



5/7/2009

State of Alaska, Alaska Department of Environmental Conservation
Division of Spill Prevention and Response, Contaminated Sites Program
Bruce Wanstall, Project Manager
410 Willoughby Ave, Suite 303
PO Box 111800
Juneau, AK 99801

Re: File 1508.38.009: Characterization of the estimated 317 cubic yard contaminated soil stockpile at Chilkoot Lumber Company.

Mr. Bruce Wanstall,

Chilkat Environmental conducted characterization sampling of this stockpile on 4/25/09 pursuant to the workplan submitted September 3, 2008 and approved September 8. Last fall we covered the pile with three layers of 10 mil polyethylene joined with Tyvek tape and tied it down using ground line and construction stakes. The containment was successful at containing the stockpile through the winter. To gain access for sampling the cover was cut open in 5 areas ranging from 2 square feet to 20. The cover has not yet been repaired in anticipation that it may meet standards for use as fill on the site.

As discussed in the workplan the first 60 cubic yards of material that was present in 2000 and known to have tested high at that time was characterized by one representative composite sample to include DRO, RRO and PAH analyses. Four samples were collected from 1', 2', 3', and 4' depths. Samples were acquired using hand tools and an AMS sampling auger after attempts to acquire samples with only the auger and with a gas powered post hole digger failed due to material density and angularity. The maximum depth sampled was 4 feet below surface at the center of the pile. Refer to Figure 1 for and image of the sampling locations and depths.

The remaining 257 cubic yards was characterized by analyses of 4 discrete representative samples. Care was taken to consider any distinct soil types for discrete sample but the material appeared homogenous. Each sample was analyzed for RRO, DRO and PAH. (Figure 2)

PID headspace analyses, odor and sheen testing was conducted for each sample to generate a matrix of results to aid in anticipated screening of like material with common contaminants. The lab report is attached to this document. In summary, no variation was discovered in the levels of contamination in the composited portion of the pile compared to the remainder of the pile, which was historically documented as more contaminated. The stockpile demonstrated DRO results from 288 ppm to 2140

ppm and RR0 results from 836 ppm to 6870 ppm. Patterns in the distribution of contamination in the pile vertically or horizontally were not detected by the volume of sampling conducted.

Analytes	C-1	D-1	D-2	D-3	D-3A (Field Replicate of D-3)	D-4
Depth	Varied	6'	4'	4'	4'	2'
PAH	ND	ND	ND	ND	ND	ND
DRO	1660	412	288	1840	2000	2140
RRO	5750	1370	836	5520	6350	6870

Figure 2: Laboratory Results in ppm reported in Test America Laboratory Report Work Order # BSD0309 and Project #8087500

Interpretation of this data for management of the pile remains contingent on determination of cleanup standards that apply to the site. It is understood that standards may be applied to the site by ownership and could distinguish between properties owned by the responsible party versus State of Alaska lease properties. We request consideration of the request submitted October 6, 2008 for determination of clean-up levels that will be required at the site. This information is also required to guide planned excavation of contaminated soil this summer at locations identified in the October 6 request.

Elijah Donat MS PMP 907/303-7899 cell

elijah@chilkatenvironmental.com

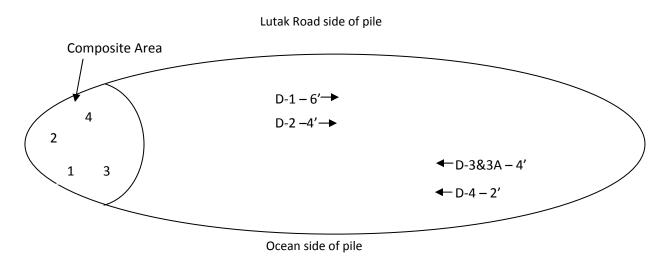


Figure 1: Field Sampling Areas





May 05, 2009

William Prisciandaro Chilkat Environmental P.O. Box 895 Haines, AK 99827

RE: Chilkoot Lumber Company

Enclosed are the results of analyses for samples received by the laboratory on 04/28/09 16:45. The following list is a summary of the Work Orders contained in this report, generated on 05/05/09 12:42.

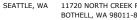
If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
BSD0309	Chilkoot Lumber Company	88087500

TestAmerica Seattle

Curtis D. Armstrong, Project Manager







Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-1	BSD0309-01	Soil	04/25/09 13:00	04/28/09 16:45
D-1	BSD0309-02	Soil	04/25/09 13:35	04/28/09 16:45
D-2	BSD0309-03	Soil	04/25/09 13:57	04/28/09 16:45
D-3	BSD0309-04	Soil	04/25/09 14:12	04/28/09 16:45
D-3A	BSD0309-05	Soil	04/25/09 14:12	04/28/09 16:45
D-4	BSD0309-06	Soil	04/25/09 14:28	04/28/09 16:45

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Diesel Hydrocarbons (C10-C25) and Heavy Oil (C25-C36) by AK102 and AK103

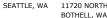
TestAmerica Seattle

			TestAm	erica Se	attle					
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0309-01RE1 (C-1)		So	il		Sampl	ed: 04/2	25/09 13:00			
Diesel Range Hydrocarbons	AK102_103	1660		218	mg/kg dry	50x	9D29022	04/29/09 12:29	04/30/09 16:48	Qe
Residual Range Organics	"	5750		1360	"	"	"	"	"	
Surrogate(s): 2-FBP			NR		50 - 150 %	"			"	Z 3
Octacosane			NR		50 - 150 %	"			"	Z3
BSD0309-02 (D-1)		So	Soil		Sampl	ed: 04/2	25/09 13:35			
Diesel Range Hydrocarbons	AK102_103	412		4.56	mg/kg dry	1x	9D29022	04/29/09 12:29	04/29/09 21:17	Q6
Surrogate(s): 2-FBP			95.2%		50 - 150 %	"			"	
Octacosane			91.5%		50 - 150 %	"			"	
BSD0309-02RE1 (D-1)		So	Soil		Sampl	ed: 04/2	25/09 13:35			
Residual Range Organics	AK102_103	1370		285	mg/kg dry	10x	9D29022	04/29/09 12:29	04/30/09 17:10	
Surrogate(s): 2-FBP			94.4%		50 - 150 %	"			"	
Octacosane			99.6%		50 - 150 %	"			"	
BSD0309-03 (D-2)		So	il	Sampled: 04/25/			25/09 13:57			
Diesel Range Hydrocarbons	AK102_103	288		4.36	mg/kg dry	1x	9D29022	04/29/09 12:29	04/29/09 21:39	Q6
Surrogate(s): 2-FBP			92.7%		50 - 150 %	"			"	
Octacosane			95.5%		50 - 150 %	"			"	
BSD0309-03RE1 (D-2)		So	il		Sampl	ed: 04/2	25/09 13:57			
Residual Range Organics	AK102_103	836		136	mg/kg dry	5x	9D29022	04/29/09 12:29	04/30/09 17:32	
Surrogate(s): 2-FBP			95.0%		50 - 150 %	"			"	
Octacosane			102%		50 - 150 %	"			"	
BSD0309-04RE1 (D-3)		So	il		Sampl	ed: 04/2	25/09 14:12			
Diesel Range Hydrocarbons	AK102_103	1840		217	mg/kg dry	50x	9D29022	04/29/09 12:29	04/30/09 17:55	Q6
Residual Range Organics	"	5520		1350	"	"	"	"	"	
Surrogate(s): 2-FBP			NR		50 - 150 %	"			"	Z 3
Octacosane			NR		50 - 150 %	"			"	Z 3

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





11720 NORTH CREEK PKWY N, SUITE 400

BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210



Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Diesel Hydrocarbons (C10-C25) and Heavy Oil (C25-C36) by AK102 and AK103

TestAmerica Seattle

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes	
BSD0309-05RE1	(D-3A)		Soi	1		Sampl	led: 04/2	25/09 14:12				
Diesel Range Hydro	ocarbons	AK102_103	2000		216	mg/kg dry	50x	9D29022	04/29/09 12:29	04/30/09 18:17	Q6	
Residual Range Org	ganics	"	6350		1350	"	"	"	"	"		
Surrogate(s):	2-FBP			NR		50 - 150 %	"			"	Z 3	
	Octacosane			NR		50 - 150 %	"			"	Z 3	
BSD0309-06RE1	(D-4)		Soil			Sampl	led: 04/2	25/09 14:28				
Diesel Range Hydro	ocarbons	AK102_103	2140		86.6	mg/kg dry	20x	9D29022	04/29/09 12:29	04/30/09 18:39	Q6	
Surrogate(s):	2-FBP			88.5%		50 - 150 %	"			"		
	Octacosane			114%		50 - 150 %	"			"		
BSD0309-06RE2	(D-4)		Soi	l		Sampl	led: 04/2	25/09 14:28				
Residual Range Org	ganics	AK102_103	6870		1350	mg/kg dry	50x	9D29022	04/29/09 12:29	05/01/09 16:47		
Surrogate(s):	2-FBP			NR		50 - 150 %	"			"	Z3	
	Octacosane			NR		50 - 150 %	"			"	Z 3	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager







Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0309-01 (C-1)		Soil		Samp	led: 04/2	25/09 13:00				
Acenaphthene	8270C-SIM	ND		0.0110	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 15:41	I
Acenaphthylene	"	ND		0.0110	"	"	"	"	"	I
Anthracene	"	ND		0.0110	"	"	"	"	"	I
Benzo (a) anthracene	"	ND		0.0110	"	"	"	"	"	I
Benzo (a) pyrene	"	ND		0.0110	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND		0.0110	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND		0.0110	"	"	"	"	"	
Benzo (b & k) fluoranthene	"	ND		0.0220	"	"	"	"	"	
Benzo (ghi) perylene	"	ND		0.0110	"	"	"	"	"	
Chrysene	"	ND		0.0110	"	"	"	"	"	I
Dibenz (a,h) anthracene	"	ND		0.0110	"	"	"	"	"	
Fluoranthene	"	ND		0.0110	"	"	"	"	"	I
Fluorene	"	ND		0.0110	"	"	"	"	"	I
Indeno (1,2,3-cd) pyrene	"	ND		0.0110	"	"	"	"	"	
1-Methylnaphthalene	"	ND		0.0110	"	"	"	"	"	
2-Methylnaphthalene	"	ND		0.0110	"	"	"	"	"	
Naphthalene	"	ND		0.0110	"	"	"	"	"	
Phenanthrene	"	ND		0.0110	"	"	"	"	"	I
Pyrene	"	ND		0.0110	"	"	"	"	"	I

44.1% 46 - 125 % ZX, I Surrogate(s): p-Terphenyl-d14

BSD0309-02 (D-1)		Soil			Samp	led: 04/2	25/09 13:35		I	
Acenaphthene	8270C-SIM	ND		0.0114	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 16:06	
Acenaphthylene	"	ND		0.0114	"	"	"	"	"	
Anthracene	"	ND		0.0114	"	"	"	"	"	
Benzo (a) anthracene	"	ND		0.0114	"	"	"	"	"	
Benzo (a) pyrene	"	ND		0.0114	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND		0.0114	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND		0.0114	"	"	"	"	"	
Benzo (b & k) fluoranthene	"	ND		0.0227	"	"	"	"	"	
Benzo (ghi) perylene	"	ND		0.0114	"	"	"	"	"	
Chrysene	"	ND		0.0114	"	"	"	"	"	
Dibenz (a,h) anthracene	"	ND		0.0114	"	"	"	"	"	
Fluoranthene	"	ND		0.0114	"	"	"	"	"	
Fluorene	"	ND		0.0114	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND		0.0114	"	"	"	"	"	
1-Methylnaphthalene	"	ND		0.0114	"	"	"	"	"	
2-Methylnaphthalene	"	ND		0.0114	"	"	"	"	"	
Naphthalene	"	ND		0.0114	"	"	"	"	"	
Phenanthrene	"	ND		0.0114	"	"	"	"	"	
Pyrene	"	ND		0.0114	"	"	"	"	"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chilkat Environmental Project Name: Chilkoot Lumber Company

P.O. Box 895Project Number:88087500Report Created:Haines, AK 99827Project Manager:William Prisciandaro05/05/09 12:42

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0309-02 (D-1)		Soi	Soil			ed: 04/2	25/09 13:35			
Surrogate(s): p-Terphenyl-d14			52.5%		46 - 125 %	1x			04/30/09 16:06	
BSD0309-03 (D-2)		Soi		Sampl	ed: 04/2	25/09 13:57				
Acenaphthene	8270C-SIM	ND		0.0109	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 16:32	
Acenaphthylene	"	ND		0.0109	"	"	"	"	"	
Anthracene	"	ND		0.0109	"	"	"	"	"	
Benzo (a) anthracene	"	ND		0.0109	"	"	"	"	"	
Benzo (a) pyrene	"	ND		0.0109	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND		0.0109	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND		0.0109	"	"	"	"	"	
Benzo (b & k) fluoranthene	"	ND		0.0218	"	"	"	"	"	
Benzo (ghi) perylene	"	ND		0.0109	"	"	"	"	"	
Chrysene	"	ND		0.0109	"	"	"	"	"	
Dibenz (a,h) anthracene	"	ND		0.0109	"	"	"	"	"	
Fluoranthene	"	ND		0.0109	"	"	"	"	"	
Fluorene	"	ND		0.0109	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND		0.0109	"	"	"	"	"	
1-Methylnaphthalene	"	ND		0.0109	"	"	"	"	"	
2-Methylnaphthalene	"	ND		0.0109	"	"	"	"	"	
Naphthalene	"	ND		0.0109	"	"	"	"	"	
Phenanthrene	"	ND		0.0109	"	"	"	"	"	
Pyrene	"	ND		0.0109	"		"	"	"	

Surrogate(s): p-Terphenyl-d14 51.3% 46 - 125 % "

BSD0309-04 (D-3)		Soil		Samp	led: 04/2	25/09 14:12			
Acenaphthene	8270C-SIM	ND	 0.0110	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 16:58	I
Acenaphthylene	"	ND	 0.0110	"	"	"	"	"	I
Anthracene	"	ND	 0.0110	"	"	"	"	"	I
Benzo (a) anthracene	"	ND	 0.0110	"	"	"	"	"	I
Benzo (a) pyrene	"	ND	 0.0110	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	 0.0110	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	 0.0110	"	"	"	"	"	
Benzo (b & k) fluoranthene	"	ND	 0.0219	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	 0.0110	"	"	"	"	"	
Chrysene	"	ND	 0.0110	"	"	"	"	"	I
Dibenz (a,h) anthracene	"	ND	 0.0110	"	"	"	"	"	
Fluoranthene	"	ND	 0.0110	"	"	"	"	"	I
Fluorene	"	ND	 0.0110	"	"	"	"	"	I
Indeno (1,2,3-cd) pyrene	"	ND	 0.0110	"	"	"	"	"	
1-Methylnaphthalene	"	ND	 0.0110	"	"	"	"	"	I
2-Methylnaphthalene	"	ND	 0.0110	"	"	"	"	"	I

TestAmerica Seattle

Curtis D. Armstrong, Project Manager







Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0309-04 (D-3)		Soil Sampled: 04/25/09 14:12								
Naphthalene	8270C-SIM	ND		0.0110 1	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 16:58	I
Phenanthrene	"	ND		0.0110	"	"	"	"	"	I
Pyrene	"	ND		0.0110	"	"	"	"	"	I
Surrogate(s): p-Terphenyl-d14			53.1%		46 - 125 %	"			"	I

BSD0309-05 (D-3A)		Soil		Samp	led: 04/2	25/09 14:12			I	
Acenaphthene	8270C-SIM	ND	 0.0110	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 17:24		
Acenaphthylene	"	ND	 0.0110	"	"	"	"	"		
Anthracene	"	ND	 0.0110	"	"	"	"	"		
Benzo (a) anthracene	"	ND	 0.0110	"	"	"	"	"		
Benzo (a) pyrene	"	ND	 0.0110	"	"	"	"	"		
Benzo (b) fluoranthene	"	ND	 0.0110	"	"	"	"	"		
Benzo (k) fluoranthene	"	ND	 0.0110	"	"	"	"	"		
Benzo (b & k) fluoranthene	"	ND	 0.0219	"	"	"	"	"		
Benzo (ghi) perylene	"	ND	 0.0110	"	"	"	"	"		
Chrysene	"	ND	 0.0110	"	"	"	"	"		
Dibenz (a,h) anthracene	"	ND	 0.0110	"	"	"	"	"		
Fluoranthene	"	ND	 0.0110	"	"	"	"	"		
Fluorene	"	ND	 0.0110	"	"	"	"	"		
Indeno (1,2,3-cd) pyrene	"	ND	 0.0110	"	"	"	"	"		
1-Methylnaphthalene	"	ND	 0.0110	"	"	"	"	"		
2-Methylnaphthalene	"	ND	 0.0110	"	"	"	"	"		
Naphthalene	"	ND	 0.0110	"	"	"	"	"		
Phenanthrene	"	ND	 0.0110	"	"	"	"	"		
Pyrene	"	ND	 0.0110	"	"	"	"	"		

BSD0309-06 (D-4)		Soil		Samp	led: 04/2				
Acenaphthene	8270C-SIM	ND	 0.0107	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 17:49	I
Acenaphthylene	"	ND	 0.0107	"	"	"	"	"	I
Anthracene	"	ND	 0.0107	"	"	"	"	"	I
Benzo (a) anthracene	"	ND	 0.0107	"	"	"	"	"	I
Benzo (a) pyrene	"	ND	 0.0107	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	 0.0107	"	"	"	"	"	
Benzo (k) fluoranthene	m .	ND	 0.0107	"	"	"	"	"	
Benzo (b & k) fluoranthene	"	ND	 0.0214	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	 0.0107	"	"	"	"	"	
Chrysene	"	ND	 0.0107	"	"	"	"	"	I
Dibenz (a,h) anthracene	"	ND	 0.0107	"	"	"	"	"	
Fluoranthene	"	ND	 0.0107	"	"	"	"	"	I
Fluorene	n	ND	 0.0107	"	"	"	"	"	I
Fluoranthene	" "	ND	 0.0107	"	"	"	"	"	I I

46 - 125 %

44.4%

TestAmerica Seattle

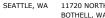
Surrogate(s): p-Terphenyl-d14

Curtis D. Armstrong, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, $without \ the \ written \ approval \ of \ the \ laboratory.$



ZX



11720 NORTH CREEK PKWY N, SUITE 400

BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210



Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

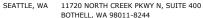
TestAmerica Seattle

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0309-06 (D-4)		Soil			Sampl	led: 04/2	25/09 14:28			
Indeno (1,2,3-cd) pyrene	8270C-SIM	ND		0.0107	mg/kg dry	1x	9D29023	04/29/09 12:30	04/30/09 17:49	
1-Methylnaphthalene	m m	ND		0.0107	"	"	"	"	"	I
2-Methylnaphthalene	"	ND		0.0107	"	"	"	"	"	I
Naphthalene	"	ND		0.0107	"	"	"	"	"	I
Phenanthrene	m m	ND		0.0107	"	"	"	"	"	I
Pyrene	"	ND		0.0107	"	"	"	"	"	I
Surrogate(s): p-Terphenyl-d14			54.0%		46 - 125 %	"			"	I

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Report Created:

05/05/09 12:42



P.O. Box 895

Chilkat Environmental Project Name:

Project Name: Chilkoot Lumber Company
Project Number: 88087500

Haines, AK 99827 Project Manager: William Prisciandaro

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica Seattle

				1 0001 1111							
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BSD0309-01	(C-1)		Soil			Sam	pled: 04/2	25/09 13:00			
Dry Weight		BSOPSPL003R0 8	90.5		1.00	%	1x	9D29025	04/29/09 15:15	04/30/09 00:00	
BSD0309-02	(D-1)		Soil			Sam	pled: 04/2	25/09 13:35			
Dry Weight		BSOPSPL003R0 8	87.1		1.00	%	1x	9D29025	04/29/09 15:15	04/30/09 00:00	
BSD0309-03	(D-2)		Soil			Sam	pled: 04/2	25/09 13:57			
Dry Weight		BSOPSPL003R0 8	91.3		1.00	%	1x	9D29025	04/29/09 15:15	04/30/09 00:00	
BSD0309-04	(D-3)		Soil			Sam	pled: 04/2	25/09 14:12			
Dry Weight		BSOPSPL003R0 8	90.5		1.00	%	1x	9D29025	04/29/09 15:15	04/30/09 00:00	
BSD0309-05	(D-3A)		Soil			Sam	pled: 04/2	25/09 14:12			
Dry Weight		BSOPSPL003R0 8	91.0		1.00	%	lx	9D29025	04/29/09 15:15	04/30/09 00:00	
BSD0309-06	(D-4)		Soil			Sam	pled: 04/2	25/09 14:28			
Dry Weight		BSOPSPL003R0 8	92.1		1.00	%	1x	9D29025	04/29/09 15:15	04/30/09 00:00	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





P.O. Box 895Project Number:88087500Report Created:Haines, AK 99827Project Manager:William Prisciandaro05/05/09 12:42

Diesel Hydrocarbons (C10-C25) and Heavy Oil (C25-C36) by AK102 and AK103 - Laboratory Quality Control Results TestAmerica Seattle

QC Batch: 9D29022	Soil Pre	paration N	Tethod: EPA	3550B										
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits) Analyzed	Notes
Blank (9D29022-BLK1)								Ext	racted:	04/29/09 12	2:29			
Diesel Range Hydrocarbons	AK102_103	ND		4.00	mg/kg wet	1x							04/29/09 19:05	
Residual Range Organics	"	ND		25.0	"	"							"	
Surrogate(s): 2-FBP		Recovery:	87.4%	L	imits: 50-150%	"							04/29/09 19:05	
Octacosane			95.1%		50-150%	"							"	
LCS (9D29022-BS1)								Ext	racted:	04/29/09 12	2:29			
Diesel Range Hydrocarbons	AK102_103	78.0		4.00	mg/kg wet	1x		80.0	97.5%	(75-125)			04/29/09 19:27	
Residual Range Organics	"	70.6		25.0	"			"	88.2%	(60-120)			"	
Surrogate(s): 2-FBP		Recovery:	86.7%	L	imits: 60-120%	"							04/29/09 19:27	
Octacosane			89.6%		60-120%	"							"	
LCS Dup (9D29022-BSD1)								Ext	racted:	04/29/09 12	2.29			
Diesel Range Hydrocarbons	AK102 103	81.5		4.00	mg/kg wet	1x		80.0	102%	(75-125)		(20)	04/29/09 19:49	
Residual Range Organics	"	75.6		25.0	"			"	94.5%	(60-120)	6.88%	` /	"	
Surrogate(s): 2-FBP		Recovery:	94.6%	L	imits: 60-120%	"							04/29/09 19:49	
Octacosane		•	95.0%		60-120%	"							"	
Matrix Spike (9D29022-MS1)				OC Source	e: BSD0309-02			Ext	racted:	04/29/09 12	2.29			
Diesel Range Hydrocarbons	AK102_103	479		4.52	mg/kg dry	1x	412			(75-125)		-	04/29/09 20:11	MHA
Surrogate(s): 2-FBP		Recovery:	93.3%	L	imits: 50-150%	"							04/29/09 20:11	
Octacosane		Ĭ	92.0%		50-150%	"							"	
Matrix Spike (9D29022-MS2)				OC Source	e: BSD0309-02			Ext	racted:	04/29/09 12	2-29			
Residual Range Organics	AK102_103	1290		_	mg/kg dry	10x	1340			(60-120)			04/30/09 16:03	MHA
Surrogate(s): 2-FBP		Recovery:	81.9%	L	imits: 50-150%	"							04/30/09 16:03	
Octacosane		•	95.0%		50-150%	"							"	
Matrix Spike Dup (9D29022-M	ASD1)			OC Source	e: BSD0309-02			Exti	racted:	04/29/09 12	2:29			
Diesel Range Hydrocarbons	AK102 103	411			mg/kg dry	1x	412			(75-125)		6 (20)	04/29/09 20:33	MH
Surrogate(s): 2-FBP		Recovery:	87.7%		imits: 50-150%	"							04/29/09 20:33	
Octacosane			88.4%		50-150%	"							"	
Matrix Spike Dup (9D29022-M	(SD2)			QC Sourc	e: BSD0309-02			Ext	racted:	04/29/09 12	2:29			
Residual Range Organics	AK102_103	1100		283	mg/kg dry	10x	1340	90.4	-262%			(20)	04/30/09 16:26	MH
Surrogate(s): 2-FBP		Recovery:	76.8%	L	imits: 50-150%	"				<u> </u>			04/30/09 16:26	
Octacosane		•	89.5%		50-150%	"							"	

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





P.O. Box 895 Project Number: 88087500 Report Created: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9D29023 **Soil Preparation Method:** EPA 3550B REC (Limits) Source Spike % RPD Analyte Method Result MDL* MRL Units Dil (Limits) Analyzed Notes Amt Blank (9D29023-BLK1) Extracted: 04/29/09 12:30 8270C-SIM 04/30/09 13:35 Acenaphthene ND 0.0100 mg/kg wet 1xAcenaphthylene ND 0.0100 0.0100 Anthracene ND 0.0100 ND Benzo (a) anthracene Benzo (a) pyrene ND 0.0100 Benzo (b) fluoranthene ND 0.0100 0.0100 Benzo (k) fluoranthene ND 0.0200 Benzo (b & k) fluoranthene ND Benzo (ghi) perylene ND 0.0100 0.0100 Chrysene ND 0.0100 Dibenz (a,h) anthracene ND Fluoranthene ND 0.0100 ND 0.0100 Indeno (1,2,3-cd) pyrene ND 0.0100 0.0100 1-Methylnaphthalene ND 2-Methylnaphthalene ND 0.0100 Naphthalene ND 0.0100 ND 0.0100 Phenanthrene

 Surrogate(s):
 p-Terphenyl-d14
 Recovery:
 54.1%
 Limits:
 46-125%
 "
 04/30/09 13:35

0.0100

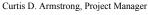
ND

LCS (9D29023-BS1)						Ext	acted: (04/29/09 12:3	30	
Acenaphthene	8270C-SIM	0.535	 0.0100	mg/kg wet	1x	 0.667	80.2%	(65-130)		 04/30/09 14:23
Acenaphthylene	"	0.621	 0.0100	"	"	 "	93.2%	(67-142)		 "
Anthracene	"	0.691	 0.0100	"	"	 "	104%	(55-149)		 "
Benzo (a) anthracene	"	0.514	 0.0100	"	"	 "	77.1%	(58-149)		 "
Benzo (a) pyrene	"	0.536	 0.0100	"	"	 "	80.4%	(56-149)		 "
Benzo (b) fluoranthene	"	0.484	 0.0100	"	"	 "	72.6%	(70-149)		 "
Benzo (k) fluoranthene	"	0.497	 0.0100	"	"	 "	74.6%	(55-149)		 "
Benzo (ghi) perylene	"	0.492	 0.0100	"	"	 "	73.9%	"		 "
Chrysene	"	0.601	 0.0100	"	"	 "	90.2%	(65-145)		 "
Dibenz (a,h) anthracene	"	0.507	 0.0100	"	"	 "	76.1%	(56-149)		 "
Fluoranthene	"	0.557	 0.0100	"	"	 "	83.6%	(72-145)		 "
Fluorene	"	0.604	 0.0100	"	"	 "	90.6%	(75-147)		 "
Indeno (1,2,3-cd) pyrene	"	0.490	 0.0100	"	"	 "	73.5%	(54-149)		 "
1-Methylnaphthalene	"	0.445	 0.0100	"	"	 "	66.8%	(51-128)		 "
2-Methylnaphthalene	"	0.414	 0.0100	"	"	 "	62.1%	(56-124)		 "
Naphthalene	"	0.438	 0.0100	"	"	 "	65.7%	(56-146)		 "
Phenanthrene	"	0.546	 0.0100	"	"	 "	81.9%	(64-139)		 "

TestAmerica Seattle

Pyrene

Carling







0.644

0.539

0.508

0.518

0.624

0.512

P.O. Box 895 Project Number: 88087500 Report Created: Haines, AK 99827 William Prisciandaro 05/05/09 12:42

$Polynuclear\ Aromatic\ Compounds\ by\ GC/MS\ with\ Selected\ Ion\ Monitoring\ -\ Laboratory\ Quality\ Control\ Results$

TestAmerica Seattle

QC Batch: 9D29023	Soil Pre	paration M	Iethod: EPA	3550B										
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9D29023-BS1)								Ext	racted:	04/29/09 12	:30			
Pyrene	8270C-SIM	0.474		0.0100	mg/kg wet	1x		0.667	71.1%	(58-149)		(04/30/09 14:23	
Surrogate(s): p-Terphenyl-d14		Recovery:	52.9%	L	imits: 46-125%	"							04/30/09 14:23	
Matrix Spike (9D29023-MS1)				QC Sourc	e: BSD0309-03	3		Ext	racted:	04/29/09 12	:30			
Acenaphthene	8270C-SIM	0.635		0.0108	mg/kg dry	1x	ND	0.721	88.1%	(64-140)		(04/30/09 14:49	
Acenaphthylene	"	0.726		0.0108	"	"	ND	"	101%	(66-150)			"	
Anthracene	"	0.773		0.0108	"	"	0.00197	"	107%	(54-150)			"	
Benzo (a) anthracene	"	0.572		0.0108	"	"	ND	"	79.4%	(57-150)			"	
Benzo (a) pyrene	"	0.622		0.0108	"	"	ND	"	86.3%	(55-150)			"	
Benzo (b) fluoranthene	"	0.591		0.0108	"	"	ND	"	82.0%	(54-150)			"	
Benzo (k) fluoranthene	"	0.588		0.0108	"	"	ND	"	81.5%	"			"	
Benzo (ghi) perylene	"	0.672		0.0108	"	"	ND	"	93.2%	"			"	
Chrysene	"	0.699		0.0108	"	"	0.00204	"	96.7%	(65-150)			"	
Dibenz (a,h) anthracene	"	0.694		0.0108	"	"	ND	"	96.3%	(55-150)			"	
Fluoranthene		0.661		0.0108	"	"	0.00393	"	91.2%	(70-150)			"	
Fluorene	"	0.723		0.0108	"	"	ND	"	100%	(74-150)			"	

ND

ND

ND

ND

0.00320

0.00313

89.3%

74.8%

70.6%

71.9%

70.7%

(50-150)

(45-145)

(50-140)

(47-147)

(56-150)

(57-150)

0.0108

0.0108

0.0108

0.0108

0.0108

0.0108

Matrix Spike Dup (9D29023		QC Source: BSD0309-03						Extracted: 04/29/09 12:30					
Acenaphthene	8270C-SIM	0.621		0.0110	mg/kg dry	1x	ND	0.730	85.0%	(64-140)	2.25% (41)	04/30/09 15:15	
Acenaphthylene	"	0.707		0.0110	"	"	ND	"	96.8%	(66-150)	2.71% "	"	
Anthracene	"	0.770		0.0110	"	"	0.00197	"	105%	(54-150)	0.425% "	"	
Benzo (a) anthracene	"	0.576		0.0110	"		ND	"	78.9%	(57-150)	0.718% "	"	
Benzo (a) pyrene	"	0.622		0.0110	"	"	ND	"	85.1%	(55-150)	0.0176% (35)	"	
Benzo (b) fluoranthene	"	0.587		0.0110	"	"	ND	"	80.3%	(54-150)	0.672% (41)	"	
Benzo (k) fluoranthene	"	0.561		0.0110	"		ND	"	76.8%	"	4.70% "	"	
Benzo (ghi) perylene	"	0.661		0.0110	"	"	ND	"	90.5%	"	1.59% "	"	
Chrysene	"	0.687		0.0110	"	"	0.00204	"	93.7%	(65-150)	1.73% (40)	"	
Dibenz (a,h) anthracene	"	0.685		0.0110	"	"	ND	"	93.8%	(55-150)	1.32% (41)	"	
Fluoranthene	"	0.645		0.0110	"	"	0.00393	"	87.8%	(70-150)	2.44% "	"	
Fluorene	"	0.712		0.0110	"	"	ND	"	97.5%	(74-150)	1.50% (44)	"	
ndeno (1,2,3-cd) pyrene	"	0.635		0.0110	"	"	ND	"	86.9%	(50-150)	1.40% "	"	
-Methylnaphthalene	"	0.519		0.0110	"	"	ND	"	71.1%	(45-145)	3.75% (41)	"	

TestAmerica Seattle

Indeno (1,2,3-cd) pyrene

1-Methylnaphthalene

2-Methylnaphthalene

Naphthalene

Phenanthrene

Pyrene

Carlling

Curtis D. Armstrong, Project Manager







P.O. Box 895Project Number:88087500Report Created:Haines, AK 99827Project Manager:William Prisciandaro05/05/09 12:42

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9D29023 Soil Preparation Method: EPA 3550B

Alyte Method Result MDL* MRL Units Dil Source Spike % (Limits) % (Limits) Analyzed Notes Result Amt REC

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	REC	(Limits)	RPD (1	Limits)	Analyzed	Notes
Matrix Spike Dup (9D290	23-MSD1)			QC Source	: BSD0309-03	3		Ext	racted:	04/29/09 12	:30			
2-Methylnaphthalene	8270C-SIM	0.487		0.0110	mg/kg dry	1x	ND	0.730	66.6%	(50-140)	4.41%	(41) 04	/30/09 15:15	
Naphthalene	"	0.482		0.0110	"	"	ND	"	65.9%	(47-147)	7.33%	"	"	
Phenanthrene	"	0.628		0.0110	"	"	0.00320	"	85.6%	(56-150)	0.675%	"	"	
Pyrene	"	0.504		0.0110	"	"	0.00313	"	68.6%	(57-150)	1.57%	"	"	

Surrogate(s): p-Terphenyl-d14 Recovery: 51.8% Limits: 46-125% " 04/30/09 15:15

TestAmerica Seattle

Curtis D. Armstrong, Project Manager







BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: Haines, AK 99827 Project Manager: William Prisciandaro 05/05/09 12:42

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica Seattle

QC Batch: 9D29025 Soil Preparation Method: Dry Weight

Analyte Method Result MDL* MRL Units Dil Source Spike % (Limits) % (Limits) Analyzed Result Amt REC	Notes
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Blank (9D29025-BLK1) Extracted: 04/29/09 12:32

Dry Weight BSOPSPL00 100 1.00 % 1x 04/30/09 00:00 3R08

TestAmerica Seattle

Curtis D. Armstrong, Project Manager

and theren





11720 NORTH CREEK PKWY N, SUITE 400

BOTHELL, WA 98011-8244 PH: (425) 420.9200 FAX: (425) 420.9210

THE LEADER IN ENVIRONMENTAL TESTING

Chilkat Environmental Chilkoot Lumber Company Project Name:

P.O. Box 895 88087500 Report Created: Project Number: William Prisciandaro Haines, AK 99827 Project Manager: 05/05/09 12:42

CERTIFICATION SUMMARY

TestAmerica Seattle

Method	Matrix	Nelac	Alaska			
8270C-SIM	Soil		X			
AK102_103	Soil		X			
BSOPSPL003R08	Soil					

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Temperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC).

TestAmerica Seattle

Curtis D. Armstrong, Project Manager





TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chilkat Environmental Project Name: Chilkoot Lumber Company

P.O. Box 895 Project Number: 88087500 Report Created: Haines, AK 99827 William Prisciandaro 05/05/09 12:42

Notes and Definitions

Report Specific Notes:

Ι

- Internal Standard recovery was outside of method limits. Matrix interference was confirmed by reanalysis.

 MHA - Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

Q6 - Results in the diesel organics range are primarily due to overlap from a heavy oil range product.

The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

ZX - Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

<u>Laboratory Reporting Conventions:</u>

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported

on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B.
 *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and Limits percent solids, where applicable

percent solids, where applicable.

Electronic - Electronic Signature added in accordance with TestAmerica's Electronic Reporting and Electronic Signatures Policy.

Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Seattle

C C D A A A D C AM



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave, Beaverton, OR 97008-7145 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 11922 E. First Ave, Spokane, WA 99206-5302 11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244

425-420-9200 FAX 420-9210 X 509-924-9200 FAX 924-9290 S03-906-9200 FAX 906-9210 907-563-9200 FAX 563-9210

Work Order #: BSD0309	TURNAROUND REQUEST	in Business Days *	Organic & Inorganic Analyses 10 7 5 4 3 2 1 <1	Petroleum Hydrocarbon Analyses	4 3 2 1]]]	OTHER Specify:	* Turnaround Requests less than standard may incur Rush Charges.	MATRIX # OF LOCATION/ TA (W, S, O) CONT. COMMENTS WO ID	5 1	5 1 -02	5 1 -03	5 1	5 1	5 1				1/2/1/2 EIACI / 1/2/1/2 WORTH / 1/2/1/2		FIRM:	$\sqrt{\zeta}$
ODY REPORT	it Environmental	Po-Box Blos	Humes AL 99827		PRESERVATIVE		REQUESTED ANALYSES					-							RECEIVED BY:	RECEIVED BY:	PRINT NAME:	
CHAIN OF CUSTODY REPORT	INVOICE TO: Chilk	Po 30	Haine	P.O. NUMBER:	PRESI		REQUESTI	+	ING		×		8		×				DATE: 4 27 09	DATE:	TIME	
					7			S S	PAI 8270 ML10 ML10 AL10	× ×	× ×	× × ×	X	× ×	X				7.11.17	FIRM: CALLEGY CAVICENMENTS INC. DATE:	-	
	Vironmentel	Sies	K 99827	FAX:	t Lumber Congu	}		-	SAMPLING DATE/TIME	4 as or 1300	4/05/09 1335	4/25/09 (357	4/25/09 1412	2141 Polsely	8ct 1 90/25/14				1	Dilliam Misclandoro ma	FIRM:	
	CLENT: Chilled Environmental		ADDRESS: Haves AK 99827	PHONE: 907 766 38 9 TEAX:	PROJECT NAME: Chilkoct Lumber Conput	THE WITH CHAPTER	PROJECT NUMBER:	SAMPLED BY: E Donat	CLIENT SAMPLE IDENTIFICATION	C-1	2 D-T	3 D-2	5-0	5 D-3A	7-7	7		01	41	RELEASED BY:	PRINT NAME:	ADDITIONAL REMARKS:

TAL-1000(0408)

TAT:	Paperw	ork to PIVI - Date	: 1 111	ne	Non-Comornances:
Page Time & Initials:_					Circle Y or N
					(If Y, see other side)
	TEST AMERIC	A SAMPLE RI	ECEIPT C	CHECKLIST	
Received By:	Logged-in By:	Unpacked/	Label R	eview by: Coole	er ID:3 5 4
(applies to temp at recei		Labeled by:			
Date: 1/28/04	Date: <u>04-29-</u>	Date: 04-29	Date_4	(29/9 Work Ord	er No. <u>BSD0309</u>
Time: <u>1645</u>	Time: <u>1050</u>	Time: 1150	Time:	[10 Client: _	
Initials: <u>FL</u>	Initials: <u>CW</u>	Initials:	Initials:	Ao Project:	
Container Type:	<u>C</u>	OC Seals:		Packing Materi	<u>al:</u>
X Cooler		ainer 7	_Sign By	X Bubble B	ags Styrofoam
Box	On Bottle	4/27/04	Date	Foam Pag	
None/Other		∠ None		X_None/Oth	er Bubble Wrap
Refrigerant:	<u>Sc</u>	il Stir Bars/Encor	es:	Received Via: I	
Gel Ice Pack			46:	Fed Ex	X TA Courier
		or N or NA			Mid Valley
None/Other	In	itial/date/time		Senvoy	
					Other
Cooler Temperature ((<u>IR):</u> °C Plastic	: Glass (Froze	en filters, Te		
Temperature Blank?	/oir	ala ana)		•	Blank? Y or N or NA
BP, OPLC,ARCO-Tel (initial/date/time): Comments:					
Sample Containers:	<u>ID</u>				<u>ID</u>
Intact?		Met	als Preserv	ed? Y or	N or 🐠
Provided by TA?		Clie	nt QAPP Pr	reserved? You	- N or (NA)
Correct Type?		Ade	equate Volui ests requested	me? (Y)or	. N
#Containers match C	OC? (Y) or N			leadspace? Y or	N or(NA)
IDs/time/date match	COC? (Y) or N	Cor	nments:		
Hold Times in hold?	Yor N				
PROJECT MANAGE	MENT				
Is the Chain of Custo	dy complete?			Y or N If N, cir	cle the items that were incomplete
Comments, Problems					

Total access set up?

Y or N