

LABORATORY REPORT

Prepared For: Northgate Environmental Management
1100 Quail Street Suite 102
Newport Beach, CA 92660
Attention: Cindy Arnold

Project: Tronox - Henderson
Tronox - Henderson

Sampled: 11/30/10
Received: 12/01/10
Issued: 12/03/10 13:40

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID

ITL0009-01

ITL0009-02

CLIENT ID

Q3-PF-3-1-0.0_2

Q3-PF-3-1-0.0_2-FD

MATRIX

Soil

Soil

Reviewed By:



TestAmerica Irvine

Sushmitha Reddy For Amy Harris
Project Manager

Northgate Environmental Management
 1100 Quail Street Suite 102
 Newport Beach, CA 92660
 Attention: Cindy Arnold

Project ID: Tronox - Henderson
 Tronox - Henderson
 Report Number: ITL0009

Sampled: 11/30/10
 Received: 12/01/10

POLYNUCLEAR AROMATIC HYDROCARBONS BY GC/MS (EPA 8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITL0009-01 (Q3-PF-3-1-0.0_2 - Soil)									
Reporting Units: ug/kg									
Acenaphthene	EPA 8270C	10L0048	200	330	ND	1	12/01/10	12/02/10	
Acenaphthylene	EPA 8270C	10L0048	220	330	ND	1	12/01/10	12/02/10	
Anthracene	EPA 8270C	10L0048	80	330	ND	1	12/01/10	12/02/10	
Benzo(a)anthracene	EPA 8270C	10L0048	70	330	ND	1	12/01/10	12/02/10	
Benzo(a)pyrene	EPA 8270C	10L0048	55	330	ND	1	12/01/10	12/02/10	
Benzo(b)fluoranthene	EPA 8270C	10L0048	180	330	ND	1	12/01/10	12/02/10	
Benzo(g,h,i)perylene	EPA 8270C	10L0048	290	330	ND	1	12/01/10	12/02/10	
Benzo(k)fluoranthene	EPA 8270C	10L0048	70	330	ND	1	12/01/10	12/02/10	
Chrysene	EPA 8270C	10L0048	75	330	ND	1	12/01/10	12/02/10	
Dibenz(a,h)anthracene	EPA 8270C	10L0048	200	420	ND	1	12/01/10	12/02/10	
Fluoranthene	EPA 8270C	10L0048	180	330	ND	1	12/01/10	12/02/10	
Fluorene	EPA 8270C	10L0048	180	330	ND	1	12/01/10	12/02/10	
Indeno(1,2,3-cd)pyrene	EPA 8270C	10L0048	250	330	ND	1	12/01/10	12/02/10	
2-Methylnaphthalene	EPA 8270C	10L0048	230	330	ND	1	12/01/10	12/02/10	
Naphthalene	EPA 8270C	10L0048	230	330	ND	1	12/01/10	12/02/10	
Phenanthrene	EPA 8270C	10L0048	170	330	ND	1	12/01/10	12/02/10	
Pyrene	EPA 8270C	10L0048	150	330	ND	1	12/01/10	12/02/10	

Surrogate: 2-Fluorobiphenyl (35-120%) 60 %
 Surrogate: Nitrobenzene-d5 (30-120%) 52 %
 Surrogate: Terphenyl-d14 (40-135%) 73 %

Sample ID: ITL0009-02 (Q3-PF-3-1-0.0_2-FD - Soil)

Reporting Units: ug/kg									
Acenaphthene	EPA 8270C	10L0048	200	330	ND	1	12/01/10	12/02/10	
Acenaphthylene	EPA 8270C	10L0048	220	330	ND	1	12/01/10	12/02/10	
Anthracene	EPA 8270C	10L0048	80	330	ND	1	12/01/10	12/02/10	
Benzo(a)anthracene	EPA 8270C	10L0048	70	330	ND	1	12/01/10	12/02/10	
Benzo(a)pyrene	EPA 8270C	10L0048	55	330	ND	1	12/01/10	12/02/10	
Benzo(b)fluoranthene	EPA 8270C	10L0048	180	330	ND	1	12/01/10	12/02/10	
Benzo(g,h,i)perylene	EPA 8270C	10L0048	290	330	ND	1	12/01/10	12/02/10	
Benzo(k)fluoranthene	EPA 8270C	10L0048	70	330	ND	1	12/01/10	12/02/10	
Chrysene	EPA 8270C	10L0048	75	330	ND	1	12/01/10	12/02/10	
Dibenz(a,h)anthracene	EPA 8270C	10L0048	200	420	ND	1	12/01/10	12/02/10	
Fluoranthene	EPA 8270C	10L0048	180	330	ND	1	12/01/10	12/02/10	
Fluorene	EPA 8270C	10L0048	180	330	ND	1	12/01/10	12/02/10	
Indeno(1,2,3-cd)pyrene	EPA 8270C	10L0048	250	330	ND	1	12/01/10	12/02/10	
2-Methylnaphthalene	EPA 8270C	10L0048	230	330	ND	1	12/01/10	12/02/10	
Naphthalene	EPA 8270C	10L0048	230	330	ND	1	12/01/10	12/02/10	
Phenanthrene	EPA 8270C	10L0048	170	330	ND	1	12/01/10	12/02/10	
Pyrene	EPA 8270C	10L0048	150	330	ND	1	12/01/10	12/02/10	

Surrogate: 2-Fluorobiphenyl (35-120%) 63 %

TestAmerica Irvine

Sushmitha Reddy For Amy Harris
 Project Manager

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POLYNUCLEAR AROMATIC HYDROCARBONS BY GC/MS (EPA 8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITL0009-02 (Q3-PF-3-1-0.0_2-FD - Soil) - cont.									
Reporting Units: ug/kg									
Surrogate: Nitrobenzene-d5 (30-120%)					56 %				
Surrogate: Terphenyl-d14 (40-135%)					76 %				

TestAmerica Irvine

Sushmitha Reddy For Amy Harris
Project Manager

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METHOD BLANK/QC DATA

POLYNUCLEAR AROMATIC HYDROCARBONS BY GC/MS (EPA 8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10L0048 Extracted: 12/01/10											
Blank Analyzed: 12/02/2010 (10L0048-BLK1)											
Acenaphthene	ND	330	200	ug/kg							
Acenaphthylene	ND	330	220	ug/kg							
Anthracene	ND	330	80	ug/kg							
Benzo(a)anthracene	ND	330	70	ug/kg							
Benzo(a)pyrene	ND	330	55	ug/kg							
Benzo(b)fluoranthene	ND	330	180	ug/kg							
Benzo(g,h,i)perylene	ND	330	290	ug/kg							
Benzo(k)fluoranthene	ND	330	70	ug/kg							
Chrysene	ND	330	75	ug/kg							
Dibenz(a,h)anthracene	ND	420	200	ug/kg							
Fluoranthene	ND	330	180	ug/kg							
Fluorene	ND	330	180	ug/kg							
Indeno(1,2,3-cd)pyrene	ND	330	250	ug/kg							
2-Methylnaphthalene	ND	330	230	ug/kg							
Naphthalene	ND	330	230	ug/kg							
Phenanthrene	ND	330	170	ug/kg							
Pyrene	ND	330	150	ug/kg							
Surrogate: 2-Fluorobiphenyl	2480			ug/kg	3330		74	35-120			
Surrogate: Nitrobenzene-d5	2170			ug/kg	3330		65	30-120			
Surrogate: Terphenyl-d14	3240			ug/kg	3330		97	40-135			
LCS Analyzed: 12/02/2010 (10L0048-BS1)											
Acenaphthene	2280	330	200	ug/kg	3330		68	50-120			
Acenaphthylene	2300	330	220	ug/kg	3330		69	50-120			
Anthracene	2430	330	80	ug/kg	3330		73	55-120			
Benzo(a)anthracene	2400	330	70	ug/kg	3330		72	55-120			
Benzo(a)pyrene	2640	330	55	ug/kg	3330		79	50-125			
Benzo(b)fluoranthene	2430	330	180	ug/kg	3330		73	45-125			
Benzo(g,h,i)perylene	2680	330	290	ug/kg	3330		80	35-130			
Benzo(k)fluoranthene	2610	330	70	ug/kg	3330		78	45-125			
Chrysene	2460	330	75	ug/kg	3330		74	55-120			
Dibenz(a,h)anthracene	2790	420	200	ug/kg	3330		84	40-135			
Fluoranthene	2280	330	180	ug/kg	3330		68	55-120			
Fluorene	2290	330	180	ug/kg	3330		69	55-120			
Indeno(1,2,3-cd)pyrene	2710	330	250	ug/kg	3330		81	30-135			
2-Methylnaphthalene	2090	330	230	ug/kg	3330		63	45-120			

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POLYNUCLEAR AROMATIC HYDROCARBONS BY GC/MS (EPA 8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10L0048 Extracted: 12/01/10											
LCS Analyzed: 12/02/2010 (10L0048-BS1)											
Naphthalene	2040	330	230	ug/kg	3330		61	45-120			
Phenanthrene	2420	330	170	ug/kg	3330		73	50-120			
Pyrene	2700	330	150	ug/kg	3330		81	45-125			
Surrogate: 2-Fluorobiphenyl	2140			ug/kg	3330		64	35-120			
Surrogate: Nitrobenzene-d5	1840			ug/kg	3330		55	30-120			
Surrogate: Terphenyl-d14	2630			ug/kg	3330		79	40-135			
Matrix Spike Analyzed: 12/02/2010 (10L0048-MS1)											
Source: ITL0009-01											
Acenaphthene	2150	330	200	ug/kg	3330	ND	65	45-120			
Acenaphthylene	2170	330	220	ug/kg	3330	ND	65	45-120			
Anthracene	2250	330	80	ug/kg	3330	ND	67	55-120			
Benzo(a)anthracene	2210	330	70	ug/kg	3330	ND	66	50-120			
Benzo(a)pyrene	2390	330	55	ug/kg	3330	ND	72	45-125			
Benzo(b)fluoranthene	2240	330	180	ug/kg	3330	ND	67	45-125			
Benzo(g,h,i)perylene	2720	330	290	ug/kg	3330	ND	82	25-130			
Benzo(k)fluoranthene	2470	330	70	ug/kg	3330	ND	74	45-125			
Chrysene	2300	330	75	ug/kg	3330	ND	69	55-120			
Dibenz(a,h)anthracene	2560	420	200	ug/kg	3330	ND	77	25-135			
Fluoranthene	2270	330	180	ug/kg	3330	ND	68	45-120			
Fluorene	2160	330	180	ug/kg	3330	ND	65	50-120			
Indeno(1,2,3-cd)pyrene	2480	330	250	ug/kg	3330	ND	74	20-130			
2-Methylnaphthalene	2100	330	230	ug/kg	3330	ND	63	40-120			
Naphthalene	1980	330	230	ug/kg	3330	ND	59	40-120			
Phenanthrene	2270	330	170	ug/kg	3330	ND	68	50-120			
Pyrene	2280	330	150	ug/kg	3330	ND	68	40-125			
Surrogate: 2-Fluorobiphenyl	1970			ug/kg	3330		59	35-120			
Surrogate: Nitrobenzene-d5	1720			ug/kg	3330		52	30-120			
Surrogate: Terphenyl-d14	2220			ug/kg	3330		67	40-135			

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POLYNUCLEAR AROMATIC HYDROCARBONS BY GC/MS (EPA 8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10L0048 Extracted: 12/01/10											
Matrix Spike Dup Analyzed: 12/02/2010 (10L0048-MSD1)					Source: ITL0009-01						
Acenaphthene	2250	330	200	ug/kg	3330	ND	67	45-120	4	25	
Acenaphthylene	2250	330	220	ug/kg	3330	ND	67	45-120	4	20	
Anthracene	2360	330	80	ug/kg	3330	ND	71	55-120	5	25	
Benzo(a)anthracene	2310	330	70	ug/kg	3330	ND	69	50-120	4	25	
Benzo(a)pyrene	2520	330	55	ug/kg	3330	ND	76	45-125	5	25	
Benzo(b)fluoranthene	2370	330	180	ug/kg	3330	ND	71	45-125	6	30	
Benzo(g,h,i)perylene	2810	330	290	ug/kg	3330	ND	84	25-130	3	30	
Benzo(k)fluoranthene	2570	330	70	ug/kg	3330	ND	77	45-125	4	30	
Chrysene	2430	330	75	ug/kg	3330	ND	73	55-120	5	25	
Dibenz(a,h)anthracene	2690	420	200	ug/kg	3330	ND	81	25-135	5	30	
Fluoranthene	2260	330	180	ug/kg	3330	ND	68	45-120	0.2	25	
Fluorene	2250	330	180	ug/kg	3330	ND	67	50-120	4	25	
Indeno(1,2,3-cd)pyrene	2630	330	250	ug/kg	3330	ND	79	20-130	6	30	
2-Methylnaphthalene	2190	330	230	ug/kg	3330	ND	66	40-120	4	20	
Naphthalene	2050	330	230	ug/kg	3330	ND	62	40-120	4	25	
Phenanthrene	2400	330	170	ug/kg	3330	ND	72	50-120	5	25	
Pyrene	2650	330	150	ug/kg	3330	ND	79	40-125	15	30	
Surrogate: 2-Fluorobiphenyl	2030			ug/kg	3330		61	35-120			
Surrogate: Nitrobenzene-d5	1820			ug/kg	3330		55	30-120			
Surrogate: Terphenyl-d14	2550			ug/kg	3330		76	40-135			

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 Project Manager

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DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 8270C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

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