APPENDIX I
DATA VALIDATION REPORTS

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Anchor QEA, LLC
1423 3rd Avenue, Suite 300
Seattle, WA 98101-2226
ATTN: Ms. Joy Dunay

July 17, 2009

SUBJECT: Bay Wood Products, Data Validation

Dear Ms. Dunay,

Enclosed is the final validation report for the fraction listed below. This SDG was received on June 26, 2009. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 21067:

SDG #	Fraction
P1376	Dioxins/Dibenzofurans

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Diobenzofurans Data Review, September 2005
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Data Validation Operations Manager/Senior Chemist

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Attachment 1

EDD 335 pages-EX

LDC #21067 (Anchor Environmental-Seattle WA /Bay Wood Products)

LDC	SDG#	DATE REC'D	(3) DATE DUE	Dioxins (1613B)																															
Matrix: Water/Sediment				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	P1376	06/26/09	07/20/09	0	6																														
Total	T/SC			0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

21067ST.wpd

Bay Wood Products
Data Validation Reports
LDC# 21067

Dioxins/Dibenzofurans

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 7, 2009

Matrix: Sediment

Parameters: Dioxins/Dibenzofurans

Validation Level: EPA Level III

Laboratory: Analytical Perspectives

Sample Delivery Group (SDG): P1376

Sample Identification

BW-01-SS-090602
BW-03-SS-090602
BW-07-SS-090602
BW-09-SS-090602
BW-11-SS-090602
BW-53-SS-090602

Introduction

This data review covers 6 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 1613B for Polychlorinated Dioxins/Dibenzofurans.

This review follows USEPA Contract Laboratory Program National Functional Guidelines for Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. HRGC/HRMS Instrument Performance Check

Instrument performance was checked at the required daily frequency.

Retention time windows were established for all homologues. The chromatographic resolution between 2,3,7,8-TCDD and peaks representing any other unlabeled TCDD isomer was less than or equal to 25% valley.

III. Initial Calibration

A five point initial calibration was performed as required by the method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for unlabeled compounds and less than or equal to 35.0% for labeled compounds.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

IV. Routine Calibration (Continuing)

Routine calibration was performed at the required frequencies.

All of the routine calibration percent differences (%D) between the initial calibration RRF and the routine calibration RRF were within the QC limits.

The ion abundance ratios for all PCDDs and PCDFs were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated dioxin/dibenzofuran contaminants were found in the method blanks.

VI. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Ongoing precision and recovery (OPR) analyses were reviewed for each matrix as applicable. The percent recoveries (%R) were within the QC limits.

VIII. Regional Quality Assurance and Quality Control

Not applicable.

IX. Internal Standards

All internal standard recoveries were within QC limits.

X. Target Compound Identifications

Raw data were not reviewed for this SDG.

XI. Compound Quantitation and CRQLs

The 2,3,7,8-TCDF confirmation was performed with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
All samples in SDG P1376	2,3,7,8-TCDF	2nd column confirmation was not performed for this compound.	2,3,7,8-TCDF must be confirmed on the 2nd column per the method.	None	P

Raw data were not reviewed for this SDG.

XII. System Performance

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method with the exception noted in Section XI. No data were qualified due to this laboratory oversight.

No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

XIV. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 were identified as field duplicates. No polychlorinated dioxins/dibenzofurans were detected in any of the samples with the following exceptions:

Compound	Concentration (pg/g)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
2,3,7,8-TCDD	0.312	0.183	52
1,2,3,7,8-PeCDD	1.07	0.684	44
1,2,3,4,7,8-HxCDD	1.49	1.56	5
1,2,3,6,7,8-HxCDD	8.2	6.76	19
1,2,3,7,8,9-HxCDD	3.78	2.86	28
1,2,3,4,6,7,8-HpCDD	130	93.5	33
OCDD	1160	734	45
2,3,7,8-TCDF	1.22	1.03	17
1,2,3,7,8-PeCDF	0.474	0.408	15
2,3,4,7,8-PeCDF	1.05	0.824	24
1,2,3,4,7,8-HxCDF	1.26	0.86	38
1,2,3,6,7,8-HxCDF	1.09	0.778	33
2,3,4,6,7,8-HxCDF	1.76	1.31	29
1,2,3,7,8,9-HxCDF	0.336	0.357	6
1,2,3,4,6,7,8-HpCDF	27.9	17.3	47
1,2,3,4,7,8,9-HpCDF	1.43	0.952	40
OCDF	64.8	35.6	58
Total TCDD	11.7	10.6	10
Total PeCDD	12.6	9.52	28
Total HxCDD	66.8	53.5	22
Total HpCDD	300	218	32
Total TCDF	13.3	8.97	39

Compound	Concentration (pg/g)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Total PeCDF	13.6	5.97	78
Total HxCDF	36.2	25.7	34
Total HpCDF	89.6	51.6	54

XV. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Dioxins/Dibenzofurans - Data Qualification Summary - SDG P1376

SDG	Sample	Compound	Flag	A or P	Reason
P1376	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	2,3,7,8-TCDF	None	P	Compound quantitation and CRQLs

Bay Wood Products
Dioxins/Dibenzofurans - Laboratory Blank Data Qualification Summary - SDG P1376

No Sample Data Qualified in this SDG

LDC #: 21067A21 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/1/09
SDG #: P1376 Level III Page: 1 of 1
Laboratory: Analytical Perspectives Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method ~~8290~~ 1613B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 6/2/09
II.	HRGC/HRMS Instrument performance check	~~SW~~ A	
III.	Initial calibration	A	20/35
IV.	Routine calibration/~~ICV~~	A	RC limits
V.	Blanks	A	
VI.	Matrix spike/Matrix spike duplicates	N	
VII.	Laboratory control samples	A	OPR
VIII.	Regional quality assurance and quality control	N	
IX.	Internal standards	A	
X.	Target compound identifications	N	
XI.	Compound quantitation and CRQLs	SW	H not confirmed none/P (Au)
XII.	System performance	N	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	SW	5 = 2 + 6
XV.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: 5rd

1	BW-01-SS-090602	11	MB001	21		31	
2	BW-03-SS-090602	12		22		32	
3	BW-07-SS-090602	13		23		33	
4	BW-09-SS-090602	14		24		34	
5	BW-11-SS-090602	15		25		35	
6	BW-53-SS-090602	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

VALIDATION FINDINGS WORKSHEET

METHOD: HRGC/HRMS Dioxins/Dibenzofurans (EPA SW 846 Method 8290)

A. 2,3,7,8-TCDD	F. 1,2,3,4,6,7,8-HpCDD	K. 1,2,3,4,7,8-HxCDF	P. 1,2,3,4,7,8,9-HpCDF	U. Total HpCDD
B. 1,2,3,7,8-PeCDD	G. OCDD	L. 1,2,3,6,7,8-HxCDF	Q. OCDF	V. Total TCDF
C. 1,2,3,4,7,8-HxCDD	H. 2,3,7,8-TCDF	M. 2,3,4,6,7,8-HxCDF	R. Total TCDD	W. Total PeCDF
D. 1,2,3,6,7,8-HxCDD	I. 1,2,3,7,8-PeCDF	N. 1,2,3,7,8,9-HxCDF	S. Total PeCDD	X. Total HxCDF
E. 1,2,3,7,8,9-HxCDD	J. 2,3,4,7,8-PeCDF	O. 1,2,3,4,6,7,8-HpCDF	T. Total HxCDD	Y. Total HpCDF

Notes:

LDC#: 21067A21
SDG#: See cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: M
2nd Reviewer: W

METHOD: GC/MS Volatiles (EPA SW 846 Method 8290)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound Name	Concentration (pg/g)		RPD	
	2	6		
A	0.312	0.183	52	
B	1.07	0.684	44	
C	1.49	1.56	5	
D	8.2	6.76	19	
E	3.78	2.86	28	
F	130	93.5	33	
G	1160	734	45	
H	1.22	1.03	17	
I	0.474	0.408	15	
J	1.05	0.824	24	
K	1.26	0.86	38	
L	1.09	0.778	33	
M	1.76	1.31	29	
N	0.336	0.357	6	
O	27.9	17.3	47	
P	1.43	0.952	40	
Q	64.8	35.6	58	
R	11.7	10.6	10	
S	12.6	9.52	28	
T	66.8	53.5	22	
U	300	218	32	
V	13.3	8.97	39	
W	13.6	5.97	78	
X	36.2	25.7	34	
Y	89.6	51.6	54	

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Anchor QEA, LLC
1423 3rd Avenue, Suite 300
Seattle, WA 98101-2226
ATTN: Ms. Joy Dunay

July 22, 2009

SUBJECT: Bay Wood Products, Data Validation

Dear Ms. Dunay,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on June 30, 2009. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 21091:

SDG #	Fraction
PB06	Semivolatiles, Chlorinated Pesticides, Polychlorinated Biphenyls, Metals, Wet Chemistry, TPH as Extractables

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Data Validation Operations Manager/Senior Chemist

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Level III

Attachment 1

EDD 1,287 pages-EX

LDC #21091 (Anchor Environmental-Seattle WA /Bay Wood Products)

LDC	SDG#	DATE REC'D	(3) DATE DUE	SVOA (8270D)		SVOA (8270D -SIM)		Pest. (8081A)		PCBs (8082)		Metals (SW846)		TPH-E (NWTPH -Dx)		NH_3-N (350.1)		S= (376.2)		Part. Size (PSEP)		TOC (Plumb)		Total Solids (160.3)		T.Pres. Solids (160.3)		T.Vol. Solids (160.4)									
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	PB06	06/30/09	07/22/09	0	9	0	6	0	6	0	6	0	6	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14								
Total	T/SC			0	9	0	6	0	6	0	6	0	6	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	0	0	0	0	0	0	145

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

Bay Wood Products
Data Validation Reports
LDC# 21091

Semivolatiles

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 17, 2009

Matrix: Sediment

Parameters: Semivolatiles

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-03-SS-090602
BW-07-SS-090602
BW-09-SS-090602
BW-11-SS-090602
BW-53-SS-090602
BW-01-SS-090602DL
BW-03-SS-090602DL
BW-11-SS-090602DL
BW-07-SS-090602MS
BW-07-SS-090602MSD

Introduction

This data review covers 11 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270D for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. Cooler temperatures for samples in this SDG were reported at 9.2°C to 12.4°C upon receipt by the laboratory. Samples received the same day that they were collected, time did not allow for sufficient cooling of the samples, therefore no data were qualified.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all semivolatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
6/11/09	N-Nitrosodiphenylamine	28.7	All samples in SDG PB06	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were greater than or equal to 0.05.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
BW-07-SS-090602MS/MSD (BW-07-SS-090602)	Pyrene Chrysene Indeno(1,2,3-cd)pyrene Benzo(g,h,i)perylene	44.7 (50-140) 47.9 (50-140) 47.9 (50-140) 38.1 (50-140)	- - 45.5 (50-140) 36.0 (50-140)	- - - -	J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS-060809	Benzo(g,h,i)perylene	45.4 (50-140)	All samples in SDG PB06	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
BW-07-SS-090602	Chrysene-d12	505717 (122134-488534)	Pyrene Butylbenzylphthalate Benzo(a)anthracene Chrysene	J (all detects) J (all detects) J (all detects) J (all detects)	A
BW-11-SS-090602	Chrysene-d12	522008 (122134-488534)	Pyrene Butylbenzylphthalate Benzo(a)anthracene Chrysene	J (all detects) J (all detects) J (all detects) J (all detects)	A

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria with the following exceptions:

Sample	Compound	Finding	Flag	A or P
BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	Benzo(b)fluoranthene Benzo(k)fluoranthene	Due to lack of resolution between these compounds in the samples, the laboratory performed the quantitation using the total peak area.	J (all detects) J (all detects)	A

The reported results for the compounds listed above are biased high. The actual values of these compounds are lower than the values reported by the laboratory.

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

The analysis was conducted within all specifications of the method.

Due to calibration %D, MS/MSD and LCS %R, internal standard area and compound quantitation problems, data were qualified as estimated in six samples.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
BW-01-SS-090602DL BW-03-SS-090602DL BW-11-SS-090602DL	All TCL compounds	R	A

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 and samples BW-03-SS-090602DL and BW-53-SS-090602 were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/Kg)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Phenanthrene	20	15	29
Anthracene	12	11	9
Fluoranthene	88	66	29
Pyrene	48	36	29
Benzo(a)anthracene	26	24	8
Bis(2-ethylhexyl)phthalate	32	22	37
Chrysene	56	58	4

Compound	Concentration (ug/Kg)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Benzo(b)fluoranthene	32	27	17
Benzo(k)fluoranthene	32	27	17
Benzo(a)pyrene	23	18	24

Compound	Concentration (ug/Kg)		RPD
	BW-03-SS-090602DL	BW-53-SS-090602	
Fluoranthene	78	66	17
Pyrene	50	36	33
Chrysene	57	58	2

XVII. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Semivolatiles - Data Qualification Summary - SDG PB06

SDG	Sample	Compound	Flag	A or P	Reason
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602 BW-01-SS-090602DL BW-03-SS-090602DL BW-11-SS-090602DL	N-Nitrosodiphenylamine	J (all detects) UJ (all non-detects)	A	Continuing calibration (ICV %D)
PB06	BW-07-SS-090602	Pyrene Chrysene Indeno(1,2,3-cd)pyrene Benzo(g,h,i)perylene	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (%R)
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602 BW-01-SS-090602DL BW-03-SS-090602DL BW-11-SS-090602DL	Benzo(g,h,i)perylene	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)
PB06	BW-07-SS-090602 BW-11-SS-090602	Pyrene Butylbenzylphthalate Benzo(a)anthracene Chrysene	J (all detects) J (all detects) J (all detects) J (all detects)	A	Internal standards (area)
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	Benzo(b)fluoranthene Benzo(k)fluoranthene	J (all detects) J (all detects)	A	Compound quantitation and CRQLs
PB06	BW-01-SS-090602DL BW-03-SS-090602DL BW-11-SS-090602DL	All TCL compounds	R	A	Overall assessment of data

Bay Wood Products
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A2a **VALIDATION COMPLETENESS WORKSHEET** Date: 7/16/09
SDG #: PB06 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 6/2/09 cooler temp 9.2-12.4°C not enough time to cool down (text)
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration/ICV	SW	~~<30%~~
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	SW	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	SW	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	SW	
XVI.	Field duplicates	SW	D = 2+6, 8+6
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment

1	BW-01-SS-090602	11	BW-07-SS-090602MSD	21	MB-060809	31	
2	BW-03-SS-090602	12		22		32	
3	BW-07-SS-090602	13		23		33	
4	BW-09-SS-090602	14		24		34	
5	BW-11-SS-090602	15		25		35	
6	BW-53-SS-090602	16		26		36	
7	BW-01-SS-090602DL	17		27		37	
8	BW-03-SS-090602DL	18		28		38	
9	BW-11-SS-090602DL	19		29		39	
10	BW-07-SS-090602MS	20		30		40	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Phenol**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chloroaniline	II. 4-Nitrophenol*	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene**	JJ. Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol**	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene*	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichlorophenol**	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT.
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF. Di-n-octylphthalate**	UUU.
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 21091A2a
SDG #: PB0b
METHOD: GC/MS BNA (EPA SW 846 Method 8270)

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: [illegible]
2nd Reviewer: [illegible]

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
(Y) N N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y (N) N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	6/11/09	ICV0611	QQ	28.7		All, Kl	J/UJ/A
		(ICV)					

LDC #: 21091A2a
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: K
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

Y N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y N N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		10/11	ZZ	44.7 (50-140)	( )	( )	3	J/UJ/A
			DDD	47.9 ( )	( )	( )		
			JJJ	47.9 ( )	45.5 (50-140)	( )		
			LLL	38.1 ( )	36.0 ( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

	Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)		Compound	QC Limits (Soil)	RPD (Soil)	QC Limits (Water)	RPD (Water)
A.	Phenol	26-90%	≤ 35%	12-110%	≤ 42%	GG.	Acenaphthene	31-137%	≤ 19%	46-118%	≤ 31%
C.	2-Chlorophenol	25-102%	≤ 50%	27-123%	≤ 40%	II.	4-Nitrophenol	11-114%	≤ 50%	10-80%	≤ 50%
E.	1,4-Dichlorobenzene	28-104%	≤ 27%	36-97%	≤ 28%	KK.	2,4-Dinitrotoluene	28-89%	≤ 47%	24-96%	≤ 38%
J.	N-Nitroso-di-n-propylamine	41-126%	≤ 38%	41-116%	≤ 38%	TT.	Pentachlorophenol	17-109%	≤ 47%	9-103%	≤ 50%
R.	1,2,4-Trichlorobenzene	38-107%	≤ 23%	39-98%	≤ 28%	ZZ.	Pyrene	35-142%	≤ 36%	26-127%	≤ 31%
V.	4-Chloro-3-methylphenol	26-103%	≤ 33%	23-97%	≤ 42%						

LDC #: 21091A29
SDG #: su cover

Reviewer: ~~
2nd Reviewer: ~~

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a LCS required?

Y (N) N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCS-060809	LLL	45.4 (50-140)	( )	( )	All, Hk	J/UJ/P
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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LDC #: 21091A2b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Internal Standards

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A Were all internal standard area counts within -50 to +100% of the associated calibration standard?

(Y) N N/A Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
		3	CBZ	505717 (122134-488534)		J (all tgt) / A (ZZ, AAA, CCC, DDD)
		10		538884		no grad. QC
		11		520635		↓
		5	↓	522008 ↓		J (all tgt) / A

(BCM) = Bromochloromethane
(DFB) = 1,4-Difluorobenzene
(CBZ) = Chlorobenzene-d5
(PFB) = Pentafluorobenzene
(4DCB) = 1,4-Dichlorobenzene-d4
(2DCB) = 1,2-Dichlorobenzene-d4
(FBZ) = Fluorobenzene

LDC #: 21091A29
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and CRQLs

Reviewer: A
2nd Reviewer: W

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?

Y N N/A Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?

#	Date	Sample ID	Finding	Associated Samples	Qualifications
		1-6	GGG and HHH were reported from the same peak due to lack of chromatographic resolution.		J det / A
			results may be biased high		J+

Comments: See sample calculation verification worksheet for recalculations

LDC #: 21091A29
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Reviewer: a
2nd Reviewer: a

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Date	Sample ID	Finding	Associated Samples	Qualifications
		7,8,9	All cpds		R/A

Comments: _____

LDC#: 21091A2a
SDG#:see cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: FT
2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270D)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/Kg)		RPD	
	2	6		
UU	20	15	29	
VV	12	11	9	
YY	88	66	29	
ZZ	48	36	29	
CCC	26	24	8	
EEE	32	22	37	
DDD	56	58	4	
GGG	32	27	17	
HHH	32	27	17	
III	23	18	24	

Compound	Concentration (ug/Kg)		RPD	
	58	6		
YY	78	66	17	
ZZ	50	36	33	
DDD	57	58	2	

V:\FIELD DUPLICATES\21091A2a.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 17, 2009

Matrix: Sediment

Parameters: Semivolatiles

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-03-SS-090602
BW-07-SS-090602
BW-09-SS-090602
BW-11-SS-090602
BW-53-SS-090602
BW-07-SS-090602MS
BW-07-SS-090602MSD

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per a modification of EPA SW 846 Method 8270D using Selected Ion Monitoring (SIM) for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. Cooler temperatures for samples in this SDG were reported at 9.2°C to 12.4°C upon receipt by the laboratory. Samples received the same day that they were collected, time did not allow for sufficient cooling of the samples, therefore no data were qualified.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals. All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all compounds.

Average relative response factors (RRF) for all target compounds and system monitoring compounds were within validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

All of the continuing calibration percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
5/11/09	Benzyl alcohol Dibenz(a,h)anthracene	40.4 26.9	All samples in SDG PB06	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values were within validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
LCS-060809	2,4-Dimethylphenol	24.9 (50-140)	All samples in SDG PB06	J (all detects) UJ (all non-detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internal Standards	Area (Limits)	Compound	Flag	A or P
BW-11-SS-090602	Perylene-d12	116355 (116714-466858)	Dibenz(a,h)anthracene	J (all detects) UJ (all non-detects)	P

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to calibration %D, LCS %R and internal standard area problems, data were qualified as estimated in six samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Semivolatiles - Data Qualification Summary - SDG PB06

SDG	Sample	Compound	Flag	A or P	Reason
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	Benzyl alcohol Dibenz(a,h)anthracene	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	2,4-Dimethylphenol	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)
PB06	BW-11-SS-090602	Dibenz(a,h)anthracene	J (all detects) UJ (all non-detects)	P	Internal standards (area)

Bay Wood Products
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A2b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/16/09

SDG #: PB06 Level III Page: 1 of 1

Laboratory: Analytical Resources, Inc. Reviewer: R

2nd Reviewer: V

METHOD: GC/MS ~~Polynuclear Aromatic Hydrocarbons~~ Semivolatiles (EPA SW 846 Method 8270D-SIM)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 6/2/09 cooler temp 9.2-12.4°C
II.	GC/MS Instrument performance check	A	not enough time
III.	Initial calibration	A	
IV.	Continuing calibration/ICV	SW	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	SW	LCS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	SW	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 2+6
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: sediment

1	BW-01-SS-090602	11	MB-060809	21		31	
2	BW-03-SS-090602	12		22		32	
3	BW-07-SS-090602	13		23		33	
4	BW-09-SS-090602	14		24		34	
5	BW-11-SS-090602	15		25		35	
6	BW-53-SS-090602	16		26		36	
7	BW-07-SS-090602MS	17		27		37	
8	BW-07-SS-090602MSD	18		28		38	
9		19		29		39	
10		20		30		40	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Phenol**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachlorophenol**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenol**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. Indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chloroaniline	II. 4-Nitrophenol*	XX. Di-n-butylphthalate	MMM. Bis(2-Chloroisopropyl)ether
F. 1,2-Dichlorobenzene	U. Hexachlorobutadiene**	JJ. Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chloro-3-methylphenol**	KK. 2,4-Dinitrotoluene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzylphthalate	PPP. Benzoic Acid
I. 4-Methylphenol	X. Hexachlorocyclopentadiene*	MM. 4-Chlorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichlorophenol**	NN. Fluorene	CCC. Benzo(a)anthracene	RRR. Pyridine
K. Hexachloroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis(2-ethylhexyl)phthalate	TTT.
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF. Di-n-octylphthalate**	UUU.
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	VVV.
O. 2,4-Dimethylphenol	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

LDC #: 21091A25
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: A
2nd Reviewer: 1

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a continuing calibration standard analyzed at least once every 12 hours of sample analysis for each instrument?
Y (N) N/A Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ?
Y (N) N/A Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF ?

#	Date	Standard ID	Compound	Finding %D (Limit: <25.0%)	Finding RRF (Limit: >0.05)	Associated Samples	Qualifications
	5/11/09	IC051107	QQQ	40.4		All, blk	J/UJ/A
			~~LLL~~	~~35.5~~			
			kkk	26.9			

LDC #: 21091A26
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: A
2nd Reviewer: L

METHOD: GC/MS BNA (EPA SW 846 Method 8270C)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a LCS required?

Y (N) N/A Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		LCS-060809	O	24.9 (50-140)	( )	( )	All, blk	J/UJ/A
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		
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				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		

LDC #: 21091A2b
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Internal Standards

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC/MS ~~VOA~~ BNA (EPA SW 846 Method ~~8260B~~ 8270)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y (N) N/A — Were all internal standard area counts within -50 to +100% of the associated calibration standard?

(Y) N N/A — Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard?

#	Date	Sample ID	Internal Standard	Area (Limits)	RT (Limits)	Qualifications
		5	PRY	116355 (116714-466858)		J/UJ/P (ckc)

(BCM) = Bromochloromethane
(DFB) = 1,4-Difluorobenzene
(CBZ) = Chlorobenzene-d5
(PFB) = Pentafluorobenzene
(4DCB) = 1,4-Dichlorobenzene-d4
(2DCB) = 1,2-Dichlorobenzene-d4
(FBZ) = Fluorobenzene

Bay Wood Products
Data Validation Reports
LDC# 21091

Chlorinated Pesticides

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 17, 2009

Matrix: Sediment

Parameters: Hexachlorobenzene & Hexachlorobutadiene

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-03-SS-090602
BW-07-SS-090602
BW-09-SS-090602
BW-11-SS-090602
BW-53-SS-090602
BW-07-SS-090602MS
BW-07-SS-090602MSD

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Hexachlorobenzene and Hexachlorobutadiene.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. Cooler temperatures for samples in this SDG were reported at 9.2°C to 12.4°C upon receipt by the laboratory. Samples received the same day that they were collected, time did not allow for sufficient cooling of the samples, therefore no data were qualified.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No hexachlorobenzene or hexachlorobutadiene was found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and Reported CRQLs

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

XIV. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 were identified as field duplicates. No hexachlorobenzene or hexachlorobutadiene was detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Hexachlorobenzene & Hexachlorobutadiene - Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

Bay Wood Products
Hexachlorobenzene & Hexachlorobutadiene - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A3a

SDG #: PB06

Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 7/16/09

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC ~~Chlorinated Pesticides~~ Hexachlorobenzene & Hexachlorobutadiene (EPA SW 846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 6/2/09 cooler temp 9.2-12.4°C not enough time
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	
IV.	Continuing calibration/ICV	A	20%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
Xa.	Florisil cartridge check	N	
Xb.	GPC Calibration	N	
XI.	Target compound identification	N	
XII.	Compound quantitation and reported CRQLs	N	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	ND	D = 2 + 6
XV.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: sediment

1	BW-01-SS-090602	11	MB-060809	21		31	
2	BW-03-SS-090602	12		22		32	
3	BW-07-SS-090602	13		23		33	
4	BW-09-SS-090602	14		24		34	
5	BW-11-SS-090602	15		25		35	
6	BW-53-SS-090602	16		26		36	
7	BW-07-SS-090602MS	17		27		37	
8	BW-07-SS-090602MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Bay Wood Products
Data Validation Reports
LDC# 21091

Polychlorinated Biphenyls

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 17, 2009

Matrix: Sediment

Parameters: Polychlorinated Biphenyls

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-03-SS-090602
BW-07-SS-090602
BW-09-SS-090602
BW-11-SS-090602
BW-53-SS-090602
BW-07-SS-090602MS
BW-07-SS-090602MSD

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. Cooler temperatures for samples in this SDG were reported at 9.2°C to 12.4°C upon receipt by the laboratory. Samples received the same day that they were collected, time did not allow for sufficient cooling of the samples, therefore no data were qualified.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and Reported CRQLs

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

XIV. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Polychlorinated Biphenyls - Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

Bay Wood Products
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A3b **VALIDATION COMPLETENESS WORKSHEET** Date: 7/16/09
SDG #: PB06 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW 846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 6/2/09 cooler temp 9.2-12.4°C
II.	GC/ECD Instrument Performance Check	N	not enough time
III.	Initial calibration	A	%RSD ≤
IV.	Continuing calibration/ICV	A	20 %
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
Xa.	Florisil cartridge check	N	
Xb.	GPC Calibration	N	
XI.	Target compound identification	N	
XII.	Compound quantitation and reported CRQLs	N	
XIII.	Overall assessment of data	A	
XIV.	Field duplicates	ND	D = 2 + 6
XV.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: sediment

1	BW-01-SS-090602	11	MB-060809	21		31	
2	BW-03-SS-090602	12		22		32	
3	BW-07-SS-090602	13		23		33	
4	BW-09-SS-090602	14		24		34	
5	BW-11-SS-090602	15		25		35	
6	BW-53-SS-090602	16		26		36	
7	BW-07-SS-090602MS	17		27		37	
8	BW-07-SS-090602MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Bay Wood Products
Data Validation Reports
LDC# 21091

Metals

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 15, 2009

Matrix: Sediment

Parameters: Metals

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-03-SS-090602
BW-07-SS-090602
BW-09-SS-090602
BW-11-SS-090602
BW-53-SS-090602
BW-07-SS-090602MS
BW-07-SS-090602DUP

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010 and 7000 for Metals. The metals analyzed were Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section IV.

Field duplicates are summarized in Section XIV.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. ICPMS Tune

ICP-MS was not utilized in this SDG.

III. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

V. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

VI. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
BW-07-SS-090602MS (All samples in SDG PB06)	Antimony	22.2 (65-135)	J (all detects) UJ (all non-detects)	A

VII. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Difference (Limits)	Flag	A or P
BW-07-SS-090602DUP (All samples in SDG PB06)	Zinc	51.9 (≤30)	-	J (all detects) UJ (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Internal Standards (ICP-MS)

ICP-MS was not utilized in this SDG.

X. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

XI. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XII. Sample Result Verification

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS %R and DUP RPD problems, data were qualified as estimated in six samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/Kg)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Arsenic	20	20	0
Chromium	63	69	9
Copper	67.9	72.6	7
Lead	12	13	8
Mercury	0.10	0.10	0
Nickel	51	56	9
Zinc	94	104	10

XV. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Metals - Data Qualification Summary - SDG PB06

SDG	Sample	Analyte	Flag	A or P	Reason
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	Antimony	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (%R)
PB06	BW-01-SS-090602 BW-03-SS-090602 BW-07-SS-090602 BW-09-SS-090602 BW-11-SS-090602 BW-53-SS-090602	Zinc	J (all detects) UJ (all non-detects)	A	Duplicate analysis (RPD)

Bay Wood Products
Metals - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A4 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/10/09
SDG #: PB06 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010B/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 6/2/09
II.	ICP/MS Tune	N	
III.	Calibration	A	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	A	
VI.	Matrix Spike Analysis	SW	3 MS/Dup
VII.	Duplicate Sample Analysis	SW	
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	Not Utilized
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	N	Not performed
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	A	
XIV.	Field Duplicates	SW	(2, 6)
XV	Field Blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment.

1	BW-01-SS-090602	11		21		31	
2 ✓	BW-03-SS-090602	12		22		32	
3	BW-07-SS-090602	13		23		33	
4	BW-09-SS-090602	14		24		34	
5	BW-11-SS-090602	15		25		35	
6 ✓	BW-53-SS-090602	16		26		36	
7	BW-07-SS-090602MS	17		27		37	
8	BW-07-SS-090602DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes: _____

LDC #: 21091A4
SDG #: PB06

VALIDATION FINDINGS WORKSHEET
Sample Specific Element Reference

Reviewer: ✓
2nd reviewer: A

All circled elements are applicable to each sample.

Sample ID	Matrix	Target Analyte List (TAL)
1-6	Sediment	Al, (Sb), (As), Ba, Be, (Cd), Ca, (Cr), Co, (Cu), Fe, (Pb), Mg, Mn, (Hg), (Ni), K, Se, (Ag), Na, Tl, V, (Zn), Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
m1-8	Sediment	Al, (Sb), (As), Ba, Be, (Cd), Ca, (Cr), Co, (Cu), Fe, (Pb), Mg, Mn, (Hg), (Ni), K, Se, (Ag), Na, Tl, V, (Zn), Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
Analysis Method		
ICP		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
ICP Trace		Al, (Sb), (As), Ba, Be, (Cd), Ca, (Cr), Co, (Cu), Fe, (Pb), Mg, Mn, Hg, (Ni), K, Se, (Ag), Na, Tl, V, (Zn), Mo, B, Si, CN-, ___ ___
ICP-MS		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-, ___ ___
GFAA		Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Ni, K, Se, Ag, Na, Tl, V, Zn, Mo, B, Si, CN-,

Comments: (Mercury by CVAA if performed)

ELEMENTS.4

LDC #: 21-91A4
SDG #: pBv6

VALIDATION FINDINGS WORKSHEET
Matrix Spike Analysis

Page: 1 of 1
Reviewer: MM
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a matrix spike analyzed for each matrix in this SDG?

Y (N) N/A Were matrix spike percent recoveries (%R) within the control limits of ~~75-125?~~ 65-135 If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.

(Y) N N/A Was a post digestion spike analyzed for ICP elements that did not meet the required criteria for matrix spike recovery?

LEVEL IV ONLY:

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Matrix Spike ID	Matrix	Analyte	%R	Associated Samples	Qualifications
1	7	Sediment	Sb	22.2	A11	J/UJ/A (Post Spike 101.7%)

Comments: _____

MS.4S2

LDC #: 21091A4
SDG #: PB06

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: MM
2nd Reviewer: LR

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y N N/A Were all duplicate sample relative percent differences (RPD) ≤ 20% for water samples and ≤ 35% for soil samples? If no, see qualifications below. A control limit of ±R.L. (±2X R.L for soil) was used for sample values that were <5X the R.L., including the case when only one of the duplicate sample values was <5X R.L. If field blanks were used for laboratory duplicates, note in the Overall Assessment.

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Duplicate ID	Matrix	Analyte	RPD (Limits)	Difference (Limits)	Associated Samples	Qualifications
1	8	Solid	Zn	51.9 (≤30)		All	J/UJ/A

Comments:

LDC#: 21091A4
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Metals (EPA Method 6010B/7000)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (mg/kg)		RPD	
	2	6		
Arsenic	20	20	0	
Chromium	63	69	9	
Copper	67.9	72.6	7	
Lead	12	13	8	
Mercury	0.10	0.10	0	
Nickel	51	56	9	
Zinc	94	104	10	

Bay Wood Products
Data Validation Reports
LDC# 21091

Wet Chemistry

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 15, 2009

Matrix: Sediment

Parameters: Wet Chemistry

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-02-SS-090602
BW-03-SS-090602
BW-04-SS-090602
BW-05-SS-090602
BW-06-SS-090602
BW-07-SS-090602
BW-08-SS-090602
BW-09-SS-090602
BW-10-SS-090602
BW-11-SS-090602
BW-12-SS-090602
BW-53-SS-090602
BW-54-SS-090602
BW-01-SS-090602DUP
BW-01-SS-090602TRP
BW-07-SS-090602MS
BW-07-SS-090602DUP
BW-07-SS-090602TRP

Introduction

This data review covers 19 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 160.3 for Total Solids and Total Preserved Solids, EPA 160.4 for Total Volatile Solids, EPA Method 350.1 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, Plumb Method for Total Organic Carbon, and PSEP Method for Particle Size.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 and samples BW-04-SS-090602 and BW-54-SS-090602 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (%)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Total solids	47.90	48.10	0
Preserved total solids	43.50	44.70	3
Total volatile solids	7.10	7.16	1
Total organic carbon	1.19	1.61	30

Analyte	Concentration (mg/Kg)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Ammonia as N	5.88	6.20	5
Sulfide	60.6	174	97

Analyte	Concentration (%)		RPD
	BW-04-SS-090602	BW-54-SS-090602	
Total solids	47.80	48.40	1
Preserved total solids	46.00	43.30	6
Total volatile solids	7.69	8.10	5
Total organic carbon	1.50	2.73	58

Analyte	Concentration (mg/Kg)		RPD
	BW-04-SS-090602	BW-54-SS-090602	
Ammonia as N	7.22	5.50	27
Sulfide	27.6	112	121

Phi Size	Percent Finer Than Indicated Size		RPD
	BW-03-SS-090602	BW-53-SS-090602	
-1	100	99.8	0
0	98.6	98.2	0
1	97.4	97.2	0
2	96.4	96.5	0
3	95.7	96.0	0
4	94.7	95.1	0
5	88.2	82.4	7
6	61.4	60.1	2
7	35.1	34.2	3
8	20.3	19.0	7
9	13.0	12.7	2
10	7.4	7.7	4

Phi Size	Percent Finer Than Indicated Size		RPD
	BW-04-SS-090602	BW-54-SS-090602	
-1	99.9	100	0
0	98.3	98.3	0
1	96.8	97.2	0
2	95.3	96.4	1
3	94.0	95.5	2
4	92.2	93.9	2
5	80.2	78.4	2
6	53.7	53.5	0

Phi Size	Percent Finer Than Indicated Size		RPD
	BW-04-SS-090602	BW-54-SS-090602	
7	29.1	28.5	2
8	16.4	16.5	1
9	10.2	10.3	1
10	5.8	5.9	2

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Wet Chemistry - Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

Bay Wood Products
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A6 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/10/09
SDG #: PB06 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Particle Size (PSEP Method), Sulfide (EPA Method 376.2), TOC (Plumb Method), Total Solids & Total Preserved Solids (EPA Method 160.3), Total Volatile Solids (EPA Method 160.4)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 6/2/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	
V	Duplicates	A	Duplicates, Triplicates
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(3,13), (4,14)
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Sediment

1	BW-01-SS-090602	11	BW-11-SS-090602	21	MB	31	
2	BW-02-SS-090602	12	BW-12-SS-090602	22		32	
3	BW-03-SS-090602	13	BW-53-SS-090602	23		33	
4	BW-04-SS-090602	14	BW-54-SS-090602	24		34	
5	BW-05-SS-090602	15	BW-01-SS-090602DUP	25		35	
6	BW-06-SS-090602	16	BW-01-SS-090602TRP	26		36	
7	BW-07-SS-090602	17	BW-07-SS-090602MS	27		37	
8	BW-08-SS-090602	18	BW-07-SS-090602DUP	28		38	
9	BW-09-SS-090602	19	↓ TRP	29		39	
10	BW-10-SS-090602	20		30		40	

Notes:

LDC #: 21091A6
SDG #: PB01

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: MN
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-14	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH$_3$) TKN (TOC) CR^{6+} (TS) (TVS) (TRS) (S) (Patch Sry)
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
17	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH$_3$) TKN (TOC) CR^{6+} (S)
18, 19	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN (TOC) CR^{6+} (TS) (TVS) (PTS)
18	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH$_3$) TKN TOC CR^{6+} (S)
15,16	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} (Patch Sry)
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:

METHODS.6

LDC# 21091A6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer:
2nd Reviewer: 4

Inorganics, Method See Cover

(Y) N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (%) 3	Concentration (%) 13	RPD	
Total Solids	47.90	48.10	0	
Preserved Total Solids	43.50	44.70	3	
Total Volatile Solids	7.10	7.16	1	
TOC	1.19	1.61	30	

Analyte	Concentration (mg/Kg) 3	Concentration (mg/Kg) 13	RPD	
Ammonia as N	5.88	6.20	5	
Sulfide	60.6	174	97	

Analyte	Concentration (%) 4	Concentration (%) 14	RPD	
Total Solids	47.80	47.40	1	
Preserved Total Solids	46.00	43.30	6	
Total Volatile Solids	7.69	8.10	5	
TOC	1.50	2.73	58	

Analyte	Concentration (mg/Kg) 4	Concentration (mg/Kg) 14	RPD	
Ammonia as N	7.22	5.50	27	
Sulfide	27.6	112	121	

LDC#: 21091A6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [illegible]
2nd Reviewer: [illegible]

Inorganics, Method See Cover

(Y) N NA Were field duplicate pairs identified in this SDG?
Y (N) NA Were target analytes detected in the field duplicate pairs?

Phi Size	Percent Finer Than Indicated Size		RPD	
	3	13		
-1	100	99.8	0	
0	98.6	98.2	0	
1	97.4	97.2	0	
2	96.4	96.5	0	
3	95.7	96.0	0	
4	94.7	95.1	0	
5	88.2	82.4	7	
6	61.4	60.1	2	
7	35.1	34.2	3	
8	20.3	19.0	7	
9	13.0	12.7	2	
10	7.4	7.7	4	

Phi Size	Percent Finer Than Indicated Size		RPD	
	4	14		
-1	99.9	100	0	
0	98.3	98.3	0	
1	96.8	97.2	0	
2	95.3	96.4	1	
3	94.0	95.5	2	

LDC#: 21091A6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [signature]
2nd Reviewer: [signature]

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Phi Size	Percent Finer Than Indicated Size		RPD	
	4	14		
4	92.2	93.9	2	
5	80.2	78.4	2	
6	53.7	53.5	0	
7	29.1	28.5	2	
8	16.4	16.5	1	
9	10.2	10.3	1	
10	5.8	5.9	2	

Bay Wood Products
Data Validation Reports
LDC# 21091

TPH as Extractables

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 17, 2009

Matrix: Sediment

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB06

Sample Identification

BW-01-SS-090602
BW-02-SS-090602
BW-03-SS-090602
BW-04-SS-090602
BW-05-SS-090602
BW-06-SS-090602
BW-07-SS-090602
BW-08-SS-090602
BW-09-SS-090602
BW-10-SS-090602
BW-11-SS-090602
BW-12-SS-090602
BW-53-SS-090602
BW-54-SS-090602
BW-07-SS-090602MS
BW-07-SS-090602MSD

Introduction

This data review covers 16 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method NWTPH-Dx for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. Cooler temperatures for samples in this SDG were reported at 9.2°C to 12.4°C upon receipt by the laboratory. Samples received the same day that they were collected, time did not allow for sufficient cooling of the samples, therefore no data were qualified.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 and samples BW-04-SS-090602 and BW-54-SS-090602 were identified as field duplicates. No total petroleum hydrocarbons as extractables were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
TPH as diesel	10	12	18
TPH as motor oil	54	70	26

Compound	Concentration (mg/Kg)		RPD
	BW-04-SS-090602	BW-54-SS-090602	
TPH as diesel	20	13	42
TPH as motor oil	110	75	38

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

Bay Wood Products
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG PB06

No Sample Data Qualified in this SDG

LDC #: 21091A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/16/09
SDG #: PB06 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: R
2nd Reviewer: V

METHOD: GC TPH as Extractables (Method NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 6/2/09 cooler temp 9.2-12.4°C not enough time
IIa.	Initial calibration	A	
IIb.	Calibration verification/ICV	A	≤20%
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	A	
IVc.	Laboratory control samples	A	LCS
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	D = 3 + 13, 4 + 14
X.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Sediment

1	BW-01-SS-090602	11	BW-11-SS-090602	21	MB-060809	31	
2	BW-02-SS-090602	12	BW-12-SS-090602	22		32	
3	BW-03-SS-090602	13	BW-53-SS-090602	23		33	
4	BW-04-SS-090602	14	BW-54-SS-090602	24		34	
5	BW-05-SS-090602	15	BW-07-SS-090602MS	25		35	
6	BW-06-SS-090602	16	BW-07-SS-090602MSD	26		36	
7	BW-07-SS-090602	17		27		37	
8	BW-08-SS-090602	18		28		38	
9	BW-09-SS-090602	19		29		39	
10	BW-10-SS-090602	20		30		40	

Notes: _____

LDC #: 21091A8
SDG #: see cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: A
2nd reviewer: W

METHOD: ✓ GC ___ HPLC (EPA_____)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (mg/kg)		RPD
	3	13	
Diesel	10	12	18
Motor oil	54	70	26

Compound	Concentration (mg/kg)		RPD
	4	14	
Diesel	20	13	42
Motor Oil	110	75	38

Compound	Concentration ( )		RPD

Compound	Concentration ( )		RPD

Bay Wood Products - LDC 21091

SDG: PB06

Analytical Method	E160.3											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Total solids	6/3/2009	44.9		Yes	Y				0.01		pct
BW-02-SS-090602	09-12543-PB06B	Total solids	6/3/2009	68.3		Yes	Y				0.01		pct
BW-03-SS-090602	09-12544-PB06C	Total solids	6/3/2009	47.9		Yes	Y				0.01		pct
BW-04-SS-090602	09-12545-PB06D	Total solids	6/3/2009	47.8		Yes	Y				0.01		pct
BW-05-SS-090602	09-12546-PB06E	Total solids	6/3/2009	51.1		Yes	Y				0.01		pct
BW-06-SS-090602	09-12547-PB06F	Total solids	6/3/2009	55.7		Yes	Y				0.01		pct
BW-07-SS-090602	09-12548-PB06G	Total solids	6/3/2009	64.9		Yes	Y				0.01		pct
BW-08-SS-090602	09-12549-PB06H	Total solids	6/3/2009	60.4		Yes	Y				0.01		pct
BW-09-SS-090602	09-12550-PB06I	Total solids	6/3/2009	54.5		Yes	Y				0.01		pct
BW-10-SS-090602	09-12551-PB06J	Total solids	6/3/2009	69.2		Yes	Y				0.01		pct
BW-11-SS-090602	09-12552-PB06K	Total solids	6/3/2009	44.9		Yes	Y				0.01		pct
BW-12-SS-090602	09-12553-PB06L	Total solids	6/3/2009	49.1		Yes	Y				0.01		pct
BW-53-SS-090602	09-12554-PB06M	Total solids	6/3/2009	48.1		Yes	Y				0.01		pct
BW-54-SS-090602	09-12555-PB06N	Total solids	6/3/2009	47.4		Yes	Y				0.01		pct

Analytical Method	E160.3-PRES											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Total Solids (preserved)	6/4/2009	42.7		Yes	Y				0.01		pct
BW-02-SS-090602	09-12543-PB06B	Total Solids (preserved)	6/4/2009	66.8		Yes	Y				0.01		pct
BW-03-SS-090602	09-12544-PB06C	Total Solids (preserved)	6/4/2009	43.5		Yes	Y				0.01		pct
BW-04-SS-090602	09-12545-PB06D	Total Solids (preserved)	6/4/2009	46		Yes	Y				0.01		pct
BW-05-SS-090602	09-12546-PB06E	Total Solids (preserved)	6/4/2009	48.3		Yes	Y				0.01		pct
BW-06-SS-090602	09-12547-PB06F	Total Solids (preserved)	6/4/2009	50.2		Yes	Y				0.01		pct
BW-07-SS-090602	09-12548-PB06G	Total Solids (preserved)	6/4/2009	68.1		Yes	Y				0.01		pct
BW-08-SS-090602	09-12549-PB06H	Total Solids (preserved)	6/4/2009	58.8		Yes	Y				0.01		pct

SDG: PB06

Analytical Method	E160.3-PRES											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-09-SS-090602	09-12550-PB06I	Total Solids (preserved)	6/4/2009	51.2		Yes	Y				0.01		pct
BW-10-SS-090602	09-12551-PB06J	Total Solids (preserved)	6/4/2009	61.8		Yes	Y				0.01		pct
BW-11-SS-090602	09-12552-PB06K	Total Solids (preserved)	6/4/2009	41.5		Yes	Y				0.01		pct
BW-12-SS-090602	09-12553-PB06L	Total Solids (preserved)	6/4/2009	44.6		Yes	Y				0.01		pct
BW-53-SS-090602	09-12554-PB06M	Total Solids (preserved)	6/4/2009	44.7		Yes	Y				0.01		pct
BW-54-SS-090602	09-12555-PB06N	Total Solids (preserved)	6/4/2009	43.3		Yes	Y				0.01		pct

Analytical Method	E160.4											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Total volatile solids	6/3/2009	7.54		Yes	Y				0.01		pct
BW-02-SS-090602	09-12543-PB06B	Total volatile solids	6/3/2009	2.99		Yes	Y				0.01		pct
BW-03-SS-090602	09-12544-PB06C	Total volatile solids	6/3/2009	7.1		Yes	Y				0.01		pct
BW-04-SS-090602	09-12545-PB06D	Total volatile solids	6/3/2009	7.69		Yes	Y				0.01		pct
BW-05-SS-090602	09-12546-PB06E	Total volatile solids	6/3/2009	6.53		Yes	Y				0.01		pct
BW-06-SS-090602	09-12547-PB06F	Total volatile solids	6/3/2009	5.69		Yes	Y				0.01		pct
BW-07-SS-090602	09-12548-PB06G	Total volatile solids	6/3/2009	6.29		Yes	Y				0.01		pct
BW-08-SS-090602	09-12549-PB06H	Total volatile solids	6/3/2009	5.72		Yes	Y				0.01		pct
BW-09-SS-090602	09-12550-PB06I	Total volatile solids	6/3/2009	7.6		Yes	Y				0.01		pct
BW-10-SS-090602	09-12551-PB06J	Total volatile solids	6/3/2009	4.23		Yes	Y				0.01		pct
BW-11-SS-090602	09-12552-PB06K	Total volatile solids	6/3/2009	8.73		Yes	Y				0.01		pct
BW-12-SS-090602	09-12553-PB06L	Total volatile solids	6/3/2009	7.64		Yes	Y				0.01		pct
BW-53-SS-090602	09-12554-PB06M	Total volatile solids	6/3/2009	7.16		Yes	Y				0.01		pct
BW-54-SS-090602	09-12555-PB06N	Total volatile solids	6/3/2009	8.1		Yes	Y				0.01		pct

Analytical Method	E350.1M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Ammonia	6/5/2009	7.94		Yes	Y				0.20	0.03000	pct

Analytical Method	E350.1M											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-02-SS-090602	09-12543-PB06B	Ammonia	6/5/2009	4.7		Yes	Y				0.13	0.03000	pct
BW-03-SS-090602	09-12544-PB06C	Ammonia	6/5/2009	5.88		Yes	Y				0.19	0.03000	pct
BW-04-SS-090602	09-12545-PB06D	Ammonia	6/5/2009	7.22		Yes	Y				0.20	0.03000	pct
BW-05-SS-090602	09-12546-PB06E	Ammonia	6/5/2009	7.58		Yes	Y				0.19	0.03000	pct
BW-06-SS-090602	09-12547-PB06F	Ammonia	6/5/2009	6.36		Yes	Y				0.17	0.03000	pct
BW-07-SS-090602	09-12548-PB06G	Ammonia	6/5/2009	8.98		Yes	Y				0.14	0.03000	pct
BW-08-SS-090602	09-12549-PB06H	Ammonia	6/5/2009	5.09		Yes	Y				0.15	0.03000	pct
BW-09-SS-090602	09-12550-PB06I	Ammonia	6/5/2009	8.94		Yes	Y				0.16	0.03000	pct
BW-10-SS-090602	09-12551-PB06J	Ammonia	6/5/2009	6.36		Yes	Y				0.14	0.03000	pct
BW-11-SS-090602	09-12552-PB06K	Ammonia	6/5/2009	13.6		Yes	Y				0.20	0.03000	pct
BW-12-SS-090602	09-12553-PB06L	Ammonia	6/5/2009	8.19		Yes	Y				0.20	0.03000	pct
BW-53-SS-090602	09-12554-PB06M	Ammonia	6/5/2009	6.2		Yes	Y				0.20	0.03000	pct
BW-54-SS-090602	09-12555-PB06N	Ammonia	6/5/2009	5.5		Yes	Y				0.21	0.03000	pct

Analytical Method	E376.2											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Sulfide	6/4/2009	62.8		Yes	Y				11.7	0.03750	pct
BW-02-SS-090602	09-12543-PB06B	Sulfide	6/4/2009	8.9		Yes	Y				1.49	0.00750	pct
BW-03-SS-090602	09-12544-PB06C	Sulfide	6/4/2009	60.6		Yes	Y				4.27	0.01500	pct
BW-04-SS-090602	09-12545-PB06D	Sulfide	6/4/2009	27.6		Yes	Y				4.28	0.01500	pct
BW-05-SS-090602	09-12546-PB06E	Sulfide	6/4/2009	502		Yes	Y				40.5	0.15000	pct
BW-06-SS-090602	09-12547-PB06F	Sulfide	6/4/2009	6.56		Yes	Y				1.96	0.00750	pct
BW-07-SS-090602	09-12548-PB06G	Sulfide	6/4/2009	46.8		Yes	Y				2.93	0.01500	pct
BW-08-SS-090602	09-12549-PB06H	Sulfide	6/4/2009	1.68		Yes	N	U			1.68	0.00750	pct
BW-09-SS-090602	09-12550-PB06I	Sulfide	6/4/2009	5.1		Yes	Y				1.95	0.00750	pct
BW-10-SS-090602	09-12551-PB06J	Sulfide	6/4/2009	3.5		Yes	Y				1.61	0.00750	pct

SDG: PB06

Analytical Method	E376.2											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-090602	09-12552-PB06K	Sulfide	6/4/2009	136		Yes	Y				23.8	0.07500	pct
BW-12-SS-090602	09-12553-PB06L	Sulfide	6/4/2009	133		Yes	Y				10.9	0.03750	pct
BW-53-SS-090602	09-12554-PB06M	Sulfide	6/4/2009	174		Yes	Y				21.6	0.07500	pct
BW-54-SS-090602	09-12555-PB06N	Sulfide	6/4/2009	112		Yes	Y				11.5	0.03750	pct
Analytical Method	NWTPHDx											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Diesel Range Hydrocarbons	6/12/2009	22		Yes	Y				10	0.6	mg/kg
BW-01-SS-090602	09-12542-PB06A	Motor Oil Range	6/12/2009	120		Yes	Y				21	1.4	mg/kg
BW-02-SS-090602	09-12543-PB06B	Diesel Range Hydrocarbons	6/12/2009	6.8		Yes	N	U			6.8	0.4	mg/kg
BW-02-SS-090602	09-12543-PB06B	Motor Oil Range	6/12/2009	25		Yes	Y				14	0.9	mg/kg
BW-03-SS-090602	09-12544-PB06C	Diesel Range Hydrocarbons	6/12/2009	10		Yes	Y				10	0.6	mg/kg
BW-03-SS-090602	09-12544-PB06C	Motor Oil Range	6/12/2009	54		Yes	Y				20	1.4	mg/kg
BW-04-SS-090602	09-12545-PB06D	Diesel Range Hydrocarbons	6/12/2009	20		Yes	Y				10	0.6	mg/kg
BW-04-SS-090602	09-12545-PB06D	Motor Oil Range	6/12/2009	110		Yes	Y				20	1.4	mg/kg
BW-05-SS-090602	09-12546-PB06E	Diesel Range Hydrocarbons	6/12/2009	12		Yes	Y				9.0	0.5	mg/kg
BW-05-SS-090602	09-12546-PB06E	Motor Oil Range	6/12/2009	57		Yes	Y				18	1.3	mg/kg
BW-06-SS-090602	09-12547-PB06F	Diesel Range Hydrocarbons	6/12/2009	8.2		Yes	N	U			8.2	0.5	mg/kg
BW-06-SS-090602	09-12547-PB06F	Motor Oil Range	6/12/2009	27		Yes	Y				16	1.1	mg/kg
BW-07-SS-090602	09-12548-PB06G	Diesel Range Hydrocarbons	6/13/2009	28		Yes	Y				7.0	0.4	mg/kg
BW-07-SS-090602	09-12548-PB06G	Motor Oil Range	6/13/2009	190		Yes	Y				14	1.0	mg/kg
BW-08-SS-090602	09-12549-PB06H	Diesel Range Hydrocarbons	6/13/2009	14		Yes	Y				7.7	0.5	mg/kg
BW-08-SS-090602	09-12549-PB06H	Motor Oil Range	6/13/2009	53		Yes	Y				15	1.1	mg/kg
BW-09-SS-090602	09-12550-PB06I	Diesel Range Hydrocarbons	6/13/2009	17		Yes	Y				8.9	0.5	mg/kg
BW-09-SS-090602	09-12550-PB06I	Motor Oil Range	6/13/2009	78		Yes	Y				18	1.2	mg/kg
BW-10-SS-090602	09-12551-PB06J	Diesel Range Hydrocarbons	6/13/2009	11		Yes	Y				6.9	0.4	mg/kg

SDG: PB06

Analytical Method	NWTPHDx												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-10-SS-090602	09-12551-PB06J	Motor Oil Range	6/13/2009	39		Yes	Y				14	1.0	mg/kg
BW-11-SS-090602	09-12552-PB06K	Diesel Range Hydrocarbons	6/13/2009	15		Yes	Y				11	0.7	mg/kg
BW-11-SS-090602	09-12552-PB06K	Motor Oil Range	6/13/2009	79		Yes	Y				22	1.5	mg/kg
BW-12-SS-090602	09-12553-PB06L	Diesel Range Hydrocarbons	6/13/2009	12		Yes	Y				10	0.6	mg/kg
BW-12-SS-090602	09-12553-PB06L	Motor Oil Range	6/13/2009	64		Yes	Y				20	1.4	mg/kg
BW-53-SS-090602	09-12554-PB06M	Diesel Range Hydrocarbons	6/13/2009	12		Yes	Y				9.8	0.6	mg/kg
BW-53-SS-090602	09-12554-PB06M	Motor Oil Range	6/13/2009	70		Yes	Y				20	1.4	mg/kg
BW-54-SS-090602	09-12555-PB06N	Diesel Range Hydrocarbons	6/13/2009	13		Yes	Y				10	0.6	mg/kg
BW-54-SS-090602	09-12555-PB06N	Motor Oil Range	6/13/2009	75		Yes	Y				20	1.4	mg/kg

Analytical Method	Plumb 1981												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Total organic carbon	6/8/2009	2.73		Yes	Y				0.020	0.01040	pct
BW-02-SS-090602	09-12543-PB06B	Total organic carbon	6/8/2009	1.91		Yes	Y				0.020	0.01040	pct
BW-03-SS-090602	09-12544-PB06C	Total organic carbon	6/8/2009	1.19		Yes	Y				0.020	0.01040	pct
BW-04-SS-090602	09-12545-PB06D	Total organic carbon	6/8/2009	1.5		Yes	Y				0.020	0.01040	pct
BW-05-SS-090602	09-12546-PB06E	Total organic carbon	6/9/2009	2.45		Yes	Y				0.020	0.01040	pct
BW-06-SS-090602	09-12547-PB06F	Total organic carbon	6/9/2009	1.61		Yes	Y				0.020	0.01040	pct
BW-07-SS-090602	09-12548-PB06G	Total organic carbon	6/9/2009	2.08		Yes	Y				0.020	0.01040	pct
BW-08-SS-090602	09-12549-PB06H	Total organic carbon	6/9/2009	1.11		Yes	Y				0.020	0.01040	pct
BW-09-SS-090602	09-12550-PB06I	Total organic carbon	6/9/2009	2.14		Yes	Y				0.020	0.01040	pct
BW-10-SS-090602	09-12551-PB06J	Total organic carbon	6/9/2009	1.43		Yes	Y				0.020	0.01040	pct
BW-11-SS-090602	09-12552-PB06K	Total organic carbon	6/9/2009	1.52		Yes	Y				0.020	0.01040	pct
BW-12-SS-090602	09-12553-PB06L	Total organic carbon	6/9/2009	2.73		Yes	Y				0.020	0.01040	pct
BW-53-SS-090602	09-12554-PB06M	Total organic carbon	6/9/2009	1.61		Yes	Y				0.020	0.01040	pct
BW-54-SS-090602	09-12555-PB06N	Total organic carbon	6/9/2009	2.73		Yes	Y				0.020	0.01040	pct

SDG: PB06

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Clay, Coarse	6/19/2009	7.7		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Clay, Fine	6/19/2009	6.7		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Clay, Medium	6/19/2009	5.5		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Fines (silt + clay)	6/19/2009	95.2		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Gravel	6/19/2009	0.1		Yes	N	U			0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Sand, Coarse	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Sand, Fine	6/19/2009	0.5		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Sand, Medium	6/19/2009	1.3		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Sand, Very Coarse	6/19/2009	0.8		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Sand, Very Fine	6/19/2009	0.6		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Silt, Coarse	6/19/2009	4.8		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Silt, Fine	6/19/2009	29.8		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Silt, Medium	6/19/2009	22.6		Yes	Y				0.1	0.1	pct
BW-01-SS-090602	09-12542-PB06A	Silt, Very Fine	6/19/2009	18		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Clay, Coarse	6/19/2009	2.3		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Clay, Fine	6/19/2009	2.1		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Clay, Medium	6/19/2009	1.8		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Fines (silt + clay)	6/19/2009	29.5		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Gravel	6/19/2009	0.8		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Sand, Coarse	6/19/2009	17.7		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Sand, Fine	6/19/2009	12.5		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Sand, Medium	6/19/2009	33.7		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Sand, Very Coarse	6/19/2009	3.7		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Sand, Very Fine	6/19/2009	2.1		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Silt, Coarse	6/19/2009	5		Yes	Y				0.1	0.1	pct

SDG: PB06

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-02-SS-090602	09-12543-PB06B	Silt, Fine	6/19/2009	7.1		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Silt, Medium	6/19/2009	7.1		Yes	Y				0.1	0.1	pct
BW-02-SS-090602	09-12543-PB06B	Silt, Very Fine	6/19/2009	4.2		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Clay, Coarse	6/19/2009	7.3		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Clay, Fine	6/19/2009	7.4		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Clay, Medium	6/19/2009	5.6		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Fines (silt + clay)	6/19/2009	94.7		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Gravel	6/19/2009	0.1		Yes	N	U			0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Sand, Coarse	6/19/2009	1.2		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Sand, Fine	6/19/2009	0.7		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Sand, Medium	6/19/2009	1.1		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Sand, Very Coarse	6/19/2009	1.4		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Sand, Very Fine	6/19/2009	1		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Silt, Coarse	6/19/2009	6.5		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Silt, Fine	6/19/2009	26.3		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Silt, Medium	6/19/2009	26.8		Yes	Y				0.1	0.1	pct
BW-03-SS-090602	09-12544-PB06C	Silt, Very Fine	6/19/2009	14.8		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Clay, Coarse	6/19/2009	6.3		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Clay, Fine	6/19/2009	5.8		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Clay, Medium	6/19/2009	4.4		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Fines (silt + clay)	6/19/2009	92.2		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Gravel	6/19/2009	0.1		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Sand, Coarse	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Sand, Fine	6/19/2009	1.3		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Sand, Medium	6/19/2009	1.4		Yes	Y				0.1	0.1	pct

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-090602	09-12545-PB06D	Sand, Very Coarse	6/19/2009	1.7		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Sand, Very Fine	6/19/2009	1.8		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Silt, Coarse	6/19/2009	12.1		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Silt, Fine	6/19/2009	24.6		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Silt, Medium	6/19/2009	26.5		Yes	Y				0.1	0.1	pct
BW-04-SS-090602	09-12545-PB06D	Silt, Very Fine	6/19/2009	12.6		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Clay, Coarse	6/19/2009	4.7		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Clay, Fine	6/19/2009	5.2		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Clay, Medium	6/19/2009	3.8		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Fines (silt + clay)	6/19/2009	86.4		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Gravel	6/19/2009	0.1		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Sand, Coarse	6/19/2009	1.6		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Sand, Fine	6/19/2009	2.4		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Sand, Medium	6/19/2009	2.2		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Sand, Very Coarse	6/19/2009	1.2		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Sand, Very Fine	6/19/2009	6		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Silt, Coarse	6/19/2009	24		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Silt, Fine	6/19/2009	16.6		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Silt, Medium	6/19/2009	24.2		Yes	Y				0.1	0.1	pct
BW-05-SS-090602	09-12546-PB06E	Silt, Very Fine	6/19/2009	7.9		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Clay, Coarse	6/19/2009	3.9		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Clay, Fine	6/19/2009	3.9		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Clay, Medium	6/19/2009	3.1		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Fines (silt + clay)	6/19/2009	78		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Gravel	6/19/2009	1.7		Yes	Y				0.1	0.1	pct

Analytical Method	PSEP												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-06-SS-090602	09-12547-PB06F	Sand, Coarse	6/19/2009	1		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Sand, Fine	6/19/2009	3.7		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Sand, Medium	6/19/2009	1.8		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Sand, Very Coarse	6/19/2009	0.7		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Sand, Very Fine	6/19/2009	13.1		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Silt, Coarse	6/19/2009	32.3		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Silt, Fine	6/19/2009	12.1		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Silt, Medium	6/19/2009	17		Yes	Y				0.1	0.1	pct
BW-06-SS-090602	09-12547-PB06F	Silt, Very Fine	6/19/2009	5.7		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Clay, Coarse	6/19/2009	0.8		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Clay, Fine	6/19/2009	1		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Clay, Medium	6/19/2009	0.7		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Fines (silt + clay)	6/19/2009	17		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Gravel	6/19/2009	4.4		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Sand, Coarse	6/19/2009	17		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Sand, Fine	6/19/2009	10.5		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Sand, Medium	6/19/2009	44.7		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Sand, Very Coarse	6/19/2009	3.9		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Sand, Very Fine	6/19/2009	2.4		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Silt, Coarse	6/19/2009	5		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Silt, Fine	6/19/2009	3.1		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Silt, Medium	6/19/2009	5.2		Yes	Y				0.1	0.1	pct
BW-07-SS-090602	09-12548-PB06G	Silt, Very Fine	6/19/2009	1.4		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Clay, Coarse	6/19/2009	2.2		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Clay, Fine	6/19/2009	4.1		Yes	Y				0.1	0.1	pct

SDG: PB06

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-08-SS-090602	09-12549-PB06H	Clay, Medium	6/19/2009	2.2		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Fines (silt + clay)	6/19/2009	45.1		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Gravel	6/19/2009	0.6		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Sand, Coarse	6/19/2009	1.7		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Sand, Fine	6/19/2009	15.1		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Sand, Medium	6/19/2009	4.9		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Sand, Very Coarse	6/19/2009	0.8		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Sand, Very Fine	6/19/2009	31.8		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Silt, Coarse	6/19/2009	21.1		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Silt, Fine	6/19/2009	4.8		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Silt, Medium	6/19/2009	7.6		Yes	Y				0.1	0.1	pct
BW-08-SS-090602	09-12549-PB06H	Silt, Very Fine	6/19/2009	3.1		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Clay, Coarse	6/19/2009	3		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Clay, Fine	6/19/2009	4.5		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Clay, Medium	6/19/2009	2.7		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Fines (silt + clay)	6/19/2009	81.2		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Gravel	6/19/2009	0.1		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Sand, Coarse	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Sand, Fine	6/19/2009	3.6		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Sand, Medium	6/19/2009	2.5		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Sand, Very Coarse	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Sand, Very Fine	6/19/2009	9.6		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Silt, Coarse	6/19/2009	31.1		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Silt, Fine	6/19/2009	11.4		Yes	Y				0.1	0.1	pct
BW-09-SS-090602	09-12550-PB06I	Silt, Medium	6/19/2009	24.5		Yes	Y				0.1	0.1	pct

Analytical Method	PSEP												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-09-SS-090602	09-12550-PB06I	Silt, Very Fine	6/19/2009	4		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Clay, Coarse	6/19/2009	1.6		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Clay, Fine	6/19/2009	2.9		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Clay, Medium	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Fines (silt + clay)	6/19/2009	30.4		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Gravel	6/19/2009	0.7		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Sand, Coarse	6/19/2009	10.4		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Sand, Fine	6/19/2009	14.4		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Sand, Medium	6/19/2009	31.7		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Sand, Very Coarse	6/19/2009	1.9		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Sand, Very Fine	6/19/2009	10.6		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Silt, Coarse	6/19/2009	12.2		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Silt, Fine	6/19/2009	3.8		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Silt, Medium	6/19/2009	5.7		Yes	Y				0.1	0.1	pct
BW-10-SS-090602	09-12551-PB06J	Silt, Very Fine	6/19/2009	2.5		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Clay, Coarse	6/19/2009	5		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Clay, Fine	6/19/2009	5.6		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Clay, Medium	6/19/2009	3.2		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Fines (silt + clay)	6/19/2009	91.3		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Gravel	6/19/2009	0.5		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Sand, Coarse	6/19/2009	1.4		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Sand, Fine	6/19/2009	1.3		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Sand, Medium	6/19/2009	1.4		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Sand, Very Coarse	6/19/2009	1.4		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Sand, Very Fine	6/19/2009	2.8		Yes	Y				0.1	0.1	pct

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-090602	09-12552-PB06K	Silt, Coarse	6/19/2009	21		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Silt, Fine	6/19/2009	21.3		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Silt, Medium	6/19/2009	22.8		Yes	Y				0.1	0.1	pct
BW-11-SS-090602	09-12552-PB06K	Silt, Very Fine	6/19/2009	12.5		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Clay, Coarse	6/19/2009	4.6		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Clay, Fine	6/19/2009	6.3		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Clay, Medium	6/19/2009	2.8		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Fines (silt + clay)	6/19/2009	89.5		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Gravel	6/19/2009	0.4		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Sand, Coarse	6/19/2009	1.4		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Sand, Fine	6/19/2009	1.8		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Sand, Medium	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Sand, Very Coarse	6/19/2009	1.5		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Sand, Very Fine	6/19/2009	3.9		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Silt, Coarse	6/19/2009	17.9		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Silt, Fine	6/19/2009	21.5		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Silt, Medium	6/19/2009	24.1		Yes	Y				0.1	0.1	pct
BW-12-SS-090602	09-12553-PB06L	Silt, Very Fine	6/19/2009	12.3		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Clay, Coarse	6/19/2009	6.4		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Clay, Fine	6/19/2009	7.7		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Clay, Medium	6/19/2009	5		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Fines (silt + clay)	6/19/2009	95.1		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Gravel	6/19/2009	0.2		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Sand, Coarse	6/19/2009	1		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Sand, Fine	6/19/2009	0.5		Yes	Y				0.1	0.1	pct

Analytical Method	PSEP												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-53-SS-090602	09-12554-PB06M	Sand, Medium	6/19/2009	0.7		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Sand, Very Coarse	6/19/2009	1.6		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Sand, Very Fine	6/19/2009	0.9		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Silt, Coarse	6/19/2009	12.7		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Silt, Fine	6/19/2009	25.9		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Silt, Medium	6/19/2009	22.3		Yes	Y				0.1	0.1	pct
BW-53-SS-090602	09-12554-PB06M	Silt, Very Fine	6/19/2009	15.2		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Clay, Coarse	6/19/2009	6.2		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Clay, Fine	6/19/2009	5.9		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Clay, Medium	6/19/2009	4.4		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Fines (silt + clay)	6/19/2009	93.9		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Gravel	6/19/2009	0.1		Yes	N	U			0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Sand, Coarse	6/19/2009	1.1		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Sand, Fine	6/19/2009	0.8		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Sand, Medium	6/19/2009	0.8		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Sand, Very Coarse	6/19/2009	1.7		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Sand, Very Fine	6/19/2009	1.7		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Silt, Coarse	6/19/2009	15.5		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Silt, Fine	6/19/2009	25		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Silt, Medium	6/19/2009	24.9		Yes	Y				0.1	0.1	pct
BW-54-SS-090602	09-12555-PB06N	Silt, Very Fine	6/19/2009	12		Yes	Y				0.1	0.1	pct

Analytical Method	SW6010B												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Antimony	6/9/2009	10		Yes	N	U	UJ	8	10	0.82	mg/kg
BW-01-SS-090602	09-12542-PB06A	Arsenic	6/9/2009	30		Yes	Y				10	1.1	mg/kg

SDG: PB06

Analytical Method	SW6010B												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Cadmium	6/9/2009	0.4		Yes	N	U			0.4	0.043	mg/kg
BW-01-SS-090602	09-12542-PB06A	Chromium	6/9/2009	67		Yes	Y				1	0.61	mg/kg
BW-01-SS-090602	09-12542-PB06A	Copper	6/9/2009	71.1		Yes	Y				0.4	0.087	mg/kg
BW-01-SS-090602	09-12542-PB06A	Lead	6/9/2009	13		Yes	Y				4	0.43	mg/kg
BW-01-SS-090602	09-12542-PB06A	Nickel	6/9/2009	55		Yes	Y				2	0.67	mg/kg
BW-01-SS-090602	09-12542-PB06A	Silver	6/9/2009	0.6		Yes	N	U			0.6	0.24	mg/kg
BW-01-SS-090602	09-12542-PB06A	Zinc	6/9/2009	98		Yes	Y		J	9	2	0.61	mg/kg
BW-03-SS-090602	09-12544-PB06C	Antimony	6/9/2009	10		Yes	N	U	UJ	8	10	0.77	mg/kg
BW-03-SS-090602	09-12544-PB06C	Arsenic	6/9/2009	20		Yes	Y				10	1.1	mg/kg
BW-03-SS-090602	09-12544-PB06C	Cadmium	6/9/2009	0.4		Yes	N	U			0.4	0.040	mg/kg
BW-03-SS-090602	09-12544-PB06C	Chromium	6/9/2009	63		Yes	Y				1	0.57	mg/kg
BW-03-SS-090602	09-12544-PB06C	Copper	6/9/2009	67.9		Yes	Y				0.4	0.081	mg/kg
BW-03-SS-090602	09-12544-PB06C	Lead	6/9/2009	12		Yes	Y				4	0.40	mg/kg
BW-03-SS-090602	09-12544-PB06C	Nickel	6/9/2009	51		Yes	Y				2	0.63	mg/kg
BW-03-SS-090602	09-12544-PB06C	Silver	6/9/2009	0.6		Yes	N	U			0.6	0.22	mg/kg
BW-03-SS-090602	09-12544-PB06C	Zinc	6/9/2009	94		Yes	Y		J	9	2	0.57	mg/kg
BW-07-SS-090602	09-12548-PB06G	Antimony	6/9/2009	7		Yes	N	U	UJ	8	7	0.56	mg/kg
BW-07-SS-090602	09-12548-PB06G	Arsenic	6/9/2009	13		Yes	Y				7	0.77	mg/kg
BW-07-SS-090602	09-12548-PB06G	Cadmium	6/9/2009	0.3		Yes	N	U			0.3	0.030	mg/kg
BW-07-SS-090602	09-12548-PB06G	Chromium	6/9/2009	28.9		Yes	Y				0.7	0.42	mg/kg
BW-07-SS-090602	09-12548-PB06G	Copper	6/9/2009	29.1		Yes	Y				0.3	0.059	mg/kg
BW-07-SS-090602	09-12548-PB06G	Lead	6/9/2009	7		Yes	Y				3	0.30	mg/kg
BW-07-SS-090602	09-12548-PB06G	Nickel	6/9/2009	25		Yes	Y				1	0.46	mg/kg
BW-07-SS-090602	09-12548-PB06G	Silver	6/9/2009	0.4		Yes	N	U			0.4	0.16	mg/kg
BW-07-SS-090602	09-12548-PB06G	Zinc	6/9/2009	60		Yes	Y		J	9	1	0.42	mg/kg

SDG: PB06

Analytical Method	SW6010B												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-09-SS-090602	09-12550-PB06I	Antimony	6/9/2009	9		Yes	N	U	UJ	8	9	0.68	mg/kg
BW-09-SS-090602	09-12550-PB06I	Arsenic	6/9/2009	16		Yes	Y				9	0.94	mg/kg
BW-09-SS-090602	09-12550-PB06I	Cadmium	6/9/2009	0.4		Yes	N	U			0.4	0.036	mg/kg
BW-09-SS-090602	09-12550-PB06I	Chromium	6/9/2009	46.9		Yes	Y				0.9	0.50	mg/kg
BW-09-SS-090602	09-12550-PB06I	Copper	6/9/2009	48.7		Yes	Y				0.4	0.072	mg/kg
BW-09-SS-090602	09-12550-PB06I	Lead	6/9/2009	17		Yes	Y				4	0.36	mg/kg
BW-09-SS-090602	09-12550-PB06I	Nickel	6/9/2009	37		Yes	Y				2	0.56	mg/kg
BW-09-SS-090602	09-12550-PB06I	Silver	6/9/2009	0.5		Yes	N	U			0.5	0.20	mg/kg
BW-09-SS-090602	09-12550-PB06I	Zinc	6/9/2009	72		Yes	Y		J	9	2	0.50	mg/kg
BW-11-SS-090602	09-12552-PB06K	Antimony	6/9/2009	10		Yes	N	U	UJ	8	10	0.84	mg/kg
BW-11-SS-090602	09-12552-PB06K	Arsenic	6/9/2009	20		Yes	Y				10	1.2	mg/kg
BW-11-SS-090602	09-12552-PB06K	Cadmium	6/9/2009	0.4		Yes	N	U			0.4	0.044	mg/kg
BW-11-SS-090602	09-12552-PB06K	Chromium	6/9/2009	61		Yes	Y				1	0.62	mg/kg
BW-11-SS-090602	09-12552-PB06K	Copper	6/9/2009	65.7		Yes	Y				0.4	0.089	mg/kg
BW-11-SS-090602	09-12552-PB06K	Lead	6/9/2009	11		Yes	Y				4	0.44	mg/kg
BW-11-SS-090602	09-12552-PB06K	Nickel	6/9/2009	51		Yes	Y				2	0.69	mg/kg
BW-11-SS-090602	09-12552-PB06K	Silver	6/9/2009	0.7		Yes	N	U			0.7	0.24	mg/kg
BW-11-SS-090602	09-12552-PB06K	Zinc	6/9/2009	88		Yes	Y		J	9	2	0.62	mg/kg
BW-53-SS-090602	09-12554-PB06M	Antimony	6/9/2009	10		Yes	N	U	UJ	8	10	0.78	mg/kg
BW-53-SS-090602	09-12554-PB06M	Arsenic	6/9/2009	20		Yes	Y				10	1.1	mg/kg
BW-53-SS-090602	09-12554-PB06M	Cadmium	6/9/2009	0.4		Yes	N	U			0.4	0.041	mg/kg
BW-53-SS-090602	09-12554-PB06M	Chromium	6/9/2009	69		Yes	Y				1	0.58	mg/kg
BW-53-SS-090602	09-12554-PB06M	Copper	6/9/2009	72.6		Yes	Y				0.4	0.082	mg/kg
BW-53-SS-090602	09-12554-PB06M	Lead	6/9/2009	13		Yes	Y				4	0.41	mg/kg
BW-53-SS-090602	09-12554-PB06M	Nickel	6/9/2009	56		Yes	Y				2	0.64	mg/kg

Analytical Method	SW6010B												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-53-SS-090602	09-12554-PB06M	Silver	6/9/2009	0.6		Yes	N	U			0.6	0.23	mg/kg
BW-53-SS-090602	09-12554-PB06M	Zinc	6/9/2009	104		Yes	Y		J	9	2	0.58	mg/kg

Analytical Method	SW7471A												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Mercury	6/8/2009	0.11		Yes	Y				0.05	0.0045	mg/kg
BW-03-SS-090602	09-12544-PB06C	Mercury	6/8/2009	0.1		Yes	Y				0.04	0.0041	mg/kg
BW-07-SS-090602	09-12548-PB06G	Mercury	6/8/2009	0.03		Yes	Y				0.03	0.0030	mg/kg
BW-09-SS-090602	09-12550-PB06I	Mercury	6/8/2009	0.09		Yes	Y				0.04	0.0038	mg/kg
BW-11-SS-090602	09-12552-PB06K	Mercury	6/8/2009	0.11		Yes	Y				0.04	0.0042	mg/kg
BW-53-SS-090602	09-12554-PB06M	Mercury	6/8/2009	0.1		Yes	Y				0.04	0.0043	mg/kg

Analytical Method	SW8081B												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Hexachlorobenzene	6/11/2009	0.98		Yes	N	U			0.98	0.19	ug/kg
BW-01-SS-090602	09-12542-PB06A	Hexachlorobutadiene	6/11/2009	0.98		Yes	N	U			0.98	0.15	ug/kg
BW-03-SS-090602	09-12544-PB06C	Hexachlorobenzene	6/11/2009	0.99		Yes	N	U			0.99	0.19	ug/kg
BW-03-SS-090602	09-12544-PB06C	Hexachlorobutadiene	6/11/2009	0.99		Yes	N	U			0.99	0.15	ug/kg
BW-07-SS-090602	09-12548-PB06G	Hexachlorobenzene	6/15/2009	0.98		Yes	N	U			0.98	0.19	ug/kg
BW-07-SS-090602	09-12548-PB06G	Hexachlorobutadiene	6/15/2009	0.98		Yes	N	U			0.98	0.15	ug/kg
BW-09-SS-090602	09-12550-PB06I	Hexachlorobenzene	6/11/2009	0.98		Yes	N	U			0.98	0.19	ug/kg
BW-09-SS-090602	09-12550-PB06I	Hexachlorobutadiene	6/11/2009	0.98		Yes	N	U			0.98	0.15	ug/kg
BW-11-SS-090602	09-12552-PB06K	Hexachlorobenzene	6/11/2009	1		Yes	Y				0.98	0.19	ug/kg
BW-11-SS-090602	09-12552-PB06K	Hexachlorobutadiene	6/11/2009	0.98		Yes	N	U			0.98	0.15	ug/kg
BW-53-SS-090602	09-12554-PB06M	Hexachlorobenzene	6/11/2009	0.97		Yes	N	U			0.97	0.19	ug/kg
BW-53-SS-090602	09-12554-PB06M	Hexachlorobutadiene	6/11/2009	0.97		Yes	N	U			0.97	0.15	ug/kg

SDG: PB06

Analytical Method	SW8082												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Aroclor 1016	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1221	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1232	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1242	6/10/2009	14		Yes	Y				9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1248	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1254	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1260	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1262	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Aroclor 1268	6/10/2009	9.9		Yes	N	U			9.9	5.4	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1016	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1221	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1232	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1242	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1248	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1254	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1260	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1262	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Aroclor 1268	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1016	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1221	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1232	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1242	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1248	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1254	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1260	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg

SDG: PB06

Analytical Method	SW8082												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-090602	09-12548-PB06G	Aroclor 1262	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Aroclor 1268	6/10/2009	9.8		Yes	N	U			9.8	5.3	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1016	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1221	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1232	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1242	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1248	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1254	6/10/2009	100		Yes	Y				20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1260	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1262	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-09-SS-090602	09-12550-PB06I	Aroclor 1268	6/10/2009	20		Yes	N	U			20	20	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1016	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1221	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1232	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1242	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1248	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1254	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1260	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1262	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Aroclor 1268	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1016	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1221	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1232	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1242	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1248	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg

SDG: PB06

Analytical Method	SW8082												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-53-SS-090602	09-12554-PB06M	Aroclor 1254	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1260	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1262	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Aroclor 1268	6/10/2009	9.8		Yes	N	U			9.8	5.4	ug/kg
Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	1,2,4-Trichlorobenzene	6/11/2009	20		Yes	N	U			20	8.9	ug/kg
BW-01-SS-090602	09-12542-PB06A	1,2-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.7	ug/kg
BW-01-SS-090602	09-12542-PB06A	1,3-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.3	ug/kg
BW-01-SS-090602	09-12542-PB06A	1,4-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.2	ug/kg
BW-01-SS-090602	09-12542-PB06A	1-Methylnaphthalene	6/11/2009	20		Yes	N	U			20	7.1	ug/kg
BW-01-SS-090602	09-12542-PB06A	2,4-Dimethylphenol	6/11/2009	20		Yes	N	U			20	15	ug/kg
BW-01-SS-090602	09-12542-PB06A	2-Methylnaphthalene	6/11/2009	20		Yes	N	U			20	8.0	ug/kg
BW-01-SS-090602	09-12542-PB06A	2-Methylphenol (o-Cresol)	6/11/2009	20		Yes	N	U			20	14	ug/kg
BW-01-SS-090602	09-12542-PB06A	4-Methylphenol (p-Cresol)	6/11/2009	20		Yes	N	U			20	13	ug/kg
BW-01-SS-090602	09-12542-PB06A	Acenaphthene	6/11/2009	20		Yes	N	U			20	8.1	ug/kg
BW-01-SS-090602	09-12542-PB06A	Acenaphthylene	6/11/2009	20		Yes	N	U			20	8.5	ug/kg
BW-01-SS-090602	09-12542-PB06A	Anthracene	6/11/2009	19		Yes	Y	J			20	7.6	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzo(a)anthracene	6/11/2009	44		Yes	Y				20	5.8	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzo(a)pyrene	6/11/2009	33		Yes	Y				20	8.0	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzo(b)fluoranthene	6/11/2009	44		Yes	Y		J	23	20	9.3	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzo(g,h,i)perylene	6/11/2009	13		Yes	Y	J	J	10	20	6.6	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzo(k)fluoranthene	6/11/2009	44		Yes	Y		J	23	20	9.1	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzoic acid	6/11/2009	200		Yes	N	U			200	110	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzyl alcohol	6/11/2009	20		Yes	N	U			20	14	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	Bis(2-ethylhexyl) phthalate	6/11/2009	39		Yes	Y				20	11	ug/kg
BW-01-SS-090602	09-12542-PB06A	Butylbenzyl phthalate	6/11/2009	20		Yes	N	U			20	11	ug/kg
BW-01-SS-090602	09-12542-PB06A	Chrysene	6/11/2009	100		Yes	Y				20	6.5	ug/kg
BW-01-SS-090602	09-12542-PB06A	Dibenzo(a,h)anthracene	6/11/2009	20		Yes	N	U			20	8.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Dibenzofuran	6/11/2009	20		Yes	N	U			20	7.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Diethyl phthalate	6/11/2009	20		Yes	N	U			20	16	ug/kg
BW-01-SS-090602	09-12542-PB06A	Dimethyl phthalate	6/11/2009	20		Yes	N	U			20	7.6	ug/kg
BW-01-SS-090602	09-12542-PB06A	Di-n-butyl phthalate	6/11/2009	20		Yes	N	U			20	12	ug/kg
BW-01-SS-090602	09-12542-PB06A	Di-n-octyl phthalate	6/11/2009	20		Yes	N	U			20	8.2	ug/kg
BW-01-SS-090602	09-12542-PB06A	Fluoranthene	6/11/2009	120		Yes	Y				20	7.8	ug/kg
BW-01-SS-090602	09-12542-PB06A	Fluorene	6/11/2009	20		Yes	N	U			20	8.8	ug/kg
BW-01-SS-090602	09-12542-PB06A	Hexachlorobenzene	6/11/2009	20		Yes	N	U			20	7.9	ug/kg
BW-01-SS-090602	09-12542-PB06A	Hexachlorobutadiene	6/11/2009	20		Yes	N	U			20	8.0	ug/kg
BW-01-SS-090602	09-12542-PB06A	Indeno(1,2,3-c,d)pyrene	6/11/2009	13		Yes	Y	J			20	8.4	ug/kg
BW-01-SS-090602	09-12542-PB06A	Naphthalene	6/11/2009	20		Yes	N	U			20	8.5	ug/kg
BW-01-SS-090602	09-12542-PB06A	N-Nitrosodiphenylamine	6/11/2009	20		Yes	N	U	UJ	5	20	8.5	ug/kg
BW-01-SS-090602	09-12542-PB06A	Pentachlorophenol	6/11/2009	98		Yes	N	U			98	47	ug/kg
BW-01-SS-090602	09-12542-PB06A	Phenanthrene	6/11/2009	26		Yes	Y				20	8.2	ug/kg
BW-01-SS-090602	09-12542-PB06A	Phenol	6/11/2009	20		Yes	N	U			20	13	ug/kg
BW-01-SS-090602	09-12542-PB06A	Pyrene	6/11/2009	63		Yes	Y				20	7.6	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	1,2,4-Trichlorobenzene	6/16/2009	98		No	N	U	R	22	98	45	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	1,2-Dichlorobenzene	6/16/2009	98		No	N	U	R	22	98	39	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	1,3-Dichlorobenzene	6/16/2009	98		No	N	U	R	22	98	36	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	1,4-Dichlorobenzene	6/16/2009	98		No	N	U	R	22	98	36	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	1-Methylnaphthalene	6/16/2009	98		No	N	U	R	22	98	35	ug/kg

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Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06ADL	2,4-Dimethylphenol	6/16/2009	98		No	N	U	R	22	98	73	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	2-Methylnaphthalene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	2-Methylphenol (o-Cresol)	6/16/2009	98		No	N	U	R	22	98	70	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	4-Methylphenol (p-Cresol)	6/16/2009	98		No	N	U	R	22	98	63	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Acenaphthene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Acenaphthylene	6/16/2009	98		No	N	U	R	22	98	42	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Anthracene	6/16/2009	98		No	N	U	R	22	98	38	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzo(a)anthracene	6/16/2009	98		No	N	U	R	22	98	29	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzo(a)pyrene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzo(b)fluoranthene	6/16/2009	50		No	Y	J	R	22	98	47	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzo(g,h,i)perylene	6/16/2009	98		No	N	U	R	22	98	33	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzo(k)fluoranthene	6/16/2009	98		No	N	U	R	22	98	45	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzoic acid	6/16/2009	980		No	N	U	R	22	980	560	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Benzyl alcohol	6/16/2009	98		No	N	U	R	22	98	71	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Bis(2-ethylhexyl) phthalate	6/16/2009	98		No	N	U	R	22	98	54	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Butylbenzyl phthalate	6/16/2009	98		No	N	U	R	22	98	55	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Chrysene	6/16/2009	110		No	Y		R	22	98	33	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Dibenzo(a,h)anthracene	6/16/2009	98		No	N	U	R	22	98	42	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Dibenzofuran	6/16/2009	98		No	N	U	R	22	98	37	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Diethyl phthalate	6/16/2009	98		No	N	U	R	22	98	80	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Dimethyl phthalate	6/16/2009	98		No	N	U	R	22	98	38	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Di-n-butyl phthalate	6/16/2009	98		No	N	U	R	22	98	61	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Di-n-octyl phthalate	6/16/2009	98		No	N	U	R	22	98	41	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Fluoranthene	6/16/2009	100		No	Y		R	22	98	39	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Fluorene	6/16/2009	98		No	N	U	R	22	98	44	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06ADL	Hexachlorobenzene	6/16/2009	98		No	N	U	R	22	98	39	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Hexachlorobutadiene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Indeno(1,2,3-c,d)pyrene	6/16/2009	98		No	N	U	R	22	98	42	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Naphthalene	6/16/2009	98		No	N	U	R	22	98	43	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	N-Nitrosodiphenylamine	6/16/2009	98		No	N	U	R	22	98	43	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Pentachlorophenol	6/16/2009	490		No	N	U	R	22	490	230	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Phenanthrene	6/16/2009	98		No	N	U	R	22	98	41	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Phenol	6/16/2009	98		No	N	U	R	22	98	67	ug/kg
BW-01-SS-090602	09-12542-PB06ADL	Pyrene	6/16/2009	71		No	Y	J	R	22	98	38	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,2,4-Trichlorobenzene	6/11/2009	20		Yes	N	U			20	8.9	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,2-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.7	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,3-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,4-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.2	ug/kg
BW-03-SS-090602	09-12544-PB06C	1-Methylnaphthalene	6/11/2009	20		Yes	N	U			20	7.1	ug/kg
BW-03-SS-090602	09-12544-PB06C	2,4-Dimethylphenol	6/11/2009	20		Yes	N	U			20	15	ug/kg
BW-03-SS-090602	09-12544-PB06C	2-Methylnaphthalene	6/11/2009	20		Yes	N	U			20	8.1	ug/kg
BW-03-SS-090602	09-12544-PB06C	2-Methylphenol (o-Cresol)	6/11/2009	20		Yes	N	U			20	14	ug/kg
BW-03-SS-090602	09-12544-PB06C	4-Methylphenol (p-Cresol)	6/11/2009	20		Yes	N	U			20	13	ug/kg
BW-03-SS-090602	09-12544-PB06C	Acenaphthene	6/11/2009	20		Yes	N	U			20	8.1	ug/kg
BW-03-SS-090602	09-12544-PB06C	Acenaphthylene	6/11/2009	20		Yes	N	U			20	8.5	ug/kg
BW-03-SS-090602	09-12544-PB06C	Anthracene	6/11/2009	12		Yes	Y	J			20	7.6	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzo(a)anthracene	6/11/2009	26		Yes	Y				20	5.8	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzo(a)pyrene	6/11/2009	23		Yes	Y				20	8.0	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzo(b)fluoranthene	6/11/2009	32		Yes	Y		J	23	20	9.4	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzo(g,h,i)perylene	6/11/2009	20		Yes	N	U	UJ	10	20	6.6	ug/kg

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Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-03-SS-090602	09-12544-PB06C	Benzo(k)fluoranthene	6/11/2009	32		Yes	Y		J	23	20	9.1	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzoic acid	6/11/2009	200		Yes	N	U			200	110	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzyl alcohol	6/11/2009	20		Yes	N	U			20	14	ug/kg
BW-03-SS-090602	09-12544-PB06C	Bis(2-ethylhexyl) phthalate	6/11/2009	32		Yes	Y				20	11	ug/kg
BW-03-SS-090602	09-12544-PB06C	Butylbenzyl phthalate	6/11/2009	20		Yes	N	U			20	11	ug/kg
BW-03-SS-090602	09-12544-PB06C	Chrysene	6/11/2009	56		Yes	Y				20	6.5	ug/kg
BW-03-SS-090602	09-12544-PB06C	Dibenzo(a,h)anthracene	6/11/2009	20		Yes	N	U			20	8.4	ug/kg
BW-03-SS-090602	09-12544-PB06C	Dibenzofuran	6/11/2009	20		Yes	N	U			20	7.4	ug/kg
BW-03-SS-090602	09-12544-PB06C	Diethyl phthalate	6/11/2009	20		Yes	N	U			20	16	ug/kg
BW-03-SS-090602	09-12544-PB06C	Dimethyl phthalate	6/11/2009	20		Yes	N	U			20	7.6	ug/kg
BW-03-SS-090602	09-12544-PB06C	Di-n-butyl phthalate	6/11/2009	20		Yes	N	U			20	12	ug/kg
BW-03-SS-090602	09-12544-PB06C	Di-n-octyl phthalate	6/11/2009	20		Yes	N	U			20	8.2	ug/kg
BW-03-SS-090602	09-12544-PB06C	Fluoranthene	6/11/2009	88		Yes	Y				20	7.8	ug/kg
BW-03-SS-090602	09-12544-PB06C	Fluorene	6/11/2009	20		Yes	N	U			20	8.8	ug/kg
BW-03-SS-090602	09-12544-PB06C	Hexachlorobenzene	6/11/2009	20		Yes	N	U			20	7.9	ug/kg
BW-03-SS-090602	09-12544-PB06C	Hexachlorobutadiene	6/11/2009	20		Yes	N	U			20	8.0	ug/kg
BW-03-SS-090602	09-12544-PB06C	Indeno(1,2,3-c,d)pyrene	6/11/2009	20		Yes	N	U			20	8.4	ug/kg
BW-03-SS-090602	09-12544-PB06C	Naphthalene	6/11/2009	20		Yes	N	U			20	8.5	ug/kg
BW-03-SS-090602	09-12544-PB06C	N-Nitrosodiphenylamine	6/11/2009	20		Yes	N	U	UJ	5	20	8.5	ug/kg
BW-03-SS-090602	09-12544-PB06C	Pentachlorophenol	6/11/2009	98		Yes	N	U			98	47	ug/kg
BW-03-SS-090602	09-12544-PB06C	Phenanthrene	6/11/2009	20		Yes	Y				20	8.3	ug/kg
BW-03-SS-090602	09-12544-PB06C	Phenol	6/11/2009	20		Yes	N	U			20	13	ug/kg
BW-03-SS-090602	09-12544-PB06C	Pyrene	6/11/2009	48		Yes	Y				20	7.6	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	1,2,4-Trichlorobenzene	6/16/2009	98		No	N	U	R	22	98	45	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	1,2-Dichlorobenzene	6/16/2009	98		No	N	U	R	22	98	39	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-03-SS-090602	09-12544-PB06CDL	1,3-Dichlorobenzene	6/16/2009	98		No	N	U	R	22	98	37	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	1,4-Dichlorobenzene	6/16/2009	98		No	N	U	R	22	98	36	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	1-Methylnaphthalene	6/16/2009	98		No	N	U	R	22	98	35	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	2,4-Dimethylphenol	6/16/2009	98		No	N	U	R	22	98	73	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	2-Methylnaphthalene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	2-Methylphenol (o-Cresol)	6/16/2009	98		No	N	U	R	22	98	70	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	4-Methylphenol (p-Cresol)	6/16/2009	98		No	N	U	R	22	98	63	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Acenaphthene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Acenaphthylene	6/16/2009	98		No	N	U	R	22	98	43	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Anthracene	6/16/2009	98		No	N	U	R	22	98	38	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzo(a)anthracene	6/16/2009	98		No	N	U	R	22	98	29	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzo(a)pyrene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzo(b)fluoranthene	6/16/2009	98		No	N	U	R	22	98	47	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzo(g,h,i)perylene	6/16/2009	98		No	N	U	R	22	98	33	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzo(k)fluoranthene	6/16/2009	98		No	N	U	R	22	98	45	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzoic acid	6/16/2009	980		No	N	U	R	22	980	560	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Benzyl alcohol	6/16/2009	98		No	N	U	R	22	98	71	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Bis(2-ethylhexyl) phthalate	6/16/2009	98		No	N	U	R	22	98	54	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Butylbenzyl phthalate	6/16/2009	98		No	N	U	R	22	98	55	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Chrysene	6/16/2009	57		No	Y	J	R	22	98	33	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Dibenzo(a,h)anthracene	6/16/2009	98		No	N	U	R	22	98	42	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Dibenzofuran	6/16/2009	98		No	N	U	R	22	98	37	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Diethyl phthalate	6/16/2009	98		No	N	U	R	22	98	81	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Dimethyl phthalate	6/16/2009	98		No	N	U	R	22	98	38	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Di-n-butyl phthalate	6/16/2009	98		No	N	U	R	22	98	61	ug/kg

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Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-03-SS-090602	09-12544-PB06CDL	Di-n-octyl phthalate	6/16/2009	98		No	N	U	R	22	98	41	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Fluoranthene	6/16/2009	78		No	Y	J	R	22	98	39	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Fluorene	6/16/2009	98		No	N	U	R	22	98	44	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Hexachlorobenzene	6/16/2009	98		No	N	U	R	22	98	39	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Hexachlorobutadiene	6/16/2009	98		No	N	U	R	22	98	40	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Indeno(1,2,3-c,d)pyrene	6/16/2009	98		No	N	U	R	22	98	42	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Naphthalene	6/16/2009	98		No	N	U	R	22	98	43	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	N-Nitrosodiphenylamine	6/16/2009	98		No	N	U	R	22	98	43	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Pentachlorophenol	6/16/2009	490		No	N	U	R	22	490	230	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Phenanthrene	6/16/2009	98		No	N	U	R	22	98	41	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Phenol	6/16/2009	98		No	N	U	R	22	98	67	ug/kg
BW-03-SS-090602	09-12544-PB06CDL	Pyrene	6/16/2009	50		No	Y	J	R	22	98	38	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,2,4-Trichlorobenzene	6/11/2009	20		Yes	N	U			20	8.9	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,2-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.8	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,3-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,4-Dichlorobenzene	6/11/2009	20		Yes	N	U			20	7.2	ug/kg
BW-07-SS-090602	09-12548-PB06G	1-Methylnaphthalene	6/11/2009	20		Yes	N	U			20	7.1	ug/kg
BW-07-SS-090602	09-12548-PB06G	2,4-Dimethylphenol	6/11/2009	20		Yes	N	U			20	15	ug/kg
BW-07-SS-090602	09-12548-PB06G	2-Methylnaphthalene	6/11/2009	20		Yes	N	U			20	8.1	ug/kg
BW-07-SS-090602	09-12548-PB06G	2-Methylphenol (o-Cresol)	6/11/2009	20		Yes	N	U			20	14	ug/kg
BW-07-SS-090602	09-12548-PB06G	4-Methylphenol (p-Cresol)	6/11/2009	20		Yes	N	U			20	13	ug/kg
BW-07-SS-090602	09-12548-PB06G	Acenaphthene	6/11/2009	20		Yes	N	U			20	8.1	ug/kg
BW-07-SS-090602	09-12548-PB06G	Acenaphthylene	6/11/2009	20		Yes	N	U			20	8.5	ug/kg
BW-07-SS-090602	09-12548-PB06G	Anthracene	6/11/2009	170		Yes	Y				20	7.6	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzo(a)anthracene	6/11/2009	85		Yes	Y		J	19	20	5.8	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-090602	09-12548-PB06G	Benzo(a)pyrene	6/11/2009	82		Yes	Y				20	8.0	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzo(b)fluoranthene	6/11/2009	110		Yes	Y		J	23	20	9.4	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzo(g,h,i)perylene	6/11/2009	29		Yes	Y		J	8,10	20	6.7	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzo(k)fluoranthene	6/11/2009	110		Yes	Y		J	23	20	9.1	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzoic acid	6/11/2009	200		Yes	N	U			200	110	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzyl alcohol	6/11/2009	20		Yes	N	U			20	14	ug/kg
BW-07-SS-090602	09-12548-PB06G	Bis(2-ethylhexyl) phthalate	6/11/2009	260		Yes	Y				20	11	ug/kg
BW-07-SS-090602	09-12548-PB06G	Butylbenzyl phthalate	6/11/2009	20		Yes	N	U			20	11	ug/kg
BW-07-SS-090602	09-12548-PB06G	Chrysene	6/11/2009	290		Yes	Y		J	8,19	20	6.5	ug/kg
BW-07-SS-090602	09-12548-PB06G	Dibenzo(a,h)anthracene	6/11/2009	11		Yes	Y	J			20	8.4	ug/kg
BW-07-SS-090602	09-12548-PB06G	Dibenzofuran	6/11/2009	20		Yes	N	U			20	7.4	ug/kg
BW-07-SS-090602	09-12548-PB06G	Diethyl phthalate	6/11/2009	20		Yes	N	U			20	16	ug/kg
BW-07-SS-090602	09-12548-PB06G	Dimethyl phthalate	6/11/2009	20		Yes	N	U			20	7.6	ug/kg
BW-07-SS-090602	09-12548-PB06G	Di-n-butyl phthalate	6/11/2009	20		Yes	N	U			20	12	ug/kg
BW-07-SS-090602	09-12548-PB06G	Di-n-octyl phthalate	6/11/2009	16		Yes	Y	J			20	8.2	ug/kg
BW-07-SS-090602	09-12548-PB06G	Fluoranthene	6/11/2009	360		Yes	Y				20	7.8	ug/kg
BW-07-SS-090602	09-12548-PB06G	Fluorene	6/11/2009	14		Yes	Y	J			20	8.8	ug/kg
BW-07-SS-090602	09-12548-PB06G	Hexachlorobenzene	6/11/2009	20		Yes	N	U			20	7.9	ug/kg
BW-07-SS-090602	09-12548-PB06G	Hexachlorobutadiene	6/11/2009	20		Yes	N	U			20	8.0	ug/kg
BW-07-SS-090602	09-12548-PB06G	Indeno(1,2,3-c,d)pyrene	6/11/2009	25		Yes	Y		J	8	20	8.5	ug/kg
BW-07-SS-090602	09-12548-PB06G	Naphthalene	6/11/2009	11		Yes	Y	J			20	8.5	ug/kg
BW-07-SS-090602	09-12548-PB06G	N-Nitrosodiphenylamine	6/11/2009	20		Yes	N	U	UJ	5	20	8.5	ug/kg
BW-07-SS-090602	09-12548-PB06G	Pentachlorophenol	6/11/2009	98		Yes	N	U			98	47	ug/kg
BW-07-SS-090602	09-12548-PB06G	Phenanthrene	6/11/2009	61		Yes	Y				20	8.3	ug/kg
BW-07-SS-090602	09-12548-PB06G	Phenol	6/11/2009	20		Yes	N	U			20	13	ug/kg

SDG: PB06

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-090602	09-12548-PB06G	Pyrene	6/11/2009	180		Yes	Y		J	8,19	20	7.6	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,2,4-Trichlorobenzene	6/12/2009	20		Yes	N	U			20	8.9	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,2-Dichlorobenzene	6/12/2009	20		Yes	N	U			20	7.7	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,3-Dichlorobenzene	6/12/2009	20		Yes	N	U			20	7.3	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,4-Dichlorobenzene	6/12/2009	20		Yes	N	U			20	7.2	ug/kg
BW-09-SS-090602	09-12550-PB06I	1-Methylnaphthalene	6/12/2009	20		Yes	N	U			20	7.0	ug/kg
BW-09-SS-090602	09-12550-PB06I	2,4-Dimethylphenol	6/12/2009	20		Yes	N	U			20	14	ug/kg
BW-09-SS-090602	09-12550-PB06I	2-Methylnaphthalene	6/12/2009	20		Yes	N	U			20	8.0	ug/kg
BW-09-SS-090602	09-12550-PB06I	2-Methylphenol (o-Cresol)	6/12/2009	20		Yes	N	U			20	14	ug/kg
BW-09-SS-090602	09-12550-PB06I	4-Methylphenol (p-Cresol)	6/12/2009	20		Yes	N	U			20	13	ug/kg
BW-09-SS-090602	09-12550-PB06I	Acenaphthene	6/12/2009	20		Yes	N	U			20	8.0	ug/kg
BW-09-SS-090602	09-12550-PB06I	Acenaphthylene	6/12/2009	10		Yes	Y	J			20	8.5	ug/kg
BW-09-SS-090602	09-12550-PB06I	Anthracene	6/12/2009	21		Yes	Y				20	7.6	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzo(a)anthracene	6/12/2009	51		Yes	Y				20	5.8	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzo(a)pyrene	6/12/2009	55		Yes	Y				20	8.0	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzo(b)fluoranthene	6/12/2009	57		Yes	Y		J	23	20	9.3	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzo(g,h,i)perylene	6/12/2009	16		Yes	Y	J	J	10	20	6.6	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzo(k)fluoranthene	6/12/2009	57		Yes	Y		J	23	20	9.1	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzoic acid	6/12/2009	200		Yes	N	U			200	110	ug/kg
BW-09-SS-090602	09-12550-PB06I	Benzyl alcohol	6/12/2009	20		Yes	N	U			20	14	ug/kg
BW-09-SS-090602	09-12550-PB06I	Bis(2-ethylhexyl) phthalate	6/12/2009	34		Yes	Y				20	11	ug/kg
BW-09-SS-090602	09-12550-PB06I	Butylbenzyl phthalate	6/12/2009	20		Yes	N	U			20	11	ug/kg
BW-09-SS-090602	09-12550-PB06I	Chrysene	6/12/2009	88		Yes	Y				20	6.5	ug/kg
BW-09-SS-090602	09-12550-PB06I	Dibenzo(a,h)anthracene	6/12/2009	20		Yes	N	U			20	8.4	ug/kg
BW-09-SS-090602	09-12550-PB06I	Dibenzofuran	6/12/2009	20		Yes	N	U			20	7.4	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-09-SS-090602	09-12550-PB06I	Diethyl phthalate	6/12/2009	20		Yes	N	U			20	16	ug/kg
BW-09-SS-090602	09-12550-PB06I	Dimethyl phthalate	6/12/2009	20		Yes	N	U			20	7.6	ug/kg
BW-09-SS-090602	09-12550-PB06I	Di-n-butyl phthalate	6/12/2009	20		Yes	N	U			20	12	ug/kg
BW-09-SS-090602	09-12550-PB06I	Di-n-octyl phthalate	6/12/2009	20		Yes	N	U			20	8.2	ug/kg
BW-09-SS-090602	09-12550-PB06I	Fluoranthene	6/12/2009	150		Yes	Y				20	7.8	ug/kg
BW-09-SS-090602	09-12550-PB06I	Fluorene	6/12/2009	12		Yes	Y	J			20	8.8	ug/kg
BW-09-SS-090602	09-12550-PB06I	Hexachlorobenzene	6/12/2009	20		Yes	N	U			20	7.9	ug/kg
BW-09-SS-090602	09-12550-PB06I	Hexachlorobutadiene	6/12/2009	20		Yes	N	U			20	7.9	ug/kg
BW-09-SS-090602	09-12550-PB06I	Indeno(1,2,3-c,d)pyrene	6/12/2009	19		Yes	Y	J			20	8.4	ug/kg
BW-09-SS-090602	09-12550-PB06I	Naphthalene	6/12/2009	14		Yes	Y	J			20	8.5	ug/kg
BW-09-SS-090602	09-12550-PB06I	N-Nitrosodiphenylamine	6/12/2009	20		Yes	N	U	UJ	5	20	8.5	ug/kg
BW-09-SS-090602	09-12550-PB06I	Pentachlorophenol	6/12/2009	98		Yes	N	U			98	47	ug/kg
BW-09-SS-090602	09-12550-PB06I	Phenanthrene	6/12/2009	56		Yes	Y				20	8.2	ug/kg
BW-09-SS-090602	09-12550-PB06I	Phenol	6/12/2009	19		Yes	Y	J			20	13	ug/kg
BW-09-SS-090602	09-12550-PB06I	Pyrene	6/12/2009	73		Yes	Y				20	7.6	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,2,4-Trichlorobenzene	6/12/2009	20		Yes	N	U			20	9.0	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,2-Dichlorobenzene	6/12/2009	20		Yes	N	U			20	7.8	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,3-Dichlorobenzene	6/12/2009	20		Yes	N	U			20	7.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,4-Dichlorobenzene	6/12/2009	20		Yes	N	U			20	7.3	ug/kg
BW-11-SS-090602	09-12552-PB06K	1-Methylnaphthalene	6/12/2009	20		Yes	N	U			20	7.1	ug/kg
BW-11-SS-090602	09-12552-PB06K	2,4-Dimethylphenol	6/12/2009	20		Yes	N	U			20	15	ug/kg
BW-11-SS-090602	09-12552-PB06K	2-Methylnaphthalene	6/12/2009	20		Yes	N	U			20	8.1	ug/kg
BW-11-SS-090602	09-12552-PB06K	2-Methylphenol (o-Cresol)	6/12/2009	20		Yes	N	U			20	14	ug/kg
BW-11-SS-090602	09-12552-PB06K	4-Methylphenol (p-Cresol)	6/12/2009	18		Yes	Y	J			20	13	ug/kg
BW-11-SS-090602	09-12552-PB06K	Acenaphthene	6/12/2009	20		Yes	N	U			20	8.1	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-090602	09-12552-PB06K	Acenaphthylene	6/12/2009	20		Yes	N	U			20	8.6	ug/kg
BW-11-SS-090602	09-12552-PB06K	Anthracene	6/12/2009	15		Yes	Y	J			20	7.7	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzo(a)anthracene	6/12/2009	48		Yes	Y		J	19	20	5.9	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzo(a)pyrene	6/12/2009	28		Yes	Y				20	8.1	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzo(b)fluoranthene	6/12/2009	45		Yes	Y		J	23	20	9.4	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzo(g,h,i)perylene	6/12/2009	20		Yes	N	U	UJ	10	20	6.7	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzo(k)fluoranthene	6/12/2009	45		Yes	Y		J	23	20	9.2	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzoic acid	6/12/2009	200		Yes	N	U			200	110	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzyl alcohol	6/12/2009	20		Yes	N	U			20	14	ug/kg
BW-11-SS-090602	09-12552-PB06K	Bis(2-ethylhexyl) phthalate	6/12/2009	34		Yes	Y				20	11	ug/kg
BW-11-SS-090602	09-12552-PB06K	Butylbenzyl phthalate	6/12/2009	33		Yes	Y		J	19	20	11	ug/kg
BW-11-SS-090602	09-12552-PB06K	Chrysene	6/12/2009	110		Yes	Y		J	19	20	6.6	ug/kg
BW-11-SS-090602	09-12552-PB06K	Dibenzo(a,h)anthracene	6/12/2009	20		Yes	N	U			20	8.5	ug/kg
BW-11-SS-090602	09-12552-PB06K	Dibenzofuran	6/12/2009	20		Yes	N	U			20	7.5	ug/kg
BW-11-SS-090602	09-12552-PB06K	Diethyl phthalate	6/12/2009	20		Yes	N	U			20	16	ug/kg
BW-11-SS-090602	09-12552-PB06K	Dimethyl phthalate	6/12/2009	20		Yes	N	U			20	7.7	ug/kg
BW-11-SS-090602	09-12552-PB06K	Di-n-butyl phthalate	6/12/2009	20		Yes	N	U			20	12	ug/kg
BW-11-SS-090602	09-12552-PB06K	Di-n-octyl phthalate	6/12/2009	20		Yes	N	U			20	8.2	ug/kg
BW-11-SS-090602	09-12552-PB06K	Fluoranthene	6/12/2009	180		Yes	Y				20	7.8	ug/kg
BW-11-SS-090602	09-12552-PB06K	Fluorene	6/12/2009	20		Yes	N	U			20	8.9	ug/kg
BW-11-SS-090602	09-12552-PB06K	Hexachlorobenzene	6/12/2009	20		Yes	N	U			20	7.9	ug/kg
BW-11-SS-090602	09-12552-PB06K	Hexachlorobutadiene	6/12/2009	20		Yes	N	U			20	8.0	ug/kg
BW-11-SS-090602	09-12552-PB06K	Indeno(1,2,3-c,d)pyrene	6/12/2009	20		Yes	N	U			20	8.5	ug/kg
BW-11-SS-090602	09-12552-PB06K	Naphthalene	6/12/2009	20		Yes	N	U			20	8.6	ug/kg
BW-11-SS-090602	09-12552-PB06K	N-Nitrosodiphenylamine	6/12/2009	20		Yes	N	U	UJ	5	20	8.6	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-090602	09-12552-PB06K	Pentachlorophenol	6/12/2009	99		Yes	N	U			99	47	ug/kg
BW-11-SS-090602	09-12552-PB06K	Phenanthrene	6/12/2009	28		Yes	Y				20	8.3	ug/kg
BW-11-SS-090602	09-12552-PB06K	Phenol	6/12/2009	20		Yes	N	U			20	14	ug/kg
BW-11-SS-090602	09-12552-PB06K	Pyrene	6/12/2009	65		Yes	Y		J	19	20	7.7	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	1,2,4-Trichlorobenzene	6/16/2009	99		No	N	U	R	22	99	45	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	1,2-Dichlorobenzene	6/16/2009	99		No	N	U	R	22	99	39	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	1,3-Dichlorobenzene	6/16/2009	99		No	N	U	R	22	99	37	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	1,4-Dichlorobenzene	6/16/2009	99		No	N	U	R	22	99	36	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	1-Methylnaphthalene	6/16/2009	99		No	N	U	R	22	99	36	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	2,4-Dimethylphenol	6/16/2009	99		No	N	U	R	22	99	73	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	2-Methylnaphthalene	6/16/2009	99		No	N	U	R	22	99	41	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	2-Methylphenol (o-Cresol)	6/16/2009	99		No	N	U	R	22	99	70	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	4-Methylphenol (p-Cresol)	6/16/2009	99		No	N	U	R	22	99	63	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Acenaphthene	6/16/2009	99		No	N	U	R	22	99	41	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Acenaphthylene	6/16/2009	99		No	N	U	R	22	99	43	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Anthracene	6/16/2009	99		No	N	U	R	22	99	38	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzo(a)anthracene	6/16/2009	54		No	Y	J	R	22	99	29	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzo(a)pyrene	6/16/2009	99		No	N	U	R	22	99	40	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzo(b)fluoranthene	6/16/2009	99		No	N	U	R	22	99	47	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzo(g,h,i)perylene	6/16/2009	99		No	N	U	R	22	99	33	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzo(k)fluoranthene	6/16/2009	99		No	N	U	R	22	99	46	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzoic acid	6/16/2009	990		No	N	U	R	22	990	570	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Benzyl alcohol	6/16/2009	99		No	N	U	R	22	99	72	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Bis(2-ethylhexyl) phthalate	6/16/2009	99		No	N	U	R	22	99	54	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Butylbenzyl phthalate	6/16/2009	99		No	N	U	R	22	99	55	ug/kg

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-090602	09-12552-PB06KDL	Chrysene	6/16/2009	120		No	Y		R	22	99	33	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Dibenzo(a,h)anthracene	6/16/2009	99		No	N	U	R	22	99	42	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Dibenzofuran	6/16/2009	99		No	N	U	R	22	99	37	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Diethyl phthalate	6/16/2009	99		No	N	U	R	22	99	81	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Dimethyl phthalate	6/16/2009	99		No	N	U	R	22	99	38	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Di-n-butyl phthalate	6/16/2009	99		No	N	U	R	22	99	61	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Di-n-octyl phthalate	6/16/2009	99		No	N	U	R	22	99	41	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Fluoranthene	6/16/2009	160		No	Y		R	22	99	39	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Fluorene	6/16/2009	99		No	N	U	R	22	99	44	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Hexachlorobenzene	6/16/2009	99		No	N	U	R	22	99	40	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Hexachlorobutadiene	6/16/2009	99		No	N	U	R	22	99	40	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Indeno(1,2,3-c,d)pyrene	6/16/2009	99		No	N	U	R	22	99	43	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Naphthalene	6/16/2009	99		No	N	U	R	22	99	43	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	N-Nitrosodiphenylamine	6/16/2009	99		No	N	U	R	22	99	43	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Pentachlorophenol	6/16/2009	490		No	N	U	R	22	490	240	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Phenanthrene	6/16/2009	99		No	N	U	R	22	99	42	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Phenol	6/16/2009	99		No	N	U	R	22	99	68	ug/kg
BW-11-SS-090602	09-12552-PB06KDL	Pyrene	6/16/2009	89		No	Y	J	R	22	99	38	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,2,4-Trichlorobenzene	6/12/2009	19		Yes	N	U			19	8.8	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,2-Dichlorobenzene	6/12/2009	19		Yes	N	U			19	7.7	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,3-Dichlorobenzene	6/12/2009	19		Yes	N	U			19	7.2	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,4-Dichlorobenzene	6/12/2009	19		Yes	N	U			19	7.2	ug/kg
BW-53-SS-090602	09-12554-PB06M	1-Methylnaphthalene	6/12/2009	19		Yes	N	U			19	7.0	ug/kg
BW-53-SS-090602	09-12554-PB06M	2,4-Dimethylphenol	6/12/2009	19		Yes	N	U			19	14	ug/kg
BW-53-SS-090602	09-12554-PB06M	2-Methylnaphthalene	6/12/2009	19		Yes	N	U			19	8.0	ug/kg

SDG: PB06

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-53-SS-090602	09-12554-PB06M	2-Methylphenol (o-Cresol)	6/12/2009	19		Yes	N	U			19	14	ug/kg
BW-53-SS-090602	09-12554-PB06M	4-Methylphenol (p-Cresol)	6/12/2009	19		Yes	N	U			19	12	ug/kg
BW-53-SS-090602	09-12554-PB06M	Acenaphthene	6/12/2009	19		Yes	N	U			19	8.0	ug/kg
BW-53-SS-090602	09-12554-PB06M	Acenaphthylene	6/12/2009	19		Yes	N	U			19	8.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Anthracene	6/12/2009	11		Yes	Y	J			19	7.5	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzo(a)anthracene	6/12/2009	24		Yes	Y				19	5.8	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzo(a)pyrene	6/12/2009	18		Yes	Y	J			19	7.9	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzo(b)fluoranthene	6/12/2009	27		Yes	Y		J	23	19	9.3	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzo(g,h,i)perylene	6/12/2009	19		Yes	N	U	UJ	10	19	6.6	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzo(k)fluoranthene	6/12/2009	27		Yes	Y		J	23	19	9.0	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzoic acid	6/12/2009	190		Yes	N	U			190	110	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzyl alcohol	6/12/2009	19		Yes	N	U			19	14	ug/kg
BW-53-SS-090602	09-12554-PB06M	Bis(2-ethylhexyl) phthalate	6/12/2009	22		Yes	Y				19	11	ug/kg
BW-53-SS-090602	09-12554-PB06M	Butylbenzyl phthalate	6/12/2009	19		Yes	N	U			19	11	ug/kg
BW-53-SS-090602	09-12554-PB06M	Chrysene	6/12/2009	58		Yes	Y				19	6.5	ug/kg
BW-53-SS-090602	09-12554-PB06M	Dibenzo(a,h)anthracene	6/12/2009	19		Yes	N	U			19	8.3	ug/kg
BW-53-SS-090602	09-12554-PB06M	Dibenzofuran	6/12/2009	19		Yes	N	U			19	7.3	ug/kg
BW-53-SS-090602	09-12554-PB06M	Diethyl phthalate	6/12/2009	19		Yes	N	U			19	16	ug/kg
BW-53-SS-090602	09-12554-PB06M	Dimethyl phthalate	6/12/2009	19		Yes	N	U			19	7.5	ug/kg
BW-53-SS-090602	09-12554-PB06M	Di-n-butyl phthalate	6/12/2009	19		Yes	N	U			19	12	ug/kg
BW-53-SS-090602	09-12554-PB06M	Di-n-octyl phthalate	6/12/2009	19		Yes	N	U			19	8.1	ug/kg
BW-53-SS-090602	09-12554-PB06M	Fluoranthene	6/12/2009	66		Yes	Y				19	7.7	ug/kg
BW-53-SS-090602	09-12554-PB06M	Fluorene	6/12/2009	19		Yes	N	U			19	8.7	ug/kg
BW-53-SS-090602	09-12554-PB06M	Hexachlorobenzene	6/12/2009	19		Yes	N	U			19	7.8	ug/kg
BW-53-SS-090602	09-12554-PB06M	Hexachlorobutadiene	6/12/2009	19		Yes	N	U			19	7.9	ug/kg

SDG: PB06

Analytical Method	SW8270D												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-53-SS-090602	09-12554-PB06M	Indeno(1,2,3-c,d)pyrene	6/12/2009	19		Yes	N	U			19	8.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Naphthalene	6/12/2009	19		Yes	N	U			19	8.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	N-Nitrosodiphenylamine	6/12/2009	19		Yes	N	U	UJ	5	19	8.4	ug/kg
BW-53-SS-090602	09-12554-PB06M	Pentachlorophenol	6/12/2009	97		Yes	N	U			97	46	ug/kg
BW-53-SS-090602	09-12554-PB06M	Phenanthrene	6/12/2009	15		Yes	Y	J			19	8.2	ug/kg
BW-53-SS-090602	09-12554-PB06M	Phenol	6/12/2009	19		Yes	N	U			19	13	ug/kg
BW-53-SS-090602	09-12554-PB06M	Pyrene	6/12/2009	36		Yes	Y				19	7.5	ug/kg
Analytical Method	SW8270DSIM												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-090602	09-12542-PB06A	1,2,4-Trichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	2.0	ug/kg
BW-01-SS-090602	09-12542-PB06A	1,2-Dichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	1.2	ug/kg
BW-01-SS-090602	09-12542-PB06A	1,4-Dichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	2.0	ug/kg
BW-01-SS-090602	09-12542-PB06A	2,4-Dimethylphenol	6/15/2009	6.1		Yes	N	U	UJ	10	6.1	3.5	ug/kg
BW-01-SS-090602	09-12542-PB06A	2-Methylphenol (o-Cresol)	6/15/2009	6.1		Yes	N	U			6.1	3.1	ug/kg
BW-01-SS-090602	09-12542-PB06A	Benzyl alcohol	6/15/2009	30		Yes	N	U	UJ	5	30	14	ug/kg
BW-01-SS-090602	09-12542-PB06A	Butylbenzyl phthalate	6/15/2009	15		Yes	N	U			15	3.7	ug/kg
BW-01-SS-090602	09-12542-PB06A	Dibenzo(a,h)anthracene	6/15/2009	6.1		Yes	N	U	UJ	5	6.1	2.7	ug/kg
BW-01-SS-090602	09-12542-PB06A	Hexachlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	1.8	ug/kg
BW-01-SS-090602	09-12542-PB06A	Hexachlorobutadiene	6/15/2009	6.1		Yes	N	U			6.1	2.6	ug/kg
BW-01-SS-090602	09-12542-PB06A	N-Nitrosodiphenylamine	6/15/2009	6.1		Yes	N	U			6.1	2.8	ug/kg
BW-01-SS-090602	09-12542-PB06A	Pentachlorophenol	6/15/2009	30		Yes	N	U			30	12	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,2,4-Trichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	2.0	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,2-Dichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	1.2	ug/kg
BW-03-SS-090602	09-12544-PB06C	1,4-Dichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	2.0	ug/kg
BW-03-SS-090602	09-12544-PB06C	2,4-Dimethylphenol	6/15/2009	6.1		Yes	N	U	UJ	10	6.1	3.5	ug/kg

SDG: PB06

Analytical Method	SW8270DSIM												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-03-SS-090602	09-12544-PB06C	2-Methylphenol (o-Cresol)	6/15/2009	6.1		Yes	N	U			6.1	3.1	ug/kg
BW-03-SS-090602	09-12544-PB06C	Benzyl alcohol	6/15/2009	31		Yes	N	U	UJ	5	31	14	ug/kg
BW-03-SS-090602	09-12544-PB06C	Butylbenzyl phthalate	6/15/2009	15		Yes	N	U			15	3.7	ug/kg
BW-03-SS-090602	09-12544-PB06C	Dibenzo(a,h)anthracene	6/15/2009	6.1		Yes	N	U	UJ	5	6.1	2.7	ug/kg
BW-03-SS-090602	09-12544-PB06C	Hexachlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	1.8	ug/kg
BW-03-SS-090602	09-12544-PB06C	Hexachlorobutadiene	6/15/2009	6.1		Yes	N	U			6.1	2.7	ug/kg
BW-03-SS-090602	09-12544-PB06C	N-Nitrosodiphenylamine	6/15/2009	6.1		Yes	N	U			6.1	2.8	ug/kg
BW-03-SS-090602	09-12544-PB06C	Pentachlorophenol	6/15/2009	31		Yes	N	U			31	12	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,2,4-Trichlorobenzene	6/15/2009	6		Yes	N	U			6.0	2.0	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,2-Dichlorobenzene	6/15/2009	6		Yes	N	U			6.0	1.2	ug/kg
BW-07-SS-090602	09-12548-PB06G	1,4-Dichlorobenzene	6/15/2009	6		Yes	N	U			6.0	2.0	ug/kg
BW-07-SS-090602	09-12548-PB06G	2,4-Dimethylphenol	6/15/2009	6		Yes	N	U	UJ	10	6.0	3.5	ug/kg
BW-07-SS-090602	09-12548-PB06G	2-Methylphenol (o-Cresol)	6/15/2009	6		Yes	N	U			6.0	3.0	ug/kg
BW-07-SS-090602	09-12548-PB06G	Benzyl alcohol	6/15/2009	30		Yes	N	U	UJ	5	30	14	ug/kg
BW-07-SS-090602	09-12548-PB06G	Butylbenzyl phthalate	6/15/2009	15		Yes	N	U			15	3.6	ug/kg
BW-07-SS-090602	09-12548-PB06G	Dibenzo(a,h)anthracene	6/15/2009	6		Yes	N	U	UJ	5	6.0	2.6	ug/kg
BW-07-SS-090602	09-12548-PB06G	Hexachlorobenzene	6/15/2009	6		Yes	N	U			6.0	1.8	ug/kg
BW-07-SS-090602	09-12548-PB06G	Hexachlorobutadiene	6/15/2009	6		Yes	N	U			6.0	2.6	ug/kg
BW-07-SS-090602	09-12548-PB06G	N-Nitrosodiphenylamine	6/15/2009	6		Yes	N	U			6.0	2.7	ug/kg
BW-07-SS-090602	09-12548-PB06G	Pentachlorophenol	6/15/2009	30		Yes	N	U			30	12	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,2,4-Trichlorobenzene	6/15/2009	6		Yes	N	U			6.0	2.0	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,2-Dichlorobenzene	6/15/2009	6		Yes	N	U			6.0	1.2	ug/kg
BW-09-SS-090602	09-12550-PB06I	1,4-Dichlorobenzene	6/15/2009	6		Yes	N	U			6.0	2.0	ug/kg
BW-09-SS-090602	09-12550-PB06I	2,4-Dimethylphenol	6/15/2009	6		Yes	N	U	UJ	10	6.0	3.5	ug/kg
BW-09-SS-090602	09-12550-PB06I	2-Methylphenol (o-Cresol)	6/15/2009	6		Yes	N	U			6.0	3.0	ug/kg

SDG: PB06

Analytical Method	SW8270DSIM												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-09-SS-090602	09-12550-PB06I	Benzyl alcohol	6/15/2009	30		Yes	N	U	UJ	5	30	14	ug/kg
BW-09-SS-090602	09-12550-PB06I	Butylbenzyl phthalate	6/15/2009	15		Yes	N	U			15	3.6	ug/kg
BW-09-SS-090602	09-12550-PB06I	Dibenzo(a,h)anthracene	6/15/2009	7.2		Yes	Y		J	5	6.0	2.7	ug/kg
BW-09-SS-090602	09-12550-PB06I	Hexachlorobenzene	6/15/2009	6		Yes	N	U			6.0	1.8	ug/kg
BW-09-SS-090602	09-12550-PB06I	Hexachlorobutadiene	6/15/2009	6		Yes	N	U			6.0	2.6	ug/kg
BW-09-SS-090602	09-12550-PB06I	N-Nitrosodiphenylamine	6/15/2009	6		Yes	N	U			6.0	2.8	ug/kg
BW-09-SS-090602	09-12550-PB06I	Pentachlorophenol	6/15/2009	30		Yes	N	U			30	12	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,2,4-Trichlorobenzene	6/15/2009	6		Yes	N	U			6.0	2.0	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,2-Dichlorobenzene	6/15/2009	6		Yes	N	U			6.0	1.2	ug/kg
BW-11-SS-090602	09-12552-PB06K	1,4-Dichlorobenzene	6/15/2009	6		Yes	N	U			6.0	2.0	ug/kg
BW-11-SS-090602	09-12552-PB06K	2,4-Dimethylphenol	6/15/2009	6		Yes	N	U	UJ	10	6.0	3.5	ug/kg
BW-11-SS-090602	09-12552-PB06K	2-Methylphenol (o-Cresol)	6/15/2009	6		Yes	N	U			6.0	3.0	ug/kg
BW-11-SS-090602	09-12552-PB06K	Benzyl alcohol	6/15/2009	30		Yes	N	U	UJ	5	30	14	ug/kg
BW-11-SS-090602	09-12552-PB06K	Butylbenzyl phthalate	6/15/2009	15		Yes	N	U			15	3.6	ug/kg
BW-11-SS-090602	09-12552-PB06K	Dibenzo(a,h)anthracene	6/15/2009	6		Yes	N	U	UJ	5,19	6.0	2.7	ug/kg
BW-11-SS-090602	09-12552-PB06K	Hexachlorobenzene	6/15/2009	6		Yes	N	U			6.0	1.8	ug/kg
BW-11-SS-090602	09-12552-PB06K	Hexachlorobutadiene	6/15/2009	6		Yes	N	U			6.0	2.6	ug/kg
BW-11-SS-090602	09-12552-PB06K	N-Nitrosodiphenylamine	6/15/2009	6		Yes	N	U			6.0	2.8	ug/kg
BW-11-SS-090602	09-12552-PB06K	Pentachlorophenol	6/15/2009	30		Yes	N	U			30	12	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,2,4-Trichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	2.0	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,2-Dichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	1.2	ug/kg
BW-53-SS-090602	09-12554-PB06M	1,4-Dichlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	2.0	ug/kg
BW-53-SS-090602	09-12554-PB06M	2,4-Dimethylphenol	6/15/2009	6.1		Yes	N	U	UJ	10	6.1	3.5	ug/kg
BW-53-SS-090602	09-12554-PB06M	2-Methylphenol (o-Cresol)	6/15/2009	6.1		Yes	N	U			6.1	3.1	ug/kg
BW-53-SS-090602	09-12554-PB06M	Benzyl alcohol	6/15/2009	30		Yes	N	U	UJ	5	30	14	ug/kg

SDG: PB06

Analytical Method	SW8270DSIM												
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-53-SS-090602	09-12554-PB06M	Butylbenzyl phthalate	6/15/2009	15		Yes	N	U			15	3.6	ug/kg
BW-53-SS-090602	09-12554-PB06M	Dibenzo(a,h)anthracene	6/15/2009	6.1		Yes	N	U	UJ	5	6.1	2.7	ug/kg
BW-53-SS-090602	09-12554-PB06M	Hexachlorobenzene	6/15/2009	6.1		Yes	N	U			6.1	1.8	ug/kg
BW-53-SS-090602	09-12554-PB06M	Hexachlorobutadiene	6/15/2009	6.1		Yes	N	U			6.1	2.6	ug/kg
BW-53-SS-090602	09-12554-PB06M	N-Nitrosodiphenylamine	6/15/2009	6.1		Yes	N	U			6.1	2.8	ug/kg
BW-53-SS-090602	09-12554-PB06M	Pentachlorophenol	6/15/2009	30		Yes	N	U			30	12	ug/kg

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Anchor QEA, LLC
1423 3rd Avenue, Suite 300
Seattle, WA 98101-2226
ATTN: Ms. Joy Dunay

July 23, 2009

SUBJECT: Bay Wood Products, Data Validation

Dear Ms. Dunay,

Enclosed is the final validation report for the fractions listed below. This SDG was received on July 2, 2009. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 21108:

SDG #	Fraction
PB71	Wet Chemistry

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Data Validation Operations Manager/Senior Chemist

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LDC #21108 (Anchor Environmental-Seattle WA /Bay Wood Products)

LDC	SDG#	DATE REC'D	(3) DATE DUE	NH_3-N (350.1)		S= (376.2)																													
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	PB71	07/02/09	07/24/09	14	0	14	0																												
Total	T/SC			14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

Bay Wood Products
Data Validation Reports
LDC# 21108

Wet Chemistry

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: June 2, 2009

LDC Report Date: July 14, 2009

Matrix: Water

Parameters: Wet Chemistry

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): PB71

Sample Identification

BW-01-SS-090602
BW-02-SS-090602
BW-03-SS-090602
BW-04-SS-090602
BW-05-SS-090602
BW-06-SS-090602
BW-07-SS-090602
BW-08-SS-090602
BW-09-SS-090602
BW-10-SS-090602
BW-11-SS-090602
BW-12-SS-090602
BW-53-SS-090602
BW-54-SS-090602
BW-01-SS-090602MS
BW-01-SS-090602DUP

Introduction

This data review covers 16 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen and EPA Method 376.2 for Sulfide.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-03-SS-090602 and BW-53-SS-090602 and samples BW-04-SS-090602 and BW-54-SS-090602 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD
	BW-03-SS-090602	BW-53-SS-090602	
Ammonia as N	1.93	1.61	18

Analyte	Concentration (mg/L)		RPD
	BW-04-SS-090602	BW-54-SS-090602	
Ammonia as N	1.84	1.70	8

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Wet Chemistry - Data Qualification Summary - SDG PB71

No Sample Data Qualified in this SDG

Bay Wood Products
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG PB71

No Sample Data Qualified in this SDG

LDC #: 21108A6 **VALIDATION COMPLETENESS WORKSHEET** Date: 7/10/09
SDG #: PB71 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: ~~6/9/09~~ 6/2/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	3 MS/Dup
V	Duplicates	A	
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(3,13),(4,14)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: All

1	BW-01-SS-090602	11	BW-11-SS-090602	21	MB	31	
2	BW-02-SS-090602	12	BW-12-SS-090602	22		32	
3 ✓	BW-03-SS-090602	13	BW-53-SS-090602	23		33	
4	BW-04-SS-090602	14	BW-54-SS-090602	24		34	
5	BW-05-SS-090602	15	BW-01-SS-090602MS	25		35	
6	BW-06-SS-090602	16	BW-01-SS-090602DUP	26		36	
7	BW-07-SS-090602	17		27		37	
8	BW-08-SS-090602	18		28		38	
9	BW-09-SS-090602	19		29		39	
10	BW-10-SS-090602	20		30		40	

Notes:

LDC #: 21108A6
SDG #: PB7

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: MH
2nd reviewer: K

All circled methods are applicable to each sample.

Sample ID	Parameter
1-14	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH_3) TKN TOC CR^{6+} (S) ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
15,16	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH_3) TKN TOC CR^{6+} (S) ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:______________________________

LDC# 21108A6

SDG#: See Cover

VALIDATION FINDINGS WORKSHEET

Field Duplicates

Reviewer:

2nd Reviewer:

Inorganics, Method See Cover

(Y) N NA Were field duplicate pairs identified in this SDG?

(Y) N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/L)		RPD	
	3	13		
Ammonia as N	1.93	1.61	18	

Analyte	Concentration (mg/L)		RPD	
	4	14		
Ammonia as N	1.84	1.70	8	

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Anchor QEA, LLC
1423 3rd Avenue, Suite 300
Seattle, WA 98101-2226
ATTN: Ms. Joy Dunay

February 9, 2010

SUBJECT: Bay Wood Products, Data Validation

Dear Ms. Dunay,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on January 18, 2010. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 22445:

SDG #	Fraction
QC26, QC27 QC29, QC83	Wet Chemistry, Volatile Petroleum Hydrocarbons, Extractable Petroleum Hydrocarbons

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Data Validation Operations Manager/Senior Chemist

Level III

Attachment 1

757 pages-EX EDD

LDC #22445 (Anchor Environmental-Seattle WA /Bay Wood Products)

LDC	SDG#	DATE REC'D	(3) DATE DUE	NH_3-N (350.1)		S= (376.2)		TOC (Plumb)		Total Solids (160.3)		Pres. Total Solids (160.3)		Part. Size (PSEP)		Org. Matter D2974		EPH (GC EPH)		VPH (WA VPH)																	
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	QC26	01/18/10	02/09/10	0	5	0	5	0	6	0	6	0	5	0	6	0	6	0	6	0	9																
B	QC27	01/18/10	02/09/10	-	-	-	-	-	-	-	-	-	-	0	2	-	-	-	-	-	-																
C	QC29	01/18/10	02/09/10	0	11	0	10	0	11	0	11	0	10	0	11	0	11	-	-	-	-																
D	QC83	01/18/10	02/09/10	0	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-																
Total	T/SC			0	26	0	25	0	17	0	17	0	15	0	19	0	17	0	6	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

Bay Wood Products
Data Validation Reports
LDC #22445

Wet Chemistry

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 2, 2010

Matrix: Sediment

Parameters: Wet Chemistry

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC26

Sample Identification

BW-05-SS-091218
BW-01-SS-091218
BW-04-SS-091218
BW-51-SS-091218
BW-07-SS-091218
BW-11-SS-091218
BW-05-SS-091218MS
BW-05-SS-091218DUP
BW-05-SS-091218TRP

Introduction

This data review covers 9 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, PSEP Method for Particle Size, Plumb Method for Total Organic Carbon, EPA Method 160.3 for Total Solids and Preserved Total Solids, and ASTM D2974 for Organic Matter.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	More than twenty samples were associated to the method blank.	No more than twenty samples should be associated to the method blank.	None	P

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Flag	A or P
BW-05-SS-091218DUP (BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218)	Sulfide	37.2 (≤20)	J (all detects) UJ (all non-detects)	A

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	More than twenty samples were associated to the laboratory control sample.	No more than twenty samples should be associated to the laboratory control sample.	None	P

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due DUP sample RPD problems, sulfide results were qualified as estimated in five samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples BW-01-SS-091218 and BW-51-SS-091218 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (%)		RPD
	BW-01-SS-091218	BW-51-SS-091218	
Total solids	43.80	43.80	0
Total organic carbon	2.55	2.18	16
Organic matter	7.99	7.80	2

Analyte	Percent Finer		RPD
	BW-01-SS-091218	BW-51-SS-091218	
1000 um	99.8	99.0	1
500 um	99.2	97.8	1
250 um	98.6	96.6	2
125 um	98.3	95.9	2
63 um	97.8	95.1	3

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Wet Chemistry - Data Qualification Summary - SDG QC26

SDG	Sample	Analyte	Flag	A or P	Reason
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	None	P	Laboratory blanks
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Sulfide	J (all detects) UJ (all non-detects)	A	Duplicate analyses (RPD)
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	None	P	Laboratory control samples

Bay Wood Products
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG QC26

No Sample Data Qualified in this SDG

LDC #: 22445A6
SDG #: QC26
Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 1-28-10
Page: 1 of 1
Reviewer: QR
2nd Reviewer: W

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2), Particle Size (PSEP), Total Organic Carbon (Plumb 1981), Total Solids and Preserved Total Solids(EPA Method 160.3), Organic Matter (ASTM D2974)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS
V	Duplicates (Triplicates)	SW	Dup, Trp
VI.	Laboratory control samples	SW	LCS
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(2,4)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Sediment

1	BW-05-SS-091218	11	PSS	21		31	
2	BW-01-SS-091218	12		22		32	
3	BW-04-SS-091218	13		23		33	
4	BW-51-SS-091218	14		24		34	
5	BW-07-SS-091218	15		25		35	
6	BW-11-SS-091218	16		26		36	
7	BW-05-SS-091218MS	17		27		37	
~~8~~	~~BW-05-SS-091218MSD~~	18		28		38	
9	BW-05-SS-091218DUP	19		29		39	
10	BW-05-SS-091218TRIP	20		30		40	

Notes: _____

LDC #: 22445A6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: [signature]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-3,5,6	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN **(TOC)** CR^{6+} **(TS)** **(S=)** **(Particle size)** **(Organic Matter)**
4	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN **(TOC)** CR^{6+} **(TS)** **(Particle size)** **(Organic Matter)**
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
QC: 7	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN **(TOC)** CR^{6+} **(S=)**
~~8~~	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
9	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN **(TOC)** CR^{6+} **(TS)** **(S=)** **(Particle size)**
10	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN **(TOC)** CR^{6+} **(TS)** **(Particle size)**
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:

LDC #: 22445A6
SDG #: QC26

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: CR
2nd Reviewer: ✓

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
(Y) N N/A Were all samples associated with a given method blank?
Y (N) N/A Were any inorganic contaminants detected above the reporting limit in the method blanks? If yes, please see qualifications below.

Conc. units: _____ **Associated Samples:** 1-3,5,6

Analyte	Blank ID	Maximum ICB/CCB	Blank Action Limit	Sample Identification								
NH3-N	More than 20 samples in batch for the prep blank								None/P			

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the methoc blank concentration were qualified as not detected, "U".

LDC #: 22445A6
SDG #: QC26

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) (≤ 20%) ~~for water and ≤ 35%~~ for soil samples (≤ 10% for Method 300.0)? If no, see qualification below. A control limit of ±CRDL (±2X CRDL for soil) was used for samples that were ≤5X the CRDL, including when only one of the duplicate sample values were ≤5X the CRDL. If field blanks were used for laboratory duplicates, see overall assessment.

LEVEL IV ONLY:

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Duplicate ID	Matrix	Analyte	RPD (Limits)	Associated Samples	Qualifications
	9	Sed	Sulfide	37.2 (≤20)	1-3,5,6	J/UJ/A

Comments:

LDC #: 22445A6
SDG #: BC26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: AR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a laboratory control sample (LCS) analyzed for each matrix in this SDG?

(Y) N N/A Were all LCS percent recoveries (%R) within the control limits of 80-120% (85-115% for Method 300.0)?

LEVEL IV ONLY:

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	LCS ID	Matrix	Analyte	~~%R (limits)~~	Associated Samples	Qualifications
	LCS	sed	NH_3-N	More than 20 samples in batch for LCS	1-3,5,6	None/P

Comments:

LDC# 22445A6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: QR
2nd Reviewer:

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (%)		RPD	
	2	4		
Total Solids	43.80	43.80	0	
Total Organic Carbon	2.55	2.18	16	
Organic Matter	7.99	7.80	2	

V:\FIELD DUPLICATES\FD_inorganic\22445A6wpd.wpd

Particle Size	Percent Finer		RPD	
	2	4		
1000 um	99.8	99.0	1	
500 um	99.2	97.8	1	
250 um	98.6	96.6	2	
125 um	98.3	95.9	2	
63 um	97.8	95.1	3	

LDC Report# 22445B6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: January 5, 2010

LDC Report Date: February 4, 2010

Matrix: Sediment

Parameters: Particle Size

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QE27

Sample Identification

CR-Ref 22%fines
CR-Ref 95%fines
CR-Ref 95%finesDUP
CR-Ref 95%finesTRP

Introduction

This data review covers 4 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per PSEP Method for Particle Size.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blank review was not required by the method.

IV. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples (LCS) were not required by the method.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Particle Size - Data Qualification Summary - SDG QE27

No Sample Data Qualified in this SDG

Bay Wood Products
Particle Size - Laboratory Blank Data Qualification Summary - SDG QE27

No Sample Data Qualified in this SDG

LDC #: 22445B6

SDG #: Q627

Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-28-10

Page: 1 of 1

Reviewer: CR

2nd Reviewer:

METHOD: (Analyte) Particle Size (PSEP)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/5/10
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	N	Not required for method
IV	Matrix Spike/Matrix Spike Duplicates	N	Client specified
V	Duplicates Triplicates	A	DUP, TRP
VI.	Laboratory control samples	N	Not required for method
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: sediment

1	CR-Ref 22%fines	11		21		31	
2	CR-Ref 95%fines	12		22		32	
3	CR-Ref 95%finesDUP	13		23		33	
4	CR-Ref 95%finesTRIP	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC Report# 22445C6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 8, 2010

Matrix: Sediment

Parameters: Wet Chemistry

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC29

Sample Identification

BW-04-SC-B-091218
BW-04-SC-C-091218
BW-01-SC-A-091218
BW-01-SC-B-091218
BW-11-SC-A-091218
BW-11-SC-B-091218
BW-07-SC-B-091218
BW-07-SC-C-091218
BW-05-SC-A-091218
BW-05-SC-B-091218
BW-55-SC-A-091218

Introduction

This data review covers 11 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, PSEP Method for Particle Size, Plumb Method for Total Organic Carbon, EPA Method 160.3 for Total Solids and Preserved Total Solids, and ASTM D2974 for Organic Matter.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG QC29	Ammonia as N	More than twenty samples were associated to the method blank.	No more than twenty samples should be associated to the method blank.	None	P

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Flag	A or P
BW-05-SS-091218DUP (BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218)	Sulfide	37.2 (≤20)	J (all detects) UJ (all non-detects)	A

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG QC29	Ammonia as N	More than twenty samples were associated to the laboratory control sample.	No more than twenty samples should be associated to the laboratory control sample.	None	P

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due DUP sample RPD problems, sulfide results were qualified as estimated in eleven samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples BW-05-SC-A-091218 and BW-55-SC-A-091218 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (%)		RPD
	BW-05-SC-A-091218	BW-55-SC-A-091218	
Total solids	59.60	57.70	3
Total organic carbon	4.47	4.82	8
Organic matter	13.93	14.29	3

Analyte	Concentration (mg/Kg)		RPD
	BW-05-SC-A-091218	BW-55-SC-A-091218	
Ammonia as N	18.3	18.3	0

Analyte	Percent Finer		RPD
	BW-01-SS-091218	BW-51-SS-091218	
4750 um	99.0	99.0	0
2000um	97.3	97.6	0
1000 um	94.9	95.0	0
500 um	88.1	87.8	0
250 um	67.5	66.4	2
125 um	57.1	55.4	3
63 um	46.3	44.6	4

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Wet Chemistry - Data Qualification Summary - SDG QC29

SDG	Sample	Analyte	Flag	A or P	Reason
QC29	BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218 BW-55-SC-A-091218	Ammonia as N	None	P	Laboratory blanks
QC29	BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218	Sulfide	J (all detects) UJ (all non-detects)	A	Duplicate analyses (RPD)
QC29	BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218 BW-55-SC-A-091218	Ammonia as N	None	P	Laboratory control samples

Bay Wood Products
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG QC29

No Sample Data Qualified in this SDG

LDC #: 22445C6

SDG #: QC29

Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-28-10

Page: 1 of 1

Reviewer: CR

2nd Reviewer: W

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2), Particle Size (PSEP), Total Organic Carbon (Plumb 1981), Total Solids and Preserved Total Solids(EPA Method 160.3), Organic Matter (ASTM D2974)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicates	NA	~~Client specified~~ MS(SD6 & QC26)
V	Duplicates (Triplicates)	SW	D, TRP
VI.	Laboratory control samples	SW	LCS/D
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(9, 11)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

Sediment

1	BW-04-SC-B-091218	11	BW-55-A-091218 SC	21	PBS	31	
2	BW-04-SC-C-091218	12		22		32	
3	BW-01-SC-A-091218	13		23		33	
4	BW-01-SC-B-091218	14		24		34	
5	BW-11-SC-A-091218	15		25		35	
6	BW-11-SC-B-091218	16		26		36	
7	BW-07-SC-B-091218	17		27		37	
8	BW-07-SC-C-091218	18		28		38	
9	BW-05-SC-A-091218	19		29		39	
10	BW-05-SC-B-091218	20		30		40	

Notes: _____

LDC #: 22445C6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-10	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** TKN **TOC** CR^{6+} **TS** **$S^=$** **Particle size** **Organic matter**
11	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** TKN **TOC** CR^{6+} **TS** **Particle size** **Organic matter**
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments: ______________________

LDC #: 22445C6
SDG #: QC29

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Were all samples associated with a given method blank?
Y (N) N/A Were any inorganic contaminants detected above the reporting limit in the method blanks? If yes, please see qualifications below.

Conc. units: _____ **Associated Samples:** All

Analyte	Blank ID	Maximum ICB/CCB	Blank Action Limit	Sample Identification								
NH_3-N		more than	20 samples in batch associated with prep blank	None/P								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 22445C6
SDG #: QC29

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y N N/A Were all duplicate sample relative percent differences (RPD) ≤ ~~20% for water and ≤ 35%~~ for soil samples (≤ 10% for Method 300.0)? If no, see qualification below. A control limit of ±CRDL (±2X CRDL for soil) was used for samples that were ≤5X the CRDL, including when only one of the duplicate sample values were ≤5X the CRDL. If field blanks were used for laboratory duplicates, see overall assessment.

LEVEL ~~IV~~ ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Duplicate ID	Matrix	Analyte	RPD (Limits)	Associated Samples	Qualifications
	BW-05-SS-091218	Sed	Sulfide	37.2 (≤20)	All 1-10	J/UJ/A

Comments:

LDC #: 22445C6
SDG #: QC29

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a laboratory control sample (LCS) analyzed for each matrix in this SDG?

Y N N/A Were all LCS percent recoveries (%R) within the control limits of 80-120% (85-115% for Method 300.0)?

LEVEL ~~IV~~ ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	LCS ID	Matrix	Analyte	~~%R (limits)~~	Associated Samples	Qualifications
	LCS	~~Water~~ Sed	NH_3-N	More than 20 samples in batch associated with LCS	All	None/P

Comments:

LDC# 22445A6

SDG#: See Cover

VALIDATION FINDINGS WORKSHEET

Field Duplicates

Reviewer: CR

2nd Reviewer:

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (%)		RPD	
	9	11		
Total Solids	59.60	57.70	3	
Total Organic Carbon	4.47	4.82	8	
Ammonia as N (mg/Kg)	18.3	18.3	0	
Organic Matter	13.93	14.29	3	

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Particle Size	Percent Finer		RPD	
	9	11		
4750 um	99.0	99.0	0	
2000um	97.3	97.6	0	
1000 um	94.9	95.0	0	
500 um	88.1	87.8	0	
250 um	67.5	66.4	2	
125 um	57.1	55.4	3	
63 um	46.3	44.6	4	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 1, 2010

Matrix: Sediment

Parameters: Ammonia as Nitrogen & Sulfide

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC83

Sample Identification

BW-04-SC-B-091218
BW-01-SC-A-091218
BW-01-SC-B-091218
BW-11-SC-A-091218
BW-11-SC-B-091218
BW-07-SC-B-091218
BW-07-SC-C-091218
BW-05-SC-A-091218
BW-05-SC-B-091218
BW-55-SC-A-091218
BW-01-SC-A-091218MS
BW-01-SC-A-091218DUP

Introduction

This data review covers 12 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen and EPA Method 376.2 for Sulfide.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No ammonia as nitrogen or sulfide contaminants were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Relative percent differences (RPD) were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-05-SC-A-091218 and BW-55-SC-A-091218 were identified as field duplicates. No ammonia as nitrogen or sulfide was detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD
	BW-05-SC-A-091218	BW-55-SC-A-091218	
Ammonia as N	11.6	11.8	2

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Ammonia as Nitrogen & Sulfide - Data Qualification Summary - SDG QC83

No Sample Data Qualified in this SDG

Bay Wood Products
Ammonia as Nitrogen & Sulfide - Laboratory Blank Data Qualification Summary - SDG QC83

No Sample Data Qualified in this SDG

LDC #: 22445D6
SDG #: QC83
Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 1-28-10
Page: 1 of 1
Reviewer: CR
2nd Reviewer: V

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: ~~12/23/09~~ CR 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS
V	Duplicates	A	DUP
VI.	Laboratory control samples	A	LCS/D
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(8,10)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: sediment

1	BW-04-SC-B-091218	11	BW-01-SC-A-091218MS	21	PBS	31	
2	BW-01-SC-A-091218	~~12~~	~~BW-01-SC-A-091218MSD~~	22		32	
3	BW-01-SC-B-091218	13	BW-01-SC-A-091218DUP	23		33	
4	BW-11-SC-A-091218	14		24		34	
5	BW-11-SC-B-091218	15		25		35	
6	BW-07-SC-B-091218	16		26		36	
7	BW-07-SC-C-091218	17		27		37	
8	BW-05-SC-A-091218	18		28		38	
9	BW-05-SC-B-091218	19		29		39	
10	BW-55-SC-A-091218	20		30		40	

Notes: Porewater extractions

LDC #: 22445D6
SDG #: QC83

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: ✓

All circled methods are applicable to each sample.

Sample ID	Parameter
1-10	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN TOC CR^{6+} **(Sulfide)** ____ ____ ____
QC: 11	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN TOC CR^{6+} ____ ____ ____ ____
~~12~~	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
13	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **(NH_3)** TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments: ____

LDC# 22445D6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CR
2nd Reviewer: [signature]

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/L)		RPD	
	8	10		
Ammonia as N	11.6	11.8	2	

V:\FIELD DUPLICATES\FD_inorganic\22445D6wpd.wpd

Bay Wood Products
Data Validation Reports
LDC #22445

Volatile Petroleum Hydrocarbons

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 8, 2010

Matrix: Sediment

Parameters: Volatile Petroleum Hydrocarbons

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC26

Sample Identification

BW-05-SS-091218
BW-01-SS-091218
BW-04-SS-091218
BW-04-SS-091218RE
BW-51-SS-091218
BW-51-SS-091218RE
BW-07-SS-091218
BW-11-SS-091218
BW-11-SS-091218RE
BW-05-SS-091218MS
BW-05-SS-091218MSD
BW-05-SS-091218DUP

Introduction

This data review covers 12 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method WA DOE VPH for Volatile Petroleum Hydrocarbons.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Compound	Total Days From Sample Collection Until Analysis	Required Holding Time (in Days) From Sample Collection Until Analysis	Flag	A or P
BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	19	14	J (all detects) UJ (all non-detects)	A

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile petroleum hydrocarbon contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
BW-04-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	43.0 (60-140) 45.5 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-51-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	54.9 (60-140) 58.8 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-11-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	44.1 (60-140) 22.0 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-11-SS-091218RE	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	58.8 (60-140) 54.6 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
BW-05-SS-091218MS/MSD (BW-05-SS-091218)	Methyl-tert-butyl ether	133 (70-130)	-	-	Methyl-tert-butyl ether	J (all detects)	A
BW-05-SS-091218MS/MSD (BW-05-SS-091218)	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane	27.3 (70-130) 36.3 (70-130) 43.4 (70-130) 27.6 (70-130) 21.8 (70-130)	16.5 (70-130) 21.9 (70-130) 25.7 (70-130) 16.6 (70-130) 9.9 (70-130)	50.2 (≤40) 50.1 (≤40) 51.9 (≤40) 50.3 (≤40) 75.3 (≤40)	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane All aliphatics	J (all detects) UJ (all non-detects)	A

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
LCS/LCSD-123109 (BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218 MB-123109)	1-Methylnaphthalene	-	131 (70-130)	-	C12-C13 Aromatics	J (all detects)	P

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

Due to surrogate and MS/MSD %R problems, data were qualified as estimated in four samples.

No data were qualified due to a high LCSD %R, the associated results were non-detected.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	R	A

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples BW-01-SS-091218 and BW-51-SS-091218 and samples BW-01-SS-091218 and BW-51-SS-091218RE were identified as field duplicates. No volatile petroleum hydrocarbons were detected in any of the samples.

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Volatile Petroleum Hydrocarbons - Data Qualification Summary - SDG QC26

SDG	Sample	Compound	Flag	A or P	Reason
QC26	BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	J (all detects) UJ (all non-detects)	A	Technical holding times
QC26	BW-04-SS-091218 BW-51-SS-091218 BW-11-SS-091218 BW-11-SS-091218RE	All TCL compounds	J (all detects) UJ (all non-detects)	A	Surrogate recovery (%R)
QC26	BW-05-SS-091218	Methyl-tert-butyl ether	J (all detects)	A	Matrix spike/Matrix spike duplicates (%R)
QC26	BW-05-SS-091218	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane All aliphatics	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (%R)
QC26	BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218	C12-C13 Aromatics	J (all detects)	P	Laboratory control samples (%R)
QC26	BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	R	A	Overall assessment of data

Bay Wood Products
Volatile Petroleum Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG QC26

No Sample Data Qualified in this SDG

LDC #: 22445A7 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/2/10

SDG #: QC26 Level III Page: 1 of 1

Laboratory: Analytical Resources, Inc. Reviewer: CY

2nd Reviewer: [illegible]

METHOD: Volatile Petroleum Hydrocarbons (WA DOE VPH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification/ICV	A	lcv/ccv ≤ 20%
III.	Blanks	A	
IVa.	Surrogate recovery	SW	
IVb.	Matrix spike/Matrix spike duplicates	SW	
IVc.	Laboratory control samples	SW	LCS/D
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A SW	
IX.	Field duplicates	ND	D = 02+5. 2+6
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

MS sed

1 1	BW-05-SS-091218	11 1	BW-05-SS-091218MSD	21	MB-123009	31	
2 1	BW-01-SS-091218	12	BW-05-SS-091218DUP	22	MB-010510	32	
3 1	BW-04-SS-091218	13		23	MB-123109	33	
4 3	BW-04-SS-091218DLRE	14		24		34	
5 2	BW-51-SS-091218	15		25		35	
6 3	BW-51-SS-091218DLRE	16		26		36	
7 2	BW-07-SS-091218	17		27		37	
8 2	BW-11-SS-091218	18		28		38	
9 3	BW-11-SS-091218DLRE	19		29		39	
10 1	BW-05-SS-091218MS	20		30		40	

Notes: _____

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Page: 1 of 1
Reviewer: Q
2nd Reviewer: M

All circled dates have exceeded the technical holding times.
(Y) N N/A Were all cooler temperatures within validation criteria?

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
4	Sed	NA	12-18-09	NA	1-6-10	19	J/UJ/A
6	↓	↓	↓	↓	↓	↓	↓
9	↓	↓	↓	↓	↓	↓	↓

TECHNICAL HOLDING TIME CRITERIA

Water unpreserved:	Aromatic within 7 days, non-aromatic within 14 days of sample collection.
Water preserved:	Both within 14 days of sample collection.
Soil:	Both within 14 days of sample collection.

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: 9
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC

Are surrogates required by the method? Yes ✓ or No ___.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were surrogates spiked into all samples and blanks?

Y (N) N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ ~~Column~~	Surrogate Compound	%R (Limits)	Qualifications
	3	PID	Z	43.0 (60-140)	Y/N/A (all)
		FID	Z	45.5 (↓)	↓
				( )	
				( )	
	5		Z	54.9 ( )	
			Z	58.8 ( )	
				( )	
	8		Z	44.1 ( )	
		↓	Z	22.0 (↓)	↓
				( )	
	9		Z	58.8 ( )	
		↓	Z	54.6 (↓)	↓
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene	Z	2,5-Dibromotoluene
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: 9
2nd Reviewer:

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A — Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?

(Y) N N/A — Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Y (N) N/A — Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	10/11	LL	133 (70-130)	( )	( )	1 (ND)	J dets/A *
		n-Pentane	27.3 ( )	16.5 (70-130)	50.2 (≤40)		UJ/A **
		n-Hexane	36.3 ( )	21.9 ( )	50.1 ( )		
		n-Octane	43.4 ( )	25.7 ( )	51.9 ( )		
		n-Decane	27.6 ( )	16.6 ( )	50.3 ( )		
		n-Dodecane	21.8 ( )	9.9 ( )	75.3 ( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

~~* also qual C8-C10~~

** also qual all range Aliphatics

LDC #: 22145AT
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 4

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG? _____

Y (N) N/A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

Level IV/D Only

Y N (N/A) Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	~~LCS/123109~~ ~~LCSD~~		( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	LCS/ -123109 / LCSD	A	( )	131 (70-130)	( )	5, 7-8	Idets/P*
			( )	( )	( )	MB-123109	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )	* qual C12-C13 Aromatics	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	A = 1-Methylnaphthalene		( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 1

METHOD: ✓ **GC** __ **HPLC**

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Compound Name	Finding	Associated Samples	Qualifications
	4, 6, 9	All (out of HT)		P/A

Comments: _____

OVPNew.wpd

Bay Wood Products
Data Validation Reports
LDC #22445

Extractable Petroleum Hydrocarbons

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 8, 2010

Matrix: Sediment

Parameters: Extractable Petroleum Hydrocarbons

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC26

Sample Identification

BW-05-SS-091218
BW-01-SS-091218
BW-04-SS-091218
BW-51-SS-091218
BW-07-SS-091218
BW-11-SS-091218
BW-05-SS-091218MS
BW-05-SS-091218MSD

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method WA DOE EPH for Extractable Petroleum Hydrocarbons.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
12/14/09	C21-C34 Aliphatics	24	All samples in SDG QC26	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No extractable petroleum hydrocarbon contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to calibration %D problems, data were qualified as estimated in six samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-01-SS-091218 and BW-51-SS-091218 were identified as field duplicates. No extractable petroleum hydrocarbons were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD
	BW-01-SS-091218	BW-51-SS-091218	
C21-C34 Aliphatics	18000	16000	12
C21-C34 Aromatics	5600	6300	12

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Extractable Petroleum Hydrocarbons - Data Qualification Summary - SDG QC26

SDG	Sample	Compound	Flag	A or P	Reason
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218	C21-C34 Aliphatics	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)

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Extractable Petroleum Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG QC26

No Sample Data Qualified in this SDG

LDC #: 22445A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 2/2/10
SDG #: QC26 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: 9
2nd Reviewer: 4

METHOD: Extractable Petroleum Hydrocarbons (WA DOE EPH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification/ICV	SW	ICV/CCV = 20%
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	A	
IVc.	Laboratory control samples	A	LCS
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	D = 2+4
X.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
All soils

1	BW-05-SS-091218	11	MB-122809	21		31	
2	BW-01-SS-091218	12		22		32	
3	BW-04-SS-091218	13		23		33	
4	BW-51-SS-091218	14		24		34	
5	BW-07-SS-091218	15		25		35	
6	BW-11-SS-091218	16		26		36	
7	BW-05-SS-091218MS	17		27		37	
8	BW-05-SS-091218MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 22145A8
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Reviewer: Q
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC (EPA____________)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

What type of continuing calibration calculation was performed? ___%D or ___RPD

(Y) N N/A — Were continuing calibration standards analyzed at the required frequencies?

Y (N) N/A — Did the continuing calibration standards meet the %D / RPD validation criteria of ≤15.0%?

Level IV Only

Y N (N/A) — Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Column / Detector	Compound	%D / RPD (Limit ≤ ~~15.0~~ 20%)	RT (Limits)	Associated Samples	Qualifications
	12/14/09	1214A022	NA	C21-C34 Aliphatics	24.0	( )	All + Blk	J/UJ/A
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
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						( )		
						( )		

A.____ D.____ G.____ J.____ M.____
B.____ E.____ H.____ K.____ O.____
C.____ F.____ I.____ L.____ P.____

LDC #: 22145A8
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: Q
2nd reviewer: [illegible]

METHOD: 1 GC __ HPLC (EPA_____)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (MS/MSD)		RPD
	2	4	
C21-C34 Aliphatics	18000	16000	12
C21-C34 Aromatics	5600	6300	12

Compound	Concentration (_____)		RPD

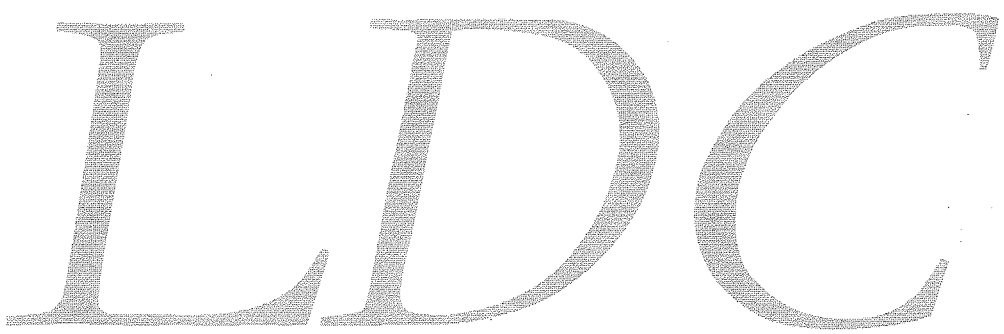
Compound	Concentration (_____)		RPD

Compound	Concentration (_____)		RPD

Bay Wood Products

LDC #22445

EDD Print-outs



Bay Wood Products - LDC 22445

SDG: QC26

Analytical Method	D2974											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total volatile solids/organic matter	1/9/2010	7.99	Yes	Y				0.0100	0.0100	pct
BW-01-SS-091218	09-31262-QC26B	Total solids	1/9/2010	43.64	Yes	Y				0.0100	0.0100	pct
BW-01-SS-091218	09-31262-QC26B	Ash Content	1/9/2010	92.01	Yes	Y				0.0100	0.0100	pct
BW-04-SS-091218	09-31263-QC26C	Total volatile solids/organic matter	1/9/2010	14.19	Yes	Y				0.0100	0.0100	pct
BW-04-SS-091218	09-31263-QC26C	Ash Content	1/9/2010	85.81	Yes	Y				0.0100	0.0100	pct
BW-04-SS-091218	09-31263-QC26C	Total solids	1/9/2010	50.83	Yes	Y				0.0100	0.0100	pct
BW-05-SS-091218	09-31261-QC26A	Ash Content	1/9/2010	94.46	Yes	Y				0.0100	0.0100	pct
BW-05-SS-091218	09-31261-QC26A	Total volatile solids/organic matter	1/9/2010	5.54	Yes	Y				0.0100	0.0100	pct
BW-05-SS-091218	09-31261-QC26A	Total solids	1/9/2010	62.9	Yes	Y				0.0100	0.0100	pct
BW-07-SS-091218	09-31265-QC26E	Ash Content	1/9/2010	81.61	Yes	Y				0.0100	0.0100	pct
BW-07-SS-091218	09-31265-QC26E	Total volatile solids/organic matter	1/9/2010	18.39	Yes	Y				0.0100	0.0100	pct
BW-07-SS-091218	09-31265-QC26E	Total solids	1/9/2010	63.11	Yes	Y				0.0100	0.0100	pct
BW-11-SS-091218	09-31266-QC26F	Ash Content	1/9/2010	83.83	Yes	Y				0.0100	0.0100	pct
BW-11-SS-091218	09-31266-QC26F	Total volatile solids/organic matter	1/9/2010	16.17	Yes	Y				0.0100	0.0100	pct
BW-11-SS-091218	09-31266-QC26F	Total solids	1/9/2010	51.58	Yes	Y				0.0100	0.0100	pct
BW-51-SS-091218	09-31264-QC26D	Ash Content	1/9/2010	92.2	Yes	Y				0.0100	0.0100	pct
BW-51-SS-091218	09-31264-QC26D	Total volatile solids/organic matter	1/9/2010	7.8	Yes	Y				0.0100	0.0100	pct
BW-51-SS-091218	09-31264-QC26D	Total solids	1/9/2010	43.76	Yes	Y				0.0100	0.0100	pct

Analytical Method	E160.3											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total solids	12/23/2009	43.8	Yes	Y				0.01		pct
BW-04-SS-091218	09-31263-QC26C	Total solids	12/23/2009	46.6	Yes	Y				0.01		pct
BW-05-SS-091218	09-31261-QC26A	Total solids	12/23/2009	62.8	Yes	Y				0.01		pct
BW-07-SS-091218	09-31265-QC26E	Total solids	12/23/2009	55.6	Yes	Y				0.01		pct

SDG: QC26

Analytical Method	E160.3											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-11-SS-091218	09-31266-QC26F	Total solids	12/23/2009	46.8		Yes	Y				0.01		pct
BW-51-SS-091218	09-31264-QC26D	Total solids	12/23/2009	43.8		Yes	Y				0.01		pct

Analytical Method	E160.3-PRES											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total Solids (preserved)	12/23/2009	43.7		Yes	Y				0.01		pct
BW-04-SS-091218	09-31263-QC26C	Total Solids (preserved)	12/23/2009	45.4		Yes	Y				0.01		pct
BW-05-SS-091218	09-31261-QC26A	Total Solids (preserved)	12/23/2009	55.9		Yes	Y				0.01		pct
BW-07-SS-091218	09-31265-QC26E	Total Solids (preserved)	12/23/2009	62.7		Yes	Y				0.01		pct
BW-11-SS-091218	09-31266-QC26F	Total Solids (preserved)	12/23/2009	44.7		Yes	Y				0.01		pct

Analytical Method	E350.1M											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Ammonia	12/21/2009	4.96		Yes	Y				0.21	0.03000	mg-N/k
BW-04-SS-091218	09-31263-QC26C	Ammonia	12/21/2009	3.04		Yes	Y				0.21	0.03000	mg-N/k
BW-05-SS-091218	09-31261-QC26A	Ammonia	12/21/2009	4.07		Yes	Y				0.16	0.03000	mg-N/k
BW-07-SS-091218	09-31265-QC26E	Ammonia	12/21/2009	6.54		Yes	Y				0.18	0.03000	mg-N/k
BW-11-SS-091218	09-31266-QC26F	Ammonia	12/21/2009	6.35		Yes	Y				0.21	0.03000	mg-N/k

Analytical Method	E376.2											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Sulfide	12/22/2009	116		Yes	Y		J	9	11.5	0.03750	mg/kg
BW-04-SS-091218	09-31263-QC26C	Sulfide	12/22/2009	39.6		Yes	Y		J	9	4.47	0.01500	mg/kg
BW-05-SS-091218	09-31261-QC26A	Sulfide	12/22/2009	23.2		Yes	Y		J	9	1.81	0.00750	mg/kg
BW-07-SS-091218	09-31265-QC26E	Sulfide	12/22/2009	49		Yes	Y		J	9	7.96	0.03750	mg/kg
BW-11-SS-091218	09-31266-QC26F	Sulfide	12/22/2009	56.8		Yes	Y		J	9	4.47	0.01500	mg/kg

Analytical Method	Plumb 1981											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**

SDG: QC26

Analytical Method	Plumb 1981											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total organic carbon	1/5/2010	2.55	Yes	Y				0.020	0.01040	pct
BW-04-SS-091218	09-31263-QC26C	Total organic carbon	1/5/2010	2.08	Yes	Y				0.020	0.01040	pct
BW-05-SS-091218	09-31261-QC26A	Total organic carbon	1/5/2010	1.64	Yes	Y				0.020	0.01040	pct
BW-07-SS-091218	09-31265-QC26E	Total organic carbon	1/5/2010	2.44	Yes	Y				0.020	0.01040	pct
BW-11-SS-091218	09-31266-QC26F	Total organic carbon	1/5/2010	2.02	Yes	Y				0.020	0.01040	pct
BW-51-SS-091218	09-31264-QC26D	Total organic carbon	1/5/2010	2.18	Yes	Y				0.020	0.01040	pct

Analytical Method	PSEP											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Clay, Fine	1/9/2010	8.9	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Clay, Medium	1/9/2010	5.2	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Gravel	1/9/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Coarse	1/9/2010	0.6	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Fine	1/9/2010	0.4	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Clay, Coarse	1/9/2010	8.5	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Very Fine	1/9/2010	18.4	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Medium	1/9/2010	0.6	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Very Coarse	1/9/2010	0.2	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Very Fine	1/9/2010	0.5	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Fines (silt + clay)	1/9/2010	97.8	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Fine	1/9/2010	29	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Medium	1/9/2010	23.2	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Coarse	1/9/2010	4.7	Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Very Coarse	1/9/2010	1.3	Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Very Fine	1/9/2010	12.3	Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Coarse	1/9/2010	11.5	Yes	Y				0.1	0.1	pct

SDG: QC26

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-091218	09-31263-QC26C	Clay, Fine	1/9/2010	7		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Fine	1/9/2010	23.9		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Very Fine	1/9/2010	2.3		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Coarse	1/9/2010	1.2		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Medium	1/9/2010	1.2		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Fine	1/9/2010	1.1		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Clay, Coarse	1/9/2010	6		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Gravel	1/9/2010	0.9		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Fines (silt + clay)	1/9/2010	91.9		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Clay, Medium	1/9/2010	3.2		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Medium	1/9/2010	28		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Gravel	1/9/2010	0.4		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Clay, Coarse	1/9/2010	1.7		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Clay, Fine	1/9/2010	3.2		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Coarse	1/9/2010	5		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Fines (silt + clay)	1/9/2010	39.6		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Fine	1/9/2010	13.5		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Medium	1/9/2010	25.1		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Very Coarse	1/9/2010	0.8		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Very Fine	1/9/2010	15.6		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Coarse	1/9/2010	17.2		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Fine	1/9/2010	4.6		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Medium	1/9/2010	8.5		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Very Fine	1/9/2010	3.1		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Clay, Medium	1/9/2010	1.3		Yes	Y				0.1	0.1	pct

SDG: QC26

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-091218	09-31265-QC26E	Sand, Medium	1/9/2010	20.3	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Clay, Coarse	1/9/2010	2.6	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Clay, Fine	1/9/2010	4.1	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Clay, Medium	1/9/2010	1.9	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Fines (silt + clay)	1/9/2010	59	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Gravel	1/9/2010	0.9	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Fine	1/9/2010	5.5	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Very Coarse	1/9/2010	2.3	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Very Fine	1/9/2010	5.3	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Coarse	1/9/2010	16.7	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Fine	1/9/2010	9.6	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Medium	1/9/2010	18.5	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Very Fine	1/9/2010	5.5	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Coarse	1/9/2010	6.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Coarse	1/9/2010	0.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Very Coarse	1/9/2010	1.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Coarse	1/9/2010	17.9	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Clay, Coarse	1/9/2010	5.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Fine	1/9/2010	23.4	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Very Fine	1/9/2010	10.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Very Fine	1/9/2010	4.6	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Fine	1/9/2010	0.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Medium	1/9/2010	0.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Gravel	1/9/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Fines (silt + clay)	1/9/2010	91.2	Yes	Y				0.1	0.1	pct

Analytical Method	PSEP											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-11-SS-091218	09-31266-QC26F	Clay, Medium	1/9/2010	3.6	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Clay, Fine	1/9/2010	7.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Medium	1/9/2010	22.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Very Fine	1/9/2010	18.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Coarse	1/9/2010	4.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Very Fine	1/9/2010	0.8	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Clay, Coarse	1/9/2010	7.6	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Clay, Medium	1/9/2010	4.8	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Fines (silt + clay)	1/9/2010	95.1	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Gravel	1/9/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Coarse	1/9/2010	1.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Fine	1/9/2010	0.7	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Medium	1/9/2010	1.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Clay, Fine	1/9/2010	8.5	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Fine	1/9/2010	29.6	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Medium	1/9/2010	22.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Very Coarse	1/9/2010	1	Yes	Y				0.1	0.1	pct

Analytical Method	WAEPH											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	C16-C21 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C12-C16 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C21-C34 Aromatic	12/31/2009	5600	Yes	Y				4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C16-C21 Aliphatic	1/5/2010	4500	Yes	N	U	UJ	5	4500	4500	ug/kg

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Analytical Method WAEPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-091218	09-31262-QC26B	C12-C16 Aliphatic	1/5/2010	4500		Yes	N	U	UJ	5	4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aliphatic	1/5/2010	4500		Yes	N	U	UJ	5	4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C21-C34 Aliphatic	1/5/2010	18000		Yes	Y		j	5	4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aliphatic	1/5/2010	4500		Yes	N	U	UJ	5	4500	4500	ug/kg
BW-04-SS-091218	09-31263-QC26C	C16-C21 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C21-C34 Aromatic	12/31/2009	5700		Yes	Y				4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C12-C16 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C12-C16 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C16-C21 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C21-C34 Aliphatic	1/5/2010	11000		Yes	Y		j	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C12-C16 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C16-C21 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C21-C34 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C21-C34 Aliphatic	1/5/2010	5600		Yes	Y		j	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C12-C16 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C16-C21 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-07-SS-091218	09-31265-QC26E	C21-C34 Aromatic	12/31/2009	3400		Yes	N	U			3400	3400	ug/kg

SDG: QC26

Analytical Method	WAEPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-091218	09-31265-QC26E	C12-C16 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C16-C21 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C16-C21 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C21-C34 Aliphatic	1/5/2010	14000	Yes	Y		j	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C12-C16 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-11-SS-091218	09-31266-QC26F	C16-C21 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C12-C16 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C21-C34 Aromatic	12/31/2009	4700	Yes	Y				4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C16-C21 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C21-C34 Aliphatic	1/5/2010	11000	Yes	Y		j	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C12-C16 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C21-C34 Aromatic	12/31/2009	6300	Yes	Y				4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C12-C16 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C16-C21 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C16-C21 Aliphatic	1/5/2010	4300	Yes	N	U	UJ	5	4300	4300	ug/kg

Analytical Method	WAEPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-51-SS-091218	09-31264-QC26D	C12-C16 Aliphatic	1/5/2010	4300		Yes	N	U	UJ	5	4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aliphatic	1/5/2010	4300		Yes	N	U	UJ	5	4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C21-C34 Aliphatic	1/5/2010	16000		Yes	Y		j	5	4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aliphatic	1/5/2010	4300		Yes	N	U	UJ	5	4300	4300	ug/kg

Analytical Method	WAVPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-091218	09-31262-QC26B	Ethylbenzene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	C12-C13 Aromatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aromatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aromatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	Toluene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Pentane (C5)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Hexane	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Dodecane (C12)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	C6-C8 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C5-C6 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	o-Xylene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	Benzene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	Methyl tert-butyl ether (MTBE)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	m,p-Xylene	12/30/2009	4200		Yes	N	U			4200	4200	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Decane (C10)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Octane (C8)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-04-SS-091218	09-31263-QC26C	m,p-Xylene	12/30/2009	3700		Yes	N	U	UJ	13	3700	3700	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Pentane (C5)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Hexane	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Octane (C8)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Decane (C10)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Methyl tert-butyl ether (MTBE)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Toluene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	C5-C6 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	o-Xylene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aromatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aromatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	C12-C13 Aromatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Dodecane (C12)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Ethylbenzene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Benzene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	C6-C8 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C12-C13 Aromatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	o-Xylene	1/5/2010	1900		No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C6-C8 Aliphatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	Benzene	1/5/2010	1900		No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C8-C10 Aliphatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C10-C12 Aliphatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C8-C10 Aromatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	Ethylbenzene	1/5/2010	1900		No	N	U	R	22	1900	1900	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-091218	09-31263-QC26CD	Toluene	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C5-C6 Aliphatic	1/5/2010	19000	No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Hexane	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C10-C12 Aromatic	1/5/2010	19000	No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Octane (C8)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	Methyl tert-butyl ether (MTBE)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	m,p-Xylene	1/5/2010	3700	No	N	U	R	22	3700	3700	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Decane (C10)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Dodecane (C12)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Pentane (C5)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-05-SS-091218	09-31261-QC26A	Methyl tert-butyl ether (MTBE)	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	m,p-Xylene	12/30/2009	2200	Yes	N	U			2200	2200	ug/kg
BW-05-SS-091218	09-31261-QC26A	Benzene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	o-Xylene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Decane (C10)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	C6-C8 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	Ethylbenzene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	C12-C13 Aromatic	12/30/2009	11000	Yes	N	U			11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aromatic	12/30/2009	11000	Yes	N	U			11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aromatic	12/30/2009	11000	Yes	N	U			11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C5-C6 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Octane (C8)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Hexane	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	Toluene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Dodecane (C12)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Pentane (C5)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-07-SS-091218	09-31265-QC26E	m,p-Xylene	12/31/2009	2900	Yes	N	U			2900	2900	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aromatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	C6-C8 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	Ethylbenzene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C5-C6 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Pentane (C5)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aromatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Octane (C8)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Decane (C10)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	Methyl tert-butyl ether (MTBE)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	Benzene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	o-Xylene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C12-C13 Aromatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	Toluene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Dodecane (C12)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Hexane	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Octane (C8)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Dodecane (C12)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Decane (C10)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-091218	09-31266-QC26F	m,p-Xylene	12/31/2009	3700	Yes	N	U	UJ	13	3700	3700	ug/kg
BW-11-SS-091218	09-31266-QC26F	Benzene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Hexane	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	C6-C8 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	Methyl tert-butyl ether (MTBE)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aromatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aromatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C12-C13 Aromatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Pentane (C5)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	C5-C6 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	Toluene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	Ethylbenzene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	o-Xylene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C10-C12 Aromatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C12-C13 Aromatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Octane (C8)	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C8-C10 Aromatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C10-C12 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C8-C10 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C6-C8 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C5-C6 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Dodecane (C12)	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Pentane (C5)	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	o-Xylene	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-091218	09-31266-QC26FD	n-Hexane	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Ethylbenzene	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Decane (C10)	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	m,p-Xylene	1/5/2010	3600		No	N	U	R	22	3600	3600	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Methyl tert-butyl ether (MTBE)	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Benzene	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Toluene	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	Methyl tert-butyl ether (MTBE)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Hexane	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Pentane (C5)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Dodecane (C12)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	Toluene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	m,p-Xylene	12/31/2009	4200		Yes	N	U	UJ	13	4200	4200	ug/kg
BW-51-SS-091218	09-31264-QC26D	Benzene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	o-Xylene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	C5-C6 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C12-C13 Aromatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aromatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aromatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Octane (C8)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	Ethylbenzene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	C6-C8 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Decane (C10)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-51-SS-091218	09-31264-QC26DD	Toluene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C10-C12 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	Ethylbenzene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Pentane (C5)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Hexane	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Octane (C8)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Dodecane (C12)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Decane (C10)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	m,p-Xylene	1/5/2010	4100	No	N	U	R	22	4100	4100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C6-C8 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	Methyl tert-butyl ether (MTBE)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C10-C12 Aromatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C12-C13 Aromatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C8-C10 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C5-C6 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	o-Xylene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	Benzene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C8-C10 Aromatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg

SDG: QC29

Analytical Method D2974

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Ash Content	1/14/2010	89.74		Yes	Y				0.0100	0.0100	pct
BW-01-SC-A-091218	09-31272-QC29D	Total solids	1/14/2010	48.03		Yes	Y				0.0100	0.0100	pct
BW-01-SC-A-091218	09-31272-QC29D	Total volatile solids/organic matter	1/14/2010	10.26		Yes	Y				0.0100	0.0100	pct
BW-01-SC-B-091218	09-31273-QC29E	Ash Content	1/14/2010	60.8		Yes	Y				0.0100	0.0100	pct
BW-01-SC-B-091218	09-31273-QC29E	Total volatile solids/organic matter	1/14/2010	39.2		Yes	Y				0.0100	0.0100	pct
BW-01-SC-B-091218	09-31273-QC29E	Total solids	1/14/2010	46.09		Yes	Y				0.0100	0.0100	pct
BW-04-SC-B-091218	09-31270-QC29B	Ash Content	1/14/2010	72.97		Yes	Y				0.0100	0.0100	pct
BW-04-SC-B-091218	09-31270-QC29B	Total volatile solids/organic matter	1/14/2010	27.03		Yes	Y				0.0100	0.0100	pct
BW-04-SC-B-091218	09-31270-QC29B	Total solids	1/14/2010	50.91		Yes	Y				0.0100	0.0100	pct
BW-04-SC-C-091218	09-31271-QC29C	Ash Content	1/14/2010	74.03		Yes	Y				0.0100	0.0100	pct
BW-04-SC-C-091218	09-31271-QC29C	Total volatile solids/organic matter	1/14/2010	25.97		Yes	Y				0.0100	0.0100	pct
BW-04-SC-C-091218	09-31271-QC29C	Total solids	1/14/2010	58.03		Yes	Y				0.0100	0.0100	pct
BW-05-SC-A-091218	09-31285-QC29Q	Ash Content	1/14/2010	86.07		Yes	Y				0.0100	0.0100	pct
BW-05-SC-A-091218	09-31285-QC29Q	Total volatile solids/organic matter	1/14/2010	13.93		Yes	Y				0.0100	0.0100	pct
BW-05-SC-A-091218	09-31285-QC29Q	Total solids	1/14/2010	57.96		Yes	Y				0.0100	0.0100	pct
BW-05-SC-B-091218	09-31286-QC29R	Ash Content	1/14/2010	88.64		Yes	Y				0.0100	0.0100	pct
BW-05-SC-B-091218	09-31286-QC29R	Total volatile solids/organic matter	1/14/2010	11.36		Yes	Y				0.0100	0.0100	pct
BW-05-SC-B-091218	09-31286-QC29R	Total solids	1/14/2010	62.32		Yes	Y				0.0100	0.0100	pct
BW-07-SC-B-091218	09-31280-QC29L	Total volatile solids/organic matter	1/14/2010	8.1		Yes	Y				0.0100	0.0100	pct
BW-07-SC-B-091218	09-31280-QC29L	Ash Content	1/14/2010	91.9		Yes	Y				0.0100	0.0100	pct
BW-07-SC-B-091218	09-31280-QC29L	Total solids	1/14/2010	62.49		Yes	Y				0.0100	0.0100	pct
BW-07-SC-C-091218	09-31281-QC29M	Total volatile solids/organic matter	1/14/2010	18.42		Yes	Y				0.0100	0.0100	pct
BW-07-SC-C-091218	09-31281-QC29M	Total solids	1/14/2010	56.88		Yes	Y				0.0100	0.0100	pct
BW-07-SC-C-091218	09-31281-QC29M	Ash Content	1/14/2010	81.58		Yes	Y				0.0100	0.0100	pct
BW-11-SC-A-091218	09-31276-QC29H	Ash Content	1/14/2010	89.97		Yes	Y				0.0100	0.0100	pct

SDG: QC29

Analytical Method	D2974											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-11-SC-A-091218	09-31276-QC29H	Total volatile solids/organic matter	1/14/2010	10.03		Yes	Y				0.0100	0.0100	pct
BW-11-SC-A-091218	09-31276-QC29H	Total solids	1/14/2010	52.31		Yes	Y				0.0100	0.0100	pct
BW-11-SC-B-091218	09-31277-QC29I	Total solids	1/14/2010	52.59		Yes	Y				0.0100	0.0100	pct
BW-11-SC-B-091218	09-31277-QC29I	Ash Content	1/14/2010	70.14		Yes	Y				0.0100	0.0100	pct
BW-11-SC-B-091218	09-31277-QC29I	Total volatile solids/organic matter	1/14/2010	29.86		Yes	Y				0.0100	0.0100	pct
BW-55-A-091218	09-31289-QC29U	Total volatile solids/organic matter	1/14/2010	14.29		Yes	Y				0.0100	0.0100	pct
BW-55-A-091218	09-31289-QC29U	Total solids	1/14/2010	57.94		Yes	Y				0.0100	0.0100	pct
BW-55-A-091218	09-31289-QC29U	Ash Content	1/14/2010	85.71		Yes	Y				0.0100	0.0100	pct

Analytical Method	E160.3											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SC-A-091218	09-31272-QC29D	Total solids	12/23/2009	47		Yes	Y				0.01		pct
BW-01-SC-B-091218	09-31273-QC29E	Total solids	12/23/2009	43.1		Yes	Y				0.01		pct
BW-04-SC-B-091218	09-31270-QC29B	Total solids	12/23/2009	47.9		Yes	Y				0.01		pct
BW-04-SC-C-091218	09-31271-QC29C	Total solids	12/23/2009	58.5		Yes	Y				0.01		pct
BW-05-SC-A-091218	09-31285-QC29Q	Total solids	12/23/2009	59.6		Yes	Y				0.01		pct
BW-05-SC-B-091218	09-31286-QC29R	Total solids	12/23/2009	64.7		Yes	Y				0.01		pct
BW-07-SC-B-091218	09-31280-QC29L	Total solids	12/23/2009	61		Yes	Y				0.01		pct
BW-07-SC-C-091218	09-31281-QC29M	Total solids	12/23/2009	55.2		Yes	Y				0.01		pct
BW-11-SC-A-091218	09-31276-QC29H	Total solids	12/23/2009	50.2		Yes	Y				0.01		pct
BW-11-SC-B-091218	09-31277-QC29I	Total solids	12/23/2009	54.9		Yes	Y				0.01		pct
BW-55-A-091218	09-31289-QC29U	Total solids	12/23/2009	57.7		Yes	Y				0.01		pct

Analytical Method	E160.3-PRES											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SC-A-091218	09-31272-QC29D	Total Solids (preserved)	12/23/2009	45.1		Yes	Y				0.01		pct
BW-01-SC-B-091218	09-31273-QC29E	Total Solids (preserved)	12/23/2009	43		Yes	Y				0.01		pct

SDG: QC29

Analytical Method E160.3-PRES

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SC-B-091218	09-31270-QC29B	Total Solids (preserved)	12/23/2009	42.9		Yes	Y				0.01		pct
BW-04-SC-C-091218	09-31271-QC29C	Total Solids (preserved)	12/23/2009	59.4		Yes	Y				0.01		pct
BW-05-SC-A-091218	09-31285-QC29Q	Total Solids (preserved)	12/23/2009	55.5		Yes	Y				0.01		pct
BW-05-SC-B-091218	09-31286-QC29R	Total Solids (preserved)	12/23/2009	68.2		Yes	Y				0.01		pct
BW-07-SC-B-091218	09-31280-QC29L	Total Solids (preserved)	12/23/2009	60.9		Yes	Y				0.01		pct
BW-07-SC-C-091218	09-31281-QC29M	Total Solids (preserved)	12/23/2009	47.9		Yes	Y				0.01		pct
BW-11-SC-A-091218	09-31276-QC29H	Total Solids (preserved)	12/23/2009	50.5		Yes	Y				0.01		pct
BW-11-SC-B-091218	09-31277-QC29I	Total Solids (preserved)	12/23/2009	57.6		Yes	Y				0.01		pct

Analytical Method E350.1M

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Ammonia	12/21/2009	16.2		Yes	Y				0.21	0.03000	mg-N/k
BW-01-SC-B-091218	09-31273-QC29E	Ammonia	12/21/2009	22.1		Yes	Y				0.23	0.03000	mg-N/k
BW-04-SC-B-091218	09-31270-QC29B	Ammonia	12/21/2009	9.44		Yes	Y				0.20	0.03000	mg-N/k
BW-04-SC-C-091218	09-31271-QC29C	Ammonia	12/21/2009	17.9		Yes	Y				0.33	0.06000	mg-N/k
BW-05-SC-A-091218	09-31285-QC29Q	Ammonia	12/21/2009	18.3		Yes	Y				0.32	0.06000	mg-N/k
BW-05-SC-B-091218	09-31286-QC29R	Ammonia	12/21/2009	54.7		Yes	Y				0.71	0.15000	mg-N/k
BW-07-SC-B-091218	09-31280-QC29L	Ammonia	12/21/2009	81.5		Yes	Y				1.58	0.30000	mg-N/k
BW-07-SC-C-091218	09-31281-QC29M	Ammonia	12/21/2009	55.8		Yes	Y				0.91	0.15000	mg-N/k
BW-11-SC-A-091218	09-31276-QC29H	Ammonia	12/21/2009	13		Yes	Y				0.19	0.03000	mg-N/k
BW-11-SC-B-091218	09-31277-QC29I	Ammonia	12/21/2009	31.2		Yes	Y				0.80	0.15000	mg-N/k
BW-55-A-091218	09-31289-QC29U	Ammonia	12/21/2009	18.3		Yes	Y				0.29	0.06000	mg-N/k

Analytical Method E376.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Sulfide	12/22/2009	900		Yes	Y		J	9	113	0.37500	mg/kg
BW-01-SC-B-091218	09-31273-QC29E	Sulfide	12/22/2009	311		Yes	Y		J	9	27.3	0.07500	mg/kg

Analytical Method E376.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SC-B-091218	09-31270-QC29B	Sulfide	12/22/2009	216		Yes	Y		J	9	22.8	0.07500	mg/kg
BW-04-SC-C-091218	09-31271-QC29C	Sulfide	12/22/2009	953		Yes	Y		J	9	84.3	0.37500	mg/kg
BW-05-SC-A-091218	09-31285-QC29Q	Sulfide	12/22/2009	122		Yes	Y		J	9	17.9	0.07500	mg/kg
BW-05-SC-B-091218	09-31286-QC29R	Sulfide	12/22/2009	686		Yes	Y		J	9	71.5	0.37500	mg/kg
BW-07-SC-B-091218	09-31280-QC29L	Sulfide	12/22/2009	8.74		Yes	Y		J	9	1.67	0.00750	mg/kg
BW-07-SC-C-091218	09-31281-QC29M	Sulfide	12/22/2009	2.04		Yes	N	U	UJ	9	2.04	0.00750	mg/kg
BW-11-SC-A-091218	09-31276-QC29H	Sulfide	12/22/2009	313		Yes	Y		J	9	43.8	0.15000	mg/kg
BW-11-SC-B-091218	09-31277-QC29I	Sulfide	12/22/2009	952		Yes	Y		J	9	87.0	0.37500	mg/kg

Analytical Method Plumb 1981

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Total organic carbon	1/5/2010	3.31		Yes	Y				0.020	0.01040	pct
BW-01-SC-B-091218	09-31273-QC29E	Total organic carbon	1/5/2010	9.22		Yes	Y				0.020	0.01040	pct
BW-04-SC-B-091218	09-31270-QC29B	Total organic carbon	1/5/2010	9.62		Yes	Y				0.142	0.07384	pct
BW-04-SC-C-091218	09-31271-QC29C	Total organic carbon	1/5/2010	9.13		Yes	Y				0.020	0.01040	pct
BW-05-SC-A-091218	09-31285-QC29Q	Total organic carbon	1/5/2010	4.47		Yes	Y				0.020	0.01040	pct
BW-05-SC-B-091218	09-31286-QC29R	Total organic carbon	1/6/2010	2.77		Yes	Y				0.020	0.01040	pct
BW-07-SC-B-091218	09-31280-QC29L	Total organic carbon	1/5/2010	3.21		Yes	Y				0.020	0.01040	pct
BW-07-SC-C-091218	09-31281-QC29M	Total organic carbon	1/5/2010	7.17		Yes	Y				0.020	0.01040	pct
BW-11-SC-A-091218	09-31276-QC29H	Total organic carbon	1/5/2010	2.25		Yes	Y				0.020	0.01040	pct
BW-11-SC-B-091218	09-31277-QC29I	Total organic carbon	1/5/2010	8.2		Yes	Y				0.020	0.01040	pct
BW-55-A-091218	09-31289-QC29U	Total organic carbon	1/6/2010	4.82		Yes	Y				0.020	0.01040	pct

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Silt, Medium	1/12/2010	21		Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Clay, Medium	1/12/2010	6.1		Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Silt, Very Fine	1/12/2010	14.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Fine	1/12/2010	0.7	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Fines (silt + clay)	1/12/2010	94.1	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Gravel	1/12/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Clay, Coarse	1/12/2010	8.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Clay, Fine	1/12/2010	11.3	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Silt, Fine	1/12/2010	25.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Medium	1/12/2010	0.7	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Very Coarse	1/12/2010	1.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Very Fine	1/12/2010	1.7	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Silt, Coarse	1/12/2010	6	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Coarse	1/12/2010	0.8	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Coarse	1/12/2010	6	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Fines (silt + clay)	1/12/2010	73.3	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Very Fine	1/12/2010	12.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Medium	1/12/2010	11.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Fine	1/12/2010	15.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Clay, Medium	1/12/2010	6	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Very Coarse	1/12/2010	2.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Medium	1/12/2010	6.9	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Fine	1/12/2010	6.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Gravel	1/12/2010	4.1	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Clay, Coarse	1/12/2010	8.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Very Fine	1/12/2010	4	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Coarse	1/12/2010	3.2	Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-B-091218	09-31273-QC29E	Clay, Fine	1/12/2010	14.6	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Medium	1/12/2010	19.4	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Very Fine	1/12/2010	6.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Fine	1/12/2010	4.2	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Very Fine	1/12/2010	2.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Very Coarse	1/12/2010	6.6	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Fine	1/12/2010	14.1	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Medium	1/12/2010	4.6	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Gravel	1/12/2010	21.4	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Fines (silt + clay)	1/12/2010	20.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Clay, Medium	1/12/2010	1.7	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Clay, Fine	1/12/2010	3.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Clay, Coarse	1/12/2010	2	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Coarse	1/12/2010	1.7	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Coarse	1/12/2010	10.9	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Very Fine	1/12/2010	3.6	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Fines (silt + clay)	1/12/2010	28.2	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Clay, Medium	1/12/2010	2.2	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Gravel	1/12/2010	7.8	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Coarse	1/12/2010	8.8	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Fine	1/12/2010	5.9	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Medium	1/12/2010	6.7	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Clay, Coarse	1/12/2010	2.7	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Coarse	1/12/2010	3.5	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Fine	1/12/2010	18.3	Yes	Y				0.1	0.1	pct

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SC-C-091218	09-31271-QC29C	Sand, Medium	1/12/2010	23.7	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Very Fine	1/12/2010	8.3	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Very Coarse	1/12/2010	5	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Clay, Fine	1/12/2010	3.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Very Fine	1/12/2010	10.8	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Very Fine	1/12/2010	4.6	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Medium	1/12/2010	10.8	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Clay, Coarse	1/12/2010	3.3	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Very Coarse	1/12/2010	2.5	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Medium	1/12/2010	20.6	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Fine	1/12/2010	10.5	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Coarse	1/12/2010	6.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Gravel	1/12/2010	2.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Fines (silt + clay)	1/12/2010	46.3	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Clay, Fine	1/12/2010	4.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Fine	1/12/2010	8.1	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Clay, Medium	1/12/2010	2.5	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Coarse	1/12/2010	12.3	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Very Coarse	1/12/2010	1.2	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Very Fine	1/12/2010	11.6	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Fine	1/12/2010	14	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Gravel	1/12/2010	1.6	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Medium	1/12/2010	17.8	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Coarse	1/12/2010	17.4	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Medium	1/12/2010	5.1	Yes	Y				0.1	0.1	pct

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-05-SC-B-091218	09-31286-QC29R	Sand, Coarse	1/12/2010	1.7		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Fines (silt + clay)	1/12/2010	74.8		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Clay, Medium	1/12/2010	4.1		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Clay, Fine	1/12/2010	7		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Clay, Coarse	1/12/2010	5.4		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Very Fine	1/12/2010	9		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Fine	1/12/2010	3.9		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Gravel	1/12/2010	3.6		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Medium	1/12/2010	18.4		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Very Fine	1/12/2010	8.8		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Coarse	1/12/2010	13.2		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Very Fine	1/12/2010	3.9		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Very Coarse	1/12/2010	4.6		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Medium	1/12/2010	5.8		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Fine	1/12/2010	16.4		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Coarse	1/12/2010	7.2		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Fines (silt + clay)	1/12/2010	71.4		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Clay, Medium	1/12/2010	3.9		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Clay, Fine	1/12/2010	6.1		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Clay, Coarse	1/12/2010	4.7		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Fine	1/12/2010	3.4		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Very Fine	1/12/2010	8.4		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Clay, Medium	1/12/2010	2.5		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Fines (silt + clay)	1/12/2010	48.1		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Gravel	1/12/2010	1.1		Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SC-C-091218	09-31281-QC29M	Clay, Fine	1/12/2010	3.4	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Clay, Coarse	1/12/2010	3.7	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Coarse	1/12/2010	8.2	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Fine	1/12/2010	11.7	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Very Coarse	1/12/2010	2	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Coarse	1/12/2010	12.1	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Very Fine	1/12/2010	5.6	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Medium	1/12/2010	11.1	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Fine	1/12/2010	9.7	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Medium	1/12/2010	20.5	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Very Fine	1/12/2010	7	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Clay, Coarse	1/12/2010	5.9	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Clay, Fine	1/12/2010	7.7	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Clay, Medium	1/12/2010	4.2	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Fines (silt + clay)	1/12/2010	87	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Medium	1/12/2010	23.8	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Coarse	1/12/2010	17.1	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Very Coarse	1/12/2010	1.5	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Medium	1/12/2010	1.2	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Fine	1/12/2010	2.1	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Coarse	1/12/2010	1	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Very Fine	1/12/2010	10.3	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Gravel	1/12/2010	0.3	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Fine	1/12/2010	18.1	Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Medium	1/12/2010	16.5	Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SC-B-091218	09-31277-QC29I	Clay, Coarse	1/12/2010	2.9		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Clay, Fine	1/12/2010	3		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Clay, Medium	1/12/2010	2.4		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Fines (silt + clay)	1/12/2010	37.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Gravel	1/12/2010	12.1		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Coarse	1/12/2010	9.1		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Fine	1/12/2010	10.1		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Very Fine	1/12/2010	4.6		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Medium	1/12/2010	8.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Fine	1/12/2010	6.8		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Coarse	1/12/2010	9.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Very Fine	1/12/2010	8.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Very Coarse	1/12/2010	6.8		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Clay, Medium	1/12/2010	2.4		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Clay, Fine	1/12/2010	4.5		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Coarse	1/12/2010	7.2		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Clay, Coarse	1/12/2010	3.3		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Silt, Fine	1/12/2010	7.6		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Very Coarse	1/12/2010	2.6		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Very Fine	1/12/2010	10.8		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Medium	1/12/2010	21.4		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Silt, Very Fine	1/12/2010	4.4		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Silt, Coarse	1/12/2010	13.1		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Fines (silt + clay)	1/12/2010	44.6		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Fine	1/12/2010	11		Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-55-A-091218	09-31289-QC29U	Silt, Medium	1/12/2010	9.3	Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Gravel	1/12/2010	2.4	Yes	Y				0.1	0.1	pct

SDG: QC83

Analytical Method E350.1

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31639-QC83B	Ammonia	12/30/2009	5.03		Yes	Y				0.100	0.030	mg-N/L
BW-01-SC-B-091218	09-31640-QC83C	Ammonia	12/30/2009	5.46		Yes	Y				0.100	0.030	mg-N/L
BW-04-SC-B-091218	09-31638-QC83A	Ammonia	12/30/2009	4.9		Yes	Y				0.100	0.030	mg-N/L
BW-05-SC-A-091218	09-31645-QC83H	Ammonia	12/30/2009	11.6		Yes	Y				0.200	0.060	mg-N/L
BW-05-SC-B-091218	09-31646-QC83I	Ammonia	12/30/2009	31.4		Yes	Y				0.500	0.150	mg-N/L
BW-07-SC-B-091218	09-31643-QC83F	Ammonia	12/30/2009	31		Yes	Y				0.500	0.150	mg-N/L
BW-07-SC-C-091218	09-31644-QC83G	Ammonia	12/30/2009	14.5		Yes	Y				0.200	0.060	mg-N/L
BW-11-SC-A-091218	09-31641-QC83D	Ammonia	12/30/2009	5.53		Yes	Y				0.100	0.030	mg-N/L
BW-11-SC-B-091218	09-31642-QC83E	Ammonia	12/30/2009	11.8		Yes	Y				0.200	0.060	mg-N/L
BW-55-SC-A-091218	09-31647-QC83J	Ammonia	12/30/2009	11.8		Yes	Y				0.200	0.060	mg-N/L

Analytical Method E376.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31639-QC83B	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-01-SC-B-091218	09-31640-QC83C	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-04-SC-B-091218	09-31638-QC83A	Sulfide	12/23/2009	0.295		Yes	Y				0.250	0.065	mg/l
BW-05-SC-A-091218	09-31645-QC83H	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-05-SC-B-091218	09-31646-QC83I	Sulfide	12/23/2009	0.25		Yes	N	U			0.250	0.065	mg/l
BW-07-SC-B-091218	09-31643-QC83F	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-07-SC-C-091218	09-31644-QC83G	Sulfide	12/23/2009	0.48		Yes	Y				0.250	0.065	mg/l
BW-11-SC-A-091218	09-31641-QC83D	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-11-SC-B-091218	09-31642-QC83E	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-55-SC-A-091218	09-31647-QC83J	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l

SDG: QE27

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
CR-REF 22%FINES	10-324-QE27A	Sand, Coarse	1/13/2010	0.7	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Medium	1/13/2010	1	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Gravel	1/13/2010	0.1	Yes	N	U			0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Fines (silt + clay)	1/13/2010	36.2	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Fine	1/13/2010	19.7	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Very Fine	1/13/2010	1.3	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Clay, Fine	1/13/2010	2.8	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Very Fine	1/13/2010	42	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Clay, Medium	1/13/2010	0.9	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Medium	1/13/2010	8	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Fine	1/13/2010	3.1	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Coarse	1/13/2010	18.9	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Very Coarse	1/13/2010	0.3	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Clay, Coarse	1/13/2010	1.2	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Medium	1/13/2010	21.8	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Very Fine	1/13/2010	13.8	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Fine	1/13/2010	17.6	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Coarse	1/13/2010	12.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Very Fine	1/13/2010	2.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Very Coarse	1/13/2010	0.1	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Medium	1/13/2010	0.5	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Fine	1/13/2010	0.5	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Gravel	1/13/2010	0.1	Yes	N	U			0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Fines (silt + clay)	1/13/2010	96.1	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Clay, Medium	1/13/2010	7.7	Yes	Y				0.1	0.1	pct

SDG: QE27

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
CR-REF 95% FINES	10-325-QE27B	Clay, Fine	1/13/2010	13.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Clay, Coarse	1/13/2010	9.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Coarse	1/13/2010	0.4	Yes	Y				0.1	0.1	pct

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
BW-04-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	43.0 (60-140) 45.5 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-51-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	54.9 (60-140) 58.8 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-11-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	44.1 (60-140) 22.0 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-11-SS-091218RE	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	58.8 (60-140) 54.6 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
BW-05-SS-091218MS/MSD (BW-05-SS-091218)	Methyl-tert-butyl ether	133 (70-130)	-	-	Methyl-tert-butyl ether	J (all detects)	A
BW-05-SS-091218MS/MSD (BW-05-SS-091218)	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane	27.3 (70-130) 36.3 (70-130) 43.4 (70-130) 27.6 (70-130) 21.8 (70-130)	16.5 (70-130) 21.9 (70-130) 25.7 (70-130) 16.6 (70-130) 9.9 (70-130)	50.2 (≤40) 50.1 (≤40) 51.9 (≤40) 50.3 (≤40) 75.3 (≤40)	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane All aliphatics	J (all detects) UJ (all non-detects)	A

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
LCS/LCSD-123109 (BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218 MB-123109)	1-Methylnaphthalene	-	131 (70-130)	-	C12-C13 Aromatics	J (all detects)	P

LABORATORY DATA CONSULTANTS, INC.
7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Anchor QEA, LLC
1423 3rd Avenue, Suite 300
Seattle, WA 98101-2226
ATTN: Ms. Joy Dunay

February 9, 2010

SUBJECT: Bay Wood Products, Data Validation

Dear Ms. Dunay,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on January 18, 2010. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 22445:

SDG #	Fraction
QC26, QC27 QC29, QC83	Wet Chemistry, Volatile Petroleum Hydrocarbons, Extractable Petroleum Hydrocarbons

The data validation was performed under EPA Level III guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco
Data Validation Operations Manager/Senior Chemist

Level III

Attachment 1

757 pages-EX EDD

LDC #22445 (Anchor Environmental-Seattle WA /Bay Wood Products)

LDC	SDG#	DATE REC'D	(3) DATE DUE	NH_3-N (350.1)		S= (376.2)		TOC (Plumb)		Total Solids (160.3)		Pres. Total Solids (160.3)		Part. Size (PSEP)		Org. Matter D2974		EPH (GC EPH)		VPH (WA VPH)																	
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	QC26	01/18/10	02/09/10	0	5	0	5	0	6	0	6	0	5	0	6	0	6	0	6	0	9																
B	QC27	01/18/10	02/09/10	-	-	-	-	-	-	-	-	-	-	0	2	-	-	-	-	-	-																
C	QC29	01/18/10	02/09/10	0	11	0	10	0	11	0	11	0	10	0	11	0	11	-	-	-	-																
D	QC83	01/18/10	02/09/10	0	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-																
Total	T/SC			0	26	0	25	0	17	0	17	0	15	0	19	0	17	0	6	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS, MSD, or DUP's.

Bay Wood Products
Data Validation Reports
LDC #22445

Wet Chemistry

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 2, 2010

Matrix: Sediment

Parameters: Wet Chemistry

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC26

Sample Identification

BW-05-SS-091218
BW-01-SS-091218
BW-04-SS-091218
BW-51-SS-091218
BW-07-SS-091218
BW-11-SS-091218
BW-05-SS-091218MS
BW-05-SS-091218DUP
BW-05-SS-091218TRP

Introduction

This data review covers 9 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, PSEP Method for Particle Size, Plumb Method for Total Organic Carbon, EPA Method 160.3 for Total Solids and Preserved Total Solids, and ASTM D2974 for Organic Matter.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	More than twenty samples were associated to the method blank.	No more than twenty samples should be associated to the method blank.	None	P

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Flag	A or P
BW-05-SS-091218DUP (BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218)	Sulfide	37.2 (≤20)	J (all detects) UJ (all non-detects)	A

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	More than twenty samples were associated to the laboratory control sample.	No more than twenty samples should be associated to the laboratory control sample.	None	P

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due DUP sample RPD problems, sulfide results were qualified as estimated in five samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples BW-01-SS-091218 and BW-51-SS-091218 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (%)		RPD
	BW-01-SS-091218	BW-51-SS-091218	
Total solids	43.80	43.80	0
Total organic carbon	2.55	2.18	16
Organic matter	7.99	7.80	2

Analyte	Percent Finer		RPD
	BW-01-SS-091218	BW-51-SS-091218	
1000 um	99.8	99.0	1
500 um	99.2	97.8	1
250 um	98.6	96.6	2
125 um	98.3	95.9	2
63 um	97.8	95.1	3

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Wet Chemistry - Data Qualification Summary - SDG QC26

SDG	Sample	Analyte	Flag	A or P	Reason
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	None	P	Laboratory blanks
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Sulfide	J (all detects) UJ (all non-detects)	A	Duplicate analyses (RPD)
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-07-SS-091218 BW-11-SS-091218	Ammonia as N	None	P	Laboratory control samples

Bay Wood Products
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG QC26

No Sample Data Qualified in this SDG

LDC #: 22445A6
SDG #: QC26
Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 1-28-10
Page: 1 of 1
Reviewer: QR
2nd Reviewer: W

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2), Particle Size (PSEP), Total Organic Carbon (Plumb 1981), Total Solids and Preserved Total Solids(EPA Method 160.3), Organic Matter (ASTM D2974)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS
V	Duplicates (Triplicates)	SW	Dup, Trp
VI.	Laboratory control samples	SW	LCS
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(2,4)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: Sediment

1	BW-05-SS-091218	11	PSS	21		31	
2	BW-01-SS-091218	12		22		32	
3	BW-04-SS-091218	13		23		33	
4	BW-51-SS-091218	14		24		34	
5	BW-07-SS-091218	15		25		35	
6	BW-11-SS-091218	16		26		36	
7	BW-05-SS-091218MS	17		27		37	
~~8~~	~~BW-05-SS-091218MSD~~	18		28		38	
9	BW-05-SS-091218DUP	19		29		39	
10	BW-05-SS-091218TRIP	20		30		40	

Notes: _____

LDC #: 22445A6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-3,5,6	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** TKN **TOC** CR^{6+} **TS** **S=** **Particle size** **Organic Matter**
4	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN **TOC** CR^{6+} **TS** **Particle size** **Organic Matter**
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
QC: 7	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** TKN **TOC** CR^{6+} **S=**
~~8~~	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
9	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** TKN **TOC** CR^{6+} **TS** **S=** **Particle size**
10	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** TKN **TOC** CR^{6+} **TS** **Particle size**
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:

LDC #: 22445A6
SDG #: QC26

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: CR
2nd Reviewer: ✓

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
(Y) N N/A Were all samples associated with a given method blank?
Y (N) N/A Were any inorganic contaminants detected above the reporting limit in the method blanks? If yes, please see qualifications below.

Conc. units: _____ **Associated Samples:** 1-3,5,6

Analyte	Blank ID	Maximum ICB/CCB	Blank Action Limit	Sample Identification								
NH3-N	More than 20 samples in batch for the prep blank								None/P			

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the methoc blank concentration were qualified as not detected, "U".

LDC #: 22445A6
SDG #: QC26

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y (N) N/A Were all duplicate sample relative percent differences (RPD) (≤ 20%) ~~for water and ≤ 35%~~ for soil samples (≤ 10% for Method 300.0)? If no, see qualification below. A control limit of ±CRDL (±2X CRDL for soil) was used for samples that were ≤5X the CRDL, including when only one of the duplicate sample values were ≤5X the CRDL. If field blanks were used for laboratory duplicates, see overall assessment.

LEVEL IV ONLY:

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Duplicate ID	Matrix	Analyte	RPD (Limits)	Associated Samples	Qualifications
	9	Sed	Sulfide	37.2 (≤20)	1-3,5,6	J/UJ/A

Comments:

LDC #: 22445A6
SDG #: BC26

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Reviewer: AR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Was a laboratory control sample (LCS) analyzed for each matrix in this SDG?

(Y) N N/A Were all LCS percent recoveries (%R) within the control limits of 80-120% (85-115% for Method 300.0)?

LEVEL IV ONLY:

Y N (N/A) Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	LCS ID	Matrix	Analyte	~~%R (limits)~~	Associated Samples	Qualifications
	LCS	sed	NH_3-N	More than 20 samples in batch for LCS	1-3,5,6	None/P

Comments:

LDC# 22445A6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: QR
2nd Reviewer:

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (%)		RPD	
	2	4		
Total Solids	43.80	43.80	0	
Total Organic Carbon	2.55	2.18	16	
Organic Matter	7.99	7.80	2	

V:\FIELD DUPLICATES\FD_inorganic\22445A6wpd.wpd

Particle Size	Percent Finer		RPD	
	2	4		
1000 um	99.8	99.0	1	
500 um	99.2	97.8	1	
250 um	98.6	96.6	2	
125 um	98.3	95.9	2	
63 um	97.8	95.1	3	

LDC Report# 22445B6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: January 5, 2010

LDC Report Date: February 4, 2010

Matrix: Sediment

Parameters: Particle Size

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QE27

Sample Identification

CR-Ref 22%fines
CR-Ref 95%fines
CR-Ref 95%finesDUP
CR-Ref 95%finesTRP

Introduction

This data review covers 4 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per PSEP Method for Particle Size.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blank review was not required by the method.

IV. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples (LCS) were not required by the method.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Particle Size - Data Qualification Summary - SDG QE27

No Sample Data Qualified in this SDG

Bay Wood Products
Particle Size - Laboratory Blank Data Qualification Summary - SDG QE27

No Sample Data Qualified in this SDG

LDC #: 22445B6

SDG #: Q627

Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-28-10

Page: 1 of 1

Reviewer: CR

2nd Reviewer:

METHOD: (Analyte) Particle Size (PSEP)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 1/5/10
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	N	Not required for method
IV	Matrix Spike/Matrix Spike Duplicates	N	Client specified
V	Duplicates Triplicates	A	DUP, TRP
VI.	Laboratory control samples	N	Not required for method
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	N	
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: sediment

1	CR-Ref 22%fines	11		21		31	
2	CR-Ref 95%fines	12		22		32	
3	CR-Ref 95%finesDUP	13		23		33	
4	CR-Ref 95%finesTRIP	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC Report# 22445C6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 8, 2010

Matrix: Sediment

Parameters: Wet Chemistry

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC29

Sample Identification

BW-04-SC-B-091218
BW-04-SC-C-091218
BW-01-SC-A-091218
BW-01-SC-B-091218
BW-11-SC-A-091218
BW-11-SC-B-091218
BW-07-SC-B-091218
BW-07-SC-C-091218
BW-05-SC-A-091218
BW-05-SC-B-091218
BW-55-SC-A-091218

Introduction

This data review covers 11 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, PSEP Method for Particle Size, Plumb Method for Total Organic Carbon, EPA Method 160.3 for Total Solids and Preserved Total Solids, and ASTM D2974 for Organic Matter.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG QC29	Ammonia as N	More than twenty samples were associated to the method blank.	No more than twenty samples should be associated to the method blank.	None	P

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates/Triplicates

Duplicate (DUP) and Triplicate (TRP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

DUP ID (Associated Samples)	Analyte	RPD (Limits)	Flag	A or P
BW-05-SS-091218DUP (BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218)	Sulfide	37.2 (≤20)	J (all detects) UJ (all non-detects)	A

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG QC29	Ammonia as N	More than twenty samples were associated to the laboratory control sample.	No more than twenty samples should be associated to the laboratory control sample.	None	P

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due DUP sample RPD problems, sulfide results were qualified as estimated in eleven samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples BW-05-SC-A-091218 and BW-55-SC-A-091218 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration (%)		RPD
	BW-05-SC-A-091218	BW-55-SC-A-091218	
Total solids	59.60	57.70	3
Total organic carbon	4.47	4.82	8
Organic matter	13.93	14.29	3

Analyte	Concentration (mg/Kg)		RPD
	BW-05-SC-A-091218	BW-55-SC-A-091218	
Ammonia as N	18.3	18.3	0

Analyte	Percent Finer		RPD
	BW-01-SS-091218	BW-51-SS-091218	
4750 um	99.0	99.0	0
2000um	97.3	97.6	0
1000 um	94.9	95.0	0
500 um	88.1	87.8	0
250 um	67.5	66.4	2
125 um	57.1	55.4	3
63 um	46.3	44.6	4

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Wet Chemistry - Data Qualification Summary - SDG QC29

SDG	Sample	Analyte	Flag	A or P	Reason
QC29	BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218 BW-55-SC-A-091218	Ammonia as N	None	P	Laboratory blanks
QC29	BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218	Sulfide	J (all detects) UJ (all non-detects)	A	Duplicate analyses (RPD)
QC29	BW-04-SC-B-091218 BW-04-SC-C-091218 BW-01-SC-A-091218 BW-01-SC-B-091218 BW-11-SC-A-091218 BW-11-SC-B-091218 BW-07-SC-B-091218 BW-07-SC-C-091218 BW-05-SC-A-091218 BW-05-SC-B-091218 BW-55-SC-A-091218	Ammonia as N	None	P	Laboratory control samples

Bay Wood Products
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG QC29

No Sample Data Qualified in this SDG

LDC #: 22445C6

SDG #: QC29

Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1-28-10

Page: 1 of 1

Reviewer: CR

2nd Reviewer: W

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2), Particle Size (PSEP), Total Organic Carbon (Plumb 1981), Total Solids and Preserved Total Solids(EPA Method 160.3), Organic Matter (ASTM D2974)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	SW	
IV	Matrix Spike/Matrix Spike Duplicates	NA	~~Client specified~~ MS(SD6 & QC26)
V	Duplicates (Triplicates)	SW	D, TRP
VI.	Laboratory control samples	SW	LCS/D
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(9, 11)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

Sediment

1	BW-04-SC-B-091218	11	BW-55-A-091218 SC	21	PBS	31	
2	BW-04-SC-C-091218	12		22		32	
3	BW-01-SC-A-091218	13		23		33	
4	BW-01-SC-B-091218	14		24		34	
5	BW-11-SC-A-091218	15		25		35	
6	BW-11-SC-B-091218	16		26		36	
7	BW-07-SC-B-091218	17		27		37	
8	BW-07-SC-C-091218	18		28		38	
9	BW-05-SC-A-091218	19		29		39	
10	BW-05-SC-B-091218	20		30		40	

Notes: _____

LDC #: 22445C6
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-10	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH_3) TKN (TOC) CR^{6+} (TS) ($S^=$) (Particle size) (Organic Matter)
11	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- (NH_3) TKN (TOC) CR^{6+} (TS) (Particle size) (Organic Matter)
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:

LDC #: 22445C6
SDG #: QC29

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y N N/A Were all samples associated with a given method blank?
Y (N) N/A Were any inorganic contaminants detected above the reporting limit in the method blanks? If yes, please see qualifications below.

Conc. units: _____ **Associated Samples:** All

Analyte	Blank ID	Maximum ICB/CCB	Blank Action Limit	Sample Identification								
NH_3-N		more than	20 samples in batch associated with prep blank	None/P								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 22445C6
SDG #: QC29

VALIDATION FINDINGS WORKSHEET
Duplicate Analysis

Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a duplicate sample analyzed for each matrix in this SDG?

Y N N/A Were all duplicate sample relative percent differences (RPD) ≤ ~~20% for water and ≤ 35%~~ for soil samples (≤ 10% for Method 300.0)? If no, see qualification below. A control limit of ±CRDL (±2X CRDL for soil) was used for samples that were ≤5X the CRDL, including when only one of the duplicate sample values were ≤5X the CRDL. If field blanks were used for laboratory duplicates, see overall assessment.

LEVEL ~~IV~~ ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Duplicate ID	Matrix	Analyte	RPD (Limits)	Associated Samples	Qualifications
	BW-05-SS-091218	Sed	Sulfide	37.2 (≤20)	All 1-10	J/UJ/A

Comments:

LDC #: 22445C6
SDG #: QC29

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: CR
2nd Reviewer:

METHOD: Inorganics, Method see cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Was a laboratory control sample (LCS) analyzed for each matrix in this SDG?

Y N N/A Were all LCS percent recoveries (%R) within the control limits of 80-120% (85-115% for Method 300.0)?

LEVEL ~~IV~~ ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	LCS ID	Matrix	Analyte	~~%R (limits)~~	Associated Samples	Qualifications
	LCS	~~Water~~ Sed	NH_3-N	More than 20 samples in batch associated with LCS	All	None/P

Comments:

LDC# 22445A6

SDG#: See Cover

VALIDATION FINDINGS WORKSHEET

Field Duplicates

Reviewer: CR

2nd Reviewer:

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?

Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (%)		RPD	
	9	11		
Total Solids	59.60	57.70	3	
Total Organic Carbon	4.47	4.82	8	
Ammonia as N (mg/Kg)	18.3	18.3	0	
Organic Matter	13.93	14.29	3	

V:\FIELD DUPLICATES\FD_inorganic\22445C6wpd.wpd

Particle Size	Percent Finer		RPD	
	9	11		
4750 um	99.0	99.0	0	
2000um	97.3	97.6	0	
1000 um	94.9	95.0	0	
500 um	88.1	87.8	0	
250 um	67.5	66.4	2	
125 um	57.1	55.4	3	
63 um	46.3	44.6	4	

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 1, 2010

Matrix: Sediment

Parameters: Ammonia as Nitrogen & Sulfide

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC83

Sample Identification

BW-04-SC-B-091218
BW-01-SC-A-091218
BW-01-SC-B-091218
BW-11-SC-A-091218
BW-11-SC-B-091218
BW-07-SC-B-091218
BW-07-SC-C-091218
BW-05-SC-A-091218
BW-05-SC-B-091218
BW-55-SC-A-091218
BW-01-SC-A-091218MS
BW-01-SC-A-091218DUP

Introduction

This data review covers 12 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 350.1 for Ammonia as Nitrogen and EPA Method 376.2 for Sulfide.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No ammonia as nitrogen or sulfide contaminants were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Relative percent differences (RPD) were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the Level III data validation all results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-05-SC-A-091218 and BW-55-SC-A-091218 were identified as field duplicates. No ammonia as nitrogen or sulfide was detected in any of the samples with the following exceptions:

Analyte	Concentration (mg/L)		RPD
	BW-05-SC-A-091218	BW-55-SC-A-091218	
Ammonia as N	11.6	11.8	2

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Ammonia as Nitrogen & Sulfide - Data Qualification Summary - SDG QC83

No Sample Data Qualified in this SDG

Bay Wood Products
Ammonia as Nitrogen & Sulfide - Laboratory Blank Data Qualification Summary - SDG QC83

No Sample Data Qualified in this SDG

LDC #: 22445D6
SDG #: QC83
Laboratory: Analytical Resources, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III

Date: 1-28-10
Page: 1 of 1
Reviewer: CR
2nd Reviewer: V

METHOD: (Analyte) Ammonia-N (EPA Method 350.1), Sulfide (EPA Method 376.2)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: ~~12/23/09~~ CR 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS
V	Duplicates	A	DUP
VI.	Laboratory control samples	A	LCS/D
VII.	Sample result verification	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(8,10)
X	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples: sediment

1	BW-04-SC-B-091218	11	BW-01-SC-A-091218MS	21	PBS	31	
2	BW-01-SC-A-091218	~~12~~	~~BW-01-SC-A-091218MSD~~	22		32	
3	BW-01-SC-B-091218	13	BW-01-SC-A-091218DUP	23		33	
4	BW-11-SC-A-091218	14		24		34	
5	BW-11-SC-B-091218	15		25		35	
6	BW-07-SC-B-091218	16		26		36	
7	BW-07-SC-C-091218	17		27		37	
8	BW-05-SC-A-091218	18		28		38	
9	BW-05-SC-B-091218	19		29		39	
10	BW-55-SC-A-091218	20		30		40	

Notes: Porewater extractions

LDC #: 2244506
SDG #: QC83

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Page: 1 of 1
Reviewer: CR
2nd reviewer: [initials]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-10	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** (circled) TKN TOC CR^{6+} **Sulfide** (circled) ____ ____ ____
QC: 11	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** (circled) TKN TOC CR^{6+} ____ ____ ____ ____
~~12~~	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
13	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- **NH_3** (circled) TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+} ____ ____ ____ ____
	pH TDS Cl F NO_3 NO_2 SO_4 PO_4 ALK CN^- NH_3 TKN TOC CR^{6+}

Comments:____

LDC# 22445D6
SDG#: See Cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CR
2nd Reviewer: [signature]

Inorganics, Method See Cover

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Analyte	Concentration (mg/L)		RPD	
	8	10		
Ammonia as N	11.6	11.8	2	

V:\FIELD DUPLICATES\FD_inorganic\22445D6wpd.wpd

Bay Wood Products
Data Validation Reports
LDC #22445

Volatile Petroleum Hydrocarbons

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 8, 2010

Matrix: Sediment

Parameters: Volatile Petroleum Hydrocarbons

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC26

Sample Identification

BW-05-SS-091218
BW-01-SS-091218
BW-04-SS-091218
BW-04-SS-091218RE
BW-51-SS-091218
BW-51-SS-091218RE
BW-07-SS-091218
BW-11-SS-091218
BW-11-SS-091218RE
BW-05-SS-091218MS
BW-05-SS-091218MSD
BW-05-SS-091218DUP

Introduction

This data review covers 12 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method WA DOE VPH for Volatile Petroleum Hydrocarbons.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Compound	Total Days From Sample Collection Until Analysis	Required Holding Time (in Days) From Sample Collection Until Analysis	Flag	A or P
BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	19	14	J (all detects) UJ (all non-detects)	A

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile petroleum hydrocarbon contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

Sample	Column	Surrogate	%R (Limits)	Compound	Flag	A or P
BW-04-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	43.0 (60-140) 45.5 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-51-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	54.9 (60-140) 58.8 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-11-SS-091218	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	44.1 (60-140) 22.0 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A
BW-11-SS-091218RE	PID FID	2,5-Dibromotoluene 2,5-Dibromotoluene	58.8 (60-140) 54.6 (60-140)	All TCL compounds	J (all detects) UJ (all non-detects)	A

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
BW-05-SS-091218MS/MSD (BW-05-SS-091218)	Methyl-tert-butyl ether	133 (70-130)	-	-	Methyl-tert-butyl ether	J (all detects)	A
BW-05-SS-091218MS/MSD (BW-05-SS-091218)	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane	27.3 (70-130) 36.3 (70-130) 43.4 (70-130) 27.6 (70-130) 21.8 (70-130)	16.5 (70-130) 21.9 (70-130) 25.7 (70-130) 16.6 (70-130) 9.9 (70-130)	50.2 (≤40) 50.1 (≤40) 51.9 (≤40) 50.3 (≤40) 75.3 (≤40)	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane All aliphatics	J (all detects) UJ (all non-detects)	A

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Affected Compound	Flag	A or P
LCS/LCSD-123109 (BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218 MB-123109)	1-Methylnaphthalene	-	131 (70-130)	-	C12-C13 Aromatics	J (all detects)	P

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method.

Due to surrogate and MS/MSD %R problems, data were qualified as estimated in four samples.

No data were qualified due to a high LCSD %R, the associated results were non-detected.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were rejected as follows:

Sample	Compound	Flag	A or P
BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	R	A

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples BW-01-SS-091218 and BW-51-SS-091218 and samples BW-01-SS-091218 and BW-51-SS-091218RE were identified as field duplicates. No volatile petroleum hydrocarbons were detected in any of the samples.

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Volatile Petroleum Hydrocarbons - Data Qualification Summary - SDG QC26

SDG	Sample	Compound	Flag	A or P	Reason
QC26	BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	J (all detects) UJ (all non-detects)	A	Technical holding times
QC26	BW-04-SS-091218 BW-51-SS-091218 BW-11-SS-091218 BW-11-SS-091218RE	All TCL compounds	J (all detects) UJ (all non-detects)	A	Surrogate recovery (%R)
QC26	BW-05-SS-091218	Methyl-tert-butyl ether	J (all detects)	A	Matrix spike/Matrix spike duplicates (%R)
QC26	BW-05-SS-091218	n-Pentane n-Hexane n-Octane n-Decane n-Dodecane All aliphatics	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (%R)
QC26	BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218	C12-C13 Aromatics	J (all detects)	P	Laboratory control samples (%R)
QC26	BW-04-SS-091218RE BW-51-SS-091218RE BW-11-SS-091218RE	All TCL compounds	R	A	Overall assessment of data

Bay Wood Products
Volatile Petroleum Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG QC26

No Sample Data Qualified in this SDG

LDC #: 22445A7 **VALIDATION COMPLETENESS WORKSHEET** Date: 9/2/10

SDG #: QC26 Level III Page: 1 of 1

Laboratory: Analytical Resources, Inc. Reviewer: CY

2nd Reviewer: [illegible]

METHOD: Volatile Petroleum Hydrocarbons (WA DOE VPH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	SW	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification/ICV	A	lcv/ccv ≤ 20%
III.	Blanks	A	
IVa.	Surrogate recovery	SW	
IVb.	Matrix spike/Matrix spike duplicates	SW	
IVc.	Laboratory control samples	SW	LCS/D
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A SW	
IX.	Field duplicates	ND	D = 02+5. 2+6
X.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

MS sed

1 1	BW-05-SS-091218	11 1	BW-05-SS-091218MSD	21	MB-123009	31	
2 1	BW-01-SS-091218	12	BW-05-SS-091218DUP	22	MB-010510	32	
3 1	BW-04-SS-091218	13		23	MB-123109	33	
4 3	BW-04-SS-091218DLRE	14		24		34	
5 2	BW-51-SS-091218	15		25		35	
6 3	BW-51-SS-091218DLRE	16		26		36	
7 2	BW-07-SS-091218	17		27		37	
8 2	BW-11-SS-091218	18		28		38	
9 3	BW-11-SS-091218DLRE	19		29		39	
10 1	BW-05-SS-091218MS	20		30		40	

Notes: _____

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Page: 1 of 1
Reviewer: Q
2nd Reviewer: M

All circled dates have exceeded the technical holding times.
(Y) N N/A Were all cooler temperatures within validation criteria?

METHOD : GC/MS VOA (EPA SW 846 Method 8260B)

Sample ID	Matrix	Preserved	Sampling Date	Extraction date	Analysis date	Total # of Days	Qualifier
4	Sed	NA	12-18-09	NA	1-6-10	19	J/UJ/A
6	↓	↓	↓	↓	↓	↓	↓
9	↓	↓	↓	↓	↓	↓	↓

TECHNICAL HOLDING TIME CRITERIA

Water unpreserved:	Aromatic within 7 days, non-aromatic within 14 days of sample collection.
Water preserved:	Both within 14 days of sample collection.
Soil:	Both within 14 days of sample collection.

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINDS WORKSHEET
Surrogate Recovery

Page: 1 of 1
Reviewer: 9
2nd Reviewer: A

METHOD: ✓ GC ___ HPLC

Are surrogates required by the method? Yes ✓ or No ___.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were surrogates spiked into all samples and blanks?

Y (N) N/A Did all surrogate recoveries (%R) meet the QC limits?

#	Sample ID	Detector/ ~~Column~~	Surrogate Compound	%R (Limits)	Qualifications
	3	PID	Z	43.0 (60-140)	Y/N/A (all)
		FID	Z	45.5 (↓)	↓
				( )	
				( )	
	5		Z	54.9 ( )	
			Z	58.8 ( )	
				( )	
	8		Z	44.1 ( )	
		↓	Z	22.0 (↓)	↓
				( )	
	9		Z	58.8 ( )	
		↓	Z	54.6 (↓)	↓
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	
				( )	

	Surrogate Compound		Surrogate Compound		Surrogate Compound		Surrogate Compound		
A	Chlorobenzene (CBZ)	G	Octacosane	M	Benzo(e)Pyrene	S	1-Chloro-3-Nitrobenzene	Y	Tetrachloro-m- xylene
B	4-Bromofluorobenzene (BFB)	H	Ortho-Terphenyl	N	Terphenyl-D14	T	3,4-Dinitrotoluene	Z	2,5-Dibromotoluene
C	a,a,a-Trifluorotoluene	I	Fluorobenzene (FBZ)	O	Decachlorobiphenyl (DCB)	U	Tripentyltin		
D	Bromochlorobenene	J	n-Triacontane	P	1-methylnaphthalene	V	Tri-n-propyltin		
E	1,4-Dichlorobutane	K	Hexacosane	Q	Dichlorophenyl Acetic Acid (DCAA)	W	Tributyl Phosphate		
F	1,4-Difluorobenzene (DFB)	L	Bromobenzene	R	4-Nitrophenol	X	Triphenyl Phosphate		

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Reviewer: 9
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
(Y) N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y (N) N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	10/11	LL	133 (70-130)	( )	( )	1 (ND)	~~J dets/A *~~
		n-Pentane	27.3 ( )	16.5 (70-130)	50.2 (≤40)		~~J/UJ/A **~~
		n-Hexane	36.3 ( )	21.9 ( )	50.1 ( )		
		n-Octane	43.4 ( )	25.7 ( )	51.9 ( )		
		n-Decane	27.6 ( )	16.6 ( )	50.3 ( )		
		n-Dodecane	21.8 ( )	9.9 ( )	75.3 ( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		

~~* also qual C8-C10~~
** also qual all range Aliphatics

LDC #: 22145AT
SDG #: See Cover

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 4

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG? _____

Y (N) N/A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

Level IV/D Only

Y N (N/A) Was an LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	~~LCS/123109~~ ~~LCSD~~		( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	LCS/ -123109 / LCSD	A	( )	131 (70-130)	( )	5, 7-8	Idets/P*
			( )	( )	( )	MB-123109	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )	* qual C12-C13 Aromatics	
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
	A = 1-Methylnaphthalene		( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 22445AT
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Overall Assessment of Data

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 1

METHOD: ✓ **GC** __ **HPLC**

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

All available information pertaining to the data were reviewed using professional judgement to compliment the determination of the overall quality of the data.

(Y) N N/A Was the overall quality and usability of the data acceptable?

#	Compound Name	Finding	Associated Samples	Qualifications
	4, 6, 9	All (out of HT)		P/A

Comments: _____

OVPNew.wpd

Bay Wood Products
Data Validation Reports
LDC #22445

Extractable Petroleum Hydrocarbons

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Bay Wood Products

Collection Date: December 18, 2009

LDC Report Date: February 8, 2010

Matrix: Sediment

Parameters: Extractable Petroleum Hydrocarbons

Validation Level: EPA Level III

Laboratory: Analytical Resources, Inc.

Sample Delivery Group (SDG): QC26

Sample Identification

BW-05-SS-091218
BW-01-SS-091218
BW-04-SS-091218
BW-51-SS-091218
BW-07-SS-091218
BW-11-SS-091218
BW-05-SS-091218MS
BW-05-SS-091218MSD

Introduction

This data review covers 8 sediment samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method WA DOE EPH for Extractable Petroleum Hydrocarbons.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

N Presumptive evidence of presence of the constituent.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0% .

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
12/14/09	C21-C34 Aliphatics	24	All samples in SDG QC26	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No extractable petroleum hydrocarbon contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to calibration %D problems, data were qualified as estimated in six samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Level III data validation all other results are considered valid and usable for all purposes.

IX. Field Duplicates

Samples BW-01-SS-091218 and BW-51-SS-091218 were identified as field duplicates. No extractable petroleum hydrocarbons were detected in any of the samples with the following exceptions:

Compound	Concentration (mg/Kg)		RPD
	BW-01-SS-091218	BW-51-SS-091218	
C21-C34 Aliphatics	18000	16000	12
C21-C34 Aromatics	5600	6300	12

X. Field Blanks

No field blanks were identified in this SDG.

Bay Wood Products
Extractable Petroleum Hydrocarbons - Data Qualification Summary - SDG QC26

SDG	Sample	Compound	Flag	A or P	Reason
QC26	BW-05-SS-091218 BW-01-SS-091218 BW-04-SS-091218 BW-51-SS-091218 BW-07-SS-091218 BW-11-SS-091218	C21-C34 Aliphatics	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)

Bay Wood Products
Extractable Petroleum Hydrocarbons - Laboratory Blank Data Qualification Summary - SDG QC26

No Sample Data Qualified in this SDG

LDC #: 22445A8 **VALIDATION COMPLETENESS WORKSHEET** Date: 2/2/10
SDG #: QC26 Level III Page: 1 of 1
Laboratory: Analytical Resources, Inc. Reviewer: 9
2nd Reviewer: 4

METHOD: Extractable Petroleum Hydrocarbons (WA DOE EPH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/18/09
IIa.	Initial calibration	A	
IIb.	Calibration verification/ICV	SW	ICV/CCV = 20%
III.	Blanks	A	
IVa.	Surrogate recovery	A	
IVb.	Matrix spike/Matrix spike duplicates	A	
IVc.	Laboratory control samples	A	LCS
V.	Target compound identification	N	
VI.	Compound Quantitation and CRQLs	N	
VII.	System Performance	N	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	D = 2+4
X.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:
All soils

1	BW-05-SS-091218	11	MB-122809	21		31	
2	BW-01-SS-091218	12		22		32	
3	BW-04-SS-091218	13		23		33	
4	BW-51-SS-091218	14		24		34	
5	BW-07-SS-091218	15		25		35	
6	BW-11-SS-091218	16		26		36	
7	BW-05-SS-091218MS	17		27		37	
8	BW-05-SS-091218MSD	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 22145A5
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Continuing Calibration

Page: 1 of 1
Reviewer: Q
2nd Reviewer: R

METHOD: ✓ GC __ HPLC (EPA____________)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
What type of continuing calibration calculation was performed? __%D or __RPD

(Y) N N/A Were continuing calibration standards analyzed at the required frequencies?
Y (N) N/A Did the continuing calibration standards meet the %D / RPD validation criteria of ≤15.0%?

Level IV Only
Y N (N/A) Were the retention times for all calibrated compounds within their respective acceptance windows?

#	Date	Standard ID	Column / Detector	Compound	%D / RPD (Limit ≤ ~~15.0~~ 20%)	RT (Limits)	Associated Samples	Qualifications
	12/14/09	1214A022	NA	C21-C34 Aliphatics	24.0	( )	All + Blk	J/UJ/A
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
						( )		
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A.____ B.____ C.____
D.____ E.____ F.____
G.____ H.____ I.____
J.____ K.____ L.____
M.____ O.____ P.____

LDC #: 22145A8
SDG #: See cover

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: Q
2nd reviewer: [illegible]

METHOD: 1 GC __ HPLC (EPA_____)

Y N N/A Were field duplicate pairs identified in this SDG?
Y N N/A Were target compounds detected in the field duplicate pairs?

Compound	Concentration (MS/MSD)		RPD
	2	4	
C21-C34 Aliphatics	18000	16000	12
C21-C34 Aromatics	5600	6300	12

Compound	Concentration (_____)		RPD

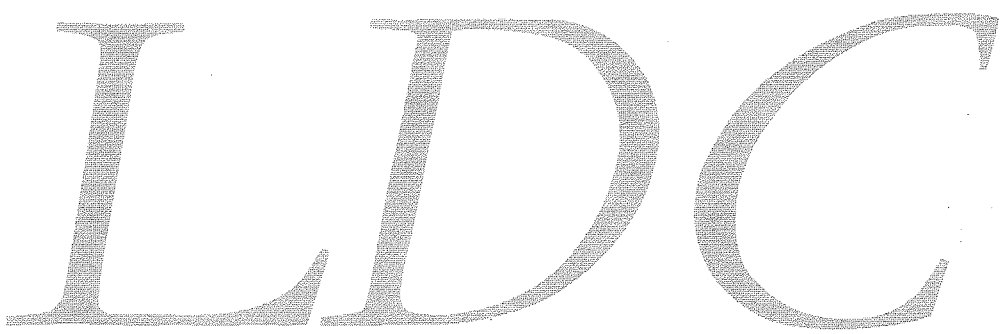
Compound	Concentration (_____)		RPD

Compound	Concentration (_____)		RPD

Bay Wood Products

LDC #22445

EDD Print-outs



Bay Wood Products - LDC 22445

SDG: QC26

Analytical Method	D2974											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total volatile solids/organic matter	1/9/2010	7.99	Yes	Y				0.0100	0.0100	pct
BW-01-SS-091218	09-31262-QC26B	Total solids	1/9/2010	43.64	Yes	Y				0.0100	0.0100	pct
BW-01-SS-091218	09-31262-QC26B	Ash Content	1/9/2010	92.01	Yes	Y				0.0100	0.0100	pct
BW-04-SS-091218	09-31263-QC26C	Total volatile solids/organic matter	1/9/2010	14.19	Yes	Y				0.0100	0.0100	pct
BW-04-SS-091218	09-31263-QC26C	Ash Content	1/9/2010	85.81	Yes	Y				0.0100	0.0100	pct
BW-04-SS-091218	09-31263-QC26C	Total solids	1/9/2010	50.83	Yes	Y				0.0100	0.0100	pct
BW-05-SS-091218	09-31261-QC26A	Ash Content	1/9/2010	94.46	Yes	Y				0.0100	0.0100	pct
BW-05-SS-091218	09-31261-QC26A	Total volatile solids/organic matter	1/9/2010	5.54	Yes	Y				0.0100	0.0100	pct
BW-05-SS-091218	09-31261-QC26A	Total solids	1/9/2010	62.9	Yes	Y				0.0100	0.0100	pct
BW-07-SS-091218	09-31265-QC26E	Ash Content	1/9/2010	81.61	Yes	Y				0.0100	0.0100	pct
BW-07-SS-091218	09-31265-QC26E	Total volatile solids/organic matter	1/9/2010	18.39	Yes	Y				0.0100	0.0100	pct
BW-07-SS-091218	09-31265-QC26E	Total solids	1/9/2010	63.11	Yes	Y				0.0100	0.0100	pct
BW-11-SS-091218	09-31266-QC26F	Ash Content	1/9/2010	83.83	Yes	Y				0.0100	0.0100	pct
BW-11-SS-091218	09-31266-QC26F	Total volatile solids/organic matter	1/9/2010	16.17	Yes	Y				0.0100	0.0100	pct
BW-11-SS-091218	09-31266-QC26F	Total solids	1/9/2010	51.58	Yes	Y				0.0100	0.0100	pct
BW-51-SS-091218	09-31264-QC26D	Ash Content	1/9/2010	92.2	Yes	Y				0.0100	0.0100	pct
BW-51-SS-091218	09-31264-QC26D	Total volatile solids/organic matter	1/9/2010	7.8	Yes	Y				0.0100	0.0100	pct
BW-51-SS-091218	09-31264-QC26D	Total solids	1/9/2010	43.76	Yes	Y				0.0100	0.0100	pct

Analytical Method	E160.3											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total solids	12/23/2009	43.8	Yes	Y				0.01		pct
BW-04-SS-091218	09-31263-QC26C	Total solids	12/23/2009	46.6	Yes	Y				0.01		pct
BW-05-SS-091218	09-31261-QC26A	Total solids	12/23/2009	62.8	Yes	Y				0.01		pct
BW-07-SS-091218	09-31265-QC26E	Total solids	12/23/2009	55.6	Yes	Y				0.01		pct

SDG: QC26

Analytical Method	E160.3											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-11-SS-091218	09-31266-QC26F	Total solids	12/23/2009	46.8		Yes	Y				0.01		pct
BW-51-SS-091218	09-31264-QC26D	Total solids	12/23/2009	43.8		Yes	Y				0.01		pct

Analytical Method	E160.3-PRES											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total Solids (preserved)	12/23/2009	43.7		Yes	Y				0.01		pct
BW-04-SS-091218	09-31263-QC26C	Total Solids (preserved)	12/23/2009	45.4		Yes	Y				0.01		pct
BW-05-SS-091218	09-31261-QC26A	Total Solids (preserved)	12/23/2009	55.9		Yes	Y				0.01		pct
BW-07-SS-091218	09-31265-QC26E	Total Solids (preserved)	12/23/2009	62.7		Yes	Y				0.01		pct
BW-11-SS-091218	09-31266-QC26F	Total Solids (preserved)	12/23/2009	44.7		Yes	Y				0.01		pct

Analytical Method	E350.1M											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Ammonia	12/21/2009	4.96		Yes	Y				0.21	0.03000	mg-N/k
BW-04-SS-091218	09-31263-QC26C	Ammonia	12/21/2009	3.04		Yes	Y				0.21	0.03000	mg-N/k
BW-05-SS-091218	09-31261-QC26A	Ammonia	12/21/2009	4.07		Yes	Y				0.16	0.03000	mg-N/k
BW-07-SS-091218	09-31265-QC26E	Ammonia	12/21/2009	6.54		Yes	Y				0.18	0.03000	mg-N/k
BW-11-SS-091218	09-31266-QC26F	Ammonia	12/21/2009	6.35		Yes	Y				0.21	0.03000	mg-N/k

Analytical Method	E376.2											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Sulfide	12/22/2009	116		Yes	Y		J	9	11.5	0.03750	mg/kg
BW-04-SS-091218	09-31263-QC26C	Sulfide	12/22/2009	39.6		Yes	Y		J	9	4.47	0.01500	mg/kg
BW-05-SS-091218	09-31261-QC26A	Sulfide	12/22/2009	23.2		Yes	Y		J	9	1.81	0.00750	mg/kg
BW-07-SS-091218	09-31265-QC26E	Sulfide	12/22/2009	49		Yes	Y		J	9	7.96	0.03750	mg/kg
BW-11-SS-091218	09-31266-QC26F	Sulfide	12/22/2009	56.8		Yes	Y		J	9	4.47	0.01500	mg/kg

Analytical Method	Plumb 1981											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**

SDG: QC26

Analytical Method	Plumb 1981											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Total organic carbon	1/5/2010	2.55	Yes	Y				0.020	0.01040	pct
BW-04-SS-091218	09-31263-QC26C	Total organic carbon	1/5/2010	2.08	Yes	Y				0.020	0.01040	pct
BW-05-SS-091218	09-31261-QC26A	Total organic carbon	1/5/2010	1.64	Yes	Y				0.020	0.01040	pct
BW-07-SS-091218	09-31265-QC26E	Total organic carbon	1/5/2010	2.44	Yes	Y				0.020	0.01040	pct
BW-11-SS-091218	09-31266-QC26F	Total organic carbon	1/5/2010	2.02	Yes	Y				0.020	0.01040	pct
BW-51-SS-091218	09-31264-QC26D	Total organic carbon	1/5/2010	2.18	Yes	Y				0.020	0.01040	pct

Analytical Method	PSEP											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	Clay, Fine	1/9/2010	8.9	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Clay, Medium	1/9/2010	5.2	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Gravel	1/9/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Coarse	1/9/2010	0.6	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Fine	1/9/2010	0.4	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Clay, Coarse	1/9/2010	8.5	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Very Fine	1/9/2010	18.4	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Medium	1/9/2010	0.6	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Very Coarse	1/9/2010	0.2	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Sand, Very Fine	1/9/2010	0.5	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Fines (silt + clay)	1/9/2010	97.8	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Fine	1/9/2010	29	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Medium	1/9/2010	23.2	Yes	Y				0.1	0.1	pct
BW-01-SS-091218	09-31262-QC26B	Silt, Coarse	1/9/2010	4.7	Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Very Coarse	1/9/2010	1.3	Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Very Fine	1/9/2010	12.3	Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Coarse	1/9/2010	11.5	Yes	Y				0.1	0.1	pct

SDG: QC26

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-091218	09-31263-QC26C	Clay, Fine	1/9/2010	7		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Fine	1/9/2010	23.9		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Very Fine	1/9/2010	2.3		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Coarse	1/9/2010	1.2		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Medium	1/9/2010	1.2		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Sand, Fine	1/9/2010	1.1		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Clay, Coarse	1/9/2010	6		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Gravel	1/9/2010	0.9		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Fines (silt + clay)	1/9/2010	91.9		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Clay, Medium	1/9/2010	3.2		Yes	Y				0.1	0.1	pct
BW-04-SS-091218	09-31263-QC26C	Silt, Medium	1/9/2010	28		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Gravel	1/9/2010	0.4		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Clay, Coarse	1/9/2010	1.7		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Clay, Fine	1/9/2010	3.2		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Coarse	1/9/2010	5		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Fines (silt + clay)	1/9/2010	39.6		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Fine	1/9/2010	13.5		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Medium	1/9/2010	25.1		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Very Coarse	1/9/2010	0.8		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Sand, Very Fine	1/9/2010	15.6		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Coarse	1/9/2010	17.2		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Fine	1/9/2010	4.6		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Medium	1/9/2010	8.5		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Silt, Very Fine	1/9/2010	3.1		Yes	Y				0.1	0.1	pct
BW-05-SS-091218	09-31261-QC26A	Clay, Medium	1/9/2010	1.3		Yes	Y				0.1	0.1	pct

SDG: QC26

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-091218	09-31265-QC26E	Sand, Medium	1/9/2010	20.3	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Clay, Coarse	1/9/2010	2.6	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Clay, Fine	1/9/2010	4.1	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Clay, Medium	1/9/2010	1.9	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Fines (silt + clay)	1/9/2010	59	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Gravel	1/9/2010	0.9	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Fine	1/9/2010	5.5	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Very Coarse	1/9/2010	2.3	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Very Fine	1/9/2010	5.3	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Coarse	1/9/2010	16.7	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Fine	1/9/2010	9.6	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Medium	1/9/2010	18.5	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Silt, Very Fine	1/9/2010	5.5	Yes	Y				0.1	0.1	pct
BW-07-SS-091218	09-31265-QC26E	Sand, Coarse	1/9/2010	6.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Coarse	1/9/2010	0.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Very Coarse	1/9/2010	1.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Coarse	1/9/2010	17.9	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Clay, Coarse	1/9/2010	5.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Fine	1/9/2010	23.4	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Very Fine	1/9/2010	10.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Very Fine	1/9/2010	4.6	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Fine	1/9/2010	0.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Sand, Medium	1/9/2010	0.7	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Gravel	1/9/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Fines (silt + clay)	1/9/2010	91.2	Yes	Y				0.1	0.1	pct

Analytical Method	PSEP											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-11-SS-091218	09-31266-QC26F	Clay, Medium	1/9/2010	3.6	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Clay, Fine	1/9/2010	7.8	Yes	Y				0.1	0.1	pct
BW-11-SS-091218	09-31266-QC26F	Silt, Medium	1/9/2010	22.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Very Fine	1/9/2010	18.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Coarse	1/9/2010	4.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Very Fine	1/9/2010	0.8	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Clay, Coarse	1/9/2010	7.6	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Clay, Medium	1/9/2010	4.8	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Fines (silt + clay)	1/9/2010	95.1	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Gravel	1/9/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Coarse	1/9/2010	1.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Fine	1/9/2010	0.7	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Medium	1/9/2010	1.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Clay, Fine	1/9/2010	8.5	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Fine	1/9/2010	29.6	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Silt, Medium	1/9/2010	22.2	Yes	Y				0.1	0.1	pct
BW-51-SS-091218	09-31264-QC26D	Sand, Very Coarse	1/9/2010	1	Yes	Y				0.1	0.1	pct

Analytical Method	WAEPH											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SS-091218	09-31262-QC26B	C16-C21 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C12-C16 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C21-C34 Aromatic	12/31/2009	5600	Yes	Y				4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aromatic	12/31/2009	4500	Yes	N	U			4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C16-C21 Aliphatic	1/5/2010	4500	Yes	N	U	UJ	5	4500	4500	ug/kg

SDG: QC26

Analytical Method WAEPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-091218	09-31262-QC26B	C12-C16 Aliphatic	1/5/2010	4500		Yes	N	U	UJ	5	4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aliphatic	1/5/2010	4500		Yes	N	U	UJ	5	4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C21-C34 Aliphatic	1/5/2010	18000		Yes	Y		j	5	4500	4500	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aliphatic	1/5/2010	4500		Yes	N	U	UJ	5	4500	4500	ug/kg
BW-04-SS-091218	09-31263-QC26C	C16-C21 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C21-C34 Aromatic	12/31/2009	5700		Yes	Y				4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C12-C16 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aromatic	12/31/2009	4100		Yes	N	U			4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C12-C16 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C16-C21 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C21-C34 Aliphatic	1/5/2010	11000		Yes	Y		j	5	4100	4100	ug/kg
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aliphatic	1/5/2010	4100		Yes	N	U	UJ	5	4100	4100	ug/kg
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C12-C16 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C16-C21 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C21-C34 Aromatic	12/31/2009	2900		Yes	N	U			2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C21-C34 Aliphatic	1/5/2010	5600		Yes	Y		j	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C12-C16 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C16-C21 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aliphatic	1/5/2010	2900		Yes	N	U	UJ	5	2900	2900	ug/kg
BW-07-SS-091218	09-31265-QC26E	C21-C34 Aromatic	12/31/2009	3400		Yes	N	U			3400	3400	ug/kg

SDG: QC26

Analytical Method	WAEPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SS-091218	09-31265-QC26E	C12-C16 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C16-C21 Aromatic	12/31/2009	3400	Yes	N	U			3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C16-C21 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C21-C34 Aliphatic	1/5/2010	14000	Yes	Y		j	5	3400	3400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C12-C16 Aliphatic	1/5/2010	3400	Yes	N	U	UJ	5	3400	3400	ug/kg
BW-11-SS-091218	09-31266-QC26F	C16-C21 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C12-C16 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aromatic	12/31/2009	4000	Yes	N	U			4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C21-C34 Aromatic	12/31/2009	4700	Yes	Y				4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C16-C21 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C21-C34 Aliphatic	1/5/2010	11000	Yes	Y		j	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C12-C16 Aliphatic	1/5/2010	4000	Yes	N	U	UJ	5	4000	4000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C21-C34 Aromatic	12/31/2009	6300	Yes	Y				4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C12-C16 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C16-C21 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aromatic	12/31/2009	4300	Yes	N	U			4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C16-C21 Aliphatic	1/5/2010	4300	Yes	N	U	UJ	5	4300	4300	ug/kg

Analytical Method	WAEPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-51-SS-091218	09-31264-QC26D	C12-C16 Aliphatic	1/5/2010	4300		Yes	N	U	UJ	5	4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aliphatic	1/5/2010	4300		Yes	N	U	UJ	5	4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C21-C34 Aliphatic	1/5/2010	16000		Yes	Y		j	5	4300	4300	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aliphatic	1/5/2010	4300		Yes	N	U	UJ	5	4300	4300	ug/kg

Analytical Method	WAVPH											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SS-091218	09-31262-QC26B	Ethylbenzene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	C12-C13 Aromatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aromatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aromatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C10-C12 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	Toluene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Pentane (C5)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Hexane	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	C8-C10 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Dodecane (C12)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	C6-C8 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	C5-C6 Aliphatic	12/30/2009	21000		Yes	N	U			21000	21000	ug/kg
BW-01-SS-091218	09-31262-QC26B	o-Xylene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	Benzene	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	Methyl tert-butyl ether (MTBE)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	m,p-Xylene	12/30/2009	4200		Yes	N	U			4200	4200	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Decane (C10)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-01-SS-091218	09-31262-QC26B	n-Octane (C8)	12/30/2009	2100		Yes	N	U			2100	2100	ug/kg
BW-04-SS-091218	09-31263-QC26C	m,p-Xylene	12/30/2009	3700		Yes	N	U	UJ	13	3700	3700	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Pentane (C5)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Hexane	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Octane (C8)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Decane (C10)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Methyl tert-butyl ether (MTBE)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Toluene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	C5-C6 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	o-Xylene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	C8-C10 Aromatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	C10-C12 Aromatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	C12-C13 Aromatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26C	n-Dodecane (C12)	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Ethylbenzene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	Benzene	12/30/2009	1900		Yes	N	U	UJ	13	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26C	C6-C8 Aliphatic	12/30/2009	19000		Yes	N	U	UJ	13	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C12-C13 Aromatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	o-Xylene	1/5/2010	1900		No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C6-C8 Aliphatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	Benzene	1/5/2010	1900		No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C8-C10 Aliphatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C10-C12 Aliphatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C8-C10 Aromatic	1/5/2010	19000		No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	Ethylbenzene	1/5/2010	1900		No	N	U	R	22	1900	1900	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SS-091218	09-31263-QC26CD	Toluene	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C5-C6 Aliphatic	1/5/2010	19000	No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Hexane	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	C10-C12 Aromatic	1/5/2010	19000	No	N	U	R	22	19000	19000	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Octane (C8)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	Methyl tert-butyl ether (MTBE)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	m,p-Xylene	1/5/2010	3700	No	N	U	R	22	3700	3700	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Decane (C10)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Dodecane (C12)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-04-SS-091218	09-31263-QC26CD	n-Pentane (C5)	1/5/2010	1900	No	N	U	R	22	1900	1900	ug/kg
BW-05-SS-091218	09-31261-QC26A	Methyl tert-butyl ether (MTBE)	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	m,p-Xylene	12/30/2009	2200	Yes	N	U			2200	2200	ug/kg
BW-05-SS-091218	09-31261-QC26A	Benzene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	o-Xylene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Decane (C10)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	C6-C8 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	Ethylbenzene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	C12-C13 Aromatic	12/30/2009	11000	Yes	N	U			11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aromatic	12/30/2009	11000	Yes	N	U			11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aromatic	12/30/2009	11000	Yes	N	U			11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C10-C12 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	C5-C6 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Octane (C8)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Hexane	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	Toluene	12/30/2009	1100	Yes	N	U			1100	1100	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-05-SS-091218	09-31261-QC26A	C8-C10 Aliphatic	12/30/2009	11000	Yes	N	U	UJ	8	11000	11000	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Dodecane (C12)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-05-SS-091218	09-31261-QC26A	n-Pentane (C5)	12/30/2009	1100	Yes	N	U	UJ	8	1100	1100	ug/kg
BW-07-SS-091218	09-31265-QC26E	m,p-Xylene	12/31/2009	2900	Yes	N	U			2900	2900	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aromatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	C8-C10 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	C6-C8 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	Ethylbenzene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C5-C6 Aliphatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Pentane (C5)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C10-C12 Aromatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Octane (C8)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Decane (C10)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	Methyl tert-butyl ether (MTBE)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	Benzene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	o-Xylene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	C12-C13 Aromatic	12/31/2009	14000	Yes	N	U			14000	14000	ug/kg
BW-07-SS-091218	09-31265-QC26E	Toluene	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Dodecane (C12)	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-07-SS-091218	09-31265-QC26E	n-Hexane	12/31/2009	1400	Yes	N	U			1400	1400	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Octane (C8)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Dodecane (C12)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Decane (C10)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-091218	09-31266-QC26F	m,p-Xylene	12/31/2009	3700	Yes	N	U	UJ	13	3700	3700	ug/kg
BW-11-SS-091218	09-31266-QC26F	Benzene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Hexane	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	C6-C8 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	Methyl tert-butyl ether (MTBE)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C8-C10 Aromatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C10-C12 Aromatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	C12-C13 Aromatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	n-Pentane (C5)	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	C5-C6 Aliphatic	12/31/2009	19000	Yes	N	U	UJ	13	19000	19000	ug/kg
BW-11-SS-091218	09-31266-QC26F	Toluene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	Ethylbenzene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26F	o-Xylene	12/31/2009	1900	Yes	N	U	UJ	13	1900	1900	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C10-C12 Aromatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C12-C13 Aromatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Octane (C8)	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C8-C10 Aromatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C10-C12 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C8-C10 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C6-C8 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	C5-C6 Aliphatic	1/5/2010	18000	No	N	U	R	22	18000	18000	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Dodecane (C12)	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Pentane (C5)	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	o-Xylene	1/5/2010	1800	No	N	U	R	22	1800	1800	ug/kg

SDG: QC26

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SS-091218	09-31266-QC26FD	n-Hexane	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Ethylbenzene	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	n-Decane (C10)	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	m,p-Xylene	1/5/2010	3600		No	N	U	R	22	3600	3600	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Methyl tert-butyl ether (MTBE)	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Benzene	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-11-SS-091218	09-31266-QC26FD	Toluene	1/5/2010	1800		No	N	U	R	22	1800	1800	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	Methyl tert-butyl ether (MTBE)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Hexane	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Pentane (C5)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Dodecane (C12)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	Toluene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	m,p-Xylene	12/31/2009	4200		Yes	N	U	UJ	13	4200	4200	ug/kg
BW-51-SS-091218	09-31264-QC26D	Benzene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	o-Xylene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	C5-C6 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C12-C13 Aromatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C8-C10 Aromatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	C10-C12 Aromatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Octane (C8)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	Ethylbenzene	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26D	C6-C8 Aliphatic	12/31/2009	21000		Yes	N	U	UJ	13	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26D	n-Decane (C10)	12/31/2009	2100		Yes	N	U	UJ	13	2100	2100	ug/kg

Analytical Method WAVPH

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-51-SS-091218	09-31264-QC26DD	Toluene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C10-C12 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	Ethylbenzene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Pentane (C5)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Hexane	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Octane (C8)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Dodecane (C12)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	n-Decane (C10)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	m,p-Xylene	1/5/2010	4100	No	N	U	R	22	4100	4100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C6-C8 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	Methyl tert-butyl ether (MTBE)	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C10-C12 Aromatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C12-C13 Aromatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C8-C10 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C5-C6 Aliphatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg
BW-51-SS-091218	09-31264-QC26DD	o-Xylene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	Benzene	1/5/2010	2100	No	N	U	R	22	2100	2100	ug/kg
BW-51-SS-091218	09-31264-QC26DD	C8-C10 Aromatic	1/5/2010	21000	No	N	U	R	22	21000	21000	ug/kg

SDG: QC29

Analytical Method D2974

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Ash Content	1/14/2010	89.74		Yes	Y				0.0100	0.0100	pct
BW-01-SC-A-091218	09-31272-QC29D	Total solids	1/14/2010	48.03		Yes	Y				0.0100	0.0100	pct
BW-01-SC-A-091218	09-31272-QC29D	Total volatile solids/organic matter	1/14/2010	10.26		Yes	Y				0.0100	0.0100	pct
BW-01-SC-B-091218	09-31273-QC29E	Ash Content	1/14/2010	60.8		Yes	Y				0.0100	0.0100	pct
BW-01-SC-B-091218	09-31273-QC29E	Total volatile solids/organic matter	1/14/2010	39.2		Yes	Y				0.0100	0.0100	pct
BW-01-SC-B-091218	09-31273-QC29E	Total solids	1/14/2010	46.09		Yes	Y				0.0100	0.0100	pct
BW-04-SC-B-091218	09-31270-QC29B	Ash Content	1/14/2010	72.97		Yes	Y				0.0100	0.0100	pct
BW-04-SC-B-091218	09-31270-QC29B	Total volatile solids/organic matter	1/14/2010	27.03		Yes	Y				0.0100	0.0100	pct
BW-04-SC-B-091218	09-31270-QC29B	Total solids	1/14/2010	50.91		Yes	Y				0.0100	0.0100	pct
BW-04-SC-C-091218	09-31271-QC29C	Ash Content	1/14/2010	74.03		Yes	Y				0.0100	0.0100	pct
BW-04-SC-C-091218	09-31271-QC29C	Total volatile solids/organic matter	1/14/2010	25.97		Yes	Y				0.0100	0.0100	pct
BW-04-SC-C-091218	09-31271-QC29C	Total solids	1/14/2010	58.03		Yes	Y				0.0100	0.0100	pct
BW-05-SC-A-091218	09-31285-QC29Q	Ash Content	1/14/2010	86.07		Yes	Y				0.0100	0.0100	pct
BW-05-SC-A-091218	09-31285-QC29Q	Total volatile solids/organic matter	1/14/2010	13.93		Yes	Y				0.0100	0.0100	pct
BW-05-SC-A-091218	09-31285-QC29Q	Total solids	1/14/2010	57.96		Yes	Y				0.0100	0.0100	pct
BW-05-SC-B-091218	09-31286-QC29R	Ash Content	1/14/2010	88.64		Yes	Y				0.0100	0.0100	pct
BW-05-SC-B-091218	09-31286-QC29R	Total volatile solids/organic matter	1/14/2010	11.36		Yes	Y				0.0100	0.0100	pct
BW-05-SC-B-091218	09-31286-QC29R	Total solids	1/14/2010	62.32		Yes	Y				0.0100	0.0100	pct
BW-07-SC-B-091218	09-31280-QC29L	Total volatile solids/organic matter	1/14/2010	8.1		Yes	Y				0.0100	0.0100	pct
BW-07-SC-B-091218	09-31280-QC29L	Ash Content	1/14/2010	91.9		Yes	Y				0.0100	0.0100	pct
BW-07-SC-B-091218	09-31280-QC29L	Total solids	1/14/2010	62.49		Yes	Y				0.0100	0.0100	pct
BW-07-SC-C-091218	09-31281-QC29M	Total volatile solids/organic matter	1/14/2010	18.42		Yes	Y				0.0100	0.0100	pct
BW-07-SC-C-091218	09-31281-QC29M	Total solids	1/14/2010	56.88		Yes	Y				0.0100	0.0100	pct
BW-07-SC-C-091218	09-31281-QC29M	Ash Content	1/14/2010	81.58		Yes	Y				0.0100	0.0100	pct
BW-11-SC-A-091218	09-31276-QC29H	Ash Content	1/14/2010	89.97		Yes	Y				0.0100	0.0100	pct

SDG: QC29

Analytical Method	D2974											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-11-SC-A-091218	09-31276-QC29H	Total volatile solids/organic matter	1/14/2010	10.03		Yes	Y				0.0100	0.0100	pct
BW-11-SC-A-091218	09-31276-QC29H	Total solids	1/14/2010	52.31		Yes	Y				0.0100	0.0100	pct
BW-11-SC-B-091218	09-31277-QC29I	Total solids	1/14/2010	52.59		Yes	Y				0.0100	0.0100	pct
BW-11-SC-B-091218	09-31277-QC29I	Ash Content	1/14/2010	70.14		Yes	Y				0.0100	0.0100	pct
BW-11-SC-B-091218	09-31277-QC29I	Total volatile solids/organic matter	1/14/2010	29.86		Yes	Y				0.0100	0.0100	pct
BW-55-A-091218	09-31289-QC29U	Total volatile solids/organic matter	1/14/2010	14.29		Yes	Y				0.0100	0.0100	pct
BW-55-A-091218	09-31289-QC29U	Total solids	1/14/2010	57.94		Yes	Y				0.0100	0.0100	pct
BW-55-A-091218	09-31289-QC29U	Ash Content	1/14/2010	85.71		Yes	Y				0.0100	0.0100	pct

Analytical Method	E160.3											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SC-A-091218	09-31272-QC29D	Total solids	12/23/2009	47		Yes	Y				0.01		pct
BW-01-SC-B-091218	09-31273-QC29E	Total solids	12/23/2009	43.1		Yes	Y				0.01		pct
BW-04-SC-B-091218	09-31270-QC29B	Total solids	12/23/2009	47.9		Yes	Y				0.01		pct
BW-04-SC-C-091218	09-31271-QC29C	Total solids	12/23/2009	58.5		Yes	Y				0.01		pct
BW-05-SC-A-091218	09-31285-QC29Q	Total solids	12/23/2009	59.6		Yes	Y				0.01		pct
BW-05-SC-B-091218	09-31286-QC29R	Total solids	12/23/2009	64.7		Yes	Y				0.01		pct
BW-07-SC-B-091218	09-31280-QC29L	Total solids	12/23/2009	61		Yes	Y				0.01		pct
BW-07-SC-C-091218	09-31281-QC29M	Total solids	12/23/2009	55.2		Yes	Y				0.01		pct
BW-11-SC-A-091218	09-31276-QC29H	Total solids	12/23/2009	50.2		Yes	Y				0.01		pct
BW-11-SC-B-091218	09-31277-QC29I	Total solids	12/23/2009	54.9		Yes	Y				0.01		pct
BW-55-A-091218	09-31289-QC29U	Total solids	12/23/2009	57.7		Yes	Y				0.01		pct

Analytical Method	E160.3-PRES											
Sample ID	**Lab Sample ID**	**Chemical Name**	**Anal Date**	**Result**	**Mod Res**	**Report**	**Detect**	**Lab Qual**	**Val Qual**	**Reason**	**RL**	**MDL**	**Units**
BW-01-SC-A-091218	09-31272-QC29D	Total Solids (preserved)	12/23/2009	45.1		Yes	Y				0.01		pct
BW-01-SC-B-091218	09-31273-QC29E	Total Solids (preserved)	12/23/2009	43		Yes	Y				0.01		pct

SDG: QC29

Analytical Method E160.3-PRES

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SC-B-091218	09-31270-QC29B	Total Solids (preserved)	12/23/2009	42.9		Yes	Y				0.01		pct
BW-04-SC-C-091218	09-31271-QC29C	Total Solids (preserved)	12/23/2009	59.4		Yes	Y				0.01		pct
BW-05-SC-A-091218	09-31285-QC29Q	Total Solids (preserved)	12/23/2009	55.5		Yes	Y				0.01		pct
BW-05-SC-B-091218	09-31286-QC29R	Total Solids (preserved)	12/23/2009	68.2		Yes	Y				0.01		pct
BW-07-SC-B-091218	09-31280-QC29L	Total Solids (preserved)	12/23/2009	60.9		Yes	Y				0.01		pct
BW-07-SC-C-091218	09-31281-QC29M	Total Solids (preserved)	12/23/2009	47.9		Yes	Y				0.01		pct
BW-11-SC-A-091218	09-31276-QC29H	Total Solids (preserved)	12/23/2009	50.5		Yes	Y				0.01		pct
BW-11-SC-B-091218	09-31277-QC29I	Total Solids (preserved)	12/23/2009	57.6		Yes	Y				0.01		pct

Analytical Method E350.1M

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Ammonia	12/21/2009	16.2		Yes	Y				0.21	0.03000	mg-N/k
BW-01-SC-B-091218	09-31273-QC29E	Ammonia	12/21/2009	22.1		Yes	Y				0.23	0.03000	mg-N/k
BW-04-SC-B-091218	09-31270-QC29B	Ammonia	12/21/2009	9.44		Yes	Y				0.20	0.03000	mg-N/k
BW-04-SC-C-091218	09-31271-QC29C	Ammonia	12/21/2009	17.9		Yes	Y				0.33	0.06000	mg-N/k
BW-05-SC-A-091218	09-31285-QC29Q	Ammonia	12/21/2009	18.3		Yes	Y				0.32	0.06000	mg-N/k
BW-05-SC-B-091218	09-31286-QC29R	Ammonia	12/21/2009	54.7		Yes	Y				0.71	0.15000	mg-N/k
BW-07-SC-B-091218	09-31280-QC29L	Ammonia	12/21/2009	81.5		Yes	Y				1.58	0.30000	mg-N/k
BW-07-SC-C-091218	09-31281-QC29M	Ammonia	12/21/2009	55.8		Yes	Y				0.91	0.15000	mg-N/k
BW-11-SC-A-091218	09-31276-QC29H	Ammonia	12/21/2009	13		Yes	Y				0.19	0.03000	mg-N/k
BW-11-SC-B-091218	09-31277-QC29I	Ammonia	12/21/2009	31.2		Yes	Y				0.80	0.15000	mg-N/k
BW-55-A-091218	09-31289-QC29U	Ammonia	12/21/2009	18.3		Yes	Y				0.29	0.06000	mg-N/k

Analytical Method E376.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Sulfide	12/22/2009	900		Yes	Y		J	9	113	0.37500	mg/kg
BW-01-SC-B-091218	09-31273-QC29E	Sulfide	12/22/2009	311		Yes	Y		J	9	27.3	0.07500	mg/kg

Analytical Method E376.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SC-B-091218	09-31270-QC29B	Sulfide	12/22/2009	216		Yes	Y		J	9	22.8	0.07500	mg/kg
BW-04-SC-C-091218	09-31271-QC29C	Sulfide	12/22/2009	953		Yes	Y		J	9	84.3	0.37500	mg/kg
BW-05-SC-A-091218	09-31285-QC29Q	Sulfide	12/22/2009	122		Yes	Y		J	9	17.9	0.07500	mg/kg
BW-05-SC-B-091218	09-31286-QC29R	Sulfide	12/22/2009	686		Yes	Y		J	9	71.5	0.37500	mg/kg
BW-07-SC-B-091218	09-31280-QC29L	Sulfide	12/22/2009	8.74		Yes	Y		J	9	1.67	0.00750	mg/kg
BW-07-SC-C-091218	09-31281-QC29M	Sulfide	12/22/2009	2.04		Yes	N	U	UJ	9	2.04	0.00750	mg/kg
BW-11-SC-A-091218	09-31276-QC29H	Sulfide	12/22/2009	313		Yes	Y		J	9	43.8	0.15000	mg/kg
BW-11-SC-B-091218	09-31277-QC29I	Sulfide	12/22/2009	952		Yes	Y		J	9	87.0	0.37500	mg/kg

Analytical Method Plumb 1981

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Total organic carbon	1/5/2010	3.31		Yes	Y				0.020	0.01040	pct
BW-01-SC-B-091218	09-31273-QC29E	Total organic carbon	1/5/2010	9.22		Yes	Y				0.020	0.01040	pct
BW-04-SC-B-091218	09-31270-QC29B	Total organic carbon	1/5/2010	9.62		Yes	Y				0.142	0.07384	pct
BW-04-SC-C-091218	09-31271-QC29C	Total organic carbon	1/5/2010	9.13		Yes	Y				0.020	0.01040	pct
BW-05-SC-A-091218	09-31285-QC29Q	Total organic carbon	1/5/2010	4.47		Yes	Y				0.020	0.01040	pct
BW-05-SC-B-091218	09-31286-QC29R	Total organic carbon	1/6/2010	2.77		Yes	Y				0.020	0.01040	pct
BW-07-SC-B-091218	09-31280-QC29L	Total organic carbon	1/5/2010	3.21		Yes	Y				0.020	0.01040	pct
BW-07-SC-C-091218	09-31281-QC29M	Total organic carbon	1/5/2010	7.17		Yes	Y				0.020	0.01040	pct
BW-11-SC-A-091218	09-31276-QC29H	Total organic carbon	1/5/2010	2.25		Yes	Y				0.020	0.01040	pct
BW-11-SC-B-091218	09-31277-QC29I	Total organic carbon	1/5/2010	8.2		Yes	Y				0.020	0.01040	pct
BW-55-A-091218	09-31289-QC29U	Total organic carbon	1/6/2010	4.82		Yes	Y				0.020	0.01040	pct

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Silt, Medium	1/12/2010	21		Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Clay, Medium	1/12/2010	6.1		Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31272-QC29D	Silt, Very Fine	1/12/2010	14.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Fine	1/12/2010	0.7	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Fines (silt + clay)	1/12/2010	94.1	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Gravel	1/12/2010	0.1	Yes	N	U			0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Clay, Coarse	1/12/2010	8.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Clay, Fine	1/12/2010	11.3	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Silt, Fine	1/12/2010	25.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Medium	1/12/2010	0.7	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Very Coarse	1/12/2010	1.9	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Very Fine	1/12/2010	1.7	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Silt, Coarse	1/12/2010	6	Yes	Y				0.1	0.1	pct
BW-01-SC-A-091218	09-31272-QC29D	Sand, Coarse	1/12/2010	0.8	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Coarse	1/12/2010	6	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Fines (silt + clay)	1/12/2010	73.3	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Very Fine	1/12/2010	12.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Medium	1/12/2010	11.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Silt, Fine	1/12/2010	15.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Clay, Medium	1/12/2010	6	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Very Coarse	1/12/2010	2.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Medium	1/12/2010	6.9	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Fine	1/12/2010	6.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Gravel	1/12/2010	4.1	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Clay, Coarse	1/12/2010	8.2	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Very Fine	1/12/2010	4	Yes	Y				0.1	0.1	pct
BW-01-SC-B-091218	09-31273-QC29E	Sand, Coarse	1/12/2010	3.2	Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-B-091218	09-31273-QC29E	Clay, Fine	1/12/2010	14.6	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Medium	1/12/2010	19.4	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Very Fine	1/12/2010	6.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Fine	1/12/2010	4.2	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Very Fine	1/12/2010	2.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Very Coarse	1/12/2010	6.6	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Fine	1/12/2010	14.1	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Medium	1/12/2010	4.6	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Gravel	1/12/2010	21.4	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Fines (silt + clay)	1/12/2010	20.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Clay, Medium	1/12/2010	1.7	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Clay, Fine	1/12/2010	3.8	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Clay, Coarse	1/12/2010	2	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Silt, Coarse	1/12/2010	1.7	Yes	Y				0.1	0.1	pct
BW-04-SC-B-091218	09-31270-QC29B	Sand, Coarse	1/12/2010	10.9	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Very Fine	1/12/2010	3.6	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Fines (silt + clay)	1/12/2010	28.2	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Clay, Medium	1/12/2010	2.2	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Gravel	1/12/2010	7.8	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Coarse	1/12/2010	8.8	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Fine	1/12/2010	5.9	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Medium	1/12/2010	6.7	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Clay, Coarse	1/12/2010	2.7	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Silt, Coarse	1/12/2010	3.5	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Fine	1/12/2010	18.3	Yes	Y				0.1	0.1	pct

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-04-SC-C-091218	09-31271-QC29C	Sand, Medium	1/12/2010	23.7	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Very Fine	1/12/2010	8.3	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Sand, Very Coarse	1/12/2010	5	Yes	Y				0.1	0.1	pct
BW-04-SC-C-091218	09-31271-QC29C	Clay, Fine	1/12/2010	3.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Very Fine	1/12/2010	10.8	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Very Fine	1/12/2010	4.6	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Medium	1/12/2010	10.8	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Clay, Coarse	1/12/2010	3.3	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Very Coarse	1/12/2010	2.5	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Medium	1/12/2010	20.6	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Fine	1/12/2010	10.5	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Sand, Coarse	1/12/2010	6.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Gravel	1/12/2010	2.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Fines (silt + clay)	1/12/2010	46.3	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Clay, Fine	1/12/2010	4.7	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Fine	1/12/2010	8.1	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Clay, Medium	1/12/2010	2.5	Yes	Y				0.1	0.1	pct
BW-05-SC-A-091218	09-31285-QC29Q	Silt, Coarse	1/12/2010	12.3	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Very Coarse	1/12/2010	1.2	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Very Fine	1/12/2010	11.6	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Fine	1/12/2010	14	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Gravel	1/12/2010	1.6	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Medium	1/12/2010	17.8	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Coarse	1/12/2010	17.4	Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Medium	1/12/2010	5.1	Yes	Y				0.1	0.1	pct

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-05-SC-B-091218	09-31286-QC29R	Sand, Coarse	1/12/2010	1.7		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Fines (silt + clay)	1/12/2010	74.8		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Clay, Medium	1/12/2010	4.1		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Clay, Fine	1/12/2010	7		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Clay, Coarse	1/12/2010	5.4		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Silt, Very Fine	1/12/2010	9		Yes	Y				0.1	0.1	pct
BW-05-SC-B-091218	09-31286-QC29R	Sand, Fine	1/12/2010	3.9		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Gravel	1/12/2010	3.6		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Medium	1/12/2010	18.4		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Very Fine	1/12/2010	8.8		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Coarse	1/12/2010	13.2		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Very Fine	1/12/2010	3.9		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Very Coarse	1/12/2010	4.6		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Medium	1/12/2010	5.8		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Silt, Fine	1/12/2010	16.4		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Coarse	1/12/2010	7.2		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Fines (silt + clay)	1/12/2010	71.4		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Clay, Medium	1/12/2010	3.9		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Clay, Fine	1/12/2010	6.1		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Clay, Coarse	1/12/2010	4.7		Yes	Y				0.1	0.1	pct
BW-07-SC-B-091218	09-31280-QC29L	Sand, Fine	1/12/2010	3.4		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Very Fine	1/12/2010	8.4		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Clay, Medium	1/12/2010	2.5		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Fines (silt + clay)	1/12/2010	48.1		Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Gravel	1/12/2010	1.1		Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-07-SC-C-091218	09-31281-QC29M	Clay, Fine	1/12/2010	3.4	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Clay, Coarse	1/12/2010	3.7	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Coarse	1/12/2010	8.2	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Fine	1/12/2010	11.7	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Very Coarse	1/12/2010	2	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Coarse	1/12/2010	12.1	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Very Fine	1/12/2010	5.6	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Medium	1/12/2010	11.1	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Silt, Fine	1/12/2010	9.7	Yes	Y				0.1	0.1	pct
BW-07-SC-C-091218	09-31281-QC29M	Sand, Medium	1/12/2010	20.5	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Very Fine	1/12/2010	7	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Clay, Coarse	1/12/2010	5.9	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Clay, Fine	1/12/2010	7.7	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Clay, Medium	1/12/2010	4.2	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Fines (silt + clay)	1/12/2010	87	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Medium	1/12/2010	23.8	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Coarse	1/12/2010	17.1	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Very Coarse	1/12/2010	1.5	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Medium	1/12/2010	1.2	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Fine	1/12/2010	2.1	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Sand, Coarse	1/12/2010	1	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Very Fine	1/12/2010	10.3	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Gravel	1/12/2010	0.3	Yes	Y				0.1	0.1	pct
BW-11-SC-A-091218	09-31276-QC29H	Silt, Fine	1/12/2010	18.1	Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Medium	1/12/2010	16.5	Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-11-SC-B-091218	09-31277-QC29I	Clay, Coarse	1/12/2010	2.9		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Clay, Fine	1/12/2010	3		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Clay, Medium	1/12/2010	2.4		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Fines (silt + clay)	1/12/2010	37.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Gravel	1/12/2010	12.1		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Coarse	1/12/2010	9.1		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Fine	1/12/2010	10.1		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Very Fine	1/12/2010	4.6		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Medium	1/12/2010	8.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Fine	1/12/2010	6.8		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Silt, Coarse	1/12/2010	9.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Very Fine	1/12/2010	8.2		Yes	Y				0.1	0.1	pct
BW-11-SC-B-091218	09-31277-QC29I	Sand, Very Coarse	1/12/2010	6.8		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Clay, Medium	1/12/2010	2.4		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Clay, Fine	1/12/2010	4.5		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Coarse	1/12/2010	7.2		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Clay, Coarse	1/12/2010	3.3		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Silt, Fine	1/12/2010	7.6		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Very Coarse	1/12/2010	2.6		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Very Fine	1/12/2010	10.8		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Medium	1/12/2010	21.4		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Silt, Very Fine	1/12/2010	4.4		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Silt, Coarse	1/12/2010	13.1		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Fines (silt + clay)	1/12/2010	44.6		Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Sand, Fine	1/12/2010	11		Yes	Y				0.1	0.1	pct

SDG: QC29

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-55-A-091218	09-31289-QC29U	Silt, Medium	1/12/2010	9.3	Yes	Y				0.1	0.1	pct
BW-55-A-091218	09-31289-QC29U	Gravel	1/12/2010	2.4	Yes	Y				0.1	0.1	pct

SDG: QC83

Analytical Method E350.1

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31639-QC83B	Ammonia	12/30/2009	5.03		Yes	Y				0.100	0.030	mg-N/L
BW-01-SC-B-091218	09-31640-QC83C	Ammonia	12/30/2009	5.46		Yes	Y				0.100	0.030	mg-N/L
BW-04-SC-B-091218	09-31638-QC83A	Ammonia	12/30/2009	4.9		Yes	Y				0.100	0.030	mg-N/L
BW-05-SC-A-091218	09-31645-QC83H	Ammonia	12/30/2009	11.6		Yes	Y				0.200	0.060	mg-N/L
BW-05-SC-B-091218	09-31646-QC83I	Ammonia	12/30/2009	31.4		Yes	Y				0.500	0.150	mg-N/L
BW-07-SC-B-091218	09-31643-QC83F	Ammonia	12/30/2009	31		Yes	Y				0.500	0.150	mg-N/L
BW-07-SC-C-091218	09-31644-QC83G	Ammonia	12/30/2009	14.5		Yes	Y				0.200	0.060	mg-N/L
BW-11-SC-A-091218	09-31641-QC83D	Ammonia	12/30/2009	5.53		Yes	Y				0.100	0.030	mg-N/L
BW-11-SC-B-091218	09-31642-QC83E	Ammonia	12/30/2009	11.8		Yes	Y				0.200	0.060	mg-N/L
BW-55-SC-A-091218	09-31647-QC83J	Ammonia	12/30/2009	11.8		Yes	Y				0.200	0.060	mg-N/L

Analytical Method E376.2

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res	Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
BW-01-SC-A-091218	09-31639-QC83B	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-01-SC-B-091218	09-31640-QC83C	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-04-SC-B-091218	09-31638-QC83A	Sulfide	12/23/2009	0.295		Yes	Y				0.250	0.065	mg/l
BW-05-SC-A-091218	09-31645-QC83H	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-05-SC-B-091218	09-31646-QC83I	Sulfide	12/23/2009	0.25		Yes	N	U			0.250	0.065	mg/l
BW-07-SC-B-091218	09-31643-QC83F	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-07-SC-C-091218	09-31644-QC83G	Sulfide	12/23/2009	0.48		Yes	Y				0.250	0.065	mg/l
BW-11-SC-A-091218	09-31641-QC83D	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-11-SC-B-091218	09-31642-QC83E	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l
BW-55-SC-A-091218	09-31647-QC83J	Sulfide	12/23/2009	0.05		Yes	N	U			0.050	0.013	mg/l

SDG: QE27

Analytical Method	PSEP											
Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
CR-REF 22%FINES	10-324-QE27A	Sand, Coarse	1/13/2010	0.7	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Medium	1/13/2010	1	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Gravel	1/13/2010	0.1	Yes	N	U			0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Fines (silt + clay)	1/13/2010	36.2	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Fine	1/13/2010	19.7	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Very Fine	1/13/2010	1.3	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Clay, Fine	1/13/2010	2.8	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Very Fine	1/13/2010	42	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Clay, Medium	1/13/2010	0.9	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Medium	1/13/2010	8	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Fine	1/13/2010	3.1	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Silt, Coarse	1/13/2010	18.9	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Sand, Very Coarse	1/13/2010	0.3	Yes	Y				0.1	0.1	pct
CR-REF 22%FINES	10-324-QE27A	Clay, Coarse	1/13/2010	1.2	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Medium	1/13/2010	21.8	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Very Fine	1/13/2010	13.8	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Fine	1/13/2010	17.6	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Silt, Coarse	1/13/2010	12.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Very Fine	1/13/2010	2.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Very Coarse	1/13/2010	0.1	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Medium	1/13/2010	0.5	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Fine	1/13/2010	0.5	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Gravel	1/13/2010	0.1	Yes	N	U			0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Fines (silt + clay)	1/13/2010	96.1	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Clay, Medium	1/13/2010	7.7	Yes	Y				0.1	0.1	pct

SDG: QE27

Analytical Method PSEP

Sample ID	Lab Sample ID	Chemical Name	Anal Date	Result	Mod Res Report	Detect	Lab Qual	Val Qual	Reason	RL	MDL	Units
CR-REF 95% FINES	10-325-QE27B	Clay, Fine	1/13/2010	13.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Clay, Coarse	1/13/2010	9.4	Yes	Y				0.1	0.1	pct
CR-REF 95% FINES	10-325-QE27B	Sand, Coarse	1/13/2010	0.4	Yes	Y				0.1	0.1	pct

APPENDIX J
NEWFIELDS BIOASSAY TESTING REPORT

BIOLOGICAL TESTING RESULTS FOR BAY WOOD PRODUCTS SITE, EVERETT, WASHINGTON

FEBRUARY 2010

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1.0 INTRODUCTION

NewFields conducted toxicity tests with sediment samples collected at the Bay Wood Products site in Everett, Washington as part of a remedial investigation / feasibility study and cleanup action plan. Biological effects were evaluated relative to the biological criteria defined in the Sediment Management Standards (SMS). This report presents the results of the biological testing portion of the Bay Wood Products site investigation.

2.0 METHODS

Test methods followed guidance provided by the Puget Sound Estuary Program (PSEP 1995), the WDOE Sampling and Analysis Plan Appendix (SAPA; Ecology 2008), and the various updates presented during the Annual Sediment Management Review meetings (SMARM). Sediment toxicity was evaluated using three standard PSEP bioassays, the 10-day amphipod test, the 20-day juvenile polychaete test, and the 48-hour larval development test.

2.1 REFERENCE SAMPLE COLLECTION

NewFields collected reference sediments from two sites in Carr Inlet, Washington on December 15, 2009. Two references were collected to bracket a wide range of fines represented in the treatment samples. One reference was selected in an area of low fines (12% - 22%) and the other in an area of high fines (85% - 95%). Rough grain size measurements were made in the field and sediments collected measured 22% fines and 95% fines. References were named CR-Ref 22% fines and CR-Ref 95% fines, respectively. Station coordinates were:

CR-Ref 22% fines:	Latitude:	47.33289 N
	Longitude:	122.67490 W
CR-Ref 95% fines:	Latitude:	47.34294 N
	Longitude:	122.69079 W

2.2 SAMPLE AND ANIMAL RECEIPT

Five test sediment samples were received by NewFields and stored in a walk-in cold room at 4 ± 2ºC in the dark with no headspace until testing. Test sediment was not sieved prior to testing. All tests were conducted within the 8-week holding time.

Due to the wide range of fines in the test sediments, two amphipod species were utilized. *Ampelisca abdita* were supplied by Brezina and Associates in Dillon Beach, California and held in native sediment at 20°C prior to test initiation. *Eohaustorius estuarius* were supplied by Northwest Aquatic Sciences in Newport, Oregon and held in native sediment at 15°C prior to test initiation.

Juvenile polychaetes (*Neanthes arenaceodentata*) were supplied by Donald Reish, Ph.D., Long Beach, California. Juvenile polychaetes were held in seawater at 20°C. *Mytilus* sp. (mussel) broodstock were supplied by Taylor Shellfish from Discovery Bay, Washington. Broodstock were held in unfiltered seawater from Hood Canal prior to spawning.

Native *E. estuarius* sediment from Yaquina Bay, Oregon was also provided by Northwest Aquatic Sciences for use as control sediment treatments for the amphipod test with *E. estuarius* and the juvenile polychaete test. Native *A. abdita* sediment from Tomales Bay, California was provided by Brezina and Associates for use as a control sediment treatment for the amphipod test with *A. abdita*.

2.3 GRAIN SIZE AND REFERENCE SELECTION

Two amphipod test batches utilized different species that were selected based on the projected grain size of the respective samples. *A. abdita* prefers sediments with higher fines, while *E. estuarius* inhabits sediments with coarser grain size. One reference sample was run with each test to match the grain size of the test sediments. Table 1a shows the test and reference sediments run with each amphipod species.

Table 1a. Amphipod Species Selection Based on Grain Size

Sample	Projected Percent Fines	*Ampelisca abdita*	*Eohaustorius estuarius*
CR-Ref 22% fines	22.0		X
CR-Ref 95% fines	95.0	X	
BW-01-SS-091218	95.1	X	
BW-04-SS-091218	93.9	X	
BW-05-SS-091218	86.4	X	
BW-07-SS-091218	17.2		X
BW-11-SS-091218	91.4	X	

All five test sediments and both reference samples were run in the polychaete and larval tests. After obtaining chemistry results for actual percent fines in the reference and treatment samples, the reference sample most closely matching the treatment grain size (% fines) was selected for SMS comparisons for the polychaete and larval tests. Table 1b shows which reference sample was used in SMS suitability comparisons for these two bioassays.

Table 1b. Actual Grain Size and Reference Selection for Treatment Comparisons in the Polychaete and Larval Tests

Sample	Actual Percent Fines	*Neanthes arenaceodentata*	*Mytilus* sp.
CR-Ref 22% fines	36.2		
CR-Ref 95% fines	96.5		
BW-01-SS-091218	97.8	CR-Ref 95% fines	CR-Ref 95% fines
BW-04-SS-091218	91.9	CR-Ref 95% fines	CR-Ref 95% fines
BW-05-SS-091218	39.6	CR-Ref 22% fines	CR-Ref 22% fines
BW-07-SS-091218	59.0	CR-Ref 22% fines	CR-Ref 22% fines
BW-11-SS-091218	91.2	CR-Ref 95% fines	CR-Ref 95% fines

2.4 10-DAY AMPHIPOD BIOASSAY (*A. abdita*)

The 10-day acute toxicity test with *A. abdita* was initiated on January 12, 2010. Test exposures were prepared with approximately 175 mL of sediment placed in clean, acid and solvent-rinsed 1-L glass jars, which were then filled with 775 mL of 0.45-µm filtered seawater at 28 ppt. Seven replicate chambers were prepared for each test treatment, the reference sediment, and the native control sediment. Five replicates were used to evaluate sediment toxicity while the remaining two replicates were designated as sacrificial surrogate chambers. One surrogate chamber was sacrificed at test initiation to measure porewater and overlying ammonia and sulfides. The remaining surrogate chamber was used for measuring daily water

quality throughout the test, as well as porewater and overlying ammonia and sulfides at test termination. Total ammonia as nitrogen was monitored using an Orion meter fitted with an ammonia ion-specific probe. Total sulfides as S^{2-} were monitored using a HACH DR/4000V Spectrophotometer.

Test chambers were placed in randomly assigned positions in a 20°C water bath and allowed to equilibrate overnight. Trickle-flow aeration was provided to prevent dissolved oxygen concentrations from dropping below acceptable levels.

Immediately prior to test initiation, water quality parameters were measured in the surrogate chamber for each treatment. Dissolved oxygen (DO), temperature, pH, and salinity were then monitored in the surrogate chambers daily until test termination. Target test parameters were:

Dissolved Oxygen:	≥5.0 mg/L
pH:	7.8 ± 0.5 units
Temperature:	20 ± 1°C
Salinity:	28 ± 1‰

The tests were initiated by randomly allocating 20 *A. abdita* into each test chamber. The 10-day amphipod bioassay was conducted as a static test with no feeding during the exposure period. At test termination, sediment from each test chamber was sieved through a 0.5-mm screen and all recovered amphipods transferred into a plastic cup. The number of surviving amphipods was then determined. A water-only, 4-day reference-toxicant test was conducted concurrently with the sediment tests, using cadmium chloride. The cadmium reference-toxicant test was used to ensure animals used in the test were healthy and of similar sensitivity to those used in prior tests.

2.5 10-DAY AMPHIPOD BIOASSAY (*E. estuarius*)

The 10-day acute toxicity test with *E. estuarius* was initiated on January 12, 2010. Test exposures were prepared with approximately 175 mL of sediment placed in clean, acid and solvent-rinsed 1-L glass jars, which were then filled with 775 mL of 0.45-µm filtered seawater at 28 ppt. Seven replicate chambers were prepared for each test treatment, the reference sediment, and the native control sediment. Five replicates were used to evaluate sediment toxicity while the remaining two replicates were designated as sacrificial surrogate chambers. One surrogate chamber was sacrificed at test initiation to measure porewater and overlying ammonia and sulfides. The remaining surrogate chamber was used for measuring daily water quality throughout the test, as well as porewater and overlying ammonia and sulfides at test termination. Total ammonia as nitrogen was monitored using an Orion meter fitted with an ammonia ion-specific probe. Total sulfides as S^{2-} were monitored using a HACH DR/4000V Spectrophotometer.

Test chambers were placed in randomly assigned positions in a 15°C water bath and allowed to equilibrate overnight. Trickle-flow aeration was provided to prevent dissolved oxygen concentrations from dropping below acceptable levels.

Immediately prior to test initiation, water quality parameters were measured in the surrogate chamber for each treatment. Dissolved oxygen (DO), temperature, pH, and salinity were then monitored in the surrogate chambers daily until test termination. Target test parameters were:

Dissolved Oxygen:	≥5.0 mg/L
pH:	7.8 ± 0.5 units
Temperature:	15 ± 1°C
Salinity:	28 ± 1‰

The tests were initiated by randomly allocating 20 *E. estuarius* into each test chamber. The 10-day amphipod bioassay was conducted as a static test with no feeding during the exposure period. At test termination, sediment from each test chamber was sieved through a 0.5-mm screen and all recovered amphipods transferred into a plastic cup. The number of surviving amphipods was recorded. A water-only, 4-day reference-toxicant test was conducted concurrently with the sediment tests, using cadmium chloride. The cadmium reference-toxicant test was used to ensure animals used in the test were healthy and of similar sensitivity to those used in prior tests.

2.6 20-DAY JUVENILE POLYCHAETE BIOASSAY

The 20-day chronic toxicity test with *N. arenaceodentata* was initiated on December 23, 2009. Test exposures were prepared with approximately 175 mL of sediment placed in clean, acid and solvent-rinsed 1-L glass jars, which were then filled with 775 mL of 0.45-µm filtered seawater at 28 ppt. Seven replicate chambers were prepared for each test treatment, the two reference sediments, and the control sediment. Five replicates were used to evaluate sediment toxicity while the remaining two replicates were designated as sacrificial surrogate chambers. One surrogate chamber was sacrificed at test initiation to measure porewater and overlying ammonia and sulfides. The remaining surrogate chamber was used for measuring daily water quality throughout the test, as well as porewater and overlying ammonia and sulfides at test termination. Total ammonia as nitrogen was monitored using an Orion meter fitted with an ammonia ion-specific probe. Total sulfides as S^{2-} were monitored using a HACH DR/4000V Spectrophotometer.

Test chambers were placed in randomly assigned positions in a water bath at 20°C and allowed to equilibrate overnight. Trickle-flow aeration was provided to prevent dissolved oxygen concentrations from dropping below acceptable levels.

Immediately prior to test initiation, water quality parameters were measured. Dissolved oxygen, temperature, pH, and salinity were then monitored in the surrogates daily until test termination. Target test parameters were:

Dissolved Oxygen:	≥ 6.0 mg/L
pH:	8.0 ± 1.0 units
Temperature:	20 ± 1°C
Salinity:	28 ± 1‰

The juvenile polychaete test was initiated by randomly allocating five *N. arenaceodentata* into each test chamber. The 20-day test was conducted as a static-renewal test, with exchanges of 300 mL of water occurring every third day. *N. arenaceodentata* were fed every other day with 40 mg of TetraMarin® (approximately 8 mg dry weight per worm).

At test termination, sediment from each test chamber was sieved through a 0.5-mm screen and all recovered worms transferred into a plastic cup. The number of surviving worms was recorded. All surviving worms were then rinsed with de-ionized water and placed in pre-weighed, aluminum foil weigh-boats and dried in a drying oven at 60°C for at least 24 hours. The weigh-boats were then removed from the oven, cooled in a dessicator for 30 minutes, and then weighed on a microbalance to 0.01 mg. Mean individual growth (MIG) was calculated based on the dry weights.

The contents of the weigh-boats were subsequently ashed in a Thermolyne oven at 550°C degrees for 2 hours to obtain ash free dry weights (AFDW). This process removed all organic tissue from the weigh-boats. Each weigh-boat was then weighed again in the same manner as described above which provided weights of any non-organic material present in the intestines of the animals. AFDW per individual specimen were calculated by subtracting the gut content from the total boat weight and dividing by the number of animals in each boat. MIG was calculated based on the AFDW. This adaptation to the standard method was performed to reflect more accurate growth measurements as it gives a precise

weight measurement of the organisms and removes any potential grain size related effects from the test results (SMEWW 1998).

A water-only, 4-day reference-toxicant test was conducted concurrently with the sediment tests, using cadmium chloride. The cadmium reference-toxicant test was used to ensure animals used in the test were healthy and of similar sensitivity to those used in prior tests.

2.7 LARVAL DEVELOPMENTAL BIOASSAY

Test sediment was evaluated using the larval development test with the mussel, *Mytilus* sp. The larval test was initiated on January 6, 2010. To prepare the test exposures, 18 g (± 0.5 g) of test sediment were placed in clean, acid and solvent-rinsed 1-L glass jars, which were then filled with 900 mL of 0.45-µm filtered seawater. Six replicate chambers were prepared for each test treatment, the two reference sediments, and a seawater control. The six control chambers contained filtered seawater without sediment. Five of the replicates were used to evaluate the test; the sixth replicate was used as a water quality surrogate. Each chamber was shaken for 10 seconds and then placed in predetermined randomly-assigned positions in a water bath at 16°C.

To collect gametes for each test, mussels were placed in clean seawater and acclimated at 12°C for approximately 20 minutes. The water bath temperature was then increased over a period of 15 minutes to 20°C to induce spawning. Mussels were held at 20°C and monitored for spawning individuals. Spawning females and males were removed from the water bath and placed in individual containers with seawater. These individuals were allowed to spawn until sufficient gametes were available to initiate the test. After the spawning period, eggs were transferred to fresh seawater and filtered through a 0.5 mm Nitex® mesh screen to remove large debris, feces, and excess gonadal matter. A composite was made of the sperm and diluted with fresh seawater. The fertilization process was initiated by adding sperm to the isolated egg containers. Egg-sperm solutions were periodically homogenized with a perforated plunger during the fertilization process and sub-samples observed under the microscope for egg and sperm viability. Approximately one to one and a half hours after fertilization, embryo solutions were checked for fertilization rate. Only those embryo stocks with >90% fertilization were used to initiate the tests. Embryo solutions were rinsed free of excess sperm and then combined to create one embryo stock solution. Density of the embryo stock solution was determined by counting the number of embryos in a subsample of homogenized stock solution. This was used to determine the volume of embryo stock solution to deliver approximately 27,000 embryos to each test chamber.

The test was initiated by randomly allocating an aliquot of the embryo stock solution into each test chamber four hours after sediments were shaken and within two hours of egg fertilization. Embryos were held in suspension during initiation using a perforated plunger. The actual stocking densitiy was 27.2 embryos/mL respectively, within the target stocking density of 20 - 40 embryos/mL.

Water quality was measured prior to test initiation. Dissolved oxygen, temperature, pH, and salinity were monitored in water quality surrogates daily during the test to prevent loss or transfer of larvae by adhesion to water-quality probes. Overlying water ammonia and sulfides were measured on Day 0 and Day 2. Total ammonia as nitrogen was monitored using an Orion meter fitted with an ammonia ion-specific probe. Total sulfides as S^{2-} were monitored using a HACH DR/4000V Spectrophotometer. Target test parameters were as follows:

Dissolved Oxygen:	≥5.0 mg/L
pH:	7.8 ± 0.5 units
Temperature:	16 ± 1°C
Salinity:	28 ± 1‰

The 48-96 hour test was conducted as a static test without aeration. The test was terminated approximately 48 hours after initiation, when 90% of the control larvae had achieved the prodissoconch I

stage. At termination, the overlying seawater was decanted into a clean 1-L jar and mixed with a perforated plunger. From this container, a 10 mL subsample was transferred to a scintillation vial and preserved in 5% buffered formalin. Larvae were subsequently stained with a dilute solution of Rose Bengal in 70% alcohol to help visualization of larvae. The numbers of normal and abnormal larvae were enumerated on an inverted microscope. Normal larvae included all D-shaped prodissoconch I stage larvae. Abnormal larvae included abnormally shaped prodissoconch I larvae and all early stage larvae. A 48-hour water-only reference-toxicant test with copper sulfate was conducted concurrently with the sediment test.

2.8 DATA ANALYSIS AND QA/QC

All water quality and endpoint data were entered into Excel spreadsheets. Water quality parameters were summarized by calculating the mean, minimum, and maximum values for each test treatment. Endpoint data were calculated for each replicate and the mean and standard deviation were determined for each test treatment.

All hand-entered data were reviewed for data entry errors, and any errors found were corrected prior to summary calculations. A minimum of 10% of all calculations and data sorting were reviewed for errors. Review counts were conducted on any apparent outliers.

The control-normalized combined mortality and abnormality endpoint in the larval test was used to evaluate the test sediment. This was based on the number of dead and abnormal larvae in the treatment and reference divided by the number of normal larvae in the control, as defined in Ecology (2005).

For SMS suitability determinations, comparisons were made according to SAPA (2008) and Fox et al. (1998). All data were tested for normality using the Wilk-Shapiro test and equality of variance using Levene's test. Determinations of statistical significance were based on one-tailed Student's t-tests with an alpha level of 0.05 for the amphipod and polychaete endpoints. A comparison of the larval endpoint, relative to the reference was made using an alpha level of 0.10. For samples failing to meet assumptions of normality, a Mann-Whitney test was conducted to determine significance. For those samples failing to meet the assumptions of normality and equality of variance, a t-test on rankits was used.

3.0 RESULTS

The results of the sediment testing, including a summary of test results and water quality observations are presented in this section. Detailed water quality observations and laboratory data sheets are presented in Appendices A - C. Statistical results are provided in Appendix D.

3.1 10-DAY AMPHIPOD BIOASSAY (*A. abdita*)

A summary of *A. abdita* test conditions is presented in Table 2. Mean percent survival in the control was 95%, above the ≥ 90% survival acceptance criteria. This indicates that test conditions were suitable for adequate amphipod survival. The LC_{50} value for the cadmium reference-toxicant test was 0.88 mg Cd/L, within the control chart limits (0.01-1.00 mg Cd/L), indicating that the test organisms used in this study were of similar sensitivity of those previously tested at NewFields.

Mean survival in the reference treatment was 92% which met the SMS performance criteria (≥75% survival) and indicated that the reference sediment was acceptable for comparison. Mean survival for all samples is shown in Table 3 and ranged from 91% - 98%.

Water quality is presented in Table 4. Minor deviations in salinity and pH were observed during the test but remained within the tolerance range for the test organisms. Temperatures rose to 26 ºC on Day 6 due to a problem with the pump supplying water to the temperature controlled bath. The problem was fixed immediately and temperatures fell back into range on the same day. These deviations did not appear to have affected test results illustrated by the high survival in all test sediments.

Initial and final interstitial ammonia concentrations were all below the threshold concentration of 30 mg/L total ammonia (Barton 2002). Initial and final sulfide concentrations were below 5 mg/L in both overlying and interstitial waters.

Table 2. Test Conditions Summary for *A. abdita*

Test Conditions: PSEP *A. abdita* (SMS)		
Sample Identification	CR-Ref 95% fines, BW-01, BW-04, BW-05, BW-11	
Date Sampled	Test: 12/18/09; References: 12/15/09	
Date Received at NewFields	Test: 12/21/09; References: 12/15/09	
Sample Storage Conditions	4°C, dark	
Weeks of Holding (Recommended: ≤8 weeks)	Test: 3 weeks; References: 4 weeks	
Source of Control Sediment	Brezina and Associates (Tomales Bay, CA)	
Test Species	***A. abdita***	
Supplier	Brezina and Associates	
Date Acquired	1/8/2010	
Acclimation / Holding Time	4 days	
Age Class	3-5 mm	
Test Procedures	PSEP 1995 with SMARM revisions	
Regulatory Program	SMS	
Test Location	NewFields Northwest Laboratory	
Test Type / Duration	10-Day static	
Test Dates	1/12/10 – 1/22/10	
Control Water	0.45 µm-filtered, North Hood Canal seawater, adjusted with DI water	
Test Temperature	Recommended: 20 ± 1 °C	19.1 – 25.9 °C
Test Salinity	Recommended: 28 ± 1 ppt	27 – 30 ppt
Test Dissolved Oxygen	Recommended: > 5.0 mg/L	6.8 – 8.4 mg/L
Test pH	Recommended: 7.8 ± 0.5	7.7 – 8.5
SMS Control Performance Standard	Recommended: Control ≥ 90% Survival	95% Pass
SMS Reference Performance Standard	Recommended: Reference Survival ≥ 75%	92% = Pass
SMS Treatment Pass / Fail SQS	Significant Difference from Reference and Treatment Survival < 75% = FAIL	All Pass
SMS Treatment Pass / Fail CSL	Significant Difference from Reference and Treatment Survival – Reference Survival < 30% = FAIL	All Pass
Reference Toxicant LC50	0.88 mg/L	
Acceptable Range	0.01-1.00 mg/L	
Test Lighting	Continuous	
Test Chamber	1-Liter Glass Chamber	
Replicates / Treatment	5 + 2 surrogates	
Organisms / Replicate	20	
Exposure Volume	175 mL sediment/ 775 mL water	
Feeding	None	
Water Renewal	None	
Deviations from Test Protocol	Temperature elevated on Day 6; salinity and pH slightly elevated.	

Table 3. Summary of Test Results for *A. abdita*

Sample	Mean Survival (%)	SD
Control	95	5.0
CR-Ref 95% fines	92	7.6
BW-01	97	4.5
BW-04[1]	91	6.5
BW-05	98	4.5
BW-11	97	4.5

Table 4. Water Quality Summary for *A. abdita*

Treatment	Dissolved Oxygen (mg/L)			Temperature (°C)			Salinity (ppt)			pH (units)		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control	7.4	7.1	8.0	20.4	19.2	25.5	28.1	28.0	29.0	7.9	7.7	8.0
CR-Ref 95% fines	7.4	6.9	8.2	20.5	19.2	25.6	28.7	28.0	30.0	8.2	7.9	8.5
BW-01	7.5	7.0	8.3	20.6	19.1	25.6	27.9	27.0	28.0	8.0	7.8	8.1
BW-04	7.5	7.0	8.4	20.3	19.1	25.1	28.4	27.0	30.0	7.9	7.7	8.0
BW-05	7.5	6.8	8.4	20.7	19.1	25.9	28.3	28.0	29.0	8.0	7.9	8.1
BW-11	7.5	6.9	8.4	20.6	19.1	25.7	27.9	27.0	28.0	8.0	7.9	8.1

3.2 10-DAY AMPHIPOD BIOASSAY (*E. estuarius*)

A summary of *E. estuarius* test conditions is presented in Table 5. Mean percent survival in the control was 98%, above the ≥ 90% survival acceptance criteria. This indicates that the test conditions were suitable for adequate amphipod survival. The LC_{50} value for the cadmium reference-toxicant test was 7.7 mg Cd/L, within the control chart limits (4.2-12.0 mg Cd/L), indicating that the test organisms were of similar sensitivity compared to those previously tested at NewFields.

Mean survival in the reference treatment was 88% and met the SMS performance criteria (≥75% survival), indicating that the reference sediment was acceptable for comparison. Mean survival for the test treatment was 82% (Table 6).

Table 7 provides a summary of water quality measurements. Water quality parameters were within acceptable limits throughout the test except for an elevation in temperature to 18 °C on Day 3. A problem with the pump supplying water to the temperature controlled bath was identified and fixed immediately causing temperatures to fall back into range on the same day. This deviation did not appear to have affected test results illustrated by the high survival in all of the sediments.

Initial and final interstitial ammonia concentrations were all below the threshold concentration of 30 mg/L total ammonia (Barton 2002). Sulfide concentrations were below 5 mg/L in both overlying and interstitial waters.

Table 5. Test Condition Summary for *E. estuarius*

Test Conditions: PSEP *E. estuarius* (SMS)		
Sample Identification	CR-Ref 22% fines, BW-07	
Date Sampled	Test: 12/18/09; References: 12/15/09	
Date Received at NewFields	Test: 12/21/09; References: 12/15/09	
Sample Storage Conditions	4°C, dark	
Weeks of Holding (Recommended: ≤8 weeks)	Test: 3 weeks; References: 4 weeks	
Source of Control Sediment	Northwest Aquatic Sciences (Yaquina Bay, OR)	
Test Species	***E. estuarius***	
Supplier	Northwest Aquatic Sciences	
Date Acquired	1/8/10	
Acclimation / Holding Time	4 days	
Age Class	3-5 mm	
Test Procedures	PSEP 1995 with SMARM revisions	
Regulatory Program	SMS	
Test Location	NewFields Northwest Laboratory	
Test Type / Duration	10-Day static	
Test Dates	1/12/10 – 1/22/10	
Control Water	0.45 µm-filtered, North Hood Canal seawater, adjusted with DI water	
Test Temperature	Recommended: 15 ± 1 °C	14.7 – 18.5 °C
Test Salinity	Recommended: 28 ± 1 ppt	27 – 28 ppt
Test Dissolved Oxygen	Recommended: > 5.0 mg/L	7.4 – 8.5 mg/L
Test pH	Recommended: 7.8 ± 0.5	7.5 – 8.0
SMS Control Performance Standard	Recommended: Control ≥ 90% Survival	98% Pass
SMS Reference Performance Standard	Recommended: Reference Survival ≥ 75%	CR-Ref 22% fines = 88% Pass
SMS Treatment Pass / Fail SQS	Significant Difference from Reference and Treatment < 75% Survival = FAIL	All Pass
SMS Treatment Pass / Fail CSL	Significant Difference from Reference and Treatment Survival – Reference Survival < 30% = FAIL	All Pass
Reference Toxicant LC50	7.7 mg/L	
Acceptable Range	4.2 - 12.0 mg/L	
Test Lighting	Continuous	
Test Chamber	1-Liter Glass Chamber	
Replicates / Treatment	5 + 2 surrogates	
Organisms / Replicate	20	
Exposure Volume	175 mL sediment/ 775 mL water	
Feeding	None	
Water Renewal	None	
Deviations from Test Protocol	Temperatures elevated on Day 3	

Table 6. Summary of Test Results for *E. estuarius*

Sample	Mean Survival (%)	SD
Control	98	2.7
CR-Ref 22% fines	88	6.7
BW-07	82	21.7

Table 7. Water Quality Summary for *E. estuarius*

Treatment	Dissolved Oxygen (mg/L)			Temperature (°C)			Salinity (ppt)			pH (units)		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control	8.0	7.4	8.3	15.5	14.7	18.5	27.1	27.0	28.0	7.9	7.8	8.0
CR-Ref 22% fines	7.9	7.6	8.4	15.6	14.7	18.2	27.9	27.0	28.0	7.9	7.7	8.0
BW-07	7.9	7.6	8.5	15.7	15.1	18.2	27.0	27.0	27.0	7.7	7.5	7.8

3.3 20-DAY JUVENILE POLYCHAETE BIOASSAY

A summary of *N. arenaceodentata* test conditions is shown in Table 8. No mortality was observed in the *N. arenaceodentata* control sediment. The tissue samples were weighed once using the standard procedures for drying and weighing and again to obtain AFDW as described previously. MIG in the control was 0.86 mg/ind/day dry weight and 0.54 mg/ind/day AFDW. The control met the performance criteria of >0.38 mg/ind/day (dry weight) under SMS. This indicates that the test conditions were suitable for adequate polychaete survival and growth. There is currently no control performance criteria for AFDW.

The LC_{50} value for the cadmium-chloride reference toxicant test was 9.2 mg Cd/L, within control chart limits of 1.3 – 13.6 mg Cd/L. This indicates that the test organisms used in this study were of similar sensitivity to those previously tested at NewFields.

To pass performance criteria MIG in the references must be within 80% of MIG in the control. Both references failed to meet the criteria when using the standard dry weights to compare. CR-Ref 22% fines measured 75% of the control MIG, and MIG in CR-Ref 95% fines was 73% of MIG in the control. Both references passed the criteria when AFDW were used in the comparison with CR-Ref 22% fines at 81% and CR-Ref 95% fines at 90% of control MIG.

Survival in the test treatments ranged from 96 - 100%; MIG in the test treatments ranged from 0.29 to 0.67 mg/ind/day (dry weight) and 0.22 – 0.48 mg/ind/day (AFDW). Table 9 shows test results for both dry weights and AFDW.

Water quality was within target parameters throughout the 20-day test period except for minor deviations in salinity outside of the optimum range by 1 ppt (Table 10). These salinities, however, were within the tolerance range for this species and would not be expected to affect test results.

All of the test treatments had ammonia levels below the NOEC (10 mg/L total ammonia) in the initial and final interstitial water. In addition, sulfide concentrations in interstitial water were below the NOEC (3.47 mg/L; Kendall and Barton 2004) for all samples.

Table 8. Test Condition Summary for *N. arenaceodentata*

Test Conditions: PSEP *N. arenaceodentata* (SMS)		
Sample Identification	CR-Ref 22% fines, CR-Ref 95% fines, BW-01, BW-04, BW-05, BW-07, BW-11	
Date Sampled	Test: 12/18/09; References: 12/15/09	
Date Received at NewFields	Test: 12/21/09; References: 12/15/09	
Sample Storage Conditions	4°C, dark	
Holding Time	1 week	
Source of Control Sediment	Don Reish	
Test Species	*N. arenaceodentata*	
Supplier	Northwest Aquatic Sciences	
Date Acquired	12/17/09	
Acclimation / Holding time	6 days	
Age Class	Juvenile	
Test Procedures	PSEP 1995 with SMARM revisions	
Regulatory Program	SMS	
Test Location	NewFields Northwest Laboratory	
Test Type / Duration	20-Day static renewal	
Test Dates	12/23/09 – 1/12/10	
Control Water	0.45 µm-filtered, North Hood Canal seawater, adjusted with DI water	
Test Temperature	Recommended: 20 ± 1 °C	Achieved: 19.4 – 21.1
Test Salinity	Recommended: 28 ± 1 ppt	Achieved: 26.0 – 30.0
Test Dissolved Oxygen	Recommended: > 6.0 mg/L	Achieved: 6.4 –7.7 mg/L
Test pH	Recommended: 8.0 ± 1	Achieved: 7.3 – 8.5
SMS Control Performance Standard	Recommended: Control ≤ 10% mortality; C_{MIG} ≥ 0.38 mg/ind/day	Achieved: 0% mortality; MIG = 0.86 mg/ind/day
SMS Reference Performance Standard	Recommended: MIG R/C ≥ 80%	Achieved: CR-Ref 22% fines: 100% survival, 0.65 MIG (fail) CR-Ref 95% fines: 100% survival, 0.627 MIG (fail)
SMS Treatment Pass/Fail SQS	Significant Difference and Treatment MIG / Reference MIG < 70% = FAIL	BW-07 fail
SMS Treatment Pass/Fail CSL	Significant Difference and Treatment MIG / Reference MIG < 50% = FAIL	BW-07 fail
Reference Toxicant LC50	9.2 µg Cu/L	
Acceptable Range	1.3 – 13.6 µg Cu/L	
Test Lighting	Continuous	
Test Chamber	1-Liter Glass Chamber	
Replicates / Treatment	5 + 2 surrogates	
Organisms / Replicate	5	
Exposure Volume	175 mL sediment/ 775 mL water	
Feeding	8 mg/worm TetraMarin every other day	
Water Renewal	250 mL every third day	
Deviations from Test Protocol	Salinity slightly out of range, references failed to meet SMS criteria for standard protocol	

Table 9. Summary of Test Results for *N. arenaceodentata*

Treatment	Mean Survival (%)	SD	MIG (mg/ind/day) Dry weight	SD	MIG (mg/ind/day) AFDW	SD
Control	100	0.0	0.86	0.2	0.54	0.1
CR-Ref 22% fines	100	0.0	0.65	0.1	0.44	0.0
CR-Ref 95% fines	100	0.0	0.63	0.1	0.49	0.1
BW-01	100	0.0	0.48	0.1	0.38	0.1
BW-04	100	0.0	0.52	0.1	0.41	0.1
BW-05	96	8.9	0.67	0.2	0.48	0.1
BW-07	100	0.0	0.29	0.1	0.22	0.1
BW-11	100	0.0	0.54	0.1	0.42	0.0

Table 10. Water Quality Summary for *N. arenaceodentata*

Treatment	Dissolved Oxygen (mg/L)			Temperature (°C)			pH (units)			Salinity (ppt)		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control	7.4	6.4	7.7	20.3	19.6	20.9	8.0	7.6	8.2	28.3	27.0	30.0
CR-Ref 22% fines	7.3	6.6	7.7	20.4	19.8	21.0	8.0	7.6	8.5	27.4	27.0	28.0
CR-Ref 95% fines	7.4	7.2	7.7	20.4	19.7	21.0	7.9	7.8	8.1	28.0	28.0	29.0
BW-01	7.3	7.1	7.6	20.5	19.8	21.1	7.8	7.6	7.9	27.2	27.0	28.0
BW-04	7.5	7.2	7.7	20.1	19.4	20.6	7.7	7.3	7.9	27.2	27.0	28.0
BW-05	7.3	6.3	7.7	20.4	19.8	21.0	7.9	7.6	8.1	27.3	27.0	28.0
BW-07	7.2	6.8	7.6	20.5	19.8	21.1	7.7	7.6	7.9	27.0	26.0	28.0
BW-11	7.4	7.2	7.7	20.4	19.7	21.0	7.9	7.8	8.1	27.3	27.0	28.0

3.4 LARVAL DEVELOPMENT BIOASSAY

A summary of the test condition results from the *Mytilus* sp. test is presented in Table 11. Stocking density was 27.2 embryos/mL. The larval test was validated by mean normal survival in the control treatments of 99.2%, above the performance criteria of ≥70%. The EC_{50} value for the copper reference-toxicant test for proportion normal was 7.2 µg Cu/L, within the control chart limits of 1.3 – 13.6 µg Cu/L. The results of the reference-toxicant test indicated that the test organisms used in this study were similar in sensitivity to those previously tested at NewFields.

Mean control normalized survival in CR-Ref 22% fines was 81.4% and in CR-Ref 95% fines was 64.3%. To pass reference performance criteria normalized survival must be within 65% of the control normal survival. While CR-Ref 22% fines passed SMS criteria, CR-Ref 95% fines was just below acceptable criteria. Normalized survival in the treatments ranged from 49.3% to 70.9% (Table 12).

Water quality is summarized in Table 13. Water quality parameters remained within the recommended limits throughout the 48-hour test with the exception of a slightly low pH of 7.0 in controls at test initiation. This is within the tolerance range for this species, however, and is not expected to have affected test

results. Ammonia and sulfide values detected in the test chambers were below the NOEC values for *Mytilus* sp.

Table 11. Test Condition Summary for *Mytilus* sp.

Test Conditions: PSEP *Mytilus* sp. (SMS)		
Sample Identification	CR-Ref 22% fines, CR-Ref 95% fines, BW-01, BW-04, BW-05, BW-07, BW-11	
Date Sampled	Test: 12/18/09; References: 12/15/09	
Date Received at NewFields	Test: 12/21/09; References: 12/15/09	
Sample Storage Conditions	4°C, dark	
Weeks of Holding	Test: 3 weeks; References: 3 weeks	
Test Species	*Mytilus* sp.	
Supplier	Taylor Shellfish	
Date Acquired	1/5/10	
Acclimation / Holding Time	1 day	
Age Class	<2-h old embryos	
Test Procedures	PSEP 1995 with SMARM revisions	
Regulatory Program	SMS	
Test Location	NewFields Northwest Laboratory	
Test Type / Duration	48-96 Hour static test	
Test Dates	1/6/10 - 1/8/10 (48 hours)	
Control Water	0.45um filtered North Hood Canal sea water	
Test Temperature	Recommended: 16 ± 1 °C	Achieved: 15.2 - 16.5 °C
Test Salinity	Recommended: 28 ± 1 ppt	Achieved: 27 ppt
Test Dissolved Oxygen	Recommended: > 5.0 mg/L	Achieved: 6.2 - 8.6 mg/L
Test pH	Recommended: 7.8 ± 0.5	Achieved: 7.0 - 7.9
Stocking Density	Recommended: 20 – 40 embryos/mL	Achieved: 27.2 embryos/mL
SMS Control Performance Standard	Recommended: Control Normal Survival ≥ 70%	Achieved: 99.2%
SMS Reference Performance Standard	Recommended: Reference Normalized Survival / Control Normal Survival ≥ 65%	Achieved: CR-Ref 22% fines = 81.4% (pass); CR-Ref 95% fines = 64.3 % (fail)
SMS Treatment Pass/Fail SQS	Significant Difference and Treatment Normalized Survival < 85% of Reference Normalized Survival = FAIL	BW-05 Fail, BW-07 Fail, BW-11 fails when compared to CR-Ref 22% fines
SMS Treatment Pass/Fail CSL	Significant Difference and Treatment Normalized Survival < 70% of Reference Normalized Survival = FAIL	BW-07 Fail, BW-11 fails when compared to CR-Ref 22% fines
Reference Toxicant LC50	7.2 mg/L copper	
Acceptable Range	3.1 to 15.4 mg/L copper	
Test Lighting	Continuous	
Test Chamber	1-Liter Glass Chamber	
Replicates / Treatment	5 + 1 surrogate	
Exposure Volume	18 g sediment/ 900 mL water	
Feeding	none	
Water Renewal	none	
Deviations from Test Protocol	pH slightly low in controls on Day 0; CR-Ref 95% fines failed SMS criteria	

Table 12. Summary of Test Results for *Mytilus* sp.

Sample	Mean Normalized Survival	SD
Control	99.2	1.8
CR-Ref 22% fines	81.4	5.4
CR-Ref 95% fines	64.3	3.5
BW-01	69.9	2.4
BW-04	70.9	4.4
BW-05	63.6	4.9
BW-07	49.3	5.9
BW-11	55.1	4.8

Table 13. Water Quality Summary for *Mytilus* sp.

Treatment	Dissolved Oxygen (mg/L)			Temperature (°C)			pH (units)			Salinity (ppt)		
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control	8.3	8.0	8.6	16.4	16.2	16.6	7.6	7.1	7.9	27.0	27.0	27.0
CR-Ref 22% fines	7.1	6.2	8.2	16.0	15.6	16.6	7.6	7.3	7.8	27.0	27.0	27.0
CR-Ref 95% fines	7.3	6.5	8.1	16.3	15.8	16.9	7.6	7.5	7.7	27.0	27.0	27.0
BW-01	7.3	6.7	7.8	16.4	16.1	16.7	7.5	7.0	7.7	27.0	27.0	27.0
BW-04	7.4	6.6	8.2	16.3	16.1	16.7	7.6	7.3	7.7	27.0	27.0	27.0
BW-05	7.2	6.5	8.1	16.3	16.0	16.5	7.6	7.4	7.7	27.0	27.0	27.0
BW-07	7.6	6.8	8.3	16.0	15.2	16.7	7.5	7.3	7.7	27.0	27.0	27.0
BW-11	7.1	6.3	8.0	16.3	15.8	16.7	7.5	7.3	7.6	27.0	27.0	27.0

4.0 DISCUSSION

Sediments were evaluated based on Sediment Management Standards (SMS) criteria. The biological criteria are based on both statistical significance (a statistical comparison) and the degree of biological response (a numerical comparison). The SMS criteria are stated in the Washington Department of Ecology Sampling and Analysis Plan Appendix (WDOE 2008). Two numerical comparisons were made under SMS, the Sediment Quality Standards (SQS) and the Cleanup Standards Limit (CSL).

4.1 AMPHIPOD TEST SUITABILITY DETERMINATION

Under the SMS program, a test treatment fails SQS if mean survival is statistically ($p \leq 0.05$) less than that of the reference treatment and mean survival in the test sediment is less than 75%. Treatments fail the CSL if mean survival is statistically ($p \leq 0.05$) less than that of the reference treatment and mean survival in the test sediment is less than 70% of the reference mean survival.

All treatments passed SMS criteria in the amphipod tests (Table 14).

Table 14. Suitability Comparison for Amphipod Bioassays

Treatment	Mean survival (%)	M_R- M_T	Statistically Less than Reference	Fails SQS?	Fails CSL?
Control - *Ampelisca*	95				
Control - *Eohaustorius*	98				
CR-Ref 22% fines	88				
CR-Ref 95% fines	92				
BW-01[2]	97	-5	No	Pass	Pass
BW-04[2]	91	1	No	Pass	Pass
BW-05[2]	98	-6	No	Pass	Pass
BW-07[1]	82	6	No	Pass	Pass
BW-11[2]	97	-5	No	Pass	Pass

[1] Treatment tested with *Eohaustorius* and CR-Ref 22% fines.
[2] Treatment tested with *Ampelisca* and CR-Ref 95% fines.

4.2 JUVENILE POLYCHAETE TEST SUITABILITY DETERMINATION

Suitability determinations for the juvenile polychaete test were based on mean individual growth (MIG). A test treatment fails SQS criteria if MIG is statistically ($p \leq 0.05$) lower in the test treatment relative to the reference, and MIG in the test treatment is < 70% that of the reference. A test treatment fails CSL criteria if MIG is statistically ($p \leq 0.05$) lower in the test treatment relative to the reference, and MIG in the test treatment is < 50% that of the reference.

Treatments were evaluated using both the standard dry weight measurements and the AFDW values. In both cases BW-07 failed SQS and CSL criteria. All other stations passed both criteria using either dry weights or AFDW. (Tables 15a & 15b).

Table 15a. Suitability Comparison for Juvenile Polychaete Bioassay Using Dry Weights

Treatment	MIG (mg/ind/day) Dry weight	MIG_T / MIG_R	Statistically Less than Reference	Fails SQS?	Fails CSL?
Control	0.859				
CR-Ref 22% fines	0.647				
CR-Ref 95% fines	0.627				
BW-01[2]	0.482	0.77	Yes	Pass	Pass
BW-04[2]	0.520	0.83	No	Pass	Pass
BW-05[1]	0.672	1.04	No	Pass	Pass
BW-07[1]	0.287	0.44	Yes	Fail	Fail
BW-11[2]	0.542	0.87	Yes	Pass	Pass

[1] Treatment compared to CR-Ref 22% fines.
[2] Treatment compared to CR-Ref 95% fines.

Table 15b. Suitability Comparison for Juvenile Polychaete Bioassay Using AFDW

Treatment	MIG (mg/ind/day) AFDW	MIG_T / MIG_R	Statistically Less than Reference	Fails SQS?	Fails CSL?
Control	0.542				
CR-Ref 22% fines	0.439				
CR-Ref 95% fines	0.488				
BW-01[2]	0.379	0.78	Yes	Pass	Pass
BW-04[2]	0.407	0.83	No	Pass	Pass
BW-05[1]	0.484	1.10	No	Pass	Pass
BW-07[1]	0.217	0.49	Yes	Fail	Fail
BW-11[2]	0.423	0.87	Yes	Pass	Pass

[1] Treatment compared to CR-Ref 22% fines.
[2] Treatment compared to CR-Ref 95% fines.

4.3 LARVAL TEST SUITABILITY DETERMINATION

Larval test treatments fail SQS criteria if normalized survival in the test treatment is significantly ($p \leq 0.10$) less than that of the reference and if the normalized survival in the test treatment is less than 85% of the normalized survival in the reference. Treatments fail CSL criteria if the normalized survival in the test treatment is significantly ($p \leq 0.10$) less than that of the reference and if the normalized survival in the test treatment is less than 70% of the normalized survival in the reference.

Since CR-Ref 95% failed SMS performance criteria, the three treatments (BW-01, BW-04 and BW-11) that more closely matched the grain size of that reference were also compared to CR-Ref 22% fines (Tables 16a & 16b). Station BW-05 failed to meet SQS criteria but passed CSL. BW-07 failed both SQS and CSL criteria. BW-11 failed SQS and CSL criteria when compared to CR-Ref 22% fines but not when compared to CR-Ref 95% fines. All other stations passed both criteria.

Table 16a. Suitability Comparison for Larval Development Bioassay

Treatment	Mean Normalized Survival	$(N_T/N_C)/(N_R/N_C)$	Statistically Less than Reference	Fails SQS?	Fails CSL?
Control	99.2				
CR-Ref 22% fines	81.4				
CR-Ref 95% fines	64.3				
BW-01[2]	69.9	1.09	No	Pass	Pass
BW-04[2]	70.9	1.10	No	Pass	Pass
BW-05[1]	63.6	0.78	Yes	Fail	Pass
BW-07[1]	49.3	0.61	Yes	Fail	Fail
BW-11[2]	55.1	0.86	Yes	Pass	Pass

[1] Treatment compared to CR-Ref 22% fines.
[2] Treatment compared to CR-Ref 95% fines.

Table 16b. Suitability Comparison for Larval Development Bioassay

Treatment	Mean Normalized Survival	$(N_T/N_C)/(N_R/N_C)$	Statistically Less than Reference	Fails SQS?	Fails CSL?
Control	99.2				
CR-Ref 22% fines	81.4				
BW-01	69.9	0.86	No	Pass	Pass
BW-04	70.9	0.87	No	Pass	Pass
BW-11	55.1	0.68	Yes	Fail	Fail

4.4 SUMMARY

Table 17 summarizes the results of the bioassay testing for the Bay Wood Products Site investigation. Station BW-05 failed SQS criteria but passed CSL in the larval test. This station passed both criteria in the amphipod and polychaete tests. Station BW-07 failed both SQS and CSL guidelines in the polychaete and larval tests but passed SMS standard in the amphipod test. BW-11 failed SQS and CSL criteria in the larval test when compared to CR-Ref 22% fines but passed all criteria in the amphipod and polychaete tests and in the larval test when compared to CR-Ref 95% fines. All other stations passed SMS criteria in all three bioassays.

Table 17. Summary of SMS Suitability Comparison for Bay Wood Products Site

Treatment	Amphipod Survival Bioassay		Polychaete Growth Bioassay		Larval Development Bioassay	
	Pass / Fail SQS	Pass / Fail CSL	Pass / Fail SQS	Pass / Fail CSL	Pass / Fail SQS	Pass / Fail CSL
BW-01	Pass	Pass	Pass	Pass	Pass	Pass
BW-04	Pass	Pass	Pass	Pass	Pass	Pass
BW-05	Pass	Pass	Pass	Pass	Fail	Pass
BW-07	Pass	Pass	Fail	Fail	Fail	Fail
BW-11	Pass	Pass	Pass	Pass	Pass[1] / Fail[2]	Pass[1] / Fail[2]

[1] Treatment compared to CR-Ref 95% fines.
[2] Treatment compared to CR-Ref 22% fines.

5.0 REFERENCES

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Grubbs, Frank (1969), Procedures for Detecting Outlying Observations in Samples, Technometrics, Vol. 11, No. 1, pp. 1-21.

Kendall, D, 1996. DMMP/SMS Clarification Paper: Neanthes 20-Day Growth Bioassay – Further Clarification on Negative Control Growth Standard, Initial Size and Feeding Protocol. Presented at the 9th Annual Sediment Management Annual Review Meeting for USACE Seattle, Washington.

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PSEP. 1995. Puget Sound Protocols and Guidelines. Puget Sound Estuary Program. Puget Sound Water Quality Action Team, Olympia, Washington.

PSEP 1997. Recommended Guidelines for Sampling Marine Sediment, Water Column, and Tissue in Puget Sound. Puget Sound Estuary Program. Puget Sound Water Quality Action Team, Olympia, Washington.

Standard Methods for the Examination of Water and Wastewater (SMEWW), Method 1030 C,D. 20th Ed. 1998. American Public Health Association, Washington D.C.

APPENDIX K
COST ESTIMATE – UPLAND

FS Alternatives Cost Estimate Summary
Bay Wood Products Site - Port of Everett
Everett, Washington

Primary Closure Activities
1 Planning and Contractor Procurement
2 Contractor Mobilization
3 Contractor fencing of the two areas (around sample locations E1 and M2)
4 Hydroseed the two areas (E1 and M2) to prevent erosion
5 Preparation of a Soil Management Plan and Site Deed Restriction
6 Agency Correspondence

Primary Assumptions
1 Soil remains on-site, potential exposure eliminated by controls (fence around two areas) and soil management plan

Item No.	Component	Units	No. of Units	Unit Cost	Cost	Total Cost
1	Planning, Contractor Procurement, and etc.	LS	1	$2,500	$2,500	
2	Contractor Mobilization for fencing and hydroseedin	LS	1	$2,000	$2,000	
3	Fence installation (8 foot chain link)	LF	650	$55.00	$35,750	
4	Hydroseeding	ACRE	0.5	$1,426	$713	
5	Soil Management Plan, Deed Restriction, and Ager	Estimate	1	$15,000	$15,000	
					Subtotal	$55,963
					Contingency (20%)	$11,193
					Engineering and Management (10%)	$5,596

TOTAL ESTIMATED CAPITAL COST $72,752

Net Present Value Summary of Estimated Costs **SUM OF PRESENT VALUE: $70,839**

Year				TOTAL	Discount Factors	TOTAL with Discount Factor
2010				$0	1.0000	$0
2011				$72,752	0.9737	$70,839
2012				$0	0.9481	$0
2013				$0	0.9232	$0
2014				$0	0.8989	$0
2015				$0	0.8753	$0
2016				$0	0.8523	$0
2017				$0	0.8299	$0
2018				$0	0.8080	$0
2019				$0	0.7868	$0
2020				$0	0.7661	$0
2021				$0	0.7460	$0
2022				$0	0.7264	$0
2023				$0	0.7073	$0
2024				$0	0.6887	$0
2025				$0	0.6706	$0
2026				$0	0.6529	$0
2027				$0	0.6358	$0
2028				$0	0.6191	$0
2029				$0	0.6028	$0
2030				$0	0.5869	$0
2031				$0	0.5715	$0
2032				$0	0.5565	$0
2033				$0	0.5419	$0
2034				$0	0.5276	$0
2035				$0	0.5137	$0
2036				$0	0.5002	$0
2037				$0	0.4871	$0
2038				$0	0.4743	$0

Discount factor is calculated as $1/(1 + i)^t$, where i is the real interest rate (adjusted to remove expected inflation, 2.7%) and t is the year.
OMB Circluar No. A-94 (Executive office of the President, office of Management and Budget, and 2010 Discount Rates memo dated 12-8-2009)

FS Alternatives Cost Estimate Summary

Bay Wood Products Site - Port of Everett

Everett, Washington

Primary Closure Activities

1 Planning, Contractor Procurement, and Soil Grading Plan
2 Contractor Mobilization and Sediment Controls
3 Grading of impacted soil - **estimate 1,300 CY (bank)** from E1 and M2 areas
4 Grading of remaining soil piles to cover impacted soil
5 Hydroseeding: Hydroseed entire area with grass mixture to control erosion
6 Preparation of a Soil Management Plan and Site Deed Restriction

Primary Assumptions

1 Soil from E1 and M2 areas would be graded to a depth of approximately 1-foot depth (estimate 1,300 CY bank)
2 This soil area with E1 and M2 area soil would be accurately surveyed
3 The remaining soil piles would be graded flat and covering the E1 / M2 area soil
4 State construction general permit is required (ground disturbance greater than one acre)
5 Site work requires only standard erosion control measures (silt fence, gravel entrance drive, and monitoring/sampling)
6 Soil Management Plan and Site Deed Restriction would be required

Item No.	Component	Units	No. of Units	Unit Cost	Cost	Total Cost
1	Planning, Procurement, and Grading Plan	LS	1	$12,000	$12,000	
2	Contractor Mobilization and Erosion Controls	LS	1	$15,000	$15,000	
3	Grading of E1 / M2 area soil	SY	4,250	$2.25	$9,563	
4	Survey of E1 / M2 area soil following grading	LS	1	$3,000	$3,000	
5	Grading of remaining soil piles to cover	SY	15,000	$2.25	$33,750	
6	Hydroseeding	ACRE	3.1	$1,426	$4,419	
7	Soil Management Plan and Site Deed Restriction	Estimate	1	$15,000	$15,000	
8	Agency interaction	Estimate	1	$10,000	$10,000	
					Subtotal	$102,732
					Contingency (30%)	$30,820
					Engineering and Management (10%)	$10,273

TOTAL ESTIMATED CAPITAL COST $143,825

Net Present Value Summary of Estimated Costs **SUM OF PRESENT VALUE: $140,044**

Year				TOTAL	Discount Factors	TOTAL with Discount Factor
2010				$0	1.0000	$0
2011				$143,825	0.9737	$140,044
2012				$0	0.9481	$0
2013				$0	0.9232	$0
2014				$0	0.8989	$0
2015				$0	0.8753	$0
2016				$0	0.8523	$0
2017				$0	0.8299	$0
2018				$0	0.8080	$0
2019				$0	0.7868	$0
2020				$0	0.7661	$0
2021				$0	0.7460	$0
2022				$0	0.7264	$0
2023				$0	0.7073	$0
2024				$0	0.6887	$0
2025				$0	0.6706	$0
2026				$0	0.6529	$0
2027				$0	0.6358	$0
2028				$0	0.6191	$0
2029				$0	0.6028	$0
2030				$0	0.5869	$0
2031				$0	0.5715	$0
2032				$0	0.5565	$0
2033				$0	0.5419	$0
2034				$0	0.5276	$0
2035				$0	0.5137	$0
2036				$0	0.5002	$0
2037				$0	0.4871	$0
2038				$0	0.4743	$0

Discount factor is calculated as $1/(1 + i)^t$, where i is the real interest rate (adjusted to remove expected inflation, 2.7%) and t is the year.
OMB Circluar No. A-94 (Executive office of the President, office of Management and Budget, and 2010 Discount Rates memo dated 12-8-2009)

FS Alternatives Cost Estimate Summary
Bay Wood Products Site - Port of Everett
Everett, Washington

Primary Closure Activities

1 Planning, Contractor Procurement, and Soil Disposal Coordination (profile)
2 Contractor Mobilization and Sediment Controls
3 Load, Transport, and Dispose of Contaminated Soil - **estimate 1,300 CY (bank)** from E1 and M2 areas
4 Confirmation Sampling and Analysis
5 Hydroseeding: Hydroseed excavation area with grass mixture to control erosion
6 Remediation Completion report / documentation

Primary Assumptions

1 Soil taken to CEMEX soil remediation facility, 6300 Glenwood Avenue, Everett, WA
2 Soil in soil piles is 1.4 tons per cubic yard bank (in-place weight)
3 State construction general permit not required (ground disturbance less than one acre)
4 Site work requires only minor erosion control measures (silt fence and gravel entrance drive)
5 Confirmation sampling for PAHs only; four from each pile base and three from pile section remaining - 14 total
6 Assumes confirmation sample results PAH results in the soil remaining is below site cleanup levels

Item No.	Component	Units	No. of Units	Unit Cost	Cost	Total Cost
1	Planning, Contractor Procurement, and etc.	LS	1	$7,500	$7,500	
2	Contractor Mobilization and Erosion Controls	LS	1	$6,000	$6,000	
3	Load, Transport, and Dispose of Contaminated Soil	TONS	1,820	$45.00	$81,900	
4	Confirmation Sampling and Analysis	EA	14	$175.00	$2,450	
5	Hydroseeding	ACRE	0.5	$1,426	$713	
6	Remediation Completion report / documentation	LS	1	$10,000	$10,000	
					Subtotal	$108,563
					Contingency (30%)	$32,569
					Engineering and Management (10%)	$10,856

TOTAL ESTIMATED CAPITAL COST $151,988

Net Present Value Summary of Estimated Costs **SUM OF PRESENT VALUE: $147,992**

Year				TOTAL	Discount Factors	TOTAL with Discount Factor
2010				$0	1.0000	$0
2011				$151,988	0.9737	$147,992
2012				$0	0.9481	$0
2013				$0	0.9232	$0
2014				$0	0.8989	$0
2015				$0	0.8753	$0
2016				$0	0.8523	$0
2017				$0	0.8299	$0
2018				$0	0.8080	$0
2019				$0	0.7868	$0
2020				$0	0.7661	$0
2021				$0	0.7460	$0
2022				$0	0.7264	$0
2023				$0	0.7073	$0
2024				$0	0.6887	$0
2025				$0	0.6706	$0
2026				$0	0.6529	$0
2027				$0	0.6358	$0
2028				$0	0.6191	$0
2029				$0	0.6028	$0
2030				$0	0.5869	$0
2031				$0	0.5715	$0
2032				$0	0.5565	$0
2033				$0	0.5419	$0
2034				$0	0.5276	$0
2035				$0	0.5137	$0
2036				$0	0.5002	$0
2037				$0	0.4871	$0
2038				$0	0.4743	$0

Discount factor is calculated as $1/(1 + i)^t$, where i is the real interest rate (adjusted to remove expected inflation, 2.7%) and t is the year.
OMB Circluar No. A-94 (Executive office of the President, office of Management and Budget, and 2010 Discount Rates memo dated 12-8-2009)

APPENDIX L
SEPA CHECKLIST

ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply". In additional, complete the Supplemental Sheet for Nonproject actions (part D).

For nonproject actions, the references in the checklist to the words "project", "applicant", and "property or site" should be read as "proposal", "proposer", and "affected geographic area", respectively.

A. Background

1. Name of proposed project, if applicable:

Jeld-Wen Waterfront Redevelopment Comprehensive Plan Map Change, Planned Development Overlay Rezone and Shoreline Designation Change.

2. Name of applicant:

Applicant and Owner
Jeld-Wen, Inc, and Eagle Crest

Co-Applicant and Owner
Port of Everett

3. Address and phone number of applicant and contact person:

Jeld-Wen, Inc
P.O. Box 1329
Klamath Falls, OR 97601

Contact Person: Stuart Woolley
Executive V.P.
541.923.0807

Port of Everett
P.O. Box 538
Everett, WA 98206

Contact Person: John Mohr
Executive Director
425.259.3164

Local Contact: Randy Blair
W & H Pacific
3350 Monte Villa Parkway
Bothell, WA 98021
425.951.4815

4. Date checklist prepared: ***June 26, 2006***

5. Agency requesting checklist:

CITY OF EVERETT

6. Proposed timing or schedule (including phasing, if applicable):

Considering that this is a non-project action following approval of the requested land use, zoning and shoreline designation and approval of the submitted Redevelopment Concept the applicant will subsequently prepare more detailed site investigations, technical and environmental evaluations, design guidelines and site plans to be submitted with a more specific development application. This subsequent development application will **also be subject to SEPA review.**

Regarding phasing, the project will be developed in multiple phases. The timing of development at this time is unknown.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Yes, as described in item 6.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

   - ***Project Level SEPA environmental review.***
   - ***Environmental evaluation of existing buildings***
   - ***Environmental and geotechnical explanation of soils.***
   - ***Stormwater Management Plan***
   - ***Project Level evaluation regarding Compliance with the Federal Endangered Species Act.***
   - ***Technical and environmental analysis associated with the Marina***

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

   Not aware of any.

10. List any government approvals or permits that will be needed for your proposal, if known.

    City of Everett

    - ***Comprehensive Plan Amendment and Zoning Change***
    - ***Shoreline Master Program Amendments***
    - ***Official Site Plan Approval to comply with Planned Development Zoning Overlay requirements***
    - ***Shoreline Substantial Development Permit***
    - ***Binding Site Plan***
    - ***Grading Permit***
    - ***Demolition Permits for existing structures***
    - ***Building Permits***
    - ***Utility Extensions***
    - ***Right-of-Way Use Permits***
    - ***Sign Permits***

State of Washington

- *401 Water Quality Certification Nationwide Permits*
- *Approval to Allow Temporary Exceedance of Water Quality Standards*
- *Hydraulic Project Approval*
- *Individual Stormwater Discharge Permit*

Federal

- *Army Corps of Engineers Nationwide Permit 3 – Bulkhead Maintenance and Repair**
- *Army Corps of Engineers Section 404 Permit – Work in Navigable Waters – In –water marina and new boat haul-out**
- *Army Corps of Engineers Section 10 Permit – New Dredging*
- *Endangered Species Act (ESA) Compliance – Biological Evaluation/Biological Assessments (BE/BA)*

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

This proposal is to change the City of Everett Comprehensive Plan Map of the Jeld-Wen and Port of Everett properties from Maritime Services with shoreline designations of Maritime Interim Aquatic Conservancy and Aquatic to the designation of waterfront commercial with a Shoreline Urban Multi-Use overlay. The zoning of the properties would be changed from Maritime Services (M-S) and Heavy Manufacturing (M-2) to Waterfront Commercial with a Planned Development Overlay. Following approval of these initial land use, zoning and shoreline re-designations, more detailed environmental and technical evaluations will be performed, a detailed site plan prepared and design guidelines. These documents will subsequently be submitted to the City for site plan approval. Following the site plan approval more detailed design and construction documents will be submitted to the City and other applicable agencies to obtain permits for construction.

Regarding site area, the gross acres of the Jeld-Wen property is 52.63 acres, of which approximately 36 acres is uplands. The gross acres of the Port Property is 41.32 acres, of which approximately 17 acres is uplands.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known, if a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The proposal is located in Section 7, T29N, R5E. Two of the street addresses associated with the properties are 200 West Marine View Drive and 200 West Marine View Drive, Everett, WA 98201. A vicinity map and color aerial photo are attached (Attachment "A"). A copy of the development concept is included in Attachment "B".

B. Environmental Elements

1. Earth

a. General description of the site (circle one): (Flat,) rolling, hilly, steep slopes, mountainous, other _____ .

b. What is the steepest slope on the site (approximate percent slope)?

With the exception of rip rap and retainment at the shoreland edges the properties predominately have a 1%- 3% slope.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

According to the Snohomish County Soil Conservation Service soil survey, the properties soils are classified as "Urban Land". This is predominately due to the historic filling of this area in the early 1900's. Based on the previous use of the Jeld-Wen property for manufacturing purposes, the property appears suitable for urban development.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There has been no past history or evidence of unstable soils on the site. With the future development plan application a geotechnical evaluation will be performed to provide technical data on the design criteria for structures, foundations, pavement, retaining walls, utility bedding and pier/piles, and shoreline protection, etc.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Due to the relatively flat nature of the properties, upland site grading will be less than many other properties in the City. The dredging to expand the waterfront and accommodate the marina and upland site development grading will be addressed with subsequent development applications at the time of permit application with the City and other applicable agencies.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

As is the case with all earthwork, erosions could occur on the site if soils were left exposed during heavy or lengthy rain storms. Measures used to manage erosions will be described in the future project level environmental review.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 95% of the Jeld-Wen uplands is currently paved or covered with "impervious structures. The Port of Everett property currently has little impervious surface, however the existing zoning on the Port property would permit up to 90% or more imperious surface.

The proposal will likely reduce the impervious service by 10% or more due to the provision of both public and private open space features.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

The measures to reduce or control erosion will be addressed with the future redevelopment projects level review.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.'

No emissions will occur as a result of this land use zoning and shoreline re-designation request. Subsequent applications will address this item.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Not aware of any.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None proposed at this time due to the action requested. Following approval of the land use, zoning and shoreline designation more detailed evaluation will be performed and this item will be addressed in a subsequent SEPA review.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Yes. The Snohomish River Navigation Channel, adjacent shorelands and the Maulsby Wetlands which is located east of the West Marine View Drive.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes, the proposal and associated Development Concept proposes a Marina (public and private), pedestrian access (public and private) and expanded water access (dredging) which is both public and private. This is illustrated on the Development Concept contained in Attachment "B".

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill materials.

The amount of fill or dredge material is not known at this time. The areas projected for fill and dredge activities associated with the Marina uses are shown on Attachment "B".

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No. Domestic and fire protection water service is provided by the City.

5) Does the proposal lie with a 100-year floodplain? If so, note location on the site plan.

No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No. Sanitary Sewer Service is provided by the City.

b. Ground

1) Will ground water be withdrawn, or will water be discharge to ground water? Give general description, purpose, and approximate quantities, if known.

No. Existing domestic and fire protection lines will serve the project from the City of Everett water system

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals . . .; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste materials will be discharged from the project.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The principal source of runoff on the property will be rainwater and snowmelt from impervious surfaces such as roof tops, parking areas and other paved areas.

There will also be the potential for runoff of petrochemicals from parking areas and boat storage. The project level environmental review will include a stormwater management plan addressing the best management practices to be utilized to minimize the influence of stormwater runoff from entering the ground or surface waters. Stormwater will be detained and discharged to the Port Gardner Channel.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Yes, however on the Jeld-Wen property which is over 90% impervious it will be less since the majority of this site has an outdated stormwater system. With the exception of the western 6 acres, this site has no stormwater detention or

water quality treatment facilities. The Port property which is undeveloped has less storm water runoff in its current state. The project level environmental review as previously discussed in item C.1 will include a stormwater management plan addressing the best management practices to be utilized.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

The project level environmental review will include a stormwater management plan which will describe the best management practice and measures that will be used to reduce or control surface, ground and runoff water. In addition, future construction will be performed in accordance with applicable City, State and Federal permit conditions and standards.

4. Plants

a. Check or circle types of vegetation found on the site:
_X_ deciduous tree: alder, maple, aspen, other
_X_ evergreen tree: fir, cedar, pine, other
_X_ shrubs
_X_ grass
___ pasture
___ crop or grain
___ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
_X_ water plants: water lily, eelgrass, milfoil, other various aquatic plants (TBD)
___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

There are very few trees on either the Jeld-Wen or Port properties. The exception is the approximately 2 acre uplands at the south end of the Jeld-Wen property. Approximately 25% or more of the trees are proposed to be retained on this 2 acre parcel. The Port property is predominately wild grasses and invasive shrub species. All of this vegetation is proposed to be removed with future construction.

c. List threatened or endangered species known to be on or near the site.

No aware of any.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Redevelopment of the site will include multiple landscape treatments which will include native and ornamental plant species of trees, shrubs and ground covers.

These include the potential 2 acres waterfront park at the south end of the Jeld-Wen property, the proposed linear park at West Marine View Drive, the public and private trail network along the shoreline and other open space features.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: ~~hawk~~, ~~heron~~, eagle, songbirds, ~~other:~~ bald eagles, gulls, kingfishers, turns and sea ducks will likely be found on or in the vicinity of the project site
mammals: deer, bear, elks, beaver, ~~other:~~ Harbor seals, sea lions and ~~others~~ otters utilize the waters near the site
fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

Chinook Salmon, bull trout, and bald eagles are likely near the site. To our knowledge there are no known bald eagle nests on the site. The project level environmental review will include a plant and animal evaluation and assessment.

c. Is the site part of a migration route? If so, explain.

Yes. Migrating adult and juvenile salmonid species use the Snohomish River channel as a migration route. The project level environmental review will include an evaluation and assessment regarding any potential impact and applicable mitigation measures.

d. Proposed measure to preserve or enhance wildlife, if any:

The project level environmental review will include an evaluation and assessment of various methods to preserve or enhance wildlife as an element of redeveloping the site.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Future redevelopment will require electrical power and natural gas for heating, lighting, appliance, space and water heating and other typical urban energy requirements.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Future site development will be designed to conform to applicable state and local energy code criteria.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal. If so, describe.

The potential for environmental health hazards on the Jeld-Wen site will be less than the previous door manufacturing uses on the site. Specific aspects of the environmental health hazards will be addressed in the subsequent project level environmental review.

1) Describe special emergency services that might be required.

With the exception of the marina uses, standard police, fire, and medical emergency services will be required in the event of accident, fire, environmental spill or unusual emergency event on the property. Police, fire, and emergency medical services will be provided by the City of Everett. The City of Everett has mutual aid agreements with adjacent jurisdictions.

2) Proposed measures to reduce or control environmental health hazards, if any:

Redevelopment of the Jeld-Wen site will result in replacing the old structures, buildings and inadequate infrastructure which was not designed and constructed to current environmental health standards. Future development will be subject to current environmental health standards. The project level review will address any needed special measures.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Predominately the noise is related to vehicular traffic along West Marine View Drive and the railroad on the east side of this roadway.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Typical short term construction noise associated with demolition of existing structures and new construction activity associated with the proposed uses. Future demolition and construction activities will occur within the established hours and days of the week permitted by the City. Long term noise will be typical of other residential, marina, and commercial uses.

3) Proposed measures to reduce or control noise impacts, if any:

Construction activity will be limited to the City permitted construction hours and others which maybe required as conditions associated with State or Federal permits.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The Jeld-Wen site is currently used by Rinker to transport gravel which has been barged to the property. The previous door manufacturing facility on the remainder of the site is no longer in operation. The Port property is undeveloped. The properties immediately adjacent to the site are undeveloped. More specifically,; 1) North – undeveloped, 2) South – mudflats/tidelands, 3) West – water channel and 4) West Marine View Drive, Railroad and Maulsby Wetland

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.

The Jeld-Wen property contains numerous structures and buildings associated with the previous door manufacturing facility. There is also a barge dock at the west end of the site. In addition a new gravel processing building exists on the portion of site leased to Rinker. No structures exist on the Port Property.

d. Will any structures be demolished? If so, what?

It is anticipated that most all of the existing structures will be demolished. The project level environmental review will provide a description of all structures which will be demolished.

e. What is the current zoning classification of the site?

M-S Maritime Services and M-2 Heavy Manufacturing.

f. What is the current comprehensive plan designation of the site?

Maritime Services with a shoreline overlay of Urban Maritime Interim, Aquatic, and Aquatic Conservancy.

g. If applicable, what is the current shoreline master program designation of the site?

The Everett Shoreline Master Program designates the adjacent shoreline as Urban Maritime Interim, Aquatic and Aquatic Conservancy.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

None of the uplands portions of the site are classified as environmentally sensitive. The City notes in the Shoreline Plan that the Maulsby Mudflats is subject to special area planning to be conducted by the City and multiple property owners.

i. Approximately how many people would reside or work in the completed project?

Unknown at this time. The project level environmental review will provide information on the projected number of people who will work and or reside at the site.

j. Approximately how many people would the completed project displace?

No people currently reside on the property. The existing Rinker gravel operation will need to relocate. The number of on-site Rinker employees and truck drivers varies based on the economy and construction activity.

k. Proposed measures to avoid or reduce displacement impacts, if any:

The time period necessary to obtain permits for redevelopment of the property should be sufficient for Rinker to relocate its operation.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed redevelopment will require the requested Comprehensive plan amendment, rezone and Shoreline Designation change to waterfront commercial with planned development overlay and an urban multi-use shoreline designation.

The proposal also includes a pedestrian trail and open space network consistent with the adopted Shoreline Public Access Plan (2003).

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

At this stage a specific development proposal has not been prepared. This is a non-project action initially requesting a change in the land use and zoning designations.

A copy of an initial development concept is enclosed (Attachment "B"). The residential uses will likely contain waterfront live/work units, low-rise, mid-rise and residential tower flats. Residential units will predominantly be for middle to *upper income.*

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Not applicable. No residential units exist on the property.

c. Proposed measures to reduce or control housing impacts, if any:

During the future project level environmental review, the project will include a set of design guidelines for buildings, public and private open spaces, the Marina, waterfront, and a linear park along West Marine View Drive. At this time a historic Maritime Everett Waterfront theme is proposed.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The tallest height of any proposed structure is projected to be approximately eighty (80) feet. These are labeled residential tower flats on the Conceptual Plan (Attachment "B"). Exterior building materials would likely include wood, glass, metal, masonry block, and other contemporary finishes. As previously discussed in this checklist a set of architectural design guidelines will be prepared with the future development application. These guidelines will be established as binding conditions, covenants, and restrictions (CC & R's) for all development on the property. More detailed information on the varied building heights site plan and building materials will be provided during the project level environmental review.

b. What views in the immediate vicinity would be altered or obstructed?

Views in the immediate vicinity along West Marine View Drive will be altered. The alterations associated with both the Jeld-Wen and Port Property include the open space linear Park along the roadway. Regarding the Jeld-Wen property, the new buildings will be set back further from West Marine View Drive. The residences on the bluff east of the site along Alverson Blvd. are setback approximately 700 feet from the Jeld-Wen frontage along West Marine View Drive and setback 600-700 feet from the Port property. Some views from the residences on the bluff will likely be altered, however no ones total view will be *obstructed. Prior to the public hearings on this proposal the applicant intends to prepare and submit cross-sections and graphic simulations which illustrate the development and the potential view alterations. Also, more detailed information on this element will be proved during the project level environmental review.*

c. Proposed measure to reduce or control aesthetic impacts, if any:

As discussed in item 10.b. the linear park, water feature, setback of buildings from West Marine View Drive and provision of architectural design guidelines and CC & R's will reduce the aesthetic impacts. In addition the building height variation will assist for the residential element. It is also proposed that the building heights will be highest at the center of the Jeld-Wen site and tapering down in height toward the edges of the site. In addition, it is anticipated there will be a tapering down in height toward the water to reduce the alteration of views from the residences on the bluff.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Redevelopment and new development will produce exterior and interior lighting, automobile headlights, street and parking lighting, grounds lighting and business sign lighting. Information on sources of light and glare will be provided during the project level environmental review.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

The future redevelopment will change the type and location of lighting on the Jeld-Wen site and provide new lighting sources on the Port site. It is not anticipated that these sources will produce a safety hazard. These sources will alter the current condition along West Marine View Drive and from the residences on the bluff. Further review of these factors will be addressed in the project level environmental review.

c. What existing off-site sources of light or glare may affect your proposal?

Not aware of any which may affect the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:

The need for any special provisions to reduce or control light and glare will be identified during the project level environmental review and site plan review process.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

North View Park is located along West Marine View Drive approximately 900 linear feet south of the Jeld-Wen property. There is also a public park on the bluff along Alverson Blvd. The City's Legion Golf Course is located within approximately one mile northeast of the property.

b. Would the proposed project displace any existing recreation uses? If so, describe.

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

The future redevelopment will improve active and informal recreation. These improvements include the potential 2 acre public waterfront park, linear park along West Marine View Drive, increased public shoreline access on the Port property with view points and increased shoreline access to the residents on the Jeld-Wen property. These improvements are consistent with the City of Everett Shoreline Public Access Plan.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Not aware of any.

c. Proposed measures to reduce or control impacts, if any:

Not applicable.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

West Marine View Drive provides primary access to the Jeld-Wen and Port Property.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The site is not currently serviced by public transit. It appears Everett Transit may have at one time served the Jeld-Wen site when the manufacturing facility was in operation. This opinion is based on the fact that a Transit Shelter exists along the frontage with West Marine View Drive. Currently Everett Transits closest bus stop is approximately one mile south of the site. With future development it is anticipated enough potential ridership would warrant Everett Transit extending transit service to the site.

c. How many parking spaces would the completed project have? How many would the project eliminate?

With the future development proposal once a specific site plan is prepared and the mix of uses determined a projection of the number of parking spaces will be able to be identified. The existing parking spaces for the previous Jeld-Wen manufacturing facility will be redeveloped and replaced.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

New vehicular and pedestrian circulation improvements will be required for redevelopment. It is anticipated the vehicular circulation (streets/drives) will be private and maintained by a Property Owners Association (POA) and or a Home Owners Association (HOA). The specific location of these facilities will be shown on the future site plan. The site plan will be subject to City approval.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project concept includes both a private and public marina with boat slips intended to with improvements and dredging use the adjacent water channel.

These water uses are at this time projected to be primarily for recreational boat purposes. If the market warrants there is the possibility of tour boats, charter boats, and passenger boats. Further review of these factors will be addressed during the project level environmental review.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Redevelopment of the site will increase vehicular trips per day. At this time the number, type and peak hour are not known. The project level environmental review will include a traffic analysis in accordance with the City traffic analysis criteria.

g. Proposed measures to reduce or control transportation impacts, if any:

The future project level environmental review will include measures to reduce or control transportation impacts. At a minimum those measures will include complying with the City Traffic Mitigation requirements.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Yes. There will be an increased demand for public services over the current use of the property. These increases will predominantly relate to police and fire protection. It is not anticipated that the residential uses will attract a significant number of families or single parents with school age children. The project level environmental review will provide more information on the increased need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any:

The removal of the vacant existing buildings will remove a potential fire hazard. With redevelopment the provision of a comprehensive vehicular circulation network, along with updated fire protection devices and new structures built to code will reduce the impact on fire and police protection. The need for any special measures to reduce or control impacts on public services will be addressed as a part of the project level environmental review.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse, service, telephone service, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Extensions and some upgrades of the utilities noted in item 16.a. will be required to serve the future redevelopment of the property. The specifics regarding extensions and upgrades will be provided as a part of the project level environmental review.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Randy Blair - WHPacific

Date Submitted: June 30, 2009

D. Supplemental sheet for nonproject actions

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Redevelopment of the site for commercial, recreation and residential oriented mixed-use under the proposed comprehensive plan map change and rezone could potentially result in some increased discharge to water, emissions to air, and production of noise. The previously completed sections of this Environmental Checklist provide additional information regarding the potential for increased emissions, releases and discharges in each of these categories. However, it should also be noted that incremental redevelopment and use of the site that

would otherwise occur under its current comprehensive plan designation and zoning would potentially create equal or greater levels of these same types of discharges, emissions and releases. This is because the current comprehensive plan and zoning allow and promote use of the site for a wide range of more industrial and heavy manufacturing oriented uses. These uses typically produce proportionally more water, air, noise and toxic or hazardous emissions and substances than do the mix of uses allowed under the requested plan and zone change.

Proposed measures to avoid or reduce such increases are:

(1) Full compliance of the proposed mixed-use oriented site redevelopment with all applicable City of Everett Comprehensive plan provisions and related development regulations as they would be emended by the requested map change and PDO rezone; (2) Removal of nearly all the site's older structures and large industrial uses and replacement with lower polluting uses and structures that fully comply with the most current building, fire/safety and environmental codes; and (3) Implementation of any needed special emission/discharge reduction controls or requirements as part of the project level, site plan approval and environmental review process.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The proposal is not anticipated to have more adverse affects on plants, animals, fish or marine life than would the types of uses and intensity of development allowed under the current comprehensive plan designation and zoning. This is because the portions of the proposed site redevelopment described in the proposed concept for redevelopment now being evaluated that are most likely to have any significant affect on plants, animals, fish or marine life are already allowed by the current comprehensive plan and zoning. The one exception is the portion of the shoreline currently designated Aquatic Conservancy. The procedure to evaluate and change the shoreline use on the portions designated Urban Maritime Interim are similar for the existing and proposed land use designation and zoning.

Proposed measures to protect or conserve plants, animals, fish or marine life are:

(1) Removal of older existing structures and redevelopment with new stormwater management facilities will reduce impacts on aquatic plants, fish, and marine life; and (2) Implementation of any special measures determined to be needed to protect or conserve plants animals, fish or marine life near the site as part of the project level, site plan approval and environmental review process.

3. How would the proposal be likely to deplete energy or natural resources?

Master planned, mixed – use redevelopment of the site as would be allowed by the proposed comprehensive plan map change and PDO rezone is likely to result in the consumption of additional energy or natural resources. However it should also be noted that incremental redevelopment and intensified use of the site what would otherwise occur under its current comprehensive plan designation and zoning is likely to eventually consume equal or greater amounts of energy or other natural resources. This is because the current comprehensive plan and zoning allow and promote use of the site for a wide range of more industrial and heavy manufacturing oriented uses. These uses typically require substantial amounts of energy and other natural resources for their manufacturing and fabrication processes.

Proposed measures to protect or conserve energy and natural resources are:

(1) Redevelopment related replacement of the site's older structures with new buildings and improvements that comply with all of the most current building and energy conservation codes; and (2) Use of a pedestrian oriented, master planned redevelopment typically requires less energy per square foot of building space and will promote greater use of future public transit and reduce the number of peak hour auto trips to and from the site.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Refer to response in item 2. The proposal is not anticipated to have any substantial greater impact than the uses which are permitted under the current land use and zoning designations.

Proposed measures to protect such resources or to avoid or reduce impacts are:

(1) Removal of older existing structures, and redevelopment with new stormwater management facilities will reduce impacts on aquatic plants, fish and marine life; and (2) Implementation of any special mitigation measures identified during the project level, site plan approval and environmental review process as being needed to protect or conserve environmentally sensitive areas, fish resources or other government protected areas near the site.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The Jeld-Wen Corporation and the Port of Everett are requesting that the City of Everett approve an amendment to the Everett Comprehensive Plan Map and associated Zone Map affecting their respective properties.

The proposal is to change the comprehensive plan designation for the subject property from Maritime Service to Waterfront Commercial. The zone district would be changed from Maritime Services (M-S) and Heavy Manufacturing (M-2) to Waterfront Commercial with a Planned Development Overlay Zone allowing for a mix of residential, recreation and commercial uses. The future development application would include project specific design guidelines. This proposal would require the Shoreline Master Program be amended for the site from Urban Maritime Interim, Aquatic and Aquatic Conservancy to Urban Multi-Use. The purpose of the above map amendments is to allow for the redevelopment of this urban shoreline site for optimum land uses while restoring and improving some of the aquatic/biological functions associated within and near the site.

As shown on the conceptual diagram (Attachment 'B") the project will include a mix of residential and recreational uses with local commercial uses to support them. The residential uses will mainly be located on the Jeld-Wen portion of the site with recreational uses (public/private marina and public walk/bike ways), commercial and some residential uses on the Port portion of the site. The Jeld-Wen portion of the site would include residential low rise, mid rise and tower flats as illustrated in the Everett Comprehensive Plan. The dwelling units would be connected by a loop road and pedestrian trails. A private marina will be provided at the northwest end of this portion of the site. The structures will be oriented to allow for optimal view opportunities from the dwelling units to the water with building heights being highest at the center of the site and tapering down in height toward the northeast and southwest and toward the northwest end of the site. The tapering of height toward the north end of the site will also mitigate obstruction of views of Puget Sound from existing dwellings east of the site, on top of the bluff. The majority of the vehicular parking will be provided underneath the various housing structures to provide appropriate spacing between the buildings to include pedestrian friendly plazas and landscaping, thus enhancing the livability of that part of the site. The 2 acre wooded area at the southern end of the Jeld-Wen site will include a trail spur from the west Marine View Drive Trail to the western end of the site where a public viewpoint will be provided. This wooded area also provides the potential for another public waterfront park. In addition, a lineal park with water frontage is proposed along West Marine View Drive. Pedestrian access to the more public and commercial Port property would be provided by way of two bridges spanning an enhanced water body between the two ownerships. These proposed public access provisions exceed those recommended in the City of Everett Shoreline Public Access Plan.

Two vehicular access points from west Marine View Drive would be provided to the site.

A public walkway, vista lookouts, plazas for outdoor public events and the marina with public restroom facilities will be oriented to the north shore of the Port property These outdoor recreation opportunities will attract the general public to a village-like esplanade where necessary local commercial goods and services will be provided to support those activities, as well as provide for incidental needs of the development residents. This recreation and commercial hub of the development will help to create a waterfront public esplanade where local residents and the general public converge to create a lively, village-square atmosphere.

One road running through the center of the Port site provides access to dwelling units and commercial facilities with a turnaround at its northern end. Low-rise residential and waterfront live-work townhomes will also be located at the Port property. The low-rise multiple-family structures are located at the entry of the site and the live-work townhome units are west of the main road. Mixed use residential and ground floor commercial buildings are provided east of the main road and will be oriented toward the river mouth and the proposed marina to the north. The marina front commercial services and the live-work units will be readily accessible from pedestrian walkways and the main street, thus having ample exposure to pedestrian and vehicular traffic.

The marina will provide a mix of private and public boat slips for the residents of the Jeld-Wen/ Port neighborhood and the public. A parking lot for the general public will be located at the northeast corner of the site, just off of West Marine View Drive. This parking area will not only serve those who may be renting a boat slip at the marina, but also anyone interested in renting a small boat or walking along the waterfront commercial esplanade at the northern boundary of the site. One road running through the center of the Port site would provide access to dwelling units and commercial facilities with a turn-around at its northern end. Specific land uses planned along the northern boundary of the site will be commercial and residential mixed use with public restroom and natural/cultural interpretive facilities to support boat owners and those using the public pedestrian walkways.

Three public vista locations will be provided along the trail running along the north boundary of the site adjoining the public/private marina. Commercial uses at the ground floor of the mixed use buildings facing the marina could have retail and commercial service uses such as restaurant/sandwich shop, grocery sales, boat/bike rental service and fitness club. Commercial uses in the work-home units could include professional offices (i.e. lawyer, architect, accountant, real estate sales, caterer) as well as artists and craftsman.

In addition to the aforementioned a detailed explanation of how the requested plan map change area rezone will assist in implementing Comprehensive Plan policies is contained in the Narrative Statement portion of the "Comprehensive Plan Change and Rezone Application" for this proposal.

Proposed measures to avoid or reduce shoreline and land use impacts are:

(1) To obtain the requested comprehensive plan amendment and PDO rezone to ensure that redevelopment will be fully consistent with these changes and related development regulations; (2) Use of the City's discretionary site plan approval process to create a high quality, site redevelopment plan. (3) Provide improved public pedestrian access, (4) Provide linear park along West Marine View Drive (5) Provide potential 2 acres public waterfront park and (6) implement applicable elements of the City Shoreline Public Access Plan.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Redevelopment of the site for masterplanned, residential, recreation and commercial purposes will produce an increase in daily vehicular trips. This form of mixed-use development will also produce an increased demand for most types of public services (with the exception of schools because the type of residential units being proposed are not expected to attract a significant number of single parents or families with children) and it is anticipated utilities will need to be extended and potentially upgraded.

Proposed measures to reduce or respond to such demand(s) are:

(1) The proposed form of compact, pedestrian oriented, mixed-use site redevelopment will significantly reduce both the capital expense and ongoing operational costs of satisfying its demands for additional transportation, public services and urban utilities compared to the same amount of development carried out in a more conventional manner on either this site or on scattered sites throughout the City, (2) Compact, pedestrian oriented development of the site will also provide the opportunity to create a neighborhood with opportunities to live, work, obtain convenience services and recreate on-site. (3) Redevelopment of the site will also result in removal of the older, non-conforming buildings and replacement with new buildings and improvements that will comply with the most recent building, fire and other safety codes. The site will also be provided with a fully looped water system with adequate fire flow and new fire hydrants; and (4) the proposed site redevelopment will comply with all standard City transportation, public services and utility system impact mitigation requirements as well as any special requirements imposed as part of the site plan approval and project level environmental review process.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The future site plan and development applications will be required to demonstrate that it is capable of complying with applicable local, state, or federal laws and requirements for the protection of the environment before it can proceed to the final approval and construction permits. A more detailed project level environmental review will be conducted with a specific development application. The final design and construction documents will be modified as necessary to avoid conflicts with applicable environmental protection requirements as a result of this more detailed environmental review effort and site plan review process.

APPENDIX M
COST ESTIMATE – SEDIMENT

Summary of Cost Scenarios 9/9/2010

Bay Wood Property - Everett, WA

Alternative	Description	Removal Volume	Disposal[1]	Estimated Construction Cost[2]	Estimated Total Cost
1	SMU-1 Dredge to Maximum Extent Practicable	10,300	On site & Offsite	$ 1,400,000	$ 1,800,000
2	SMU-1 Dredge and Cap	3,300	On site	$ 640,000	$ 1,040,000
3	SMU-1 Cap	150	On site	$ 520,000	$ 920,000

1. On site disposal assumes 6-inch thick placement of woody material over 8.5 acres of upland area; balance of material disposed of offsite

2. Includes 30% contingency. Does not include engineering design, permitting, CM support, environmental monitoring during construction, or long-term costs

3. Assumes backfill can be obtained at minimal cost, and shoreline armor material will be reused on site

SMU = sediment management unit

Bay Wood Site Feasibility Study 10/8/2010

Dredge and Backfill - SMU-1 Full Removal

Item	Amount	Units	Unit Cost	Total Cost	Notes
Mobilization and Demobilization					
Mobilization	1	LS	$ 40,000	$ 40,000	
Demobilization	1	LS	$ 40,000	$ 40,000	
Demolition					
Dock Demolition (including piles)	-	SF	$ 45	$ -	
Pile Pulling	-	EA	$ 625	$ -	
Transportation and Disposal	-	TON	$ 100	$ -	
Clear and Grub	-	LS	$ 5,000	$ -	0.7 acre area assumed
Dredging and Disposal					
Dredging	10,300	CY	$ 20	$ 206,000	See volume calcs
Transportation and Disposal (Open Water)	-	CY	$ 5	$ -	
Debris Screening/Offload/Transport & Dispose	515	TON	$ 75	$ 38,625	Assume 5 % of dredged material; 1 ton/cy conversion for woody debris
Offload & On site placement	6,900	TON	$ 10	$ 69,000	Assume 6-inch placement over 8.5 acre area; 1 ton/cy conversion
Offload & Offsite Transport & Dispose	3,400	TON	$ 75	$ 255,000	
Backfill					
Purchase & Transport Backfill Sand and Gravel	15,000	TON	$ 5	$ 75,000	Assume local borrow source and additional minimal cost to obtain; 1.5 ton/cy
Purchase & Transport Armor Material	-	TON	$ 25	$ -	
Purchase & Transport Erosion Protection/Habitat Mix	600	TON	$ 20	$ 12,000	assumes unit weight of 1.85 ton/cy for gravel cap material
Place Backfill Sand and Gravel	15,000	TON	$ 20	$ 300,000	
Place Armor Material	-	TON	$ 20	$ -	
Place Erosion Protection/Habitat Mix	600	TON	$ 25	$ 15,000	
Eelgrass planting	-	ACRE	$ 50,000	$ -	
Environmental Controls	1	LS	$ 10,000	$ 10,000	
Bathymetric Surveys	2	EA	$ 10,000	$ 20,000	
Subtotal Construction Costs				$ 1,080,625	
Construction Contingency	30	%		$ 324,188	
Total Construction Cost				**$ 1,404,813**	
Project Management	0	%		$ -	Assumes Port will manage project
Engineering and Design	1	LS	$ 100,000	$ 100,000	
Permitting	1	LS	$ 35,000	$ 35,000	
Construction Management Support	1	LS	$ 50,000	$ 50,000	Placeholder
Environmental Monitoring during Construction	1	LS	$ 100,000	$ 100,000	Placeholder. Includes Archaeological support
Verification Sampling	1	LS	$ 10,000	$ 10,000	
Long Term Monitoring	1	LS	$ 50,000	$ 50,000	Based on 5 events at $10,000 each
Mitigation	1	LS	$ 50,000	$ 50,000	This is an allowance. Cost of Mitigation is unknown.
Total Non-Construction Cost				**$ 395,000**	
Total Cost				**$ 1,799,813**	

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Dredge and Cap - SMU-1

Item	Amount	Units	Unit Cost	Total Cost	Notes
Mobilization and Demobilization					
Mobilization	1	LS	$ 40,000	$ 40,000	
Demobilization	1	LS	$ 40,000	$ 40,000	
Demolition					
Dock Demolition (including piles)	-	SF	$ 45	$ -	
Pile Pulling	-	EA	$ 625	$ -	
Transportation and Disposal	-	TON	$ 100	$ -	
Clear and Grub	-	LS	$ 5,000	$ -	0.7 acre area assumed
Dredging and Disposal					
Dredging	3,300	CY	$ 20	$ 66,000	See volume calcs
Transportation and Disposal (Open Water)	-	CY	$ 5	$ -	
Debris Screening/Offload/Transport & Dispose	165	TON	$ 75	$ 12,375	Assume 5 % of dredged material; 1 ton/cy conversion for woody debris
Offload & On site placement	3,300	TON	$ 10	$ 33,000	Assume 6-inch placement over 8.5 acre area; 1 ton/cy conversion
Offload & Offsite Transport & Dispose	-	TON	$ 75	$ -	
Backfill					
Purchase & Transport Backfill Sand and Gravel	-	TON	$ 5	$ -	Assume local borrow source and additional minimal cost to obtain; 1.5 ton/cy
Purchase & Transport Armor Material	-	TON	$ 25	$ -	
Purchase & Transport Erosion Protection/Habitat Mix	6,100	TON	$ 20	$ 122,000	assumes unit weight of 1.85 ton/cy for gravel cap material
Place Backfill Sand and Gravel	-	TON	$ 20	$ -	
Place Armor Material	-	TON	$ 20	$ -	
Place Erosion Protection/Habitat Mix	6,100	TON	$ 25	$ 152,500	
Eelgrass planting	-	ACRE	$ 50,000	$ -	
Environmental Controls	1	LS	$ 10,000	$ 10,000	
Bathymetric Surveys	2	EA	$ 10,000	$ 20,000	
Subtotal Construction Costs				$ 495,875	
Construction Contingency	30	%		$ 148,763	
Total Construction Cost				**$ 644,638**	
Project Management	0	%		$ -	Assumes Port will manage project
Engineering and Design	1	LS	$ 100,000	$ 100,000	
Permitting	1	LS	$ 35,000	$ 35,000	
Construction Management Support	1	LS	$ 50,000	$ 50,000	Placeholder
Environmental Monitoring during Construction	1	LS	$ 100,000	$ 100,000	Placeholder. Includes Archaeological support
Verification Sampling	1	LS	$ 10,000	$ 10,000	
Long Term Monitoring	1	LS	$ 50,000	$ 50,000	Based on 5 events at $10,000 each
Mitigation	1	LS	$ 50,000	$ 50,000	This is an allowance. Cost of Mitigation is unknown.
Total Non-Construction Cost				**$ 395,000**	
Total Cost				**$ 1,039,638**	

Bay Wood Site Feasibility Study 10/8/2010

Dredge and Cap - SMU-1

Item	Amount	Units	Unit Cost	Total Cost	Notes
Mobilization and Demobilization					
Mobilization	1	LS	$ 40,000	$ 40,000	
Demobilization	1	LS	$ 40,000	$ 40,000	
Demolition					
Dock Demolition (including piles)	-	SF	$ 45	$ -	
Pile Pulling	-	EA	$ 625	$ -	
Transportation and Disposal	-	TON	$ 100	$ -	
Clear and Grub	-	LS	$ 5,000	$ -	0.7 acre area assumed
Dredging and Disposal					
Dredging	150	CY	$ 20	$ 3,000	See volume calcs
Transportation and Disposal (Open Water)	-	CY	$ 5	$ -	
Debris Screening/Offload/Transport & Dispose	8	TON	$ 75	$ 563	Assume 5 % of dredged material; 1 ton/cy conversion for woody debris
Offload & On site placement	150	TON	$ 10	$ 1,500	Assume 6-inch placement over 8.5 acre area; 1 ton/cy conversion
Offload & Offsite Transport & Dispose	-	TON	$ 75	$ -	
Backfill					
Purchase & Transport Backfill Sand and Gravel	-	TON	$ 5	$ -	Assume local borrow source and additional minimal cost to obtain; 1.5 ton/cy
Purchase & Transport Armor Material	-	TON	$ 25	$ -	
Purchase & Transport Erosion Protection/Habitat Mix	6,400	TON	$ 20	$ 128,000	assumes unit weight of 1.85 ton/cy for gravel cap material
Place Backfill Sand and Gravel	-	TON	$ 20	$ -	
Place Armor Material	-	TON	$ 20	$ -	
Place Erosion Protection/Habitat Mix	6,400	TON	$ 25	$ 160,000	
Eelgrass planting	-	ACRE	$ 50,000	$ -	
Environmental Controls	1	LS	$ 10,000	$ 10,000	
Bathymetric Surveys	2	EA	$ 10,000	$ 20,000	
Subtotal Construction Costs				$ 403,063	
Construction Contingency	30	%		$ 120,919	
Total Construction Cost				**$ 523,981**	
Project Management	0	%		$ -	Assumes Port will manage project
Engineering and Design	1	LS	$ 100,000	$ 100,000	
Permitting	1	LS	$ 35,000	$ 35,000	
Construction Management Support	1	LS	$ 50,000	$ 50,000	Placeholder
Environmental Monitoring during Construction	1	LS	$ 100,000	$ 100,000	Placeholder. Includes Archaeological support
Verification Sampling	1	LS	$ 10,000	$ 10,000	
Long Term Monitoring	1	LS	$ 50,000	$ 50,000	Based on 5 events at $10,000 each
Mitigation	1	LS	$ 50,000	$ 50,000	This is an allowance. Cost of Mitigation is unknown.
Total Non-Construction Cost				**$ 395,000**	
Total Cost				**$ 918,981**	