



February 24, 2011

Case Narrative: LBI Renewables

Project: Bioremediation Effectiveness

Sample: DualZorb

A bioremediation agent, known as "DualZorb", was submitted to Bonner Analytical Testing Company (BATCO) on 12/15/10. LBI Renewable requested that the sample be tested for bioremediation effectiveness to determine candidacy for the Environmental Protection Agency's National contingency Plan Product Schedule. The product was tested according to Title 40 of the Code of Federal Regulations Part 300 Appendix C. QI macros is the name of the statistical software used to perform the ANOVA tables and the LSD.

The testing of the product began on December 22 2010. The testing groups per testing day (0, 7, and 28) consisted of 3 replicates of controls, 3 replicates of nutrients and 3 replicates of the treated sample (DualZorb with nutrient). The controls consisted of 100mL of natural seawater and 500mg of Alaska North Slope crude oil weathered at 521°F (ANS 521). The nutrient group consisted of 100mL of nutrient enriched seawater and 500mg of ANS 521. The product group flasks consisted of 100mL of nutrient enriched seawater, 500mg of ANS 521, and the DualZorb 1215 with nutrient product at an application rate of 0.6026 g as requested by the client.

At each sampling event (Day 0, 7, and 28) the control, nutrient and product groups underwent microbiological, gravimetric, and chemical analyses. The raw data obtained from these analyses is included in this report. The samples were prepared for the chemical analysis and gravimetric analysis by extracting the control and product groups with 50mL of methylene chloride. 1/5 of the extract was placed into a tared scintillation vial for the gravimetric analysis.

A 1mL aliquot of each sample was analyzed by way of Gas Chromatography/Mass Spectrometry (GC MS). Prior to analysis, an instrument method had to be developed in order to create optimum conditions for sample analysis. The instrument's configuration was optimized yielding 63 minute runtimes. The linear 5 point standard curve that we achieved using this configuration permitted us to begin analyzing samples and quality controls.

DualZorb and nutrient from Day 0 and 7 were analyzed at a 4X dilution and Day 28 was analyzed at a 2X dilution. All controls were analyzed at a 4X dilution. All control, nutrient and product groups, including Day 0, 7 and 28, underwent the Solid Phase Extraction Alumina clean-up procedure and were therefore analyzed undiluted. The concentrations of the target analytes, total aliphatics, and total aromatics were determined according to the equation 7 found in Title 40 of the Code of Federal Regulations Part 300 appendix C. The results can be found in the raw data section of the report. The code of Federal Regulations provided a significant list of compounds to include in the 5 point standard curve. The following compounds were not listed by the CFR; moreover, this methodology also does not provide characteristic ions associated with these compounds nor reference compounds. As a result, the following compounds were not quantifiable according to this methodology: The naphthobenzothiophenes, benzo (a) anthracene, and perylene. The concentrations of compounds associated with weathered Alaskan North Crude varies. The lighter alkanes tend to be absent in abundance or in totality; consequently, those same compounds tend to be absent in all of the sample groups.

Results:

GCMS Summary worksheet:

Alkanes show data that reflects an effective product. As the graph shows, concentrations are nearly constant for the control group, fall off quickly for the nutrient group, and fall off even more rapidly for the product group. Note that, while the graph looks as if product and

nutrient and at roughly the same level, in fact, product, day 28 is significantly lower than nutrients, Day 28.

Aromatics also reflect an effective product. Here, both the control and nutrient groups are comparatively level. While the product group seems to start out slow, it is actually lowering the concentration over the first, seven-day interval significantly faster than the other two groups. This pace picks up significantly over the last 28 days.

Alkanes ANOVA worksheet:

P-values reflect an extremely high level of confidence based on extremely consistent data. Fisher tests further reflect test viability. With a least significant difference of 114,058.3, there were two T groups. If the least significant difference had been marginally lower, there would have been three groups as is reflected by the graph. However, the graph and groupings show significant alkane results for day seven and day 28 product, as well as day 28 nutrient. The fourth member of the B group, nutrient day seven, while much lower than the means from group A is significantly higher (an order of magnitude) than the other three values in the B group.

Aromatics ANOVA worksheet:

P-values, again, reflect high confidence levels. 99.97% confidence for the columns row was the lowest level of confidence. Fisher tests validate the T groups, which are very well delineated. Note the groupings in the graph, clearly showing that product, day 28 is well separated from every other value.

Approved By: 

Michael S. Bonner, Ph.D.

Dualzorb

	Day 0 (g)	Day 7 (g)	Day 28 (g)	Reduction %	Avg Red. %
Control #1	0.0979	0.9680	0.0976	0.3	
Control #2	0.1017	0.0970	0.0962	5.4	0.4
Control #3	0.1037	0.0959	0.1083	-4.4	
Nutrient #1	0.0999	0.0855	0.0837	16.2	
Nutrient #2	0.1007	0.8150	0.0867	16.2	15.4
Nutrient #3	0.1013	0.0677	0.0797	13.9	
Dualzorb	0.1012	0.0729	0.0659	34.9	
Dualzorb	0.1019	0.0689	0.0749	26.5	30.0
Dualzorb	0.1002	0.0690	0.0715	28.6	

Averages		
0.101	0.387	0.101
0.100	0.450	0.085
0.101	0.073	0.066

DualZorb
Micro Results
Most Probable Number, MPN

	Day 0	Day 7	Day 28
Control #1	49	24	27
Control #2	40	33	44
Control #3	42	29	31
Nutrient #1	46	123	25
Nutrient #2	47	112	118
Nutrient #3	46	110	24
Dualzorb	62	113	116
Dualzorb	66	131	112
Dualzorb	62	127	111

	CONTROL, REPLICATE 1 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		CONTROL, REPLICATE 2 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		CONTROL, REPLICATE 3 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	7.32	1020.21	7.95	1052.98	7.20	1086.79
nC-15 Pentadecane	60.72	8462.72	67.07	8883.44	61.69	9311.70
nC-16 Hexadecane	128.08	17850.87	137.10	18158.94	130.11	19639.25
nC-17 Heptadecane	165.25	23031.36	191.02	25300.66	163.97	24750.19
Pristane	68.88	9600.00	76.05	10072.85	82.91	12514.72
nC-18 Octadecane	156.63	21829.97	167.03	22123.18	139.92	21120.00
Phytane	57.43	8004.18	59.72	7909.93	58.43	8819.62
nC-19 Nonadecane	121.02	16866.90	122.77	16260.93	113.87	17187.92
nC-20 Eicosane	118.77	16553.31	126.15	16708.61	127.38	19227.17
nC-21 Heneicosane	107.67	15006.27	115.95	15357.62	120.22	18146.42
nC-22 Docosane	106.07	14783.28	117.74	15594.70	107.51	16227.92
nC-23 Tricosane	107.38	14965.85	117.99	15627.81	101.85	15373.58
nC-24 Tetracosane	111.11	15485.71	121.63	16109.93	107.34	16202.26
nC-25 Pentacosane	94.17	13124.74	101.40	13430.46	96.04	14496.60
nC-26 Hexacosane	93.08	12972.82	98.54	13051.66	85.21	12861.89
nC-27 Heptacosane	61.26	8537.98	63.25	8377.48	58.79	8873.96
nC-28 Octacosane	52.58	7328.22	52.95	7013.25	48.25	7283.02
nC-29 Nonacosane	47.18	6575.61	46.33	6136.42	44.00	6641.51
nC-30 Triacontane	27.10	3777.00	28.57	3784.11	26.52	4003.02
nC-31 Hentriacontane	24.71	3443.90	25.52	3380.13	23.86	3601.51
nC-32 Dotriacontane	19.66	2740.07	20.39	2700.66	17.17	2591.70
nC-33 Tritriacontane	15.85	2209.06	18.01	2385.43	16.10	2430.19
nC-34 Tetratriacontane	12.89	1796.52	13.73	1818.54	11.64	1756.98
nC-35 Pentatriacontane	12.88	1795.12	13.29	1760.26	11.88	1793.21
Total Alkanes	1777.69	247762	1910.15	253000	1761.86	265941
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	4.09	5.49	4.57	5.92	4.29	5.80
C2-Naphthalenes	183.15	245.84	192.22	248.83	186.27	251.72
C3-Naphthalenes	764.16	1025.72	804.11	1040.92	750.87	1014.69
C4-Naphthalenes	780.20	1047.25	777.27	1006.17	854.32	1154.48
Fluorene	2.90	389.26	3.04	393.53	2.89	390.54
C1-Fluorenes	189.29	254.08	228.19	295.40	186.20	251.62
C2-Fluorenes	268.60	360.53	275.33	356.41	257.82	348.41
C3-Fluorenes	52.62	70.63	56.86	73.61	50.83	68.68
Dibenzothiophene	8.82	1183.89	9.32	1206.47	8.68	1172.97
C1-Dibenzothiophenes	343.87	461.57	373.13	483.02	347.04	468.97
C2-Dibenzothiophenes	463.64	622.34	476.22	616.46	448.70	606.35
C3-Dibenzothiophenes	290.78	390.31	330.16	427.39	300.23	405.72
Phenanthrene	10.91	1464.43	11.78	1524.92	10.95	1479.73
C1-Phenanthrenes	674.92	905.93	695.05	899.75	677.31	915.28
C2-Phenanthrenes	720.35	966.91	771.14	998.24	731.61	988.66
C3-Phenanthrenes	543.56	729.60	534.66	692.11	554.65	749.53
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	46.64	62.60	54.74	70.86	45.85	61.97
C2-Pyrenes	41.82	56.14	43.28	56.02	34.35	46.42
Chrysene	1.86	249.66	1.99	257.61	1.95	263.51
C1-Chrysenes	75.13	100.85	81.16	105.07	76.10	102.83
C2-Chrysenes	88.46	118.74	90.08	116.61	83.46	112.78
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	5555.77	10712	5814.31	10875	5614.37	10861
% Surrogate Recovery		Sur (from Raw Data)		Sur (from Raw Data)		Sur (from Raw Data)
5 Alpha Androstane	0.7175	2.87	0.755	3.02	0.6625	2.65
Phenanthrene d-10	0.745	2.98	0.7725	3.09	0.74	2.96

CONTROL
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 0

Alkane Analyte:	Replicate #1	Replicate #2	Replicate #3	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	1020.21	1052.98	1086.79	1053.33	33.29	3.16
nC-15 Pentadecane	8462.72	8883.44	9311.70	8885.95	424.50	4.78
nC-16 Hexadecane	17850.87	18158.94	19639.25	18549.69	956.08	5.15
nC-17 Heptadecane	23031.36	25300.66	24750.19	24360.74	1183.72	4.86
Pristane	9600.00	10072.85	12514.72	10729.19	1564.28	14.58
nC-18 Octadecane	21829.97	22123.18	21120.00	21691.05	515.82	2.38
Phytane	8004.18	7909.93	8819.62	8244.58	500.23	6.07
nC-19 Nonadecane	16866.90	16260.93	17187.92	16771.92	470.74	2.81
nC-20 Eicosane	16553.31	16708.61	19227.17	17496.36	1500.93	8.58
nC-21 Heneicosane	15006.27	15357.62	18146.42	16170.10	1720.53	10.64
nC-22 Docosane	14783.28	15594.70	16227.92	15535.30	724.15	4.66
nC-23 Tricosane	14965.85	15627.81	15373.58	15322.42	333.93	2.18
nC-24 Tetracosane	15485.71	16109.93	16202.26	15932.64	389.79	2.45
nC-25 Pentacosane	13124.74	13430.46	14496.60	13683.94	720.20	5.26
nC-26 Hexacosane	12972.82	13051.66	12861.89	12962.12	95.34	0.74
nC-27 Heptacosane	8537.98	8377.48	8873.96	8596.47	253.36	2.95
nC-28 Octacosane	7328.22	7013.25	7283.02	7208.16	170.31	2.36
nC-29 Nonacosane	6575.61	6136.42	6641.51	6451.18	274.57	4.26
nC-30 Triacontane	3777.00	3784.11	4003.02	3854.71	128.49	3.33
nC-31 Hentriacontane	3443.90	3380.13	3601.51	3475.18	113.95	3.28
nC-32 Dotriacontane	2740.07	2700.66	2591.70	2677.48	76.86	2.87
nC-33 Tritriacontane	2209.06	2385.43	2430.19	2341.56	116.91	4.99
nC-34 Tetratriacontane	1796.52	1818.54	1756.98	1790.68	31.19	1.74
nC-35 Pentatriacontane	1795.12	1760.26	1793.21	1782.86	19.60	1.10
Total Alkanes	247761.67	253000.00	265941.13	255567.60	9357.76	3.66
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	5.49	5.92	5.80	5.74	0.22	3.88
C2-Naphthalenes	245.84	248.83	251.72	248.80	2.94	1.18
C3-Naphthalenes	1025.72	1040.92	1014.69	1027.11	13.17	1.28
C4-Naphthalenes	1047.25	1006.17	1154.48	1069.30	76.57	7.16
Fluorene	389.26	393.53	390.54	391.11	2.19	0.56
C1-Fluorenes	254.08	295.40	251.62	267.03	24.59	9.21
C2-Fluorenes	360.53	356.41	348.41	355.12	6.16	1.74
C3- Fluorenes	70.63	73.61	68.68	70.97	2.48	3.50
Dibenzothiophene	1183.89	1206.47	1172.97	1187.78	17.08	1.44
C1-Dibenzothiophenes	461.57	483.02	468.97	471.18	10.89	2.31
C2-Dibenzothiophenes	622.34	616.46	606.35	615.05	8.09	1.31
C3- Dibenzothiophenes	390.31	427.39	405.72	407.81	18.63	4.57
Phenanthrene	1464.43	1524.92	1479.73	1489.69	31.45	2.11
C1-Phenanthrenes	905.93	899.75	915.28	906.99	7.82	0.86
C2-Phenanthrenes	966.91	998.24	988.66	984.60	16.05	1.63
C3-Phenanthrenes	729.60	692.11	749.53	723.75	29.15	4.03
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	62.60	70.86	61.97	65.14	4.96	7.61
C2- Pyrenes	56.14	56.02	46.42	52.86	5.58	10.55
Chrysene	249.66	257.61	263.51	256.93	6.95	2.70
C1- Chrysenes	100.85	105.07	102.83	102.92	2.11	2.05
C2- Chrysenes	118.74	116.61	112.78	116.04	3.02	2.60
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	10711.78	10875.31	10860.67	10815.92	90.49	0.84

	Nutrient, REPLICATE 1 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Nutrient, REPLICATE 2 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Nutrient, REPLICATE 3 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
	Alkane Analyte:					
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	8.21	1087.42	8.34	1146.39	8.77	1135.28
nC-15 Pentadecane	68.96	9133.77	70.27	9659.11	72.09	9332.04
nC-16 Hexadecane	139.17	18433.11	138.42	19026.80	144.39	18691.26
nC-17 Heptadecane	182.55	24178.81	193.39	26582.82	197.89	25616.83
Pristane	68.38	9056.95	64.24	8830.24	73.03	9453.72
nC-18 Octadecane	169.49	22449.01	167.36	23004.81	165.29	21396.76
Phytane	70.02	9274.17	58.94	8101.72	65.01	8415.53
nC-19 Nonadecane	132.90	17602.65	121.90	16756.01	129.28	16735.28
nC-20 Eicosane	126.53	16758.94	128.93	17722.34	138.22	17892.56
nC-21 Heneicosane	118.29	15667.55	120.80	16604.81	126.88	16424.60
nC-22 Docosane	121.48	16090.07	108.17	14868.73	112.97	14623.95
nC-23 Tricosane	113.39	15018.54	113.71	15630.24	119.93	15524.92
nC-24 Tetracosane	120.84	16005.30	118.79	16328.52	119.34	15448.54
nC-25 Pentacosane	101.99	13508.61	96.95	13326.46	102.03	13207.77
nC-26 Hexacosane	99.31	13153.64	93.44	12843.99	100.14	12963.11
nC-27 Heptacosane	62.47	8274.17	60.90	8371.13	63.77	8255.02
nC-28 Octacosane	52.23	6917.88	51.48	7076.29	52.75	6828.48
nC-29 Nonacosane	47.05	6231.79	44.79	6156.70	47.72	6177.35
nC-30 Triacontane	27.57	3651.66	29.87	4105.84	32.31	4182.52
nC-31 Hentriacontane	24.60	3258.28	24.71	3396.56	25.29	3273.79
nC-32 Dotriacontane	19.65	2602.65	19.39	2665.29	20.47	2649.84
nC-33 Tritriacontane	16.95	2245.03	17.13	2354.64	17.81	2305.50
nC-34 Tetratriacontane	13.00	1721.85	13.27	1824.05	13.83	1790.29
nC-35 Pentatriacontane	12.34	1634.44	12.84	1764.95	14.00	1812.30
Total Alkanes	1917.37	253956	1878.03	258148	1963.21	254137
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	4.61	5.79	6.00	7.92	4.79	5.89
C2-Naphthalenes	204.37	256.26	209.17	276.13	214.44	263.92
C3-Naphthalenes	816.91	1024.34	800.89	1057.28	856.05	1053.60
C4-Naphthalenes	774.24	970.83	870.96	1149.78	823.18	1013.15
Fluorene	3.13	392.48	3.01	397.36	3.23	397.54
C1-Fluorenes	207.95	260.75	204.46	269.92	212.21	261.18
C2-Fluorenes	277.73	348.25	240.40	317.36	284.83	350.56
C3-Fluorenes	56.05	70.29	54.79	72.33	55.33	68.10
Dibenzothiophene	9.43	1182.45	9.02	1190.76	9.59	1180.31
C1-Dibenzothiophenes	372.64	467.26	358.57	473.36	386.62	475.84
C2-Dibenzothiophenes	481.72	604.04	481.92	636.20	490.62	603.84
C3-Dibenzothiophenes	366.18	459.15	295.39	389.95	306.10	376.74
Phenanthrene	11.78	1477.12	11.46	1512.87	12.29	1512.62
C1-Phenanthrenes	724.91	908.98	710.75	938.28	763.88	940.16
C2-Phenanthrenes	782.29	980.93	765.78	1010.93	798.10	982.27
C3-Phenanthrenes	565.86	709.54	581.83	768.09	542.83	668.10
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	51.07	64.04	51.06	67.40	57.48	70.75
C2-Pyrenes	32.18	40.35	19.95	26.33	22.25	27.39
Chrysene	2.13	267.08	1.94	256.11	2.02	248.62
C1-Chrysenes	82.40	103.32	79.64	105.14	83.46	102.72
C2-Chrysenes	101.88	127.75	86.75	114.51	82.77	101.87
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	5929.45	10721	5843.73	11038	6012.06	10705
% Surrogate Recovery						
5 Alpha Androstane	0.755	3.02	0.728	2.91	0.773	3.09
Phenanthrene d-10	0.798	3.19	0.758	3.03	0.813	3.25

Nutrient
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 0

Alkane Analyte:	Replicate #1	Replicate #2	Replicate #3	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	1087.42	1146.39	1135.28	1123.03	31.34	2.79
nC-15 Pentadecane	9133.77	9659.11	9332.04	9374.97	265.28	2.83
nC-16 Hexadecane	18433.11	19026.80	18691.26	18717.06	297.69	1.59
nC-17 Heptadecane	24178.81	26582.82	25616.83	25459.48	1209.70	4.75
Pristane	9056.95	8830.24	9453.72	9113.64	315.58	3.46
nC-18 Octadecane	22449.01	23004.81	21396.76	22283.53	816.70	3.67
Phytane	9274.17	8101.72	8415.53	8597.14	606.96	7.06
nC-19 Nonadecane	17602.65	16756.01	16735.28	17031.31	494.90	2.91
nC-20 Eicosane	16758.94	17722.34	17892.56	17457.94	611.31	3.50
nC-21 Heneicosane	15667.55	16604.81	16424.60	16232.32	497.34	3.06
nC-22 Docosane	16090.07	14868.73	14623.95	15194.25	785.40	5.17
nC-23 Tricosane	15018.54	15630.24	15524.92	15391.23	327.03	2.12
nC-24 Tetracosane	16005.30	16328.52	15448.54	15927.45	445.12	2.79
nC-25 Pentacosane	13508.61	13326.46	13207.77	13347.61	151.53	1.14
nC-26 Hexacosane	13153.64	12843.99	12963.11	12986.91	156.19	1.20
nC-27 Heptacosane	8274.17	8371.13	8255.02	8300.11	62.25	0.75
nC-28 Octacosane	6917.88	7076.29	6828.48	6940.88	125.50	1.81
nC-29 Nonacosane	6231.79	6156.70	6177.35	6188.61	38.79	0.63
nC-30 Triacontane	3651.66	4105.84	4182.52	3980.01	286.93	7.21
nC-31 Hentriacontane	3258.28	3396.56	3273.79	3309.54	75.76	2.29
nC-32 Dotriacontane	2602.65	2665.29	2649.84	2639.26	32.63	1.24
nC-33 Tritriacontane	2245.03	2354.64	2305.50	2301.72	54.90	2.39
nC-34 Tetratriacontane	1721.85	1824.05	1790.29	1778.73	52.07	2.93
nC-35 Pentatriacontane	1634.44	1764.95	1812.30	1737.23	92.11	5.30
Total Alkanes	253956.29	258148.45	254137.22	255413.99	2369.84	0.93
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	5.79	7.92	5.89	6.53	1.20	18.41
C2-Naphthalenes	256.26	276.13	263.92	265.44	10.02	3.78
C3-Naphthalenes	1024.34	1057.28	1053.60	1045.07	18.05	1.73
C4-Naphthalenes	970.83	1149.78	1013.15	1044.58	93.52	8.95
Fluorene	392.48	397.36	397.54	395.79	2.87	0.73
C1-Fluorenes	260.75	269.92	261.18	263.95	5.18	1.96
C2-Fluorenes	348.25	317.36	350.56	338.72	18.54	5.47
C3- Fluorenes	70.29	72.33	68.10	70.24	2.12	3.01
Dibenzothiophene	1182.45	1190.76	1180.31	1184.50	5.52	0.47
C1-Dibenzothiophenes	467.26	473.36	475.84	472.15	4.42	0.94
C2-Dibenzothiophenes	604.04	636.20	603.84	614.69	18.63	3.03
C3- Dibenzothiophenes	459.15	389.95	376.74	408.61	44.27	10.83
Phenanthrene	1477.12	1512.87	1512.62	1500.87	20.57	1.37
C1-Phenanthrenes	908.98	938.28	940.16	929.14	17.49	1.88
C2-Phenanthrenes	980.93	1010.93	982.27	991.38	16.95	1.71
C3-Phenanthrenes	709.54	768.09	668.10	715.24	50.24	7.02
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	64.04	67.40	70.75	67.40	3.35	4.98
C2- Pyrenes	40.35	26.33	27.39	31.35	7.81	24.89
Chrysene	267.08	256.11	248.62	257.27	9.29	3.61
C1- Chrysenes	103.32	105.14	102.72	103.73	1.26	1.21
C2- Chrysenes	127.75	114.51	101.87	114.71	12.94	11.28
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	10720.98	11038.02	10705.15	10821.38	187.78	1.74

	Dualzorb REPLICATE 1 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Dualzorb REPLICATE 2 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Dualzorb REPLICATE 3 Testing Date: Day 0 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	13.36	1576.40	27.88	2896.62	25.93	2788.17
nC-15 Pentadecane	80.05	9445.43	82.91	8614.03	81.42	8754.84
nC-16 Hexadecane	165.86	19570.50	171.78	17847.27	168.18	18083.87
nC-17 Heptadecane	178.09	21013.57	200.93	20875.84	194.66	20931.18
Pristane	115.38	13614.16	110.45	11475.32	100.59	10816.13
nC-18 Octadecane	159.83	18859.00	230.09	23905.45	221.52	23819.35
Phytane	87.01	10266.67	89.57	9305.97	86.10	9258.06
nC-19 Nonadecane	163.81	19328.61	179.45	18644.16	168.50	18118.28
nC-20 Eicosane	135.09	15939.82	150.67	15654.03	157.42	16926.88
nC-21 Heneicosane	133.54	15756.93	144.23	14984.94	140.48	15105.38
nC-22 Docosane	129.55	15286.14	154.81	16084.16	132.53	14250.54
nC-23 Tricosane	126.38	14912.09	148.36	15414.03	143.90	15473.12
nC-24 Tetracosane	119.12	14055.46	134.90	14015.58	131.01	14087.10
nC-25 Pentacosane	99.07	11689.68	117.07	12163.12	94.06	10113.98
nC-26 Hexacosane	91.29	10771.68	106.88	11104.42	99.65	10715.05
nC-27 Heptacosane	65.79	7762.83	79.78	8288.83	71.78	7718.28
nC-28 Octacosane	51.55	6082.60	70.27	7300.78	62.92	6765.59
nC-29 Nonacosane	47.55	5610.62	59.51	6182.86	51.97	5588.17
nC-30 Triacontane	32.04	3780.53	44.20	4592.21	41.06	4415.05
nC-31 Hentriacontane	28.10	3315.63	39.31	4084.16	38.35	4123.66
nC-32 Dotriacontane	20.57	2427.14	30.89	3209.35	25.35	2725.81
nC-33 Tritriacontane	19.60	2312.68	26.87	2791.69	21.90	2354.84
nC-34 Tetratriacontane	14.18	1673.16	20.52	2131.95	17.47	1878.49
nC-35 Pentatriacontane	12.97	1530.38	18.25	1896.10	16.27	1749.46
Total Alkanes	2089.78	246582	2439.58	253463	2293.02	246561
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	6.25	7.46	5.67	6.16	5.86	6.68
C2-Naphthalenes	255.85	305.50	255.10	277.29	261.05	297.49
C3-Naphthalenes	1056.66	1261.68	1072.71	1165.99	1070.87	1220.37
C4-Naphthalenes	1120.97	1338.47	1123.80	1221.52	1189.42	1355.46
Fluorene	4.01	478.81	3.97	431.52	3.93	447.86
C1-Fluorenes	250.46	299.06	273.79	297.60	258.43	294.51
C2-Fluorenes	348.65	416.30	409.79	445.42	352.49	401.70
C3-Fluorenes	73.58	87.86	77.54	84.29	75.02	85.49
Dibenzothiophene	11.70	1397.01	12.58	1367.39	12.34	1406.27
C1-Dibenzothiophenes	515.50	615.52	519.10	564.24	499.53	569.27
C2-Dibenzothiophenes	596.85	712.66	664.31	722.08	639.07	728.28
C3-Dibenzothiophenes	390.16	465.86	413.56	449.52	399.96	455.79
Phenanthrene	14.92	1781.49	15.95	1733.70	15.42	1757.26
C1-Phenanthrenes	900.77	1075.55	970.29	1054.66	976.69	1113.04
C2-Phenanthrenes	966.30	1153.79	1065.14	1157.76	1018.85	1161.08
C3-Phenanthrenes	692.70	827.11	817.83	888.95	783.99	893.43
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	66.95	79.94	68.30	74.24	68.23	77.75
C2-Pyrenes	42.21	50.40	40.80	44.35	37.01	42.18
Chrysene	2.52	300.90	2.61	283.70	2.45	279.20
C1-Chrysenes	97.29	116.17	98.08	106.61	96.01	109.42
C2-Chrysenes	103.26	123.30	108.47	117.91	108.11	123.20
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	7517.57	12895	8019.40	12495	7874.73	12826
% Surrogate Recovery						
5 Alpha Androstane	0.85	3.39	0.96	3.85	0.93	3.72
Phenanthrene d-10	0.84	3.35	0.92	3.68	0.88	3.51

Dualzorb STATISTICS FOR SURROGATE CORRECTED DATA Testing Date: Day 0						
Alkane Analyte:	Replicate #1	Replicate #2	Replicate #3	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	1576.40	2896.62	2788.17	2420.40	732.93	30.28
nC-15 Pentadecane	9445.43	8614.03	8754.84	8938.10	444.97	4.98
nC-16 Hexadecane	19570.50	17847.27	18083.87	18500.55	934.13	5.05
nC-17 Heptadecane	21013.57	20875.84	20931.18	20940.20	69.30	0.33
Pristane	13614.16	11475.32	10816.13	11968.54	1462.77	12.22
nC-18 Octadecane	18859.00	23905.45	23819.35	22194.60	2889.04	13.02
Phytane	10266.67	9305.97	9258.06	9610.24	568.99	5.92
nC-19 Nonadecane	19328.61	18644.16	18118.28	18697.02	606.90	3.25
nC-20 Eicosane	15939.82	15654.03	16926.88	16173.58	667.85	4.13
nC-21 Heneicosane	15756.93	14984.94	15105.38	15282.41	415.33	2.72
nC-22 Docosane	15286.14	16084.16	14250.54	15206.94	919.37	6.05
nC-23 Tricosane	14912.09	15414.03	15473.12	15266.41	308.27	2.02
nC-24 Tetracosane	14055.46	14015.58	14087.10	14052.71	35.84	0.26
nC-25 Pentacosane	11689.68	12163.12	10113.98	11322.26	1072.84	9.48
nC-26 Hexacosane	10771.68	11104.42	10715.05	10863.72	210.37	1.94
nC-27 Heptacosane	7762.83	8288.83	7718.28	7923.31	317.33	4.01
nC-28 Octacosane	6082.60	7300.78	6765.59	6716.32	610.58	9.09
nC-29 Nonacosane	5610.62	6182.86	5588.17	5793.88	337.05	5.82
nC-30 Triacontane	3780.53	4592.21	4415.05	4262.60	426.78	10.01
nC-31 Hentriacontane	3315.63	4084.16	4123.66	3841.15	455.54	11.86
nC-32 Dotriacontane	2427.14	3209.35	2725.81	2787.43	394.73	14.16
nC-33 Tritriacontane	2312.68	2791.69	2354.84	2486.40	265.22	10.67
nC-34 Tetratriacontane	1673.16	2131.95	1878.49	1894.53	229.82	12.13
nC-35 Pentatriacontane	1530.38	1896.10	1749.46	1725.32	184.05	10.67
Total Alkanes	246581.71	253462.86	246561.29	248868.62	3978.74	1.60
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	7.46	6.16	6.68	6.77	0.65	9.65
C2-Naphthalenes	305.50	277.29	297.49	293.43	14.54	4.95
C3-Naphthalenes	1261.68	1165.99	1220.37	1216.02	48.00	3.95
C4-Naphthalenes	1338.47	1221.52	1355.46	1305.15	72.92	5.59
Fluorene	478.81	431.52	447.86	452.73	24.01	5.30
C1-Fluorenes	299.06	297.60	294.51	297.05	2.32	0.78
C2-Fluorenes	416.30	445.42	401.70	421.14	22.26	5.29
C3- Fluorenes	87.86	84.29	85.49	85.88	1.82	2.11
Dibenzothiophene	1397.01	1367.39	1406.27	1390.22	20.31	1.46
C1-Dibenzothiophenes	615.52	564.24	569.27	583.01	28.27	4.85
C2-Dibenzothiophenes	712.66	722.08	728.28	721.01	7.87	1.09
C3- Dibenzothiophenes	465.86	449.52	455.79	457.06	8.24	1.80
Phenanthrene	1781.49	1733.70	1757.26	1757.48	23.90	1.36
C1-Phenanthrenes	1075.55	1054.66	1113.04	1081.08	29.58	2.74
C2-Phenanthrenes	1153.79	1157.76	1161.08	1157.54	3.65	0.32
C3-Phenanthrenes	827.11	888.95	893.43	869.83	37.06	4.26
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	79.94	74.24	77.75	77.31	2.88	3.72
C2- Pyrenes	50.40	44.35	42.18	45.64	4.26	9.34
Chrysene	300.90	283.70	279.20	287.93	11.45	3.98
C1- Chrysenes	116.17	106.61	109.42	110.73	4.92	4.44
C2- Chrysenes	123.30	117.91	123.20	121.47	3.09	2.54
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	12894.83	12494.88	12825.74	12738.48	213.78	1.68

	CONTROL, REPLICATE 2 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		CONTROL, REPLICATE 3 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		CONTROL, REPLICATE 4 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	3.31	497.74	2.59	346.49	3.17	548.92
nC-15 Pentadecane	41.56	6249.62	38.07	5092.98	37.51	6495.24
nC-16 Hexadecane	109.18	16418.05	107.56	14389.30	90.46	15664.07
nC-17 Heptadecane	160.62	24153.38	149.82	20042.81	123.32	21354.11
Pristane	67.11	10091.73	66.64	8915.05	62.40	10805.19
nC-18 Octadecane	152.45	22924.81	128.61	17205.35	106.00	18354.98
Phytane	56.92	8559.40	55.98	7488.96	50.07	8670.13
nC-19 Nonadecane	126.19	18975.94	111.04	14854.85	91.72	15882.25
nC-20 Eicosane	108.47	16311.28	123.57	16531.10	97.97	16964.50
nC-21 Heneicosane	105.72	15897.74	118.13	15803.34	95.71	16573.16
nC-22 Docosane	114.99	17291.73	105.52	14116.39	90.22	15622.51
nC-23 Tricosane	95.38	14342.86	100.01	13379.26	85.28	14767.10
nC-24 Tetracosane	92.14	13855.64	111.81	14957.86	100.47	17397.40
nC-25 Pentacosane	90.07	13544.36	98.99	13242.81	92.51	16019.05
nC-26 Hexacosane	77.18	11606.02	94.64	12660.87	82.90	14354.98
nC-27 Heptacosane	52.66	7918.80	61.83	8271.57	56.23	9736.80
nC-28 Octacosane	44.11	6633.08	56.02	7494.31	48.89	8465.80
nC-29 Nonacosane	40.93	6154.89	47.20	6314.38	42.11	7291.77
nC-30 Triacontane	29.60	4451.13	33.78	4519.06	33.03	5719.48
nC-31 Hentriacontane	25.36	3813.53	28.87	3862.21	25.99	4500.43
nC-32 Dotriacontane	19.49	2930.83	23.81	3185.28	20.82	3605.19
nC-33 Tritriacontane	16.30	2451.13	19.83	2652.84	17.56	3040.69
nC-34 Tetratriacontane	13.21	1986.47	16.03	2144.48	14.31	2477.92
nC-35 Pentatriacontane	12.22	1837.59	13.50	1806.02	11.75	2034.63
Total Alkanes	1655.17	248898	1713.85	229278	1480.40	256346.32
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	0.33	0.54	0.00	0.00	0.00	0.00
C2-Naphthalenes	59.24	96.33	47.09	69.00	61.54	98.85
C3-Naphthalenes	491.71	799.53	475.60	696.85	479.81	770.78
C4-Naphthalenes	595.11	967.65	723.80	1060.51	605.23	972.25
Fluorene	2.04	331.71	1.72	252.01	1.76	282.73
C1-Fluorenes	166.88	271.34	159.96	234.38	145.97	234.48
C2-Fluorenes	249.89	406.32	232.25	340.30	200.79	322.56
C3-Fluorenes	50.23	81.68	47.09	68.99	43.84	70.43
Dibenzothiophene	7.80	1268.29	7.41	1085.71	6.86	1102.01
C1-Dibenzothiophenes	318.46	517.82	314.74	461.16	288.70	463.78
C2-Dibenzothiophenes	440.51	716.27	414.99	608.04	378.80	608.51
C3-Dibenzothiophenes	275.55	448.05	300.08	439.68	237.40	381.37
Phenanthrene	9.84	1600.00	9.47	1387.55	8.84	1420.08
C1-Phenanthrenes	638.98	1038.99	621.52	910.65	568.45	913.18
C2-Phenanthrenes	693.70	1127.96	680.17	996.59	626.36	1006.20
C3-Phenanthrenes	476.66	775.05	454.31	665.66	421.82	677.63
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	41.39	67.30	45.06	66.02	43.37	69.67
C2-Pyrenes	26.74	43.48	25.78	37.78	27.90	44.82
Chrysene	1.69	274.80	1.75	256.41	1.74	279.52
C1-Chrysenes	67.91	110.42	67.71	99.21	65.98	105.99
C2-Chrysenes	68.22	110.93	86.12	126.19	73.48	118.04
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	4682.86	11054	4716.64	9863	4289	9943
% Surrogate Recovery						
5 Alpha Androstane	0.665	2.66	0.7475	2.99	0.5775	2.31
Phenanthrene d-10	0.615	2.46	0.6825	2.73	0.6225	2.49

CONTROL
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 7

Alkane Analyte:	Replicate #2	Replicate #3	Replicate #4	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	497.74	346.49	548.92	464.38	105.26	22.67
nC-15 Pentadecane	6249.62	5092.98	6495.24	5945.95	748.83	12.59
nC-16 Hexadecane	16418.05	14389.30	15664.07	15490.47	1025.45	6.62
nC-17 Heptadecane	24153.38	20042.81	21354.11	21850.10	2099.69	9.61
Pristane	10091.73	8915.05	10805.19	9937.32	954.49	9.61
nC-18 Octadecane	22924.81	17205.35	18354.98	19495.05	3025.37	15.52
Phytane	8559.40	7488.96	8670.13	8239.50	652.34	7.92
nC-19 Nonadecane	18975.94	14854.85	15882.25	16571.01	2145.14	12.95
nC-20 Eicosane	16311.28	16531.10	16964.50	16602.29	332.38	2.00
nC-21 Heneicosane	15897.74	15803.34	16573.16	16091.42	419.86	2.61
nC-22 Docosane	17291.73	14116.39	15622.51	15676.88	1588.37	10.13
nC-23 Tricosane	14342.86	13379.26	14767.10	14163.07	711.17	5.02
nC-24 Tetracosane	13855.64	14957.86	17397.40	15403.63	1812.47	11.77
nC-25 Pentacosane	13544.36	13242.81	16019.05	14268.74	1523.29	10.68
nC-26 Hexacosane	11606.02	12660.87	14354.98	12873.95	1386.81	10.77
nC-27 Heptacosane	7918.80	8271.57	9736.80	8642.39	964.06	11.16
nC-28 Octacosane	6633.08	7494.31	8465.80	7531.07	916.91	12.18
nC-29 Nonacosane	6154.89	6314.38	7291.77	6587.01	615.53	9.34
nC-30 Triacontane	4451.13	4519.06	5719.48	4896.56	713.48	14.57
nC-31 Hentriacontane	3813.53	3862.21	4500.43	4058.72	383.30	9.44
nC-32 Dotriacontane	2930.83	3185.28	3605.19	3240.44	340.55	10.51
nC-33 Trtriacontane	2451.13	2652.84	3040.69	2714.89	299.64	11.04
nC-34 Tetratriacontane	1986.47	2144.48	2477.92	2202.96	250.89	11.39
nC-35 Pentatriacontane	1837.59	1806.02	2034.63	1892.75	123.88	6.55
Total Alkanes	248897.74	229277.59	256346.32	244840.55	13983.01	5.71
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	0.54	0.00	0.00	0.18	0.31	173.21
C2-Naphthalenes	96.33	69.00	98.85	88.06	16.55	18.80
C3-Naphthalenes	799.53	696.85	770.78	755.72	52.97	7.01
C4-Naphthalenes	967.65	1060.51	972.25	1000.14	52.34	5.23
Fluorene	331.71	252.01	282.73	288.82	40.19	13.92
C1-Fluorenes	271.34	234.38	234.48	246.74	21.31	8.64
C2-Fluorenes	406.32	340.30	322.56	356.39	44.14	12.38
C3- Fluorenes	81.68	68.99	70.43	73.70	6.95	9.42
Dibenzothiophene	1268.29	1085.71	1102.01	1152.01	101.04	8.77
C1-Dibenzothiophenes	517.82	461.16	463.78	480.92	31.99	6.65
C2-Dibenzothiophenes	716.27	608.04	608.51	644.27	62.35	9.68
C3- Dibenzothiophenes	448.05	439.68	381.37	423.03	36.33	8.59
Phenanthrene	1600.00	1387.55	1420.08	1469.21	114.43	7.79
C1-Phenanthrenes	1038.99	910.65	913.18	954.27	73.38	7.69
C2-Phenanthrenes	1127.96	996.59	1006.20	1043.58	73.23	7.02
C3-Phenanthrenes	775.05	665.66	677.63	706.11	60.00	8.50
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	67.30	66.02	69.67	67.66	1.85	2.74
C2- Pyrenes	43.48	37.78	44.82	42.03	3.74	8.89
Chrysene	274.80	256.41	279.52	270.24	12.21	4.52
C1- Chrysenes	110.42	99.21	105.99	105.21	5.65	5.37
C2- Chrysenes	110.93	126.19	118.04	118.39	7.64	6.45
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	11054.46	9862.70	9942.87	10286.68	666.13	6.48

	Nutrient, REPLICATE 1 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Nutrient, REPLICATE 3 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Nutrient, REPLICATE 4 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	2.87	313.66	0.00	0.00	1.48	212.19
nC-15 Pentadecane	22.38	2445.90	3.03	475.29	15.97	2289.61
nC-16 Hexadecane	49.95	5459.02	3.71	581.96	34.36	4926.16
nC-17 Heptadecane	49.32	5390.16	8.99	1410.20	40.36	5786.38
Pristane	76.94	8408.74	58.32	9148.24	40.97	5873.84
nC-18 Octadecane	43.30	4732.24	6.26	981.96	37.51	5377.78
Phytane	61.33	6702.73	45.01	7060.39	36.96	5298.92
nC-19 Nonadecane	40.76	4454.64	3.96	621.18	29.06	4166.31
nC-20 Eicosane	39.47	4313.66	4.83	757.65	29.06	4166.31
nC-21 Heneicosane	45.41	4962.84	4.57	716.86	30.16	4324.01
nC-22 Docosane	45.66	4990.16	11.14	1747.45	35.70	5118.28
nC-23 Tricosane	48.04	5250.27	14.03	2200.78	33.31	4775.63
nC-24 Tetracosane	47.22	5160.66	21.49	3370.98	35.60	5103.94
nC-25 Pentacosane	49.14	5370.49	27.04	4241.57	39.04	5597.13
nC-26 Hexacosane	39.84	4354.10	26.97	4230.59	33.35	4781.36
nC-27 Heptacosane	31.84	3479.78	20.22	3171.76	25.16	3607.17
nC-28 Octacosane	28.09	3069.95	22.10	3466.67	21.11	3026.52
nC-29 Nonacosane	25.24	2758.47	18.90	2964.71	19.38	2778.49
nC-30 Triacontane	23.07	2521.31	17.76	2785.88	14.07	2017.20
nC-31 Hentriacontane	18.98	2074.32	17.64	2767.06	13.46	1929.75
nC-32 Dotriacontane	14.51	1585.79	15.47	2426.67	10.91	1564.16
nC-33 Tritriacontane	13.13	1434.97	14.49	2272.94	10.07	1443.73
nC-34 Tetratriacontane	10.42	1138.80	12.25	1921.57	8.29	1188.53
nC-35 Pentatriacontane	11.11	1214.21	11.15	1749.02	7.35	1053.76
Total Alkanes	838.02	91587	389.33	61071	602.69	86407
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	0.00
C2-Naphthalenes	67.00	83.23	43.12	65.58	54.58	78.81
C3-Naphthalenes	614.60	763.48	435.43	662.25	469.41	677.85
C4-Naphthalenes	886.70	1101.49	582.20	885.47	644.16	930.20
Fluorene	2.57	319.25	1.73	263.12	1.92	277.26
C1-Fluorenes	205.00	254.66	138.55	210.72	150.36	217.13
C2-Fluorenes	350.30	435.16	204.82	311.51	225.71	325.93
C3-Fluorenes	67.50	83.85	43.31	65.88	47.36	68.39
Dibenzothiophene	10.11	1255.90	6.90	1049.43	7.48	1080.14
C1-Dibenzothiophenes	420.20	521.99	280.68	426.89	312.31	450.98
C2-Dibenzothiophenes	549.50	682.61	371.75	565.41	409.02	590.64
C3-Dibenzothiophenes	343.20	426.34	263.18	400.28	285.85	412.77
Phenanthrene	12.94	1607.45	9.00	1368.82	9.75	1407.94
C1-Phenanthrenes	820.40	1019.13	563.90	857.64	604.93	873.54
C2-Phenanthrenes	884.90	1099.25	614.90	935.20	681.76	984.49
C3-Phenanthrenes	671.10	833.66	421.01	640.32	447.22	645.80
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1- Pyrenes	62.80	78.01	42.00	63.88	45.22	65.30
C2- Pyrenes	33.90	42.11	20.66	31.42	25.00	36.09
Chrysene	2.18	270.81	1.54	234.22	1.67	241.16
C1- Chrysenes	88.00	109.32	57.92	88.09	66.61	96.19
C2- Chrysenes	96.90	120.37	59.23	90.09	71.83	103.72
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	6189.80	11108	4161.83	9216	4562.12	9564
% Surrogate Recovery						
5 Alpha Androstane	0.915	3.66	0.6375	2.55	0.6975	2.79
Phenanthrene d-10	0.805	3.22	0.6575	2.63	0.6925	2.77

Nutrient
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 7

Alkane Analyte:	Replicate #2	Replicate #3	Replicate #4	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	313.66	0.00	212.19	175.28	160.05	91.31
nC-15 Pentadecane	2445.90	475.29	2289.61	1736.93	1095.40	63.07
nC-16 Hexadecane	5459.02	581.96	4926.16	3655.71	2675.25	73.18
nC-17 Heptadecane	5390.16	1410.20	5786.38	4195.58	2420.33	57.69
Pristane	8408.74	9148.24	5873.84	7810.27	1717.28	21.99
nC-18 Octadecane	4732.24	981.96	5377.78	3697.33	2373.62	64.20
Phytane	6702.73	7060.39	5298.92	6354.02	931.07	14.65
nC-19 Nonadecane	4454.64	621.18	4166.31	3080.71	2134.89	69.30
nC-20 Eicosane	4313.66	757.65	4166.31	3079.21	2011.88	65.34
nC-21 Heneicosane	4962.84	716.86	4324.01	3334.57	2289.40	68.66
nC-22 Docosane	4990.16	1747.45	5118.28	3951.96	1910.24	48.34
nC-23 Tricosane	5250.27	2200.78	4775.63	4075.56	1640.86	40.26
nC-24 Tetracosane	5160.66	3370.98	5103.94	4545.19	1017.29	22.38
nC-25 Pentacosane	5370.49	4241.57	5597.13	5069.73	726.11	14.32
nC-26 Hexacosane	4354.10	4230.59	4781.36	4455.35	289.01	6.49
nC-27 Heptacosane	3479.78	3171.76	3607.17	3419.57	223.86	6.55
nC-28 Octacosane	3069.95	3466.67	3026.52	3187.71	242.56	7.61
nC-29 Nonacosane	2758.47	2964.71	2778.49	2833.89	113.73	4.01
nC-30 Triacontane	2521.31	2785.88	2017.20	2441.47	390.51	15.99
nC-31 Hentriacontane	2074.32	2767.06	1929.75	2257.04	447.56	19.83
nC-32 Dotriacontane	1585.79	2426.67	1564.16	1858.87	491.84	26.46
nC-33 Tritriacontane	1434.97	2272.94	1443.73	1717.21	481.29	28.03
nC-34 Tetratriacontane	1138.80	1921.57	1188.53	1416.30	438.28	30.95
nC-35 Pentatriacontane	1214.21	1749.02	1053.76	1339.00	364.04	27.19
Total Alkanes	91586.89	61071.37	86407.17	79688.48	16329.57	20.49
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C2-Naphthalenes	83.23	65.58	78.81	75.87	9.18	12.10
C3-Naphthalenes	763.48	662.25	677.85	701.19	54.50	7.77
C4-Naphthalenes	1101.49	885.47	930.20	972.39	114.02	11.73
Fluorene	319.25	263.12	277.26	286.54	29.20	10.19
C1-Fluorenes	254.66	210.72	217.13	227.50	23.74	10.43
C2-Fluorenes	435.16	311.51	325.93	357.53	67.61	18.91
C3- Fluorenes	83.85	65.88	68.39	72.71	9.73	13.39
Dibenzothiophene	1255.90	1049.43	1080.14	1128.49	111.40	9.87
C1-Dibenzothiophenes	521.99	426.89	450.98	466.62	49.44	10.60
C2-Dibenzothiophenes	682.61	565.41	590.64	612.88	61.69	10.07
C3- Dibenzothiophenes	426.34	400.28	412.77	413.13	13.03	3.15
Phenanthrene	1607.45	1368.82	1407.94	1461.41	127.98	8.76
C1-Phenanthrenes	1019.13	857.64	873.54	916.77	89.00	9.71
C2-Phenanthrenes	1099.25	935.20	984.49	1006.32	84.18	8.36
C3-Phenanthrenes	833.66	640.32	645.80	706.59	110.08	15.58
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	78.01	63.88	65.30	69.06	7.78	11.27
C2- Pyrenes	42.11	31.42	36.09	36.54	5.36	14.67
Chrysene	270.81	234.22	241.16	248.73	19.43	7.81
C1- Chrysenes	109.32	88.09	96.19	97.87	10.71	10.95
C2- Chrysenes	120.37	90.09	103.72	104.73	15.17	14.48
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	11108.07	9216.21	9564.33	9962.87	1006.93	10.11

	Dualzorb REPLICATE 1 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Dualzorb REPLICATE 2 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Dualzorb REPLICATE 3 Testing Date: Day 7 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	0.47	92.16	0.42	76.71	0.29	66.29
nC-15 Pentadecane	1.56	305.88	1.72	314.16	1.22	278.86
nC-16 Hexadecane	2.14	419.61	2.59	473.06	1.88	429.71
nC-17 Heptadecane	4.20	823.53	4.15	757.99	3.22	736.00
Pristane	15.78	3094.12	12.51	2284.93	8.36	1910.86
nC-18 Octadecane	2.06	403.92	2.38	434.70	1.92	438.86
Phytane	11.45	2245.10	9.51	1736.99	6.50	1485.71
nC-19 Nonadecane	1.41	276.47	1.82	332.42	1.46	333.71
nC-20 Eicosane	1.45	284.31	1.75	319.63	1.60	365.71
nC-21 Heneicosane	1.70	333.33	1.75	319.63	1.76	402.29
nC-22 Docosane	1.82	356.86	2.18	398.17	1.69	386.29
nC-23 Tricosane	2.15	421.57	2.33	425.57	1.89	432.00
nC-24 Tetracosane	3.54	694.12	3.32	606.39	2.69	614.86
nC-25 Pentacosane	1.90	372.55	3.01	549.77	3.35	765.71
nC-26 Hexacosane	3.72	729.41	3.50	639.27	2.58	589.71
nC-27 Heptacosane	2.48	486.27	2.45	447.49	1.87	427.43
nC-28 Octacosane	2.53	496.08	2.19	400.00	2.29	523.43
nC-29 Nonacosane	2.03	398.04	2.05	374.43	1.56	356.57
nC-30 Triacontane	2.12	415.69	2.04	372.60	1.67	381.71
nC-31 Hentriacontane	2.40	470.59	1.98	361.64	1.85	422.86
nC-32 Dotriacontane	2.99	586.27	2.14	390.87	1.79	409.14
nC-33 Tritriacontane	2.95	578.43	2.38	434.70	2.88	658.29
nC-34 Tetratriacontane	3.32	650.98	2.75	502.28	2.69	614.86
nC-35 Pentatriacontane	3.14	615.69	3.13	571.69	2.87	656.00
Total Alkanes	79.31	15551	74.05	13525	59.88	13687
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	0.00
C2-Naphthalenes	64.70	118.71	66.91	121.10	60.58	134.62
C3-Naphthalenes	418.65	768.16	441.86	799.74	426.23	947.19
C4-Naphthalenes	548.67	1006.74	549.13	993.90	542.04	1204.54
Fluorene	1.73	317.43	1.79	323.98	1.74	386.67
C1-Fluorenes	122.05	223.95	123.79	224.05	120.85	268.56
C2-Fluorenes	197.39	362.19	198.72	359.68	198.28	440.63
C3-Fluorenes	37.40	68.63	36.06	65.26	37.61	83.59
Dibenzothiophene	6.58	1207.34	6.43	1163.80	6.41	1424.44
C1-Dibenzothiophenes	251.80	462.02	254.49	460.62	249.78	555.07
C2-Dibenzothiophenes	346.14	635.12	352.48	637.97	349.15	775.90
C3-Dibenzothiophenes	238.83	438.22	236.89	428.76	235.45	523.22
Phenanthrene	8.37	1535.78	8.42	1523.98	8.38	1862.22
C1-Phenanthrenes	528.84	970.34	537.56	972.97	533.84	1186.32
C2-Phenanthrenes	575.97	1056.83	565.38	1023.31	570.46	1267.68
C3-Phenanthrenes	385.79	707.87	388.00	702.27	381.78	848.40
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1- Pyrenes	40.04	73.47	39.46	71.42	38.68	85.95
C2- Pyrenes	23.37	42.87	21.42	38.77	22.81	50.68
Chrysene	1.43	262.39	1.48	267.87	1.51	335.56
C1- Chrysenes	56.49	103.66	54.71	99.03	54.92	122.05
C2- Chrysenes	60.69	111.35	62.19	112.57	61.55	136.78
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	3914.93	10473	3947.19	10391	3902.06	12640
% Surrogate Recovery						
5 Alpha Androstane	0.51	2.04	0.5475	2.19	0.4375	1.75
Phenanthrene d-10	0.545	2.18	0.5525	2.21	0.45	1.80

Dualorb
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 7

Alkane Analyte:	Replicate #2	Replicate #3	Replicate #4	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	92.16	76.71	66.29	78.38	13.02	16.61
nC-15 Pentadecane	305.88	314.16	278.86	299.63	18.46	6.16
nC-16 Hexadecane	419.61	473.06	429.71	440.79	28.40	6.44
nC-17 Heptadecane	823.53	757.99	736.00	772.51	45.53	5.89
Pristane	3094.12	2284.93	1910.86	2429.97	604.82	24.89
nC-18 Octadecane	403.92	434.70	438.86	425.83	19.08	4.48
Phytane	2245.10	1736.99	1485.71	1822.60	386.86	21.23
nC-19 Nonadecane	276.47	332.42	333.71	314.20	32.68	10.40
nC-20 Eicosane	284.31	319.63	365.71	323.22	40.82	12.63
nC-21 Heneicosane	333.33	319.63	402.29	351.75	44.30	12.59
nC-22 Docosane	356.86	398.17	386.29	380.44	21.27	5.59
nC-23 Tricosane	421.57	425.57	432.00	426.38	5.26	1.23
nC-24 Tetracosane	694.12	606.39	614.86	638.46	48.39	7.58
nC-25 Pentacosane	372.55	549.77	765.71	562.68	196.90	34.99
nC-26 Hexacosane	729.41	639.27	589.71	652.80	70.82	10.85
nC-27 Heptacosane	486.27	447.49	427.43	453.73	29.92	6.59
nC-28 Octacosane	496.08	400.00	523.43	473.17	64.83	13.70
nC-29 Nonacosane	398.04	374.43	356.57	376.35	20.80	5.53
nC-30 Triacontane	415.69	372.60	381.71	390.00	22.71	5.82
nC-31 Hentriacontane	470.59	361.64	422.86	418.36	54.61	13.05
nC-32 Dotriacontane	586.27	390.87	409.14	462.09	107.93	23.36
nC-33 Tritriacontane	578.43	434.70	658.29	557.14	113.30	20.34
nC-34 Tetratriacontane	650.98	502.28	614.86	589.37	77.56	13.16
nC-35 Pentatriacontane	615.69	571.69	656.00	614.46	42.17	6.86
Total Alkanes	15550.98	13525.11	13686.86	14254.32	1125.85	7.90
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C2-Naphthalenes	118.71	121.10	134.62	124.81	8.58	6.87
C3-Naphthalenes	768.16	799.74	947.19	838.36	95.56	11.40
C4-Naphthalenes	1006.74	993.90	1204.54	1068.39	118.08	11.05
Fluorene	317.43	323.98	386.67	342.69	38.22	11.15
C1-Fluorenes	223.95	224.05	268.56	238.85	25.72	10.77
C2-Fluorenes	362.19	359.68	440.63	387.50	46.03	11.88
C3- Fluorenes	68.63	65.26	83.59	72.49	9.75	13.45
Dibenzothiophene	1207.34	1163.80	1424.44	1265.19	139.62	11.04
C1-Dibenzothiophenes	462.02	460.62	555.07	492.57	54.13	10.99
C2-Dibenzothiophenes	635.12	637.97	775.90	683.00	80.47	11.78
C3- Dibenzothiophenes	438.22	428.76	523.22	463.40	52.02	11.23
Phenanthrene	1535.78	1523.98	1862.22	1640.66	191.97	11.70
C1-Phenanthrenes	970.34	972.97	1186.32	1043.21	123.94	11.88
C2-Phenanthrenes	1056.83	1023.31	1267.68	1115.94	132.48	11.87
C3-Phenanthrenes	707.87	702.27	848.40	752.84	82.80	11.00
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	73.47	71.42	85.95	76.95	7.86	10.22
C2- Pyrenes	42.87	38.77	50.68	44.11	6.05	13.72
Chrysene	262.39	267.87	335.56	288.60	40.75	14.12
C1- Chrysenes	103.66	99.03	122.05	108.24	12.18	11.25
C2- Chrysenes	111.35	112.57	136.78	120.23	14.34	11.93
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	10473.06	10391.07	12640.04	11168.06	1275.43	11.42

	CONTROL, REPLICATE 1 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		CONTROL, REPLICATE 3 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		CONTROL, REPLICATE 4 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	4.98	569.14	0.68	76.84	0.99	107.32
nC-15 Pentadecane	12.70	1451.43	14.08	1590.96	22.88	2480.22
nC-16 Hexadecane	78.64	8987.43	84.57	9555.93	96.36	10445.53
nC-17 Heptadecane	138.84	15867.43	148.88	16822.60	146.32	15861.25
Pristane	88.85	10154.29	83.38	9421.47	93.93	10182.11
nC-18 Octadecane	156.05	17834.29	166.86	18854.24	160.18	17363.69
Phytane	79.16	9046.86	77.70	8779.66	79.98	8669.92
nC-19 Nonadecane	151.33	17294.86	161.16	18210.17	153.64	16654.74
nC-20 Eicosane	151.27	17288.00	154.07	17409.04	161.70	17528.46
nC-21 Heneicosane	149.90	17131.43	162.20	18327.68	155.71	16879.13
nC-22 Docosane	128.94	14736.00	140.59	15885.88	136.34	14779.40
nC-23 Tricosane	116.83	13352.00	125.55	14186.44	131.14	14215.72
nC-24 Tetracosane	111.34	12724.57	114.94	12987.57	116.50	12628.73
nC-25 Pentacosane	100.16	11446.86	110.82	12522.03	109.77	11899.19
nC-26 Hexacosane	81.11	9269.71	86.12	9731.07	86.35	9360.43
nC-27 Heptacosane	64.11	7326.86	68.71	7763.84	67.43	7309.49
nC-28 Octacosane	52.51	6001.14	54.51	6159.32	53.53	5802.71
nC-29 Nonacosane	47.12	5385.14	50.04	5654.24	49.46	5361.52
nC-30 Triacontane	33.43	3820.57	36.85	4163.84	39.45	4276.42
nC-31 Hentriacontane	27.97	3196.57	30.93	3494.92	31.27	3389.70
nC-32 Dotriacontane	21.41	2446.86	22.43	2534.46	22.96	2488.89
nC-33 Trtriacontane	21.37	2442.29	20.53	2319.77	21.72	2354.47
nC-34 Tetracontane	15.24	1741.71	15.63	1766.10	16.17	1752.85
nC-35 Pentatriacontane	17.10	1954.29	18.28	2065.54	18.11	1963.14
Total Alkanes	1850.36	211470	1949.51	220284	1971.89	213755.01
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	0.00
C2-Naphthalenes	0.00	0.00	0.00	0.00	6.71	7.78
C3-Naphthalenes	105.81	122.68	129.36	143.34	278.43	322.82
C4-Naphthalenes	455.10	527.66	540.45	598.83	713.80	827.59
Fluorene	0.30	34.78	0.61	67.59	1.16	134.49
C1-Fluorenes	117.46	136.19	144.45	160.06	170.78	198.00
C2-Fluorenes	320.64	371.75	342.72	379.74	354.13	410.59
C3-Fluorenes	68.69	79.64	71.00	78.67	70.10	81.28
Dibenzothiophene	3.47	402.32	5.20	576.18	7.61	882.32
C1-Dibenzothiophenes	352.21	408.36	404.64	448.36	428.53	496.85
C2-Dibenzothiophenes	572.10	663.30	617.27	683.96	607.15	703.95
C3-Dibenzothiophenes	378.65	439.02	404.35	448.03	389.32	451.39
Phenanthrene	2.55	295.65	4.40	487.53	9.95	1153.62
C1-Phenanthrenes	671.59	778.66	780.63	864.96	866.96	1005.18
C2-Phenanthrenes	938.88	1088.55	1001.01	1109.15	982.66	1139.32
C3-Phenanthrenes	752.74	872.75	772.19	855.62	749.85	869.39
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	64.63	74.94	71.37	79.08	74.88	86.82
C2-Pyrenes	39.17	45.41	37.62	41.69	34.27	39.73
Chrysene	2.45	284.06	2.47	273.68	2.44	282.90
C1-Chrysenes	96.02	111.33	98.10	108.70	99.00	114.79
C2-Chrysenes	108.16	125.41	110.25	122.16	108.82	126.17
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	5050.64	6862	5538.10	7527	5957	9335
% Surrogate Recovery						
5 Alpha Androstane	0.875	3.50	0.885	3.54	0.9225	3.69
Phenanthrene d-10	0.8625	3.45	0.9025	3.61	0.8625	3.45

CONTROL
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 28

Alkane Analyte:	Replicate #2	Replicate #3	Replicate #4	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	569.14	76.84	107.32	251.10	275.86	109.86
nC-15 Pentadecane	1451.43	1590.96	2480.22	1840.87	558.07	30.32
nC-16 Hexadecane	8987.43	9555.93	10445.53	9662.96	734.92	7.61
nC-17 Heptadecane	15867.43	16822.60	15861.25	16183.76	553.26	3.42
Pristane	10154.29	9421.47	10182.11	9919.29	431.35	4.35
nC-18 Octadecane	17834.29	18854.24	17363.69	18017.40	761.96	4.23
Phytane	9046.86	8779.66	8669.92	8832.15	193.87	2.20
nC-19 Nonadecane	17294.86	18210.17	16654.74	17386.59	781.76	4.50
nC-20 Eicosane	17288.00	17409.04	17528.46	17408.50	120.23	0.69
nC-21 Heneicosane	17131.43	18327.68	16879.13	17446.08	773.84	4.44
nC-22 Docosane	14736.00	15885.88	14779.40	15133.76	651.71	4.31
nC-23 Tricosane	13352.00	14186.44	14215.72	13918.05	490.43	3.52
nC-24 Tetracosane	12724.57	12987.57	12628.73	12780.29	185.80	1.45
nC-25 Pentacosane	11446.86	12522.03	11899.19	11956.03	539.84	4.52
nC-26 Hexacosane	9269.71	9731.07	9360.43	9453.74	244.42	2.59
nC-27 Heptacosane	7326.86	7763.84	7309.49	7466.73	257.45	3.45
nC-28 Octacosane	6001.14	6159.32	5802.71	5987.72	178.68	2.98
nC-29 Nonacosane	5385.14	5654.24	5361.52	5466.97	162.61	2.97
nC-30 Triacontane	3820.57	4163.84	4276.42	4086.95	237.46	5.81
nC-31 Hentriacontane	3196.57	3494.92	3389.70	3360.40	151.32	4.50
nC-32 Dotriacontane	2446.86	2534.46	2488.89	2490.07	43.82	1.76
nC-33 Tritriacontane	2442.29	2319.77	2354.47	2372.18	63.15	2.66
nC-34 Tetracontane	1741.71	1766.10	1752.85	1753.55	12.21	0.70
nC-35 Pentatriacontane	1954.29	2065.54	1963.14	1994.32	61.83	3.10
Total Alkanes	211469.71	220283.62	213755.01	215169.45	4574.02	2.13
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C2-Naphthalenes	0.00	0.00	7.78	2.59	4.49	173.21
C3-Naphthalenes	122.68	143.34	322.82	196.28	110.07	56.08
C4-Naphthalenes	527.66	598.83	827.59	651.36	156.71	24.06
Fluorene	34.78	67.59	134.49	78.96	50.82	64.36
C1-Fluorenes	136.19	160.06	198.00	164.75	31.17	18.92
C2-Fluorenes	371.75	379.74	410.59	387.36	20.51	5.29
C3- Fluorenes	79.64	78.67	81.28	79.86	1.32	1.65
Dibenzothiophene	402.32	576.18	882.32	620.27	243.02	39.18
C1-Dibenzothiophenes	408.36	448.36	496.85	451.19	44.31	9.82
C2-Dibenzothiophenes	663.30	683.96	703.95	683.73	20.32	2.97
C3- Dibenzothiophenes	439.02	448.03	451.39	446.15	6.40	1.43
Phenanthrene	295.65	487.53	1153.62	645.60	450.30	69.75
C1-Phenanthrenes	778.66	864.96	1005.18	882.93	114.32	12.95
C2-Phenanthrenes	1088.55	1109.15	1139.32	1112.34	25.53	2.30
C3-Phenanthrenes	872.75	855.62	869.39	865.92	9.08	1.05
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	74.94	79.08	86.82	80.28	6.03	7.51
C2- Pyrenes	45.41	41.69	39.73	42.28	2.88	6.82
Chrysene	284.06	273.68	282.90	280.21	5.68	2.03
C1- Chrysenes	111.33	108.70	114.79	111.61	3.05	2.73
C2- Chrysenes	125.41	122.16	126.17	124.58	2.13	1.71
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	6862.46	7527.34	9334.96	7908.25	1279.51	16.18

	Nutrient, REPLICATE 1 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Nutrient, REPLICATE 2 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Nutrient, REPLICATE 5 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	0.38	38.68	0.00	0.00	0.00	0.00
nC-15 Pentadecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-16 Hexadecane	0.46	46.82	0.55	57.07	0.32	36.06
nC-17 Heptadecane	0.17	17.30	0.77	79.90	0.46	51.83
Pristane	0.97	98.73	1.12	116.21	3.20	360.56
nC-18 Octadecane	0.15	15.27	0.19	19.71	0.27	30.42
Phytane	0.94	95.67	1.14	118.29	4.38	493.52
nC-19 Nonadecane	0.56	57.00	0.56	58.11	0.49	55.21
nC-20 Eicosane	0.48	48.85	0.88	91.31	1.77	199.44
nC-21 Heneicosane	0.88	89.57	1.06	109.99	0.49	55.21
nC-22 Docosane	0.29	29.52	0.97	100.65	0.79	89.01
nC-23 Tricosane	0.52	52.93	1.12	116.21	0.69	77.75
nC-24 Tetracosane	0.45	45.80	1.71	177.43	1.49	167.89
nC-25 Pentacosane	0.29	29.52	1.97	204.41	0.40	45.07
nC-26 Hexacosane	1.09	110.94	1.90	197.15	1.46	164.51
nC-27 Heptacosane	0.80	81.42	1.17	121.40	1.40	157.75
nC-28 Octacosane	0.46	46.82	1.12	116.21	1.22	137.46
nC-29 Nonacosane	0.46	46.82	0.93	96.50	0.75	84.51
nC-30 Triacontane	1.18	120.10	1.13	117.25	1.12	126.20
nC-31 Hentriacontane	1.23	125.19	1.61	167.06	0.62	69.86
nC-32 Dotriacontane	0.85	86.51	1.02	105.84	0.78	87.89
nC-33 Trtriacontane	0.47	47.84	1.22	126.59	0.66	74.37
nC-34 Tetratriacontane	1.21	123.16	1.62	168.09	1.26	141.97
nC-35 Pentatriacontane	0.92	93.64	2.69	279.12	1.96	220.85
Total Alkanes	15.21	1548	26.45	2744	25.98	2927
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	0.00
C2-Naphthalenes	4.41	4.95	2.54	2.96	13.08	15.42
C3-Naphthalenes	230.74	258.89	197.98	231.22	344.33	405.69
C4-Naphthalenes	647.54	726.56	592.48	691.95	725.60	854.90
Fluorene	1.10	123.42	0.76	88.76	1.43	168.48
C1-Fluorenes	157.60	176.84	134.69	157.30	162.08	190.97
C2-Fluorenes	344.36	386.38	315.96	369.01	341.99	402.93
C3-Fluorenes	71.60	80.34	63.21	73.82	65.05	76.64
Dibenzothiophene	9.31	1044.60	7.51	877.08	8.66	1020.32
C1-Dibenzothiophenes	436.81	490.11	397.69	464.45	422.09	497.31
C2-Dibenzothiophenes	618.74	694.24	571.23	667.14	579.01	682.19
C3-Dibenzothiophenes	403.94	453.22	361.27	421.93	365.87	431.07
Phenanthrene	12.52	1404.77	10.50	1226.28	12.74	1501.03
C1-Phenanthrenes	915.77	1027.51	836.93	977.44	878.32	1034.84
C2-Phenanthrenes	954.50	1070.96	932.01	1088.48	957.96	1128.67
C3-Phenanthrenes	795.32	892.37	716.29	836.55	722.77	851.57
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	66.50	74.61	63.55	74.22	63.82	75.19
C2-Pyrenes	37.31	41.86	38.65	45.14	34.56	40.72
Chrysene	2.57	288.36	2.45	286.13	2.55	300.44
C1-Chrysenes	95.00	106.59	93.05	108.67	93.14	109.74
C2-Chrysenes	102.57	115.09	104.89	122.50	100.92	118.91
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	5908.21	9462	5443.66	8811	5895.99	9907
% Surrogate Recovery						
5 Alpha Androstane	0.98	7.86	0.96	7.71	0.89	7.10
Phenanthrene d-10	0.89	7.13	0.86	6.85	0.85	6.79

Nutrient STATISTICS FOR SURROGATE CORRECTED DATA Testing Date: Day 28						
Alkane Analyte:	Replicate #2	Replicate #3	Replicate #4	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	38.68	0.00	0.00	12.89	22.33	173.21
nC-15 Pentadecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-16 Hexadecane	46.82	57.07	36.06	46.65	10.51	22.52
nC-17 Heptadecane	17.30	79.90	51.83	49.68	31.35	63.11
Pristane	98.73	116.21	360.56	191.83	146.38	76.31
nC-18 Octadecane	15.27	19.71	30.42	21.80	7.79	35.73
Phytane	95.67	118.29	493.52	235.83	223.46	94.75
nC-19 Nonadecane	57.00	58.11	55.21	56.77	1.46	2.57
nC-20 Eicosane	48.85	91.31	199.44	113.20	77.64	68.59
nC-21 Heneicosane	89.57	109.99	55.21	84.92	27.68	32.60
nC-22 Docosane	29.52	100.65	89.01	73.06	38.16	52.23
nC-23 Tricosane	52.93	116.21	77.75	82.30	31.89	38.75
nC-24 Tetracosane	45.80	177.43	167.89	130.37	73.40	56.30
nC-25 Pentacosane	29.52	204.41	45.07	93.00	96.80	104.08
nC-26 Hexacosane	110.94	197.15	164.51	157.53	43.52	27.63
nC-27 Heptacosane	81.42	121.40	157.75	120.19	38.18	31.76
nC-28 Octacosane	46.82	116.21	137.46	100.17	47.41	47.33
nC-29 Nonacosane	46.82	96.50	84.51	75.94	25.92	34.14
nC-30 Triacontane	120.10	117.25	126.20	121.18	4.57	3.77
nC-31 Hentriacontane	125.19	167.06	69.86	120.70	48.75	40.39
nC-32 Dotriacontane	86.51	105.84	87.89	93.41	10.78	11.54
nC-33 Tritriacontane	47.84	126.59	74.37	82.93	40.07	48.32
nC-34 Tetraatriacontane	123.16	168.09	141.97	144.41	22.57	15.63
nC-35 Pentatriacontane	93.64	279.12	220.85	197.87	94.85	47.94
Total Alkanes	1548.09	2744.49	2927.32	2406.63	749.12	31.13
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C2-Naphthalenes	4.95	2.96	15.42	7.78	6.69	86.04
C3-Naphthalenes	258.89	231.22	405.69	298.60	93.77	31.40
C4-Naphthalenes	726.56	691.95	854.90	757.80	85.85	11.33
Fluorene	123.42	88.76	168.48	126.89	39.97	31.50
C1-Fluorenes	176.84	157.30	190.97	175.03	16.91	9.66
C2-Fluorenes	386.38	369.01	402.93	386.11	16.96	4.39
C3- Fluorenes	80.34	73.82	76.64	76.94	3.27	4.25
Dibenzothiophene	1044.60	877.08	1020.32	980.67	90.53	9.23
C1-Dibenzothiophenes	490.11	464.45	497.31	483.96	17.27	3.57
C2-Dibenzothiophenes	694.24	667.14	682.19	681.19	13.58	1.99
C3- Dibenzothiophenes	453.22	421.93	431.07	435.41	16.09	3.70
Phenanthrene	1404.77	1226.28	1501.03	1377.36	139.41	10.12
C1-Phenanthrenes	1027.51	977.44	1034.84	1013.26	31.24	3.08
C2-Phenanthrenes	1070.96	1088.48	1128.67	1096.04	29.59	2.70
C3-Phenanthrenes	892.37	836.55	851.57	860.16	28.89	3.36
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	74.61	74.22	75.19	74.67	0.49	0.65
C2- Pyrenes	41.86	45.14	40.72	42.57	2.29	5.38
Chrysene	288.36	286.13	300.44	291.64	7.70	2.64
C1- Chrysenes	106.59	108.67	109.74	108.33	1.60	1.48
C2- Chrysenes	115.09	122.50	118.91	118.83	3.70	3.12
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	9461.66	8811.03	9907.05	9393.25	551.20	5.87

	Dualzorb REPLICATE 2 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Dualzorb REPLICATE 4 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL		Dualzorb REPLICATE 5 Testing Date: Day 28 Initial Oil Weight: 500 mg Final Extracted Volume: 10 mL	
	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)	Concentration (ng/mg)	Surrogate Corrected (ng/mg)
Alkane Analyte:						
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	0.00
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	0.00
nC-14 Tetradecane	0.25	27.40	0.21	23.46	0.25	29.03
nC-15 Pentadecane	0.30	32.88	0.24	26.82	0.23	26.71
nC-16 Hexadecane	0.63	69.04	0.58	64.80	0.49	56.89
nC-17 Heptadecane	0.47	51.51	0.36	40.22	0.44	51.09
Pristane	0.60	65.75	0.48	53.63	0.60	69.67
nC-18 Octadecane	0.65	71.23	0.33	36.87	0.41	47.61
Phytane	0.69	75.62	0.56	62.57	0.84	97.53
nC-19 Nonadecane	0.48	52.60	0.32	35.75	0.37	42.96
nC-20 Eicosane	0.63	69.04	0.41	45.81	0.55	63.86
nC-21 Heneicosane	0.59	64.66	0.48	53.63	0.52	60.38
nC-22 Docosane	0.58	63.56	0.67	74.86	0.38	44.12
nC-23 Tricosane	0.48	52.60	0.37	41.34	0.50	58.06
nC-24 Tetracosane	0.80	87.67	0.69	77.09	0.32	37.16
nC-25 Pentacosane	0.91	99.73	0.68	75.98	0.62	71.99
nC-26 Hexacosane	0.96	105.21	1.12	125.14	0.86	99.85
nC-27 Heptacosane	0.84	92.05	0.43	48.04	0.61	70.83
nC-28 Octacosane	0.73	80.00	0.56	62.57	0.65	75.47
nC-29 Nonacosane	0.52	56.99	0.50	55.87	0.35	40.64
nC-30 Triacontane	1.09	119.45	0.69	77.09	0.65	75.47
nC-31 Hentriacontane	0.81	88.77	0.47	52.51	0.49	56.89
nC-32 Dotriacontane	0.42	46.03	0.30	33.52	0.43	49.93
nC-33 Trtriacontane	0.51	55.89	0.54	60.34	0.50	58.06
nC-34 Tetratriacontane	0.79	86.58	0.75	83.80	1.02	118.43
nC-35 Pentatriacontane	1.14	124.93	0.60	67.04	0.98	113.79
Total Alkanes	15.87	1739	12.34	1379	13.06	1516
Aromatic Analyte:						
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	0.00
C2-Naphthalenes	0.65	0.70	0.00	0.00	0.38	0.42
C3-Naphthalenes	17.59	18.91	9.03	10.04	20.90	23.13
C4-Naphthalenes	35.19	37.84	21.83	24.26	47.45	52.50
Fluorene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Fluorenes	4.60	4.95	1.97	2.18	3.76	4.16
C2-Fluorenes	24.21	26.04	16.24	18.04	24.85	27.50
C3-Fluorenes	7.74	8.32	6.62	7.35	9.66	10.69
Dibenzothiophene	0.30	32.26	0.00	0.00	0.00	0.00
C1-Dibenzothiophenes	20.94	22.52	12.01	13.35	23.46	25.96
C2-Dibenzothiophenes	52.67	56.63	41.22	45.80	65.36	72.32
C3-Dibenzothiophenes	85.60	92.05	79.13	87.92	89.89	99.46
Phenanthrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Phenanthrenes	27.01	29.04	11.35	12.61	32.16	35.58
C2-Phenanthrenes	94.85	101.99	72.96	81.06	113.19	125.24
C3-Phenanthrenes	167.45	180.05	159.78	177.53	161.37	178.55
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
C1-Pyrenes	37.12	39.91	39.05	43.39	39.67	43.89
C2-Pyrenes	11.66	12.53	16.81	18.68	19.80	21.91
Chrysene	1.46	156.99	1.46	162.22	1.49	164.87
C1-Chrysenes	57.67	62.01	55.10	61.22	53.91	59.66
C2-Chrysenes	80.86	86.95	79.77	88.64	72.11	79.79
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	0.00
Total Aromatics	727.56	970	624.33	854	779.41	1026
% Surrogate Recovery						
5 Alpha Androstane	0.91	7.30	0.90	7.16	0.86	6.89
Phenanthrene d-10	0.93	7.44	0.90	7.20	0.90	7.23

Dualorb
STATISTICS FOR SURROGATE CORRECTED DATA
 Testing Date: Day 28

Alkane Analyte:	Replicate #2	Replicate #3	Replicate #4	Average	Stdev	%RSD
	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)			
nC-10 Decane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-11 Undecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-12 Dodecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-13 Tridecane	0.00	0.00	0.00	0.00	0.00	#DIV/0!
nC-14 Tetradecane	27.40	23.46	29.03	26.63	2.86	10.74
nC-15 Pentadecane	32.88	26.82	26.71	28.80	3.53	12.26
nC-16 Hexadecane	69.04	64.80	56.89	63.58	6.17	9.70
nC-17 Heptadecane	51.51	40.22	51.09	47.61	6.40	13.44
Pristane	65.75	53.63	69.67	63.02	8.36	13.27
nC-18 Octadecane	71.23	36.87	47.61	51.90	17.58	33.87
Phytane	75.62	62.57	97.53	78.57	17.67	22.49
nC-19 Nonadecane	52.60	35.75	42.96	43.77	8.45	19.31
nC-20 Eicosane	69.04	45.81	63.86	59.57	12.20	20.47
nC-21 Heneicosane	64.66	53.63	60.38	59.56	5.56	9.33
nC-22 Docosane	63.56	74.86	44.12	60.85	15.55	25.55
nC-23 Tricosane	52.60	41.34	58.06	50.67	8.52	16.82
nC-24 Tetracosane	87.67	77.09	37.16	67.31	26.64	39.58
nC-25 Pentacosane	99.73	75.98	71.99	82.56	15.00	18.16
nC-26 Hexacosane	105.21	125.14	99.85	110.07	13.32	12.11
nC-27 Heptacosane	92.05	48.04	70.83	70.31	22.01	31.30
nC-28 Octacosane	80.00	62.57	75.47	72.68	9.04	12.44
nC-29 Nonacosane	56.99	55.87	40.64	51.16	9.13	17.85
nC-30 Triacontane	119.45	77.09	75.47	90.67	24.94	27.50
nC-31 Hentriacontane	88.77	52.51	56.89	66.06	19.79	29.96
nC-32 Dotriacontane	46.03	33.52	49.93	43.16	8.57	19.86
nC-33 Tritriacontane	55.89	60.34	58.06	58.09	2.22	3.83
nC-34 Tetratriacontane	86.58	83.80	118.43	96.27	19.24	19.99
nC-35 Pentatriacontane	124.93	67.04	113.79	101.92	30.72	30.14
Total Alkanes	1739.18	1378.77	1516.40	1544.78	181.87	11.77
Aromatic Analyte:	Conc (ng/mg)	Conc (ng/mg)	Conc (ng/mg)	Average	Stdev	%RSD
Naphthalene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Naphthalenes	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C2-Naphthalenes	0.70	0.00	0.42	0.37	0.35	94.32
C3-Naphthalenes	18.91	10.04	23.13	17.36	6.68	38.50
C4-Naphthalenes	37.84	24.26	52.50	38.20	14.13	36.98
Fluorene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Fluorenes	4.95	2.18	4.16	3.76	1.42	37.84
C2-Fluorenes	26.04	18.04	27.50	23.86	5.09	21.33
C3- Fluorenes	8.32	7.35	10.69	8.79	1.72	19.52
Dibenzothiophene	32.26	0.00	0.00	10.75	18.62	173.21
C1-Dibenzothiophenes	22.52	13.35	25.96	20.61	6.52	31.63
C2-Dibenzothiophenes	56.63	45.80	72.32	58.25	13.33	22.89
C3- Dibenzothiophenes	92.05	87.92	99.46	93.14	5.85	6.28
Phenanthrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1-Phenanthrenes	29.04	12.61	35.58	25.74	11.84	45.98
C2-Phenanthrenes	101.99	81.06	125.24	102.77	22.10	21.51
C3-Phenanthrenes	180.05	177.53	178.55	178.71	1.27	0.71
Anthracene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
C1- Pyrenes	39.91	43.39	43.89	42.40	2.17	5.12
C2- Pyrenes	12.53	18.68	21.91	17.71	4.76	26.89
Chrysene	156.99	162.22	164.87	161.36	4.01	2.49
C1- Chrysenes	62.01	61.22	59.66	60.96	1.20	1.97
C2- Chrysenes	86.95	88.64	79.79	85.13	4.70	5.52
Benzo (b) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (k) Fluoranthene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (e) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Benzo (a) Pyrene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Indeno (1,2,3 - cd) Pyrene	0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo (a,h) anthracene	0.00	0.00	0.00	0.00	0.00	0.00
Benzo (g,h,i) perylene	0.00	0.00	0.00	0.00	0.00	#DIV/0!
Total Aromatics	969.68	854.30	1025.64	949.87	87.37	9.20

DualZorb
GC/MS Summary
Surrogate Adjusted Values, ng/mg

		Rep 1	Rep 2	Rep 3	Average		
Day 0	Control	Alkanes	247762	253000	265941	255568	
		Aromatics	10712	10875	10861	10816	
	Nutrient	Alkanes	253956	258148	254137	255414	
		Aromatics	10721	11038	10705	10821	
	DualZorb	Alkanes	246582	253463	246561	248869	
		Aromatics	12895	12495	12826	12738	
	Day 7	Control	Alkanes	248898	229278	256346	244841
			Aromatics	11054	9863	9954	10290
		Nutrient	Alkanes	91587	61071	86407	79688
Aromatics			11108	9216	9564	9963	
DualZorb		Alkanes	15551	13525	13687	14254	
		Aromatics	10473	10391	12640	11168	
Day 28		Control	Alkanes	211470	220284	213755	215169
			Aromatics	6862	7527	9335	7908
		Nutrient	Alkanes	1548	2744	2927	2407
	Aromatics		9462	8811	9907	9393	
	DualZorb	Alkanes	1739	1379	1516	1545	
		Aromatics	970	854	1026	950	

DualZorb
ANOVA Table - Alkanes

Alkanes

			Anova: Two	α	0.05				
	Control	Nutrient	Dualzorb						
Day 0	247762	253956	246582						
	253000	258148	253463						
	265941	254137	246561						
				SUMMARY	Control	Nutrient	Dualzorb	Total	
				<i>Day 0</i>					
				Count	3	3	3	9	
Day 7	248898	91587	15551	Sum	766703	766242	746606	2279551	
	229278	61071	13525	Average	255568	255414	248869	253283	
	256346	86407	13687	Variance	87567621.01	5616163.096	15830369.17	38221263.04	
				<i>Day 7</i>					
Day 28	211470	1548	1739	Count	3	3	3	9	
	220284	2744	1379	Sum	734522	239065	42763	1016350	
	213755	2927	1516	Average	244841	79688	14254	112928	
				Variance	195524619.9	266654755.9	1267541.715	10706717892	
				<i>Day 28</i>					
				Count	3	3	3	9	
				Sum	645508	7220	4634	657363	
				Average	215169	2407	1545	73040	
				Variance	20921683.43	561179.0864	33077.50528	11368410853	
				<i>Total</i>					
				Count	9	9	9	27	
				Sum	2146733	1012527	794003	3953263	
				Average	238526	112503	88223	146417	
				Variance	404435335.6	12676290409	14551093128	13009295317	

ANOVA

<i>Source of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-Value</i>	<i>F crit</i>
Sample	1.61335E+11	2	80667439087	1222.281231	0.000000000000000006	3.5546
Columns	1.17187E+11	2	58593563632	887.8156276	0.0000000000000000103	3.5546
Interaction	58531718781	4	14632929695	221.719637	0.00000000000000478955	2.9277
Within	1187954022	18	65997445.65			
Total	3.38242E+11	26				

Dualzorb

Alkanes

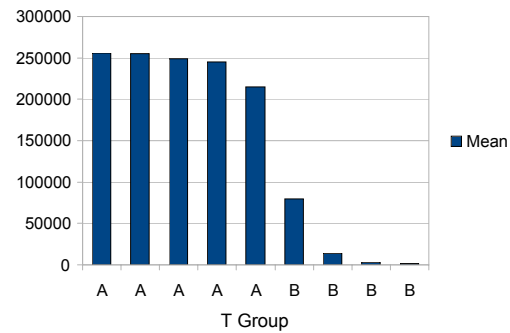
TIME	Control	Nutrient	Dualzorb
Day 0	247762	253956	246582
	253000	258148	253463
	265941	254137	246561
Day 7	248898	91587	15551
	229278	61071	13525
	256346	86407	13687
Day 28	211470	1548	1739
	220284	2744	1379
	213755	2927	1516

T grouping	Mean	n	Interaction
A	255568	3	Control, Day 0
A	255414	3	Nutrient Day 0
A	248869	3	Dualzorb, Day 0
A	244841	3	Control, Day 7
A	215169	3	Control, Day 28
B	79688	3	Nutrient Day 7
B	14254	3	Dualzorb, Day 7
B	3380	3	Nutrient Day 28
B	1545	3	Dualzorb, Day 28

Least Significant Difference

114058.2979

Alkane Means vs T Groups



DualZorb
ANOVA Table - Aromatics

Aromatics

	Control	Nutrient	Dualzorb	Anova: Two	α	0.05		
Day 0	10712	10721	12895	SUMMARY	Control	Nutrient		
	10875	11038	12495				Dualzorb	Total
	10861	10705	12826					
<i>Day 0</i>								
Day 7	11054	11108	10473	Count	3	3	3	9
	9863	9216	10391	Sum	32448	32464	38215	103127
	9943	9564	12640	Average	10816	10821	12738	11459
				Variance	8187.635892	35260.99647	45701.00371	943731.1652
Day 28	6862	9462	970	<i>Day 7</i>				
	7527	8811	854	Count	3	3	3	9
	9335	9907	1026	Sum	30860	29889	33504	94253
				Average	10287	9963	11168	10473
			Variance	443725.3602	1013913.994	1626730.85	1062862.47	
			<i>Day 28</i>					
			Count	3	3	3	9	
			Sum	23725	28180	2850	54754	
			Average	7908	9393	950	6084	
			Variance	1637135.98	303826.7567	7633.837574	15726501.95	
			<i>Total</i>					
			Count	9	9	9	27	
			Sum	87033	90532	74569	252134	
			Average	9670	10059	8285	9338	
			Variance	2321207.216	725884.5426	31151126.06	11124251.18	

ANOVA						
Source of Variance	df	MS	F	P-Value	F crit	
Sample	147365766.1	2	73682883.06	129.467176	0.00000000	3.5546
Columns	15644788.21	2	7822394.105	13.74462063	0.000237834	3.5546
Interaction	115975743.6	4	28993935.9	50.94484428	0.000000001	2.9277
Within	10244232.83	18	569124.0461			
Total	289230530.8	26				

Dualzorb

Aromatics

TIME	Control	Nutrient	Dualzorb
Day 0	10712	10721	12895
	10875	11038	12495
	10861	10705	12826
Day 7	11054	11108	10473
	9863	9216	10391
	9943	9564	12640
Day 28	6862	9462	970
	7527	8811	854
	9335	9907	1026

T grouping	Mean	n	Interaction
A	12738	3	Dualzorb, Day 0
A	11168	3	Dualzorb, Day 7
A	10821	3	Nutrient Day 0
A	10816	3	Control, Day 0
A	10287	3	Control, Day 7
A	9963	3	Nutrient Day 7
A	9393	3	Nutrient Day 28
A	7908	3	Control, Day 28
B	950	3	Dualzorb, Day 28

Least Significant Difference

3335.303762

Aromatic Means vs T Groups

