene	2.29	1.81	2.7
Chrysene	14.76	11.4	17.05
C1-Chrysenes	17.89	12.99	19.46
C2-Chrysenes	17.99	11.31	16.97
C3-Chrysenes	12.21	8.83	13.38
C4-Chrysenes	8.09	3.57	6.12
Benzo(b)fluoranthene	8.5	6.22	10
Benzo(k)fluoranthene	1.98	1.21	2.28
Benzo(e)pyrene	12.52	8.84	13.43
Benzo(a)pyrene	2.38	1.85	2.55
Perylene	52.15	41.44	62.19
Indeno(1,2,3-cd)pyrene	2.46	1.83	2.83
Dibenz(a,h)anthracene	1.45	1.01	1.46
Benzo(g,h,i)perylene	10.41	7.46	11.18
C23 diterpane (T4)	1.58	1.01	1.45
C29 Tricyclictriterpane (T9)	0.65	0.36	0.4
C29 Tricyclictriterpane (T10)	0.61	0.29	0.36
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.49	0.93	1.22
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.53	2.2	3.21
17a(H),21b(H)-30-norhopane (T15)	7.71	4.29	6.87

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-01-PHC-S	06-L22-01-PHC-SC	06-L22-02-PHC-SC
Battelle ID	R2184-P1	R2518-P	R2519-P
Sample Type	SA	SA	SA
Collection Date	07/30/06	07/30/06	07/30/06
Extraction Date	04/10/07	04/02/07	04/02/07
Analysis Date	04/18/07	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	33.17	32.13	29.14
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.00	20.31	22.01
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	12.16	6.72	11.17
22S-17a(H),21b(H)-30-homohopane (T21)	5.47	3.22	4.71
22R-17a(H),21b(H)-30-homohopane (T22)	6.7	3.8	5.74
13b,17a-20S-Diacholestane (S4)	2.03	1.42	1.92
13b,17a-20R-Diacholestane (S5)	1.14	0.89	1.32
5a,14a,17a,24-methylcholestane-20R (S24)	3.28	2.53	3.59
5a,14a,17a,24-ethylcholestane-20S (S25)	1.82	0.96	1.69
5a,14a,17a,24-ethylcholestane-20R (S28)	6.01	4.35	6.82
S28a	5.43	2.55	3.49
Surrogate Recoveries (%)			
Naphthalene-d8	65	76	65
Acenaphthene-d10	67	73	63
Phenanthrene-d10	80	86	75
Benzo(a)pyrene-d12	86	97	83
5b(H)-Cholane	76	101	91

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-03-PHC-SC	06-L22-04-PHC-SC	06-L22-05-PHC-SC
Battelle ID	R2520-P	R2521-P	R2522-P
Sample Type	SA	SA	SA
Collection Date	07/30/06	07/30/06	07/30/06
Extraction Date	04/02/07	04/02/07	04/02/07
Analysis Date	04/24/07	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	28.42	27.93	26.5
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.92	21.83	22.08
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	9.18	8.71	9.18
C1-Naphthalenes	30.02	29.34	30.14
C2-Naphthalenes	46.27	45.63	47.85
C3-Naphthalenes	40.35	38.74	41.73
C4-Naphthalenes	26.41	25.4	27.54
Biphenyl	8.29	8.21	8.71
Acenaphthylene	ND	ND	ND
Acenaphthene	1.21	1.19	1.3
Fluorene	5.5	5.25	7.1
C1-Fluorenes	10.97	10.08	11.19
C2-Fluorenes	13.7	12.38	14.48
C3-Fluorenes	12.83	11.66	13.16
Anthracene	0.89	0.81	0.96
Phenanthrene	27.54	26.75	28.39
C1-Phenanthrenes/Anthracenes	46.26	44.31	47.31
C2-Phenanthrenes/Anthracenes	47.67	44.37	47.49
C3-Phenanthrenes/Anthracenes	31.98	28.28	29.6
C4-Phenanthrenes/Anthracenes	19.25	16.38	17.62
Dibenzothiophene	4.36	3.34	3.48
C1-Dibenzothiophenes	10.04	7.54	7.57
C2-Dibenzothiophenes	12.81	9.06	9.45
C3-Dibenzothiophenes	10.69	7.03	7.07
Fluoranthene	6.26	5.88	6.34
Pyrene	11.67	10.7	11.24
C1-Fluoranthenes/Pyrenes	27.03	24.27	25.97
C2-Fluoranthenes/Pyrenes	25.06	22.95	24.25
C3-Fluoranthenes/Pyrenes	19.19	18.21	18.99
Benzo(a)anthracene	2.73	2.66	2.74
Chrysene	16.57	16.13	17.24
C1-Chrysenes	19.56	18.91	20.64
C2-Chrysenes	17.22	17.23	17.55
C3-Chrysenes	13.17	12.73	13.82
C4-Chrysenes	5.67	5.96	6.85
Benzo(b)fluoranthene	10.25	10.01	10.36
Benzo(k)fluoranthene	2.34	2.21	2.49
Benzo(e)pyrene	13.92	13.4	14.3
Benzo(a)pyrene	2.87	2.79	2.88
Perylene	65.37	63.75	66.32
Indeno(1,2,3-cd)pyrene	3.2	3.04	3.11
Dibenz(a,h)anthracene	1.66	1.57	1.67
Benzo(g,h,i)perylene	11.85	11.26	11.65
C23 diterpane (T4)	1.43	1.43	1.44
C29 Tricyclictriterpane (T9)	0.44	0.42	0.43
C29 Tricyclictriterpane (T10)	0.45	0.4	0.33
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.16	1.26	1.08
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.3	3.25	3.38
17a(H),21b(H)-30-norhopane (T15)	7.02	6.69	6.83

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-03-PHC-SC	06-L22-04-PHC-SC	06-L22-05-PHC-SC
Battelle ID	R2520-P	R2521-P	R2522-P
Sample Type	SA	SA	SA
Collection Date	07/30/06	07/30/06	07/30/06
Extraction Date	04/02/07	04/02/07	04/02/07
Analysis Date	04/24/07	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	28.42	27.93	26.5
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.92	21.83	22.08
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	10.84	11.18	10.62
22S-17a(H),21b(H)-30-homohopane (T21)	4.84	4.79	4.8
22R-17a(H),21b(H)-30-homohopane (T22)	6.26	5.94	6
13b,17a-20S-Diacholestane (S4)	2.12	2.08	2.12
13b,17a-20R-Diacholestane (S5)	1.29	1.28	1.21
5a,14a,17a,24-methylcholestane-20R (S24)	3.63	3.6	3.47
5a,14a,17a,24-ethylcholestane-20S (S25)	1.53	1.53	1.55
5a,14a,17a,24-ethylcholestane-20R (S28)	6.63	6.56	6.49
S28a	4.31	4.13	4.56
Surrogate Recoveries (%)			
Naphthalene-d8	82	73	72
Acenaphthene-d10	80	69	71
Phenanthrene-d10	92	77	83
Benzo(a)pyrene-d12	99	84	90
5b(H)-Cholane	100	82	95

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-14-PHC-SC		06-M01-01-PHC-S		06-N03-01-PHC-S	
Battelle ID	R2531-P		R2511-P		R2549-P	
Sample Type	SA		SA		SA	
Collection Date	07/30/06		07/31/06		08/05/06	
Extraction Date	04/02/07		09/20/06		09/20/06	
Analysis Date	04/25/07		10/05/06		10/05/06	
Analytical Instrument	MS		MS		MS	
% Moisture	19.06		21.2		42.62	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	25.86		24.05		17.32	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	9.37		2.03	B	16.11	
C1-Naphthalenes	31.02		3.9		48.19	
C2-Naphthalenes	48.95		6.13		81.22	
C3-Naphthalenes	41.82		5.26		66.61	
C4-Naphthalenes	27.49		3.41		42.23	
Biphenyl	9		1.17		14.15	
Acenaphthylene		ND		ND		ND
Acenaphthene	1.31		0.2		1.69	
Fluorene	5.53		0.81		9.78	
C1-Fluorenes	11.5		1.27		16.09	
C2-Fluorenes	14.7		2.24		23.67	
C3-Fluorenes	13.6		2.84		22.34	
Anthracene	0.91		0.12		1.17	
Phenanthrene	29.29		3.62		44.37	
C1-Phenanthrenes/Anthracenes	48.71		6.08		79.13	
C2-Phenanthrenes/Anthracenes	48.15		6.4		71.41	
C3-Phenanthrenes/Anthracenes	30.38		3.77		37.9	
C4-Phenanthrenes/Anthracenes	18.43		2.37		27.25	
Dibenzothiophene	4.62		0.6		7.19	
C1-Dibenzothiophenes	9.88		1.22		14.51	
C2-Dibenzothiophenes	13.19		1.83		19.8	
C3-Dibenzothiophenes	10.24		1.4		13.26	
Fluoranthene	6.46		0.73		7.6	
Pyrene	11.69		1.31		12.52	
C1-Fluoranthenes/Pyrenes	26.49		2.97		34.21	
C2-Fluoranthenes/Pyrenes	24.82		2.85		30.02	
C3-Fluoranthenes/Pyrenes	19.46		2.25		23.24	
Benzo(a)anthracene	2.86		0.31		2.93	
Chrysene	17.63		1.96		21.72	
C1-Chrysenes	20.64		2.16		24.12	
C2-Chrysenes	17.95		4.39		20.5	
C3-Chrysenes	15.02			ND	14.38	
C4-Chrysenes	6.22			ND	6.08	
Benzo(b)fluoranthene	10.83		0.94		14.01	
Benzo(k)fluoranthene	2.27		0.23		2.01	
Benzo(e)pyrene	14.81		1.63		20.8	
Benzo(a)pyrene	2.89		0.35		3.77	
Perylene	67.66		11.82		159.24	
Indeno(1,2,3-cd)pyrene	3.21		0.41		3.42	
Dibenz(a,h)anthracene	1.75		0.22		2.25	
Benzo(g,h,i)perylene	12.3		1.24		14.08	
C23 diterpane (T4)	1.44		0.15	J	1.47	
C29 Tricyclictriterpane (T9)	0.47			ND	0.51	
C29 Tricyclictriterpane (T10)	0.38			ND	0.55	
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.35		0.22		1.36	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.41		0.51		5.7	
17a(H),21b(H)-30-norhopane (T15)	7.38		0.89		10.85	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-14-PHC-SC	06-M01-01-PHC-S	06-N03-01-PHC-S
Battelle ID	R2531-P	R2511-P	R2549-P
Sample Type	SA	SA	SA
Collection Date	07/30/06	07/31/06	08/05/06
Extraction Date	04/02/07	09/20/06	09/20/06
Analysis Date	04/25/07	10/05/06	10/05/06
Analytical Instrument	MS	MS	MS
% Moisture	19.06	21.2	42.62
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	25.86	24.05	17.32
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	12.19	1.39	15.51
22S-17a(H),21b(H)-30-homohopane (T21)	5.02	0.68	6.74
22R-17a(H),21b(H)-30-homohopane (T22)	6.29	0.89	10.75
13b,17a-20S-Diacholestane (S4)	2.08	0.27	2.69
13b,17a-20R-Diacholestane (S5)	1.29	0.16 J	1.7
5a,14a,17a,24-methylcholestane-20R (S24)	3.57	0.39	5.16
5a,14a,17a,24-ethylcholestane-20S (S25)	1.73	0.21	3.18
5a,14a,17a,24-ethylcholestane-20R (S28)	6.98	0.82	11.74
S28a	5.18	1.43	12.53
Surrogate Recoveries (%)			
Naphthalene-d8	67	40	64
Acenaphthene-d10	64	43	72
Phenanthrene-d10	77	59	87
Benzo(a)pyrene-d12	84	54	71
5b(H)-Cholane	91	59	77

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N03-02-PHC-S	06-N06-01-PHC-S	06-N11-01-PHC-S
Battelle ID	R2550-P	R2554-P	R2548-P
Sample Type	SA	SA	SA
Collection Date	08/05/06	08/05/06	08/05/06
Extraction Date	09/20/06	09/20/06	09/20/06
Analysis Date	10/05/06	10/05/06	10/05/06
Analytical Instrument	MS	MS	MS
% Moisture	41.31	39.97	28.78
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.81	18.05	21.71
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	15.13	13.02	7.42
C1-Naphthalenes	42.87	35.35	21.15
C2-Naphthalenes	75.63	61.93	36.1
C3-Naphthalenes	64.73	55.14	31.24
C4-Naphthalenes	38.04	37.85	20.52
Biphenyl	12.13	9.86	6.21
Acenaphthylene	ND	ND	ND
Acenaphthene	1.73	1.29	0.87
Fluorene	9.25	8.06	4.78
C1-Fluorenes	16.32	14.77	8.24
C2-Fluorenes	25.76	23.11	12.05
C3-Fluorenes	25.82	21.5	13.6
Anthracene	1.1	0.81	0.47
Phenanthrene	39.44	32.68	19.9
C1-Phenanthrenes/Anthracenes	73.23	61.01	37.12
C2-Phenanthrenes/Anthracenes	72.72	57.76	37.25
C3-Phenanthrenes/Anthracenes	38.41	29.48	20.34
C4-Phenanthrenes/Anthracenes	25.88	21.78	14.61
Dibenzothiophene	6.34	5.1	2.93
C1-Dibenzothiophenes	13.53	11.76	6.2
C2-Dibenzothiophenes	19.52	16.15	9.56
C3-Dibenzothiophenes	12.51	10.17	6.72
Fluoranthene	7.76	5.79	3.41
Pyrene	12.5	9.52	5.9
C1-Fluoranthenes/Pyrenes	32.72	25.78	16.91
C2-Fluoranthenes/Pyrenes	28.34	21.99	15.09
C3-Fluoranthenes/Pyrenes	19.93	15.69	11.04
Benzo(a)anthracene	2.69	2.15	1.3
Chrysene	17.83	14.09	10.02
C1-Chrysenes	20.66	15.89	11.39
C2-Chrysenes	18.79	14.39	10.6
C3-Chrysenes	12.57	9.2	6.44
C4-Chrysenes	6.66	4.22	3.14
Benzo(b)fluoranthene	13.7	10.33	6.38
Benzo(k)fluoranthene	2.31	2.05	1.06
Benzo(e)pyrene	18.66	14.22	9.01
Benzo(a)pyrene	3.48	2.71	1.55
Perylene	142.18	103.27	68.03
Indeno(1,2,3-cd)pyrene	3.23	2.57	1.36
Dibenz(a,h)anthracene	2.12	1.61	1.02
Benzo(g,h,i)perylene	13.13	10.14	5.91
C23 diterpane (T4)	1.27	1.02	0.6
C29 Tricyclictriterpane (T9)	0.36	0.29	0.21 J
C29 Tricyclictriterpane (T10)	0.29	0.31	0.19 J
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	1.22	1	0.6
17a(H)-22,29,30-Trisnorhopane -TM (T12)	5.06	4.05	2.25
17a(H),21b(H)-30-norhopane (T15)	10.37	8.17	4.52

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N03-02-PHC-S	06-N06-01-PHC-S	06-N11-01-PHC-S
Battelle ID	R2550-P	R2554-P	R2548-P
Sample Type	SA	SA	SA
Collection Date	08/05/06	08/05/06	08/05/06
Extraction Date	09/20/06	09/20/06	09/20/06
Analysis Date	10/05/06	10/05/06	10/05/06
Analytical Instrument	MS	MS	MS
% Moisture	41.31	39.97	28.78
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	17.81	18.05	21.71
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	13.88	11.43	6.59
22S-17a(H),21b(H)-30-homohopane (T21)	6.06	4.77	2.85
22R-17a(H),21b(H)-30-homohopane (T22)	9.88	8.18	4.85
13b,17a-20S-Diacholestane (S4)	2.38	1.87	1.33
13b,17a-20R-Diacholestane (S5)	1.38	1.19	0.79
5a,14a,17a,24-methylcholestane-20R (S24)	3.68	3.34	2.13
5a,14a,17a,24-ethylcholestane-20S (S25)	2.47	1.97	1.29
5a,14a,17a,24-ethylcholestane-20R (S28)	10.27	8.22	4.83
S28a	12.48	12.32	15.62
Surrogate Recoveries (%)			
Naphthalene-d8	60	49	60
Acenaphthene-d10	69	58	65
Phenanthrene-d10	93	82	85
Benzo(a)pyrene-d12	73	62	69
5b(H)-Cholane	77	66	76

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N14-01-PHC-S		06-N17-01-PHC-SC		06-N17-02-PHC-SC	
Battelle ID	R2552-P		R2473-P		R2474-P	
Sample Type	SA		SA		SA	
Collection Date	08/05/06		07/31/06		07/31/06	
Extraction Date	09/20/06		04/02/07		04/02/07	
Analysis Date	10/05/06		04/24/07		04/24/07	
Analytical Instrument	MS		MS		MS	
% Moisture	18.52		37.73		37.78	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size	24.67		18.82		18.90	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	3.15	B	15.16		15.78	
C1-Naphthalenes	7.1		47.18		45.63	
C2-Naphthalenes	11.75		72.33		72.12	
C3-Naphthalenes	10.25		59.92		62.45	
C4-Naphthalenes	6.52		36.47		37.75	
Biphenyl	1.97		12.09		13.57	
Acenaphthylene	ND		ND		ND	
Acenaphthene	0.31		1.71		1.93	
Fluorene	1.49		8.55		9.04	
C1-Fluorenes	2.55		16.52		17.53	
C2-Fluorenes	3.89		19.42		19.69	
C3-Fluorenes	5.11		16.98		17.41	
Anthracene	0.15		0.97		1.01	
Phenanthrene	6.67		38.52		42.6	
C1-Phenanthrenes/Anthracenes	12.02		63.86		69.39	
C2-Phenanthrenes/Anthracenes	12.55		60.82		66.62	
C3-Phenanthrenes/Anthracenes	6.32		37.77		39.53	
C4-Phenanthrenes/Anthracenes	4.53		28.72		28.69	
Dibenzothiophene	0.98		5.37		5.45	
C1-Dibenzothiophenes	2.39		12.19		13.03	
C2-Dibenzothiophenes	3.91		15.38		15.55	
C3-Dibenzothiophenes	2.84		11.07		11.31	
Fluoranthene	1.21		7.74		8.17	
Pyrene	1.85		12.15		13.14	
C1-Fluoranthenes/Pyrenes	5.39		33.01		33.64	
C2-Fluoranthenes/Pyrenes	4.94		29.04		28.79	
C3-Fluoranthenes/Pyrenes	3.54		21.98		21.81	
Benzo(a)anthracene	0.53		3.25		3.31	
Chrysene	3.25		19.68		23.64	
C1-Chrysenes	3.84		22.62		25.29	
C2-Chrysenes	3.77		18.48		19.87	
C3-Chrysenes	2.38		14.72		14.84	
C4-Chrysenes	ND		7.29		8.92	
Benzo(b)fluoranthene	2.08		12.05		17.35	
Benzo(k)fluoranthene	0.42		2.55		2.99	
Benzo(e)pyrene	2.64		15.02		20.78	
Benzo(a)pyrene	0.58		3.1		3.41	
Perylene	21.28		103.3		133.31	
Indeno(1,2,3-cd)pyrene	0.41		2.85		2.92	
Dibenz(a,h)anthracene	0.27		1.61		1.51	
Benzo(g,h,i)perylene	1.77		10.31		9	
C23 diterpane (T4)	0.15	J	ND		0.97	
C29 Tricyclictriterpane (T9)	ND		0.38		0.29	
C29 Tricyclictriterpane (T10)	ND		0.26	J	0.27	
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.26		0.9		0.98	
17a(H)-22,29,30-Trisnorhopane -TM (T12)	0.73		3.21		3.5	
17a(H),21b(H)-30-norhopane (T15)	1.2		6.57		7.38	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N14-01-PHC-S	06-N17-01-PHC-SC	06-N17-02-PHC-SC
Battelle ID	R2552-P	R2473-P	R2474-P
Sample Type	SA	SA	SA
Collection Date	08/05/06	07/31/06	07/31/06
Extraction Date	09/20/06	04/02/07	04/02/07
Analysis Date	10/05/06	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	18.52	37.73	37.78
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.67	18.82	18.90
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	2.11	9.45	11.11
22S-17a(H),21b(H)-30-homohopane (T21)	0.76	4.07	4.75
22R-17a(H),21b(H)-30-homohopane (T22)	2.08	7.7	8.18
13b,17a-20S-Diacholestane (S4)	0.34	1.32	1.58
13b,17a-20R-Diacholestane (S5)	0.1 J	1.04	1.12
5a,14a,17a,24-methylcholestane-20R (S24)	0.47	2.99	3.36
5a,14a,17a,24-ethylcholestane-20S (S25)	0.32	2.02	2.08
5a,14a,17a,24-ethylcholestane-20R (S28)	1.37	8.31	8.06
S28a	3.05	5.95	7.13
Surrogate Recoveries (%)			
Naphthalene-d8	42	89	89
Acenaphthene-d10	47	88	92
Phenanthrene-d10	62	102	106
Benzo(a)pyrene-d12	58	101	84
5b(H)-Cholane	57	116	117

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N17-03-PHC-SC	06-N17-04-PHC-SC	06-N17-05-PHC-SC
Battelle ID	R2475-P	R2476-P	R2477-P
Sample Type	SA	SA	SA
Collection Date	07/31/06	07/31/06	07/31/06
Extraction Date	04/02/07	04/02/07	04/02/07
Analysis Date	04/24/07	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	30.36	30.05	26.38
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.09	21.57	22.45
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	8.29	8.64	9.72
C1-Naphthalenes	23.83	25.5	29.25
C2-Naphthalenes	36.77	39.45	45.08
C3-Naphthalenes	32.12	34.74	38.91
C4-Naphthalenes	19.99	21.42	23.64
Biphenyl	7.01	7.27	8.71
Acenaphthylene	ND	ND	ND
Acenaphthene	0.99	0.96	1.19
Fluorene	4.2	4.39	5.65
C1-Fluorenes	7.94	8.37	10.81
C2-Fluorenes	9.03	10.67	12.43
C3-Fluorenes	8.65	9.3	10.7
Anthracene	0.55	0.6	0.65
Phenanthrene	22.06	23.05	26.64
C1-Phenanthrenes/Anthracenes	36.55	38.51	44.34
C2-Phenanthrenes/Anthracenes	35.76	38.55	42.76
C3-Phenanthrenes/Anthracenes	21.22	23.05	24.73
C4-Phenanthrenes/Anthracenes	15.64	17.71	17.64
Dibenzothiophene	2.48	2.68	3.82
C1-Dibenzothiophenes	6.16	6.31	8.14
C2-Dibenzothiophenes	7.87	8.61	10.6
C3-Dibenzothiophenes	5.86	6.65	7.72
Fluoranthene	4.42	4.7	5.16
Pyrene	6.92	7.45	8.25
C1-Fluoranthenes/Pyrenes	16.92	18.92	21.8
C2-Fluoranthenes/Pyrenes	14.37	16.24	19.21
C3-Fluoranthenes/Pyrenes	10.85	11.98	14.06
Benzo(a)anthracene	1.89	1.96	2.18
Chrysene	13.07	13.48	14.7
C1-Chrysenes	13.96	14.46	16.39
C2-Chrysenes	10.54	11.06	12.62
C3-Chrysenes	8.55	9.48	9.62
C4-Chrysenes	4.58	3.07	4.76
Benzo(b)fluoranthene	8.85	9.64	8.93
Benzo(k)fluoranthene	1.47	2.04	1.72
Benzo(e)pyrene	9.99	11.13	11.11
Benzo(a)pyrene	1.57	1.89	1.92
Perylene	66	72.67	71.44
Indeno(1,2,3-cd)pyrene	1.31	1.43	1.68
Dibenz(a,h)anthracene	0.69	0.77	0.88
Benzo(g,h,i)perylene	3.08	3.44	5.07
C23 diterpane (T4)	0.46	0.47	0.54
C29 Tricyclictriterpane (T9)	0.12 J	0.12 J	0.19 J
C29 Tricyclictriterpane (T10)	0.14 J	0.14 J	0.14 J
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.58	0.54	0.66
17a(H)-22,29,30-Trisnorhopane -TM (T12)	1.92	2.1	2.01
17a(H),21b(H)-30-norhopane (T15)	3.93	3.86	4.1

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N17-03-PHC-SC	06-N17-04-PHC-SC	06-N17-05-PHC-SC
Battelle ID	R2475-P	R2476-P	R2477-P
Sample Type	SA	SA	SA
Collection Date	07/31/06	07/31/06	07/31/06
Extraction Date	04/02/07	04/02/07	04/02/07
Analysis Date	04/24/07	04/24/07	04/24/07
Analytical Instrument	MS	MS	MS
% Moisture	30.36	30.05	26.38
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.09	21.57	22.45
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	5.53	6.25	6.67
22S-17a(H),21b(H)-30-homohopane (T21)	2.21	2.46	2.63
22R-17a(H),21b(H)-30-homohopane (T22)	5.28	6.03	4.74
13b,17a-20S-Diacholestane (S4)	0.89	0.98	0.97
13b,17a-20R-Diacholestane (S5)	0.53	0.6	0.6
5a,14a,17a,24-methylcholestane-20R (S24)	1.53	1.55	1.65
5a,14a,17a,24-ethylcholestane-20S (S25)	0.98	1.12	1.05
5a,14a,17a,24-ethylcholestane-20R (S28)	4.27	4.26	4.89
S28a	7.59	6.12	4.88
Surrogate Recoveries (%)			
Naphthalene-d8	100	101	90
Acenaphthene-d10	99	100	88
Phenanthrene-d10	109	114	102
Benzo(a)pyrene-d12	87	88	96
5b(H)-Cholane	120	109	107

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N17-15-PHC-SC		06-N28-01-PHC-S		06-PI01-01-PHC-P	
Battelle ID	R2487-P		R2551-P		R2496-P1	
Sample Type	SA		SA		SA	
Collection Date	07/31/06		08/05/06		08/04/06	
Extraction Date	04/02/07		09/20/06		04/10/07	
Analysis Date	04/24/07		10/05/06		04/18/07	
Analytical Instrument	MS		MS		MS	
% Moisture	47.94		29.93		28.09	
% Lipid	NA		NA		NA	
Matrix	SEDIMENT		SEDIMENT		PEAT	
Sample Size	15.62		21.34		21.88	
Size Unit-Basis	G_DRY		G_DRY		G_DRY	
Units	UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
Naphthalene	9.66		6.92		0.82	B
C1-Naphthalenes	25.36		19.24		0.48	B
C2-Naphthalenes	40.11		31.9		0.67	
C3-Naphthalenes	40.83		27.63		0.72	
C4-Naphthalenes	29.17		18.06			ND
Biphenyl	5.91		5.27		0.2	
Acenaphthylene		ND		ND		ND
Acenaphthene	0.99		0.68			ND
Fluorene	3.48		3.64		0.06	J
C1-Fluorenes	7.53		6.57		0.13	
C2-Fluorenes	10.04		10.72			ND
C3-Fluorenes	9.59		10.31			ND
Anthracene	0.77		0.52			ND
Phenanthrene	24.54		17.99		0.4	
C1-Phenanthrenes/Anthracenes	39.46		32.57		4.65	
C2-Phenanthrenes/Anthracenes	41.48		31.97		1.87	
C3-Phenanthrenes/Anthracenes	26.4		16.56		0.31	
C4-Phenanthrenes/Anthracenes	23.7		12.17			ND
Dibenzothiophene	1.56		2.58		0.08	J
C1-Dibenzothiophenes	5.13		5.43		0.18	
C2-Dibenzothiophenes	8.8		7.9		0.29	
C3-Dibenzothiophenes	7.12		5.49		0.52	
Fluoranthene	5.4		3.29		0.06	J
Pyrene	8.32		5.33		0.1	J
C1-Fluoranthenes/Pyrenes	19.5		14.47		0.23	
C2-Fluoranthenes/Pyrenes	20.88		12.97			ND
C3-Fluoranthenes/Pyrenes	19		9.95			ND
Benzo(a)anthracene	2.57		1.28		0.02	J
Chrysene	12.52		8.5		0.19	
C1-Chrysenes	14.12		9.69		0.21	
C2-Chrysenes	11.58		8.83		0.14	
C3-Chrysenes	11.38		5.88			ND
C4-Chrysenes		ND	2.73			ND
Benzo(b)fluoranthene	8.8		5.57		0.1	J
Benzo(k)fluoranthene	1.8		1			ND
Benzo(e)pyrene	10.09		7.92		0.12	
Benzo(a)pyrene	2.05		1.46			ND
Perylene	97.3		57.23		0.19	
Indeno(1,2,3-cd)pyrene	1.39		1.46		0.02	J
Dibenz(a,h)anthracene	0.61		0.98			ND
Benzo(g,h,i)perylene	2.17		5.58		0.07	J
C23 diterpane (T4)	0.56		0.61			ND
C29 Tricyclictriterpane (T9)	0.19	J	0.22	J		ND
C29 Tricyclictriterpane (T10)		ND	0.14	J		ND
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.74		0.69			ND
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.27		2.26		0.69	
17a(H),21b(H)-30-norhopane (T15)	5.62		4.43		0.94	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N17-15-PHC-SC	06-N28-01-PHC-S	06-PI01-01-PHC-P
Battelle ID	R2487-P	R2551-P	R2496-P1
Sample Type	SA	SA	SA
Collection Date	07/31/06	08/05/06	08/04/06
Extraction Date	04/02/07	09/20/06	04/10/07
Analysis Date	04/24/07	10/05/06	04/18/07
Analytical Instrument	MS	MS	MS
% Moisture	47.94	29.93	28.09
% Lipid	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	PEAT
Sample Size	15.62	21.34	21.88
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	6.95	6.26	1.11
22S-17a(H),21b(H)-30-homohopane (T21)	2.66	2.77	ND
22R-17a(H),21b(H)-30-homohopane (T22)	13.22	4.82	ND
13b,17a-20S-Diacholestane (S4)	0.89	1.13	ND
13b,17a-20R-Diacholestane (S5)	0.59	0.72	ND
5a,14a,17a,24-methylcholestane-20R (S24)	1.83	1.66	ND
5a,14a,17a,24-ethylcholestane-20S (S25)	1.17	1.08	0.13 J
5a,14a,17a,24-ethylcholestane-20R (S28)	7.95	4.08	0.18 J
S28a	39.14	7.87	ND
Surrogate Recoveries (%)			
Naphthalene-d8	66	58	83
Acenaphthene-d10	68	64	90
Phenanthrene-d10	76	86	105
Benzo(a)pyrene-d12	50	73	110
5b(H)-Cholane	86	77	99

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-Sag-01-PHC-P	06-SDI-1-01-PHC-S	06-WD01-01-PHC-S
Battelle ID	R2178-P1	R2183-P1	R2555-P
Sample Type	SA	SA	SA
Collection Date	07/28/06	07/27/06	08/06/06
Extraction Date	04/10/07	04/10/07	09/20/06
Analysis Date	04/17/07	04/18/07	10/06/06
Analytical Instrument	MS	MS	MS
% Moisture	52.01	32.26	51.86
% Lipid	NA	NA	NA
Matrix	PEAT	SEDIMENT	SEDIMENT
Sample Size	14.44	20.38	14.82
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
Naphthalene	3.47	8.89	17.69
C1-Naphthalenes	7.98	20.76	47.54
C2-Naphthalenes	14.26	29.84	85.36
C3-Naphthalenes	14.04	27.22	72.82
C4-Naphthalenes	7.87	15.91	49.03
Biphenyl	3.16	6.11	13.75
Acenaphthylene	0.08 J	0.11 J	ND
Acenaphthene	0.21	0.75	1.67
Fluorene	1.22	3.4	9.64
C1-Fluorenes	3.22	6.41	16.42
C2-Fluorenes	4.78	10.04	25.19
C3-Fluorenes	11.32	14.95	26.82
Anthracene	0.13 J	0.31	1.15
Phenanthrene	10.33	17.69	44.89
C1-Phenanthrenes/Anthracenes	27.9	35.55	78.58
C2-Phenanthrenes/Anthracenes	24.19	29.16	78.11
C3-Phenanthrenes/Anthracenes	13.24	16.13	40.09
C4-Phenanthrenes/Anthracenes	7.68	10.42	32.46
Dibenzothiophene	1.7	2.89	6.68
C1-Dibenzothiophenes	5.74	7.01	17.47
C2-Dibenzothiophenes	10.47	9.87	28.31
C3-Dibenzothiophenes	7.78	6.53	18.6
Fluoranthene	1.66	3.2	9.29
Pyrene	2.55	4.6	12.69
C1-Fluoranthenes/Pyrenes	7.31	13.26	34.65
C2-Fluoranthenes/Pyrenes	9.22	14.76	29.25
C3-Fluoranthenes/Pyrenes	9.52	12.04	21.63
Benzo(a)anthracene	0.63	1.34	3.67
Chrysene	5.74	7.28	20.18
C1-Chrysenes	8.16	9.27	24.76
C2-Chrysenes	8.98	8.01	21.46
C3-Chrysenes	8.71	5.28	15.25
C4-Chrysenes	4.84	3.39	7.05
Benzo(b)fluoranthene	3.68	3.9	12.12
Benzo(k)fluoranthene	0.7	0.93	2.9
Benzo(e)pyrene	4.32	4.86	16.28
Benzo(a)pyrene	0.83	1.21	4.21
Perylene	28.83	45.91	170.6
Indeno(1,2,3-cd)pyrene	1.07	1.03	3.36
Dibenz(a,h)anthracene	0.58	0.67	1.86
Benzo(g,h,i)perylene	2.77	3.62	10.52
C23 diterpane (T4)	0.37	0.47	1.5
C29 Tricyclictriterpane (T9)	0.29 J	ND	0.47
C29 Tricyclictriterpane (T10)	ND	ND	0.44
18a(H)-22,29,30-Trisnorneohopane -TS (T11)	0.72	0.57	1.74
17a(H)-22,29,30-Trisnorhopane -TM (T12)	3.07	1.63	6.27
17a(H),21b(H)-30-norhopane (T15)	4.07	2.41	11.18

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-Sag-01-PHC-P	06-SDI-1-01-PHC-S	06-WD01-01-PHC-S
Battelle ID	R2178-P1	R2183-P1	R2555-P
Sample Type	SA	SA	SA
Collection Date	07/28/06	07/27/06	08/06/06
Extraction Date	04/10/07	04/10/07	09/20/06
Analysis Date	04/17/07	04/18/07	10/06/06
Analytical Instrument	MS	MS	MS
% Moisture	52.01	32.26	51.86
% Lipid	NA	NA	NA
Matrix	PEAT	SEDIMENT	SEDIMENT
Sample Size	14.44	20.38	14.82
Size Unit-Basis	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
18a(H) Oleanane (T18)	ND	ND	ND
17a(H),21b(H)-hopane (T19)	5.91	4.42	16.21
22S-17a(H),21b(H)-30-homohopane (T21)	2.34	1.67	6.45
22R-17a(H),21b(H)-30-homohopane (T22)	16.73	5.25	29.18
13b,17a-20S-Diacholestane (S4)	0.49	0.83	3.02
13b,17a-20R-Diacholestane (S5)	0.36	0.45	1.83
5a,14a,17a,24-methylcholestane-20R (S24)	0.78	0.96	4.06
5a,14a,17a,24-ethylcholestane-20S (S25)	0.58	0.69	3.25
5a,14a,17a,24-ethylcholestane-20R (S28)	2.86	2.6	11.13
S28a	2.37	7.12	24.77
Surrogate Recoveries (%)			
Naphthalene-d8	62	63	49
Acenaphthene-d10	73	67	55
Phenanthrene-d10	91	87	70
Benzo(a)pyrene-d12	92	93	63
5b(H)-Cholane	81	82	64

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	04-L08-01-PHC-S	04-N14-01-PHC-S	04-N16-01-PHC-S	05-L08-01-PHC-S
Battelle ID	S3904-P2	S4391-P1	S4090-P1	S8897-P2
Sample Type	SA	SA	SA	SA
Collection Date	08/02/04	08/09/04	08/07/04	07/30/05
Extraction Date	04/10/07	09/20/06	04/02/07	04/10/07
Analysis Date	04/26/07	10/05/06	04/12/07	04/26/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	32.56	35.61	47.83	19.41
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.29	19.81	15.91	24.28
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	15.35 JT	5.72 JT	11.96 JT	5.11
n-Decane	31.91 T	19.04 JT	22.85 JT	14.89
n-Undecane	49.93 T	36.09 T	37.04 T	30.28
n-Dodecane	59.42 T	45.48 T	31.82 T	43.96
n-Tridecane	77.7 T	56.59 T	38.5 T	60.24
Isoprenoid RRT 1380	28.19 T	16.99 JT	10.41 JT	24.41
n-Tetradecane	92.57 T	60.03 T	41.61 T	75.16
Isoprenoid RRT 1470	58.13 T	39.52 T	55.46 T	42.33
n-Pentadecane	107.4 T	81.74 T	52.26 T	79.65
n-Hexadecane	99.91 T	97.04 T	49.18 T	67.97
Norpristane (1650)	43.36 T	24.89 JT	15.65 JT	27.42
n-Heptadecane	122.21 T	146.33 T	75.17 T	60.18
Pristane	114.02 T	74.9 T	54.46 T	58.34
n-Octadecane	88.96 T	100.08 T	61.98 T	41.83
Phytane	62.71 T	35.28 T	24.5 JT	33.41
n-Nonadecane	116.82 T	192.03 T	85.06 T	40.3
n-Eicosane	109.62 T	170.67 T	87.99 T	34.94
n-Heneicosane	214.25 T	454.34 T	154.38 T	58.5
n-Docosane	160.26 T	342.97 T	142.08 T	42.44
n-Tricosane	353.89 T	964.61 T	275.14 T	87.31
n-Tetracosane	155.02 T	330.78 T	135.93 T	41.02
n-Pentacosane	439.48 T	1108.78 T	309.91 T	116.51
n-Hexacosane	129.02 T	282.54 T	116.49 T	38.91
n-Heptacosane	673.96 T	1589.16 T	428.51 T	189
n-Octacosane	120.76 T	203.34 T	112.79 T	37.26
n-Nonacosane	564.69 T	1135.83 T	333.75 T	142.64
n-Triacontane	72.93 T	168.37 T	67.47 T	23.27
n-Hentriacontane	435.43 T	938.11 T	258.55 T	113.99
n-Dotriacontane	49.14 T	60.96 T	47.41 T	18.27
n-Tritriacontane	161.88 T	322.5 T	93.18 T	41.37
n-Tetratriacontane	19.78 JT	19.22 JT	18.7 JT	7.82
n-Pentatriacontane	28.06 T	45.26 T	14.61 JT	9.9
n-Hexatriacontane	14.9 JT	6.57 JT	11.12 JT	5.75
n-Heptatriacontane	6.95 JT	6.29 JT	4.43 JT	3.41
n-Octatriacontane	11.37 JT	4.17 JT	5.49 JT	4.13
n-Nonatriacontane	6.13 JT	2.91 JT	2.29 JT	1.76
n-Tetracontane	6.51 JT	2.17 JT	2.68 JT	2.17
Total SHC	26021.84 T	16292.2 T	4734.54 T	9343.81
Surrogate Recoveries (%)				
5a-androstane	64	69	67	66
n-Tetracosane-d50	71	77	78	75

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		05-N14-01-PHC-S		06-4A-01-PHC-S		06-5(1)-01-PHC-S	
Battelle ID		S8901-P1		R2188-P1		R2190-P1	
Sample Type		SA		SA		SA	
Collection Date		08/04/05		07/28/06		07/27/06	
Extraction Date		09/20/06		04/10/07		04/10/07	
Analysis Date		10/05/06		04/21/07		04/21/07	
Analytical Instrument		FID		FID		FID	
% Moisture		53.85		20.55		19.75	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		13.85		24.11		24.41	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	JT	6.99	JT	14.17	J	5.72	J
n-Decane	JT	11.45	JT	24.68		10.04	J
n-Undecane	T	25.45	JT	34.45		15.18	J
n-Dodecane	T	36.99	T	36.81		15.09	J
n-Tridecane	T	48.91	T	43.95		19.61	J
Isoprenoid RRT 1380	T	22.11	JT	11.32	J	5.14	J
n-Tetradecane	T	53.07	T	47.54		20.98	
Isoprenoid RRT 1470	T	57.3	T	7.87	J	3.33	J
n-Pentadecane	T	92.83	T	61.46		26.05	
n-Hexadecane	T	114.68	T	52.75		23.86	
Norpristane (1650)	T	29.89	JT	15.93	J	7.53	J
n-Heptadecane	T	177.61	T	71.25		38.66	
Pristane	T	91.83	T	47.18		26.46	
n-Octadecane	T	119.12	T	55.14		27.42	
Phytane	T	45.61	T	20.98		11.47	J
n-Nonadecane	T	285.34	T	66.33		35.98	
n-Eicosane	T	232.08	T	64.98		34.48	
n-Heneicosane	T	705.54	T	97.51		58.34	
n-Docosane	T	480.71	T	87.85		49.95	
n-Tricosane	T	1646.94	T	150.88		99.31	
n-Tetracosane	T	579.32	T	82.69		48.96	
n-Pentacosane	T	2945.73	T	174.39		117.24	
n-Hexacosane	T	428.89	T	72		43.63	
n-Heptacosane	T	4098.42	T	257.56		180.52	
n-Octacosane	T	289.35	T	62.63		37.06	
n-Nonacosane	T	2075.97	T	277.27		176.25	
n-Triacontane	T	235.84	T	40.06		23.29	
n-Hentriacontane	T	1314.89	T	230.2		140.01	
n-Dotriacontane	JT	80.68	T	25.38		15.37	J
n-Tritriacontane	T	427.91	T	80.24		49.06	
n-Tetratriacontane	JT	23.96	JT	10.31	J	5.45	J
n-Pentatriacontane	JT	87.3	T	12.03	J	7.16	J
n-Hexatriacontane	JT	11.78	JT	5.18	J	3.01	J
n-Heptatriacontane	JT	9.46	JT	3.86	J	2.23	J
n-Octatriacontane	JT		NDT	3.15	J	1.62	J
n-Nonatriacontane	JT		NDT	2.26	J	1.14	J
n-Tetracontane	JT		NDT	1.67	J	0.86	J
Total SHC	T	38017.01	T	5130.53		3139.21	

Surrogate Recoveries (%)

5a-androstane	66	70	76
n-Tetracosane-d50	75	75	79

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-5(5)-01-PHC-S	06-5A-01-PHC-S	06-6A-01-PHC-S	06-6B-01-PHC-S
Battelle ID	R2498-P1	R2556-P	R2508-P	R2500-P1
Sample Type	SA	SA	SA	SA
Collection Date	07/31/06	08/06/06	08/03/06	08/01/06
Extraction Date	04/10/07	09/20/06	09/20/06	04/10/07
Analysis Date	04/26/07	10/05/06	10/04/06	04/26/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	20.77	27.06	40.03	35.03
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	23.82	22.55	18.18	19.53
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	ND	ND	5.6 J	42.11
n-Decane	ND	6.32 J	24.43 J	82.83
n-Undecane	ND	14.09 J	50.95	107.92
n-Dodecane	13.85 J	18.3 J	67.86	108.99
n-Tridecane	16.53 J	26.78	86.77	115.77
Isoprenoid RRT 1380	4.24 J	8.28 J	23.47 J	31.09
n-Tetradecane	19.5 J	31.8	93.66	120.99
Isoprenoid RRT 1470	3.31 J	15.64 J	50.14	69.51
n-Pentadecane	23.5	42.33	119.15	134.75
n-Hexadecane	21.58	58.35	133	129.53
Norpristane (1650)	6.26 J	14.02 J	36.77	37.77
n-Heptadecane	30.26	63.66	182.21	158.43
Pristane	20.12 J	49.51	115.12	115.8
n-Octadecane	24.52	50.48	133.14	137.91
Phytane	8.98 J	20.96 J	52.89	51.31
n-Nonadecane	32.58	77.28	214.42	193.79
n-Eicosane	37.09	68.98	190.47	169.8
n-Heneicosane	56.16	144.17	449.99	343.72
n-Docosane	49.31	112.77	348.38	274.76
n-Tricosane	107.31	259.25	951.75	812.18
n-Tetracosane	51.44	107.14	324.62	256.25
n-Pentacosane	139.36	297.41	1012.46	690.01
n-Hexacosane	44.07	91.98	282.57	196.85
n-Heptacosane	192.09	422.97	1484.2	854.46
n-Octacosane	37.76	70.25	213.79	149.45
n-Nonacosane	161.73	375.57	1196.67	609.06
n-Triacontane	24.62	57.68	175.7	80.71
n-Hentriacontane	124.56	316.74	1040.83	84.45
n-Dotriacontane	29.42	23.21	67.99	120.81
n-Tritriacontane	64.03	103.93	510.24	197.87
n-Tetratriacontane	7.58 J	8.02 J	23.39 J	18.76
n-Pentatriacontane	14.28 J	14.23 J	48.74	30.71
n-Hexatriacontane	4.77 J	2.5 J	11.07 J	11.72
n-Heptatriacontane	2.97 J	2.34 J	11.85 J	9.18
n-Octatriacontane	2.53 J	1.33 J	9.29 J	7.64
n-Nonatriacontane	1.49 J	0.9 J	7.84 J	7.25
n-Tetracontane	1.44 J	0.61 J	6.55 J	6.07
Total SHC	3651.46	5652.24	21727.65	17408.05
Surrogate Recoveries (%)				
5a-androstane	66	78	79	70
n-Tetracosane-d50	77	88	86	78

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-6D-01-PHC-S	06-6F-01-PHC-S	06-6G-01-PHC-S
Battelle ID		R2510-P	R2501-P	R2509-P
Sample Type		SA	SA	SA
Collection Date		08/03/06	08/02/06	08/03/06
Extraction Date		09/20/06	09/20/06	09/20/06
Analysis Date		10/04/06	10/04/06	10/04/06
Analytical Instrument		FID	FID	FID
% Moisture		32.46	23.29	33.11
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		20.59	23.22	20.14
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane		6.31 J	4.9 J	4.6 J
n-Decane		20.68 J	4.52 J	15.68 J
n-Undecane		36.66	7.63 J	32.32
n-Dodecane		45.42	8.14 J	42.08
n-Tridecane		57.03	10.62 J	55.62
Isoprenoid RRT 1380		16.38 J	3.58 J	18.56 J
n-Tetradecane		66.1	12.41 J	61
Isoprenoid RRT 1470		38.13	19.56 J	45.1
n-Pentadecane		81.12	15.76 J	91.36
n-Hexadecane		103.43	30.22	102.32
Norpristane (1650)		27.54	5.1 J	28.52
n-Heptadecane		102.94	20.24 J	134.57
Pristane		85.94	17.9 J	86.46
n-Octadecane		92.26	17.51 J	105.42
Phytane		39.5	7.87 J	39.29
n-Nonadecane		122.03	24.79	187.27
n-Eicosane		115.42	23.19	159.55
n-Heneicosane		205.93	42.98	412.61
n-Docosane		178.12	34.94	313.1
n-Tricosane		425.54	75.96	959.83
n-Tetracosane		172.52	33.56	315.27
n-Pentacosane		471.32	88.41	1049.52
n-Hexacosane		139.35	30.43	267.52
n-Heptacosane		623.02	117.28	1332.98
n-Octacosane		112.68	25.5	186.37
n-Nonacosane		556.71	111.11	930.65
n-Triacontane		88.78	23.16	198.29
n-Hentriacontane		459.56	95.54	815.94
n-Dotriacontane		36.83	10.63 J	80.45
n-Tritriacontane		163.72	34.42	307.17
n-Tetratriacontane	J	14.62 J	4.72 J	20.59 J
n-Pentatriacontane		27.38	6.68 J	69.39
n-Hexatriacontane	J	6.35 J	2.13 J	7.2 J
n-Heptatriacontane	J	5.79 J	1.76 J	7.66 J
n-Octatriacontane	J	4.6 J	1.74 J	4.39 J
n-Nonatriacontane	J	3.09 J	0.86 J	3.22 J
n-Tetracontane	J	2.44 J	1.18 J	2.31 J
Total SHC		11216.07	1985.06	19270
Surrogate Recoveries (%)				
5a-androstane		61	78	74
n-Tetracosane-d50		69	91	81

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-6H-01-PHC-S	06-7A-01-PHC-S	06-7A-01-PHC-SC	06-7A-02-PHC-SC
Battelle ID	R2503-P	R2504-P	R2597-P	R2598-P
Sample Type	SA	SA	SA	SA
Collection Date	08/01/06	08/02/06	08/02/06	08/02/06
Extraction Date	09/20/06	09/20/06	04/09/07	04/09/07
Analysis Date	10/04/06	10/04/06	04/14/07	04/15/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	19.64	26.85	26.39	25
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.41	22.60	22.22	22.92
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	3.83 J	2.01 J	11.4 J	13.55
n-Decane	3.22 J	10.17 J	22.32 J	27.1
n-Undecane	6.02 J	24.5	35.16	45.52
n-Dodecane	6.42 J	35.04	37.24	47.35
n-Tridecane	7.84 J	47	43.27	54.19
Isoprenoid RRT 1380	3.18 J	14.99 J	13.82 J	16.93
n-Tetradecane	9.16 J	54.31	47.49	60.34
Isoprenoid RRT 1470	18.14 J	37.11	52.05	61.74
n-Pentadecane	10.7 J	70.91	53.52	68.3
n-Hexadecane	25.28	82.46	51.3	64.71
Norpristane (1650)	4.02 J	25.74	19.61 J	24.26
n-Heptadecane	12.98 J	89.67	63.62	84.58
Pristane	11.55 J	78.13	56.55	71.64
n-Octadecane	11.76 J	77.84	60.27	74.5
Phytane	5.48 J	36.3	24.5	31.5
n-Nonadecane	16.4 J	119.55	75.28	108.67
n-Eicosane	14.75 J	105.53	82.59	101.1
n-Heneicosane	30.78	247.54	147.84	217.95
n-Docosane	23.28	192.56	136.98	178.16
n-Tricosane	66.35	616.08	370.6	543.69
n-Tetracosane	23.13	191.01	150.33	176.48
n-Pentacosane	66.75	639.57	394.21	536.56
n-Hexacosane	20.35 J	160.84	142.73	139.84
n-Heptacosane	79.46	894.9	583.96	736.66
n-Octacosane	17.01 J	119.57	118.95	113.83
n-Nonacosane	58.8	578.62	387.21	508.76
n-Triacontane	16.29 J	104.6	68.48	70.34
n-Hentriacontane	49.2	478.03	285.86	416.67
n-Dotriacontane	5.34 J	53.37	78.79	99.82
n-Tritriacontane	17.3 J	172.08	132.3	179.93
n-Tetratriacontane	3.05 J	15.03 J	16.87 J	18.21
n-Pentatriacontane	3.76 J	30.47	23.36	30.3
n-Hexatriacontane	1.22 J	7.22 J	9.25 J	9.88
n-Heptatriacontane	0.96 J	6.35 J	6.62 J	7.99
n-Octatriacontane	0.72 J	5.63 J	7.03 J	7.63
n-Nonatriacontane	ND	4.38 J	4.93 J	6.01
n-Tetracontane	ND	3.4 J	4.57 J	6.06
Total SHC	1106.02	10232.03	7319.45	9745.03
Surrogate Recoveries (%)				
5a-androstane	74	80	77	72
n-Tetracosane-d50	89	88	87	81

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-7A-03-PHC-SC		06-7A-04-PHC-SC		06-7A-05-PHC-SC	
Battelle ID		R2599-P		R2600-P		R2601-P	
Sample Type		SA		SA		SA	
Collection Date		08/02/06		08/02/06		08/02/06	
Extraction Date		04/09/07		04/09/07		04/09/07	
Analysis Date		04/15/07		04/15/07		04/15/07	
Analytical Instrument		FID		FID		FID	
% Moisture		26.91		26.34		26.19	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		22.20		22.76		22.98	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	21.07	J	23.6		29.78	
n-Decane		40.37		47.82		59.44	
n-Undecane		62.16		71.54		86.02	
n-Dodecane		63.23		75.84		93.79	
n-Tridecane		71.31		87.2		106.11	
Isoprenoid RRT 1380	J	22.23	J	25.27		32.55	
n-Tetradecane		78.48		94.9		113.86	
Isoprenoid RRT 1470		76.46		87.5		100.64	
n-Pentadecane		87.84		104.84		124.63	
n-Hexadecane		84.29		99.3		118.36	
Norpristane (1650)		29.02		33.31		41.44	
n-Heptadecane		108.76		131.57		158.39	
Pristane		94.04		107		143.13	
n-Octadecane		102.47		118.35		144.5	
Phytane		41.29		47.67		64.52	
n-Nonadecane		144.45		188.61		241.73	
n-Eicosane		147.56		169.47		217.7	
n-Heneicosane		314.35		426.19		568.04	
n-Docosane		267.2		331.84		443.62	
n-Tricosane		791.46		1037.54		1446.02	
n-Tetracosane		266.03		319.65		446.6	
n-Pentacosane		796.52		1027.4		1485.82	
n-Hexacosane		218.15		252.19		358.37	
n-Heptacosane		1141.36		1456.28		2172.99	
n-Octacosane		166.62		198.71		285.18	
n-Nonacosane		756.29		1001.23		1452.47	
n-Triacontane		105.85		113.9		171.06	
n-Hentriacontane		616.89		828.18		1204.16	
n-Dotriacontane		147.68		157.27		255.72	
n-Tritriacontane		264.2		347.49		509.45	
n-Tetratriacontane	J	30.9		24.09		37.26	
n-Pentatriacontane		40.99		48.68		67.11	
n-Hexatriacontane	J	18.03	J	12.8	J	16.71	J
n-Heptatriacontane	J	10.11	J	12.16	J	16.13	J
n-Octatriacontane	J	13.17	J	11.29	J	14.49	J
n-Nonatriacontane	J	8.27	J	8.84	J	10.52	J
n-Tetracontane	J	8.17	J	8.38	J	12.56	J
Total SHC		13525.38		16264.13		23728.86	
Surrogate Recoveries (%)							
5a-androstane		70		64		67	
n-Tetracosane-d50		79		71		74	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7A-07-PHC-SC	06-7A-09-PHC-SC	06-7C-01-PHC-SC	06-7C-02-PHC-SC
Battelle ID	R2603-P	R2605-P	R2332-P	R2333-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	04/09/07	04/09/07
Analysis Date	04/15/07	04/15/07	04/14/07	04/14/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	29.36	27.93	33.76	33.79
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.29	21.77	19.93	19.85
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	28.37	28.58	33.59	38.39
n-Decane	56.34	57.52	61.77	70.69
n-Undecane	86.54	88.94	91.95	105.71
n-Dodecane	87.93	94.72	97.85	113.95
n-Tridecane	108.66	108.69	113.26	128.64
Isoprenoid RRT 1380	33.64	35.42	29.1	32.66
n-Tetradecane	113.81	119.91	122.76	146.22
Isoprenoid RRT 1470	112.92	109.19	96.51	115.91
n-Pentadecane	127.16	135.14	141.97	166.1
n-Hexadecane	125.02	125.78	130.08	188.16
Norpristane (1650)	44.15	46.89	42.04	50.2
n-Heptadecane	148.23	160.78	174.57	210.42
Pristane	153.14	161.22	124.91	149.59
n-Octadecane	150.27	149.64	153.06	284.84
Phytane	68.95	70.99	59.11	74.35
n-Nonadecane	218.53	239.49	218.75	259.88
n-Eicosane	216.35	215.89	209.13	425.59
n-Heneicosane	476.14	529.19	412.87	491.26
n-Docosane	401.12	414.36	342.53	642.18
n-Tricosane	1244.29	1334.61	781.14	935.89
n-Tetracosane	404.23	412.55	321.81	631.18
n-Pentacosane	1220.51	1345.17	832.32	999.06
n-Hexacosane	314.72	317.55	260.31	562.96
n-Heptacosane	1711.19	1902.89	1221	1453.8
n-Octacosane	255.59	251.77	200.1	469.61
n-Nonacosane	1128.74	1245.02	1030.65	1249.1
n-Triacontane	143.86	130.66	117	328.42
n-Hentriacontane	911.41	1011.83	859.2	1064.53
n-Dotriacontane	256.63	254.58	95.49	249.07
n-Tritriacontane	410.23	452.9	343.8	436.05
n-Tetratriacontane	35.85	29.42	27.8	117.71
n-Pentatriacontane	59.07	61.57	50.04	61.88
n-Hexatriacontane	20.11 J	13.82 J	13.99 J	70.11
n-Heptatriacontane	14.23 J	13.72 J	13.36 J	19.28
n-Octatriacontane	15.42 J	11.48 J	13.33 J	40.43
n-Nonatriacontane	9.6 J	9.03 J	10.26 J	14.28
n-Tetracontane	10.66 J	8.83 J	10.48 J	23.93
Total SHC	21165.18	22754.49	16271.03	25616.64
Surrogate Recoveries (%)				
5a-androstane	68	66	56	52
n-Tetracosane-d50	78	74	62	57

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-7C-03-PHC-SC	06-7C-04-PHC-SC	06-7C-05-PHC-SC
Battelle ID		R2334-P	R2335-P	R2336-P
Sample Type		SA	SA	SA
Collection Date		08/02/06	08/02/06	08/02/06
Extraction Date		04/09/07	04/09/07	04/09/07
Analysis Date		04/14/07	04/14/07	04/14/07
Analytical Instrument		FID	FID	FID
% Moisture		32.8	35.36	33.72
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		20.98	19.81	20.06
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane		20.76 J	31.27	25.35
n-Decane		53.59	61.35	45.96
n-Undecane		87.71	91.26	70.42
n-Dodecane		106.22	96.51	72.43
n-Tridecane		125.02	112.64	85.95
Isoprenoid RRT 1380		33.52	28.7	24.08 J
n-Tetradecane		141.98	122.41	94.01
Isoprenoid RRT 1470		135.14	99.52	84.87
n-Pentadecane		165.28	144.19	105.4
n-Hexadecane		173.18	132.96	110.86
Norpristane (1650)		46.45	42.49	32.09
n-Heptadecane		200.64	191.9	131.68
Pristane		147.81	134.43	100.95
n-Octadecane		235.54	160.78	160.46
Phytane		69.1	62.95	47.98
n-Nonadecane		251.15	243.12	163.96
n-Eicosane		354.56	234.04	253.44
n-Heneicosane		483.93	498.96	309.48
n-Docosane		550.01	401.73	370.15
n-Tricosane		942.53	944.29	598.44
n-Tetracosane		538.49	380.75	363.51
n-Pentacosane		1011.47	1074.53	664.39
n-Hexacosane		468.16	307.44	316.1
n-Heptacosane		1536.64	1603.77	985.46
n-Octacosane		386.13	256.15	266.75
n-Nonacosane		1355.47	1307.2	847.83
n-Triacontane		266.48	132.78	191.06
n-Hentriacontane		1151.72	1074.6	695.85
n-Dotriacontane		194.19	112.74	148.62
n-Tritriacontane		459.82	410.7	274.28
n-Tetratriacontane		81.57	33.04	60.35
n-Pentatriacontane		72.04	61.05	43.83
n-Hexatriacontane		46.4	17.55 J	35.08
n-Heptatriacontane	J	19.45 J	15.2 J	13.51 J
n-Octatriacontane		31.4	16.69 J	19.28 J
n-Nonatriacontane	J	12.98 J	12.02 J	9.18 J
n-Tetracontane	J	20.31 J	11.82 J	11.18 J
Total SHC		20849.58	20016.59	13446.06

Surrogate Recoveries (%)

5a-androstane	40	58	50
n-Tetracosane-d50	41	65	55

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7C-10-PHC-SC	06-7C-15-PHC-SC	06-7E-01-PHC-S	06-7E-01-PHC-SC
Battelle ID	R2341-P	R2346-P	R2502-P	R2532-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06	08/02/06
Extraction Date	04/09/07	04/09/07	09/20/06	04/02/07
Analysis Date	04/14/07	04/14/07	10/04/06	04/11/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	30.57	25.96	41.29	37.33
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	20.83	23.01	17.97	19.02
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	28.85	32.22	11.77 J	26.39
n-Decane	53.93	64.83	36.44	50.68
n-Undecane	86.88	89.28	62.76	74.81
n-Dodecane	87.9	97.42	80.56	77.12
n-Tridecane	96.95	114.14	98.28	88.02
Isoprenoid RRT 1380	24.79	29.78	29.55	28.19
n-Tetradecane	107.66	122.53	110.34	97.97
Isoprenoid RRT 1470	94.79	94.72	72.03	96.93
n-Pentadecane	120.31	145.99	136.66	115.65
n-Hexadecane	126.16	136.58	159.33	109.44
Norpristane (1650)	37.56	44.86	45.44	39.95
n-Heptadecane	153.74	185.99	190.43	160.26
Pristane	110.12	130.68	157.11	152.1
n-Octadecane	169.3	163.44	158.59	140.97
Phytane	51.54	59.8	68.39	55.19
n-Nonadecane	200.09	235.39	257.33	231.6
n-Eicosane	254.52	235.38	225.41	227.97
n-Heneicosane	389.49	460.19	593.36	551.81
n-Docosane	409.37	401.99	449.63	435.47
n-Tricosane	755.97	912.67	1381.02	1258.32
n-Tetracosane	391.29	428.98	438.51	447.61
n-Pentacosane	789.3	1045.71	1584.73	1598.69
n-Hexacosane	323.58	444.21	388.77	340.05
n-Heptacosane	1180.02	1587.2	2446.07	2482.17
n-Octacosane	262.94	474.75	294.2	275.34
n-Nonacosane	1018.73	1440	1638.23	1485.01
n-Triacontane	163.69	363.58	239.64	154.51
n-Hentriacontane	880.68	1182.9	1406.82	1145.34
n-Dotriacontane	123.43	258.54	87.8	141.37
n-Tritriacontane	320.68	502.32	466.26	432.71
n-Tetratriacontane	37.69	107.34	29.83	33.05
n-Pentatriacontane	48.25	114.44	64.35	59.48
n-Hexatriacontane	19.63 J	56.56	12.6 J	16.68
n-Heptatriacontane	13.56 J	42.94	12.08 J	12.59
n-Octatriacontane	14.32 J	36.18	13.01 J	12.41
n-Nonatriacontane	8.8 J	23.98	8.31 J	7.67
n-Tetracontane	10.35 J	20.9 J	7.11 J	7.43
Total SHC	15616.12	26510.38	25828.53	23157.46
Surrogate Recoveries (%)				
5a-androstane	57	60	63	59
n-Tetracosane-d50	63	67	69	68

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-7E-02-PHC-SC	06-7E-03-PHC-SC	06-7E-04-PHC-SC
Battelle ID		R2533-P	R2534-P	R2535-P
Sample Type		SA	SA	SA
Collection Date		08/02/06	08/02/06	08/02/06
Extraction Date		04/02/07	04/02/07	04/02/07
Analysis Date		04/11/07	04/11/07	04/11/07
Analytical Instrument		FID	FID	FID
% Moisture		35.38	33.06	29.14
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		19.56	20.53	21.63
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	J	38.18	26.88	20.43 J
n-Decane		79.73	55.97	52.51
n-Undecane		121.52	80.68	78.88
n-Dodecane		123.01	97.5	87.83
n-Tridecane		144.91	121.36	106.99
Isoprenoid RRT 1380		57.53	48.48	39.79
n-Tetradecane		162.97	135.66	121.69
Isoprenoid RRT 1470		164.59	155.5	117.39
n-Pentadecane		192.57	168.64	145.52
n-Hexadecane		187.76	195.29	138.03
Norpristane (1650)		79.06	71.67	56.11
n-Heptadecane		235.77	213.94	189.32
Pristane		359.66	324.94	240.09
n-Octadecane		236.8	199.98	173.56
Phytane		101.98	84.68	71.83
n-Nonadecane		344.65	280.52	268.12
n-Eicosane		358.2	281.94	261.11
n-Heneicosane		647.45	497.67	517
n-Docosane		565.17	422.71	424.1
n-Tricosane		1596.93	1272.28	1181.2
n-Tetracosane		624.81	479.37	444.77
n-Pentacosane		2159.48	1785.94	1366.58
n-Hexacosane		477.93	359.33	347.75
n-Heptacosane		3042.34	2549.42	1986.79
n-Octacosane		355.66	262.86	269.88
n-Nonacosane		1617.03	1285.28	1142.41
n-Triacontane		180.92	136.68	145.6
n-Hentriacontane		1076.23	834.03	846.43
n-Dotriacontane		268.08	256.78	172.41
n-Tritriacontane		572.11	456.63	379.26
n-Tetratriacontane		46.38	36.47	30.49
n-Pentatriacontane		109.7	90.89	62.57
n-Hexatriacontane	J	21.84 J	15.5 J	13.24 J
n-Heptatriacontane	J	20.23 J	15.73 J	13.15 J
n-Octatriacontane	J	13.86 J	11.19 J	9.68 J
n-Nonatriacontane	J	10.04 J	8.76 J	8.62 J
n-Tetracontane	J	8.74 J	9.11 J	7.5 J
Total SHC		33975.57	42192.61	25486.35
Surrogate Recoveries (%)				
5a-androstane		61	62	73
n-Tetracosane-d50		72	71	85

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-7E-05-PHC-SC	06-7E-07-PHC-SC	06-7E-09-PHC-SC	06-7E-15-PHC-SC
Battelle ID	R2536-P	R2538-P	R2540-P	R2546-P
Sample Type	SA	SA	SA	SA
Collection Date	08/02/06	08/02/06	08/02/06	08/02/06
Extraction Date	04/02/07	04/02/07	04/09/07	04/09/07
Analysis Date	04/11/07	04/11/07	04/14/07	04/14/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	31.41	23.01	25	27.32
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	21.10	23.34	23.17	22.20
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	27.75	17.92 J	27.16	34.44
n-Decane	62.3	38.01	58.51	69.07
n-Undecane	89.37	56.43	82	101.4
n-Dodecane	96.1	59.53	92.1	112.8
n-Tridecane	110.38	68.96	103.15	128.97
Isoprenoid RRT 1380	31.66	23.6	31.19	39.89
n-Tetradecane	125.55	79.84	114.99	142.86
Isoprenoid RRT 1470	101.13	70.4	99.27	124.01
n-Pentadecane	142.68	94.43	130.03	161.1
n-Hexadecane	140.31	94.54	124.68	155.15
Norpristane (1650)	49.16	35.34	44.95	54.44
n-Heptadecane	195.54	133.93	163.41	188.06
Pristane	162.99	120.18	145.62	192.12
n-Octadecane	178.1	122.45	153.27	188.48
Phytane	68.01	44.07	60.24	77.18
n-Nonadecane	275.79	194.07	250.97	283.51
n-Eicosane	266.58	186.53	229.41	280.89
n-Heneicosane	584.39	418.26	569.33	607.2
n-Docosane	470.3	342.75	450.95	514.17
n-Tricosane	1314.34	879.14	1323.01	1436.66
n-Tetracosane	446.74	351.37	437.5	515.43
n-Pentacosane	1322.75	1016.57	1337.94	1494.64
n-Hexacosane	347.57	321.28	342.06	412.69
n-Heptacosane	1835.97	1436.88	1958.03	2123.69
n-Octacosane	263.07	286.85	269.93	336.23
n-Nonacosane	1300.82	992.99	1410.9	1488.3
n-Triacontane	157.02	193.56	155.31	196.34
n-Hentriacontane	1074.71	771.37	1144.02	1266.23
n-Dotriacontane	155.64	138.73	192.08	275.45
n-Tritriacontane	436.83	303.37	478.06	528.01
n-Tetratriacontane	31.08	40.82	29.45	52.32
n-Pentatriacontane	53.68	52.14	59.71	75.22
n-Hexatriacontane	15.94 J	21.12 J	14.35 J	26.69
n-Heptatriacontane	13.12 J	14.59 J	13.54 J	19.65
n-Octatriacontane	13.14 J	12.64 J	10.74 J	19.15
n-Nonatriacontane	8.1 J	9.44 J	9.58 J	11.4
n-Tetracontane	7.28 J	8.4 J	9.33 J	12.84
Total SHC	24555.22	19125.55	22470.54	27230.92
Surrogate Recoveries (%)				
5a-androstane	71	74	68	61
n-Tetracosane-d50	80	84	76	69

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-7G-01-PHC-S		06-BP01-01-PHC-S		06-COL-03-01-PHC-P	
Battelle ID		R2505-P		R2186-P1		R2497-P1	
Sample Type		SA		SA		SA	
Collection Date		08/02/06		07/28/06		08/03/06	
Extraction Date		09/20/06		04/10/07		04/10/07	
Analysis Date		10/04/06		04/21/07		04/26/07	
Analytical Instrument		FID		FID		FID	
% Moisture		40.55		28.96		63.81	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		PEAT	
Sample Size		17.97		21.61		10.82	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane		8.33	J	9.88	J	14.63	J
n-Decane		29.16		16.43	J	33.87	J
n-Undecane		52.93		22.28	J	65.92	
n-Dodecane		70.2		25.22		49.92	
n-Tridecane		89.3		31.86		55.96	
Isoprenoid RRT 1380		22.68	J	7.69	J	16.81	J
n-Tetradecane		97.77		32.96		70.58	
Isoprenoid RRT 1470		53.67		13.48	J	60.84	
n-Pentadecane		128.4		40.9		84.37	
n-Hexadecane		138.11		35.04		91.01	
Norpristane (1650)		39.5		11.49	J	25.33	J
n-Heptadecane		169.31		57.45		178.69	
Pristane		125.64		38.14		84.43	
n-Octadecane		147.7		37.27		178.71	
Phytane		57.29		16.41	J	39.76	J
n-Nonadecane		222.44		51.71		341.69	
n-Eicosane		205.24		48.28		350.65	
n-Heneicosane		423.36		90.43		1693.75	
n-Docosane		337.25		74.11		1047.92	
n-Tricosane		802.82		156.61		2813.06	
n-Tetracosane		315.9		71.27		950.99	
n-Pentacosane		843.14		199.16		4709.53	
n-Hexacosane		267.37		59.1		967.76	
n-Heptacosane		1221.77		296.03		3491.73	
n-Octacosane		204.11		50.89		830.44	
n-Nonacosane		1039.39		265.1		3913.45	
n-Triacontane		162.47		29.64		551.94	
n-Hentriacontane		886.51		205.59		2998.15	
n-Dotriacontane		68.13		21.99	J	548.98	
n-Tritriacontane		326.95		70.58		1066.7	
n-Tetratriacontane		27.21	J	7.36	J	225.34	
n-Pentatriacontane		51.3		10.77	J	283.51	
n-Hexatriacontane		11.92	J	3.98	J	51.43	
n-Heptatriacontane	J	11.84	J	3.01	J		ND
n-Octatriacontane	J	10.83	J	2.63	J		ND
n-Nonatriacontane	J	8.23	J	1.85	J		ND
n-Tetracontane	J	7.12	J	1.93	J		ND
Total SHC		18794.86		5553.96		47092.29	
Surrogate Recoveries (%)							
5a-androstane		81		63		57	
n-Tetracosane-d50		90		67		63	

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-E01-01-PHC-S	06-E02-01-PHC-S	06-EI01-01-PHC-P	06-Kup-01-PHC-P
Battelle ID	R2180-P1	R2191-P1	R2507-P	R2179-P1
Sample Type	SA	SA	SA	SA
Collection Date	07/27/06	07/28/06	08/02/06	07/28/06
Extraction Date	04/10/07	04/10/07	09/20/06	04/10/07
Analysis Date	04/21/07	04/26/07	10/04/06	04/21/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	18.9	36.14	58.15	66.36
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	PEAT	PEAT
Sample Size	24.37	19.27	12.56	10.11
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	5.94 J	17.45 J	ND	7.81
n-Decane	10.57 J	41.3	6.58 J	9.7
n-Undecane	15.56 J	65.37	ND	15.9
n-Dodecane	16.91 J	73.26	14.25 J	10.01
n-Tridecane	19.49 J	86.98	15 J	10.98
Isoprenoid RRT 1380	5.36 J	29.43	9.16 J	8.17
n-Tetradecane	21.03	98.78	24.39 J	18.23
Isoprenoid RRT 1470	2.17 J	79.02	81.06	
n-Pentadecane	25.58	122.38	40.15	23.15
n-Hexadecane	23.66	117.54	80.2	27.95
Norpristane (1650)	7.08 J	44.98	12.99 J	5.56
n-Heptadecane	39.04	181.36	142.42	63.41
Pristane	21.1	145.06	50.92	22.24
n-Octadecane	27.58	130.24	369.95	78.31
Phytane	9.99 J	59.57	17.88 J	8.59
n-Nonadecane	6.54 J	222.69	1091.64	175.43
n-Eicosane	39.37	252.65	760.96	209.91
n-Heneicosane	74.74	464.62	3109.44	660
n-Docosane	63.73	354.37	1748.08	415.64
n-Tricosane	137.66	1014.46	6540.96 D	3450.03
n-Tetracosane	60.82	374.36	2480.97	554.74
n-Pentacosane	161.58	1372.59	4856.49 D	9743.84
n-Hexacosane	52.41	297.82	1618.34	664.8
n-Heptacosane	245.05	1820.65	7236.24 D	14222.96
n-Octacosane	46.07	239.13	2374.91	400.5
n-Nonacosane	208.38	1333.02	13788.79 D	3820.42
n-Triacontane	30.28	136.35	3106.42	261.62
n-Hentriacontane	173.92	975.22	16718.55 D	1965.34
n-Dotriacontane	22.83	155.34	1766.36	212.41
n-Tritriacontane	62.37	471.07	18799.46 D	530.58
n-Tetratriacontane	7.83 J	29.85	13982 D	63.97
n-Pentatriacontane	10.53 J	96.08	317.83	88.35
n-Hexatriacontane	4.65 J	16.95 J	ND	23.61
n-Heptatriacontane	3.02 J	16.12 J	ND	12.33
n-Octatriacontane	2.88 J	9.21 J	ND	19.83
n-Nonatriacontane	2.11 J	14.79 J	ND	
n-Tetracontane	2.26 J	7.97 J	ND	
Total SHC	3857.43	25955.28	226670.84	57310.53
Surrogate Recoveries (%)				
5a-androstane	65	63	71	46
n-Tetracosane-d50	69	71	73	47

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The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-L03-01-PHC-S	06-L08-01-PHC-S	06-L19-01-PHC-S
Battelle ID		R2187-P1	R2182-P1	R2181-P1
Sample Type		SA	SA	SA
Collection Date		07/28/06	07/28/06	07/27/06
Extraction Date		04/10/07	04/10/07	04/10/07
Analysis Date		04/21/07	04/21/07	04/21/07
Analytical Instrument		FID	FID	FID
% Moisture		30.16	28.84	19.18
% Lipid		NA	NA	NA
Matrix		SEDIMENT	SEDIMENT	SEDIMENT
Sample Size		21.14	21.54	24.33
Size Unit-Basis		G_DRY	G_DRY	G_DRY
Units		UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	J	8.49 J	10.65 J	5.25 J
n-Decane	J	16.18 J	20.3 J	9.95 J
n-Undecane	J	22.1 J	31.61	15.09 J
n-Dodecane	J	26.36	37.99	16.19 J
n-Tridecane	J	31.17	52.49	18.54 J
Isoprenoid RRT 1380	J	10.79 J	19.76 J	4.77 J
n-Tetradecane	J	35.9	62.01	21.1
Isoprenoid RRT 1470	ND	1.81 J	64.72	3.63 J
n-Pentadecane	J	44.29	71.58	23.98
n-Hexadecane	J	41.75	62.26	21.09
Norpristane (1650)	J	17.92 J	27.14	6.59 J
n-Heptadecane		65.02	75.91	33.86
Pristane	J	43.03	69.36	17.11 J
n-Octadecane		46.22	53.15	23.92
Phytane	J	20.47 J	34.2	8.42 J
n-Nonadecane		66.87	65.62	33.76
n-Eicosane		63.86	64.95	31.84
n-Heneicosane		117.39	116.68	58.9
n-Docosane		90.59	90.87	49.42
n-Tricosane		201.13	204.35	108.09
n-Tetracosane		88.77	88.4	48.16
n-Pentacosane		254.61	279.75	124.88
n-Hexacosane		88.12	77.08	39.61
n-Heptacosane		401.29	410.4	191.33
n-Octacosane		82.05	68.27	33.97
n-Nonacosane		349.52	309.73	158.58
n-Triacontane		68.22	43.37	22.9
n-Hentriacontane		257.04	248.91	125.67
n-Dotriacontane		34.34	28.16	17.42 J
n-Tritriacontane		86.92	87.12	46.96
n-Tetratriacontane		11.67 J	10.06 J	5.28 J
n-Pentatriacontane		15.19 J	14.48 J	8.55 J
n-Hexatriacontane	J	6.92 J	4.9 J	3.21 J
n-Heptatriacontane	J	4.7 J	3.79 J	2.32 J
n-Octatriacontane	J	4.2 J	4.17 J	1.95 J
n-Nonatriacontane	ND	3.3 J	2.67 J	1.79 J
n-Tetracontane	ND	2.09 J	2.86 J	1.45 J
Total SHC		5982.67	12589.35	3439.59
Surrogate Recoveries (%)				
5a-androstane		66	67	66
n-Tetracosane-d50		69	70	69

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L20-01-PHC-S	06-L21-01-PHC-S	06-L22-01-PHC-S	06-L22-01-PHC-SC
Battelle ID	R2189-P1	R2185-P1	R2184-P1	R2518-P
Sample Type	SA	SA	SA	SA
Collection Date	07/27/06	07/27/06	07/30/06	07/30/06
Extraction Date	04/10/07	04/10/07	04/10/07	04/02/07
Analysis Date	04/21/07	04/21/07	04/21/07	04/11/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	20.24	18.74	33.17	32.13
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.10	24.52	20.00	20.31
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	6.01 J	1.11 J	17.01 J	9.97
n-Decane	10.22 J	1.43 J	33.06	20.28
n-Undecane	16.82 J	2.25 J	49.21	28.46
n-Dodecane	16.91 J	2.13 J	61.81	33.63
n-Tridecane	20.52 J	1.93 J	79.32	39.69
Isoprenoid RRT 1380	5.97 J	0.88 J	24.08 J	11.17
n-Tetradecane	23.72	3.73 J	88.7	44.52
Isoprenoid RRT 1470	2.76 J	1.42 J	17.84 J	50.17
n-Pentadecane	26.6	3.8 J	104.53	55.88
n-Hexadecane	26.17	3.43 J	96.47	53.79
Norpristane (1650)	7.93 J	0.7 J	35.25	21.2
n-Heptadecane	38.2	4.51 J	117.99	72.73
Pristane	24.06	2.45 J	97.24	66.47
n-Octadecane	31.63	3.73 J	95.41	62.45
Phytane	10.68 J	0.98 J	52.61	37.14
n-Nonadecane	40.21	4.91 J	110.84	75.25
n-Eicosane	45.53	5.99 J	111.68	72.31
n-Heneicosane	76.93	8.55 J	134.69	98.5
n-Docosane	68.84	10.58 J	124.02	88.48
n-Tricosane	137.38	21.86	191.65	144.76
n-Tetracosane	64.45	20.21 J	124.21	84.53
n-Pentacosane	156.5	36.35	245.61	173.84
n-Hexacosane	55.92	35.87	136.11	79.81
n-Heptacosane	231.4	61.53	317.99	248.24
n-Octacosane	42.6	49.28	144.14	74.3
n-Nonacosane	186.99	61.63	318.66	239.45
n-Triacontane	30.98	38.23	98.99	50.5
n-Hentriacontane	153.53	42.83	256.17	204.91
n-Dotriacontane	22.37	21.9	64.23	35.32
n-Tritriacontane	50.87	20.21 J	111.33	87.5
n-Tetratriacontane	7.43 J	9.65 J	27.96	15.19
n-Pentatriacontane	8.28 J	7.35 J	28.82	19.35
n-Hexatriacontane	5.37 J	4.5 J	16.62 J	8.38
n-Heptatriacontane	2.58 J	3.24 J	12.56 J	7.11
n-Octatriacontane	2.22 J	2.3 J	10.35 J	6.3
n-Nonatriacontane	2.07 J	1.47 J	7.84 J	5
n-Tetracontane	1.24 J	1.02 J	8.53 J	4.19
Total SHC	3349.19	1969.79	15779.2	7880.48
Surrogate Recoveries (%)				
5a-androstane	75	68	62	63
n-Tetracosane-d50	78	73	65	74

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-L22-02-PHC-SC		06-L22-03-PHC-SC		06-L22-04-PHC-SC	
Battelle ID		R2519-P		R2520-P		R2521-P	
Sample Type		SA		SA		SA	
Collection Date		07/30/06		07/30/06		07/30/06	
Extraction Date		04/02/07		04/02/07		04/02/07	
Analysis Date		04/11/07		04/11/07		04/11/07	
Analytical Instrument		FID		FID		FID	
% Moisture		29.14		28.42		27.93	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		22.01		21.92		21.83	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	13.12	J	13.69	J	15.21	J
n-Decane	J	26.32		28.74		29.99	
n-Undecane		40.13		41.78		41.79	
n-Dodecane		44.23		48.19		47.93	
n-Tridecane		54.36		60.1		59.55	
Isoprenoid RRT 1380	J	14.98	J	17.1	J	16.95	J
n-Tetradecane		62.93		70.77		72.33	
Isoprenoid RRT 1470		61.75		61.96		72.23	
n-Pentadecane		80.82		90.43		89.17	
n-Hexadecane		77.66		92.34		83.15	
Norpristane (1650)	J	29.54		30.39		29.49	
n-Heptadecane		106.17		114.53		108.02	
Pristane		87.64		93.45		88.23	
n-Octadecane		92.7		123.12		95.79	
Phytane		50.9		55.81		51.77	
n-Nonadecane		113.34		123.32		117.73	
n-Eicosane		112.97		170.27		116.37	
n-Heneicosane		157.69		172.77		163.8	
n-Docosane		146.86		228.24		147.5	
n-Tricosane		238.76		263.64		248.4	
n-Tetracosane		143.34		230.73		137.35	
n-Pentacosane		280.19		316.37		298.94	
n-Hexacosane		136.78		216.64		121.38	
n-Heptacosane		400.67		456.21		425.63	
n-Octacosane		122.86		205.76		105.85	
n-Nonacosane		403.28		464.33		425.51	
n-Triacontane		89.17		167.6		76.24	
n-Hentriacontane		342.41		397.5		355.4	
n-Dotriacontane		56.49		126.67		55.65	
n-Tritriacontane		144.81		173.4		151.72	
n-Tetratriacontane	J	25.47		68.12		22.93	J
n-Pentatriacontane	J	31.49		34.17		29.66	
n-Hexatriacontane	J	13.28	J	39.88		13.35	J
n-Heptatriacontane	J	11.66	J	12.56	J	10.42	J
n-Octatriacontane	J	9.71	J	23.62		9.71	J
n-Nonatriacontane	J	8.31	J	9.01	J	7.01	J
n-Tetracontane	J	6.57	J	13.83	J	6.79	J
Total SHC		12577.82		15710.59		13752.06	
Surrogate Recoveries (%)							
5a-androstane		60		66		61	
n-Tetracosane-d50		70		75		70	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-L22-05-PHC-SC	06-L22-14-PHC-SC	06-M01-01-PHC-S	06-N03-01-PHC-S
Battelle ID	R2522-P	R2531-P	R2511-P	R2549-P
Sample Type	SA	SA	SA	SA
Collection Date	07/30/06	07/30/06	07/31/06	08/05/06
Extraction Date	04/02/07	04/02/07	09/20/06	09/20/06
Analysis Date	04/11/07	04/11/07	10/04/06	10/05/06
Analytical Instrument	FID	FID	FID	FID
% Moisture	26.5	19.06	21.2	42.62
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	22.08	25.86	24.05	17.32
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	14.25 J	12.33 J	14.29 J	6.6
n-Decane	27.39	27.03	1.79 J	23.97
n-Undecane	47.84	42.95	3.1 J	44.81
n-Dodecane	47.93	47.01	3.07 J	59.27
n-Tridecane	58.31	58.65	3.98 J	81.83
Isoprenoid RRT 1380	16.21 J	15.48 J	2.08 J	21.86
n-Tetradecane	70.37	69.48	5.07 J	89.89
Isoprenoid RRT 1470	63.23	54.35	24.66	49.38
n-Pentadecane	91.09	86.34	7.21 J	121.28
n-Hexadecane	85.73	90.41	26.97	133.62
Norpristane (1650)	29.75	30.87	2.21 J	33.06
n-Heptadecane	114.12	111.69	10.77 J	194.12
Pristane	93.11	90.96	8.97 J	125.83
n-Octadecane	100.44	124.59	8.77 J	135.38
Phytane	52.82	55.26	4 J	52.67
n-Nonadecane	123.63	122.25	13.87 J	220.65
n-Eicosane	124.87	172.9	13.65 J	202.83
n-Heneicosane	168.67	170.5	31.15	447.38
n-Docosane	160.38	230.98	23.17	361.75
n-Tricosane	253.54	267.05	53.48	815.38
n-Tetracosane	152.18	239.98	23.12	331.13
n-Pentacosane	307.46	338.79	76.47	970.49
n-Hexacosane	134.37	239.67	21.87	281.78
n-Heptacosane	423.94	497.67	101.43	1417.62
n-Octacosane	113.84	217.65	18.98 J	215.12
n-Nonacosane	428.62	515.35	91.19	1359.94
n-Triacontane	81.3	157.28	16.54 J	164.71
n-Hentriacontane	364.71	436.1	68.86	1095.8
n-Dotriacontane	58.11	107.89	7.67 J	73.04
n-Tritriacontane	151.42	186.64	21.58 J	461.44
n-Tetratriacontane	29.62	50.3	2.19 J	27.75
n-Pentatriacontane	29.17	35.1	2.79 J	53.42
n-Hexatriacontane	18.93 J	27.04	0.62 J	12.06
n-Heptatriacontane	9.87 J	14.05 J	ND	11.48
n-Octatriacontane	12.91 J	16.3 J	ND	10.24
n-Nonatriacontane	7.05 J	9.37 J	ND	7.09
n-Tetracontane	8.51 J	9.62 J	151.75	5.32
Total SHC	13195.31	15335.11	1286.77	21562.37
Surrogate Recoveries (%)				
5a-androstane	65	62	57	81
n-Tetracosane-d50	76	72	68	90

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-N03-02-PHC-S		06-N06-01-PHC-S		06-N11-01-PHC-S	
Battelle ID		R2550-P		R2554-P		R2548-P	
Sample Type		SA		SA		SA	
Collection Date		08/05/06		08/05/06		08/05/06	
Extraction Date		09/20/06		09/20/06		09/20/06	
Analysis Date		10/05/06		10/05/06		10/04/06	
Analytical Instrument		FID		FID		FID	
% Moisture		41.31		39.97		28.78	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		17.81		18.05		21.71	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	5.7	J	5.23	J	3.43	J
n-Decane	J	18.89	J	13.97	J	10.07	J
n-Undecane		38.26		28.14		18.74	J
n-Dodecane		49.8		37.71		23.53	
n-Tridecane		67.31		53.56		31.75	
Isoprenoid RRT 1380	J	18.22	J	14.6	J	9.12	J
n-Tetradecane		74.51		59.06		35.12	
Isoprenoid RRT 1470		37.32		32.48		17.5	J
n-Pentadecane		111.68		80.41		46.44	
n-Hexadecane		128.19		96.3		57.16	
Norpristane (1650)		43.49		22.9	J	14.61	J
n-Heptadecane		98.33		117.93		75.44	
Pristane		103.43		78.81		47.75	
n-Octadecane		120.78		89.18		55.7	
Phytane		55.5		37.66		22.99	J
n-Nonadecane		12.07	J	138.12		88.71	
n-Eicosane		181.59		125.72		81.83	
n-Heneicosane		371.49		288.7		182.85	
n-Docosane		290.52		211.43		138.09	
n-Tricosane		641.95		505.91		339.93	
n-Tetracosane		6.75	J	200.76		134.9	
n-Pentacosane		758.07		602.81		433.94	
n-Hexacosane		1.21	J	169.37		114.22	
n-Heptacosane		4.44	J	861.33		625.05	
n-Octacosane		184.17		133.07		91.6	
n-Nonacosane		14.02	J	776.36		530.91	
n-Triacontane		4.45	J	103.05		70.18	
n-Hentriacontane		854.4		617.35		438.56	
n-Dotriacontane		13.52	J	42.68		31.35	
n-Tritriacontane		311.07		197.57		168.43	
n-Tetratriacontane	J	20.47	J	13.98	J	11.63	J
n-Pentatriacontane		1.59	J	24.25	J	19.26	J
n-Hexatriacontane	J	2.67	J	4.18	J	4.27	J
n-Heptatriacontane	J	10.29	J	3.77	J	4.23	J
n-Octatriacontane	J	2.88	J	2.28	J	3.41	J
n-Nonatriacontane	J	3.14	J	1.24	J	1.97	J
n-Tetracontane	J	3.7	J	0.67	J	1.37	J
Total SHC		14994.33		11381.99		8833.41	
Surrogate Recoveries (%)							
5a-androstane		83		70		79	
n-Tetracosane-d50		93		81		90	

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N14-01-PHC-S	06-N17-01-PHC-SC	06-N17-02-PHC-SC	06-N17-03-PHC-SC
Battelle ID	R2552-P	R2473-P	R2474-P	R2475-P
Sample Type	SA	SA	SA	SA
Collection Date	08/05/06	07/31/06	07/31/06	07/31/06
Extraction Date	09/20/06	04/02/07	04/02/07	04/02/07
Analysis Date	10/05/06	04/09/07	04/09/07	04/10/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	18.52	37.73	37.78	30.36
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Size	24.67	18.82	18.90	21.09
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	1.1 J	19.5 J	19.16 J	9.37
n-Decane	3.68 J	42.46	42.88	18.22
n-Undecane	6.19 J	59.41	61.28	27.42
n-Dodecane	7.18 J	64.68	63.73	30.39
n-Tridecane	9.34 J	79.57	83.42	41.58
Isoprenoid RRT 1380	3.21 J	20.74 J	23.05 J	12.03
n-Tetradecane	10.53 J	83.64	91.03	46.07
Isoprenoid RRT 1470	27.94	67.24	68.67	45.23
n-Pentadecane	13.74 J	105.97	119.36	59.88
n-Hexadecane	32.95	96.61	106.55	53.48
Norpristane (1650)	4.2 J	32.73	36.07	18.37
n-Heptadecane	22.8	147.73	175.75	87.26
Pristane	13.82 J	96.98	112.87	57.38
n-Octadecane	16.74 J	114.03	129.41	64.52
Phytane	6.3 J	46.45	52.63	26.24
n-Nonadecane	28.87	175.8	207.45	98.96
n-Eicosane	24.88	159.93	189.95	94.41
n-Heneicosane	63.45	322.1	403.34	195.99
n-Docosane	46.23	258.76	315.52	152.02
n-Tricosane	118.19	593.45	703.54	356.94
n-Tetracosane	48.14	244.52	287.86	147.71
n-Pentacosane	138.08	649.86	790.48	455.06
n-Hexacosane	41.24	192.04	226.62	112.86
n-Heptacosane	187.61	945.28	1199.22	673.07
n-Octacosane	34.73	157.43	188.74	87.79
n-Nonacosane	155.9	799.42	1087.91	532.31
n-Triacontane	29.92	92.99	111.69	55.49
n-Hentriacontane	125.82	647.22	865.47	401.36
n-Dotriacontane	12.34 J	69.28	69.2	39.69
n-Tritriacontane	38.96	260.74	298.01	159.49
n-Tetratriacontane	3.25 J	19.29 J	22.31 J	11.7
n-Pentatriacontane	4.19 J	38.59	46.06	24.69
n-Hexatriacontane	ND	9.67 J	9.88 J	6.12
n-Heptatriacontane	ND	8.79 J	10.51 J	5.83
n-Octatriacontane	ND	7.89 J	8.41 J	6.04
n-Nonatriacontane	ND	6.26 J	6.97 J	4.41
n-Tetracontane	ND	5.49 J	5.84 J	4.22
Total SHC	1240.46	12532.15	14361.87	9222.49
Surrogate Recoveries (%)				
5a-androstane	58	74	76	75
n-Tetracosane-d50	69	81	84	87

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Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-N17-04-PHC-SC		06-N17-05-PHC-SC		06-N17-15-PHC-SC	
Battelle ID		R2476-P		R2477-P		R2487-P	
Sample Type		SA		SA		SA	
Collection Date		07/31/06		07/31/06		07/31/06	
Extraction Date		04/02/07		04/02/07		04/02/07	
Analysis Date		04/10/07		04/11/07		04/11/07	
Analytical Instrument		FID		FID		FID	
% Moisture		30.05		26.38		47.94	
% Lipid		NA		NA		NA	
Matrix		SEDIMENT		SEDIMENT		SEDIMENT	
Sample Size		21.57		22.45		15.62	
Size Unit-Basis		G_DRY		G_DRY		G_DRY	
Units		UG/KG_DRY		UG/KG_DRY		UG/KG_DRY	
n-Nonane	J	10.59	J	11.2	J	10.35	J
n-Decane	J	21.1	J	22.2	J	20.02	J
n-Undecane		31.69		32.32		24.94	J
n-Dodecane		34.49		36.52		27.63	J
n-Tridecane		46.51		48.06		37.15	
Isoprenoid RRT 1380	J	12.71	J	13.33	J	12.98	J
n-Tetradecane		49.72		52.14		44.81	
Isoprenoid RRT 1470		46.36		46.62		65.22	
n-Pentadecane		61.83		68.32		54.91	
n-Hexadecane		53.89		62.25		49.64	
Norpristane (1650)	J	17.97	J	21.25	J	18.27	J
n-Heptadecane		85.46		97.75		121.72	
Pristane		57.78		64.53		66.59	
n-Octadecane		64.09		73.94		69.91	
Phytane		26.56		29.93		29.17	J
n-Nonadecane		98.02		110.05		132.85	
n-Eicosane		95.15		102.34		168.99	
n-Heneicosane		189.79		205.73		374.1	
n-Docosane		149.42		165.53		280.87	
n-Tricosane		357.82		377.39		832.16	
n-Tetracosane		146.9		160.99		320.4	
n-Pentacosane		449.34		440.39		1634.84	
n-Hexacosane		121.84		136.24		213.05	
n-Heptacosane		657.42		665.73		2015.03	
n-Octacosane		100.58		116.81		158.42	
n-Nonacosane		520.77		604.27		935.62	
n-Triacontane		62.88		72.82		87.55	
n-Hentriacontane		395.59		490.32		518.71	
n-Dotriacontane		45.84		47.66		79.58	
n-Tritriacontane		159.66		186.03		208.11	
n-Tetratriacontane	J	13.96	J	16.19	J	20.91	J
n-Pentatriacontane		28.7		29.66		46.61	
n-Hexatriacontane	J	6.64	J	8.08	J	8.73	J
n-Heptatriacontane	J	6.89	J	8.11	J	7.69	J
n-Octatriacontane	J	5.58	J	7.05	J	5.39	J
n-Nonatriacontane	J	4.54	J	5.56	J	3.53	J
n-Tetracontane	J	3.86	J	4.9	J	3.13	J
Total SHC		10084.56		10023.34		20094.37	
Surrogate Recoveries (%)							
5a-androstane		74		72		54	
n-Tetracosane-d50		84		82		62	

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID	06-N28-01-PHC-S	06-PI01-01-PHC-P	06-Sag-01-PHC-P	06-SDI-1-01-PHC-S
Battelle ID	R2551-P	R2496-P1	R2178-P1	R2183-P1
Sample Type	SA	SA	SA	SA
Collection Date	08/05/06	08/04/06	07/28/06	07/27/06
Extraction Date	09/20/06	04/10/07	04/10/07	04/10/07
Analysis Date	10/05/06	04/26/07	04/21/07	04/21/07
Analytical Instrument	FID	FID	FID	FID
% Moisture	29.93	28.09	52.01	32.26
% Lipid	NA	NA	NA	NA
Matrix	SEDIMENT	PEAT	PEAT	SEDIMENT
Sample Size	21.34	21.88	14.44	20.38
Size Unit-Basis	G_DRY	G_DRY	G_DRY	G_DRY
Units	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY	UG/KG_DRY
n-Nonane	2.13 J	ND	7.09 J	12.73
n-Decane	7.94 J	ND	13.66 J	21.94
n-Undecane	15.18 J	ND	19.86 J	32.35
n-Dodecane	19.18 J	ND	24.61 J	36.77
n-Tridecane	25.91	ND	30.77 J	42.75
Isoprenoid RRT 1380	7.87 J	ND	9.55 J	11.13
n-Tetradecane	29.07	ND	40.93	46.2
Isoprenoid RRT 1470	14.01 J	ND	68.33	9.68
n-Pentadecane	40.1	ND	50.53	55.56
n-Hexadecane	56.88	ND	48.43	53.21
Norpristane (1650)	13.67 J	ND	14.66 J	14.17
n-Heptadecane	67.9	ND	65.17	85.71
Pristane	58.95	ND	34.94	46.97
n-Octadecane	46.85	ND	70.02	55.79
Phytane	20.7 J	ND	15.63 J	19.39
n-Nonadecane	70.32	ND	151.92	92.22
n-Eicosane	65.47	ND	183.48	81.78
n-Heneicosane	140.3	219.41	698.07	191.37
n-Docosane	110.59	159.52	374.36	146.69
n-Tricosane	269.32	600.49	1105.06	355.3
n-Tetracosane	109.09	181.08	365.44	138.2
n-Pentacosane	352.54	1131.59	1666.38	397.1
n-Hexacosane	95.6	128.6	398.93	118.44
n-Heptacosane	524.85	1599.17	3118.92	606.84
n-Octacosane	74.54	107.32	295.78	111.96
n-Nonacosane	479.97	86.59	1994.8	507.14
n-Triacontane	58.1	44.11	216.02	73
n-Hentriacontane	379.11	67.51	1718.57	421.9
n-Dotriacontane	25.75	29.89	142.8	50.89
n-Tritriacontane	123.75	86.77	540.5	142.74
n-Tetratriacontane	8.88 J	329.56	43.16	18.01
n-Pentatriacontane	15.8 J	12.63 J	93.08	22.83
n-Hexatriacontane	3.05 J	10.7 J	ND	8.82
n-Heptatriacontane	3.02 J	ND	ND	7.02
n-Octatriacontane	1.79 J	ND	ND	5.97
n-Nonatriacontane	1.12 J	ND	ND	4.55
n-Tetracontane	0.73 J	ND	ND	4.07
Total SHC	6331.13	8723.04	25019.1	10096.05
Surrogate Recoveries (%)				
5a-androstane	82	72	66	65
n-Tetracosane-d50	91	80	69	68

Battelle
The Business of Innovation

Project Client: Mineral Management Service (MMS)
Project Name: cANIMIDA Task 2 Sediment Project Plan - G005001-1000
Project Number: G005001-1000

Client ID		06-WD01-01-PHC-S	
Battelle ID		R2555-P	
Sample Type		SA	
Collection Date		08/06/06	
Extraction Date		09/20/06	
Analysis Date		10/05/06	
Analytical Instrument		FID	
% Moisture		51.86	
% Lipid		NA	
Matrix		SEDIMENT	
Sample Size		14.82	
Size Unit-Basis		G_DRY	
Units		UG/KG_DRY	
n-Nonane	J	6.92	J
n-Decane	J	25.68	J
n-Undecane		50.09	
n-Dodecane		65.63	
n-Tridecane		84.74	
Isoprenoid RRT 1380	J	25.27	J
n-Tetradecane		94.3	
Isoprenoid RRT 1470	J	63.91	
n-Pentadecane		132.24	
n-Hexadecane		153.34	
Norpristane (1650)	J	36.57	
n-Heptadecane		236.76	
Pristane		113.57	
n-Octadecane		151.16	
Phytane	J	53.08	
n-Nonadecane		305.09	
n-Eicosane		254.55	
n-Heneicosane		746.64	
n-Docosane		517.65	
n-Tricosane		1484.74	
n-Tetracosane		478.46	
n-Pentacosane		1755.22	
n-Hexacosane		337.92	
n-Heptacosane		2921.69	
n-Octacosane		243.05	
n-Nonacosane		1508.74	
n-Triacontane		196.72	
n-Hentriacontane		1016.94	
n-Dotriacontane		69.56	
n-Tritriacontane		354.12	
n-Tetratriacontane	J	26.12	J
n-Pentatriacontane	J	57.36	
n-Hexatriacontane	J	8.41	J
n-Heptatriacontane	J	8.13	J
n-Octatriacontane	J	6.64	J
n-Nonatriacontane	J	3.64	J
n-Tetracontane	J	2.5	J
Total SHC		27085.87	

Surrogate Recoveries (%)

5a-androstane	67
n-Tetracosane-d50	73