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APPENDIX A

CORE LOGS

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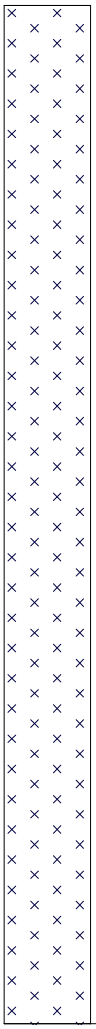
Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 13:40

Latitude: 33°45.9369
Longitude: -118°15.3048
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -36.1

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0 – 3.4		Silt with Sand	Black	Gley 1 2.5/N	Mild Odor	Wet throughout Shell Hash from 1.0' to 1.2' Z-layer from 3.0' to 3.4'
3.4						Bottom at 3.4'

0.0 — 0.5 — 1.0 — 1.5 — 2.0 — 2.5 — 3.0 — 3.5 — 4.0 — 4.5 — 5.0

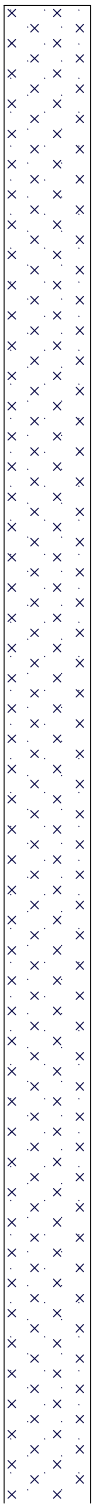
Water Depth (ft): 35.5
Tide (ft): -0.6
Target Penetration (ft): 3.9
Actual Penetration (ft): 3.9
Recovered Core Length (ft): 3.4

Log of Station ID: B195-200A-C1 Attempt 1

Additional Notes: Dock in way of getting closer to bulkhead.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/21/2016 **Time:** 09:20

Latitude: 33°46.0379
Longitude: -118°15.2164
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -33.9

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0 – 5.0		Sandy Silt	Black	Gley 1 2.5/N	Moderate Odor	Core expanded a little on extraction Shell Hash throughout, decreases below 4.0' Core is homogenous

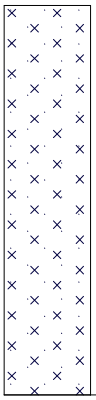
Water Depth (ft): 38.3
Tide (ft): 4.4
Target Penetration (ft): 6.1
Actual Penetration (ft): 6.1
Recovered Core Length (ft): 6.3

Log of Station ID: B195-200A-C2 Attempt 1

Additional Notes: Resistance to penetration at about 4', hard 4' to 6.1', plug fell out on retrieval.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/21/2016 **Time:** 09:20

Latitude: 33°46.0379
Longitude: -118°15.2164
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -33.9

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
5.0		Sandy Silt (continued)	Black	Gley 1 2.5/N	Moderate Odor	Z-layer from 5.2' to 5.7'
6.3						Bottom at 6.3'

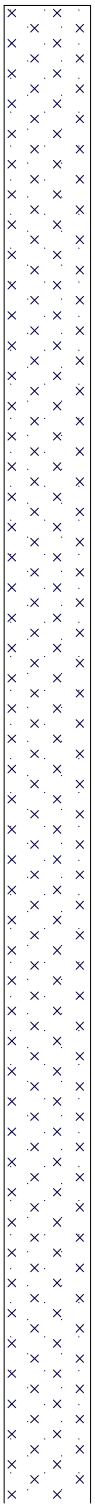
Water Depth (ft): 38.3
Tide (ft): 4.4
Target Penetration (ft): 6.1
Actual Penetration (ft): 6.1
Recovered Core Length (ft): 6.3

Log of Station ID: B195-200A-C2 Attempt 1

Additional Notes: Resistance to penetration at about 4', hard 4' to 6.1', plug fell out on retrieval.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/21/2016 **Time:** 10:15

Latitude: 33°46.149
Longitude: -118°15.110
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -35.0

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0		Sandy Silt	Black	Gley 1 2.5/N	Moderate Odor	Shell Hash throughout, large shell at 2.0' (0.3' long)
0.5						
1.0						Homogeneous
1.5						
2.0						
2.5						
3.0						Expanded on extraction
3.5						
4.0						note: Z-layer from 4.0' to 4.5'
4.5						
5.0						

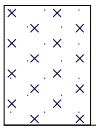
Water Depth (ft): 38.2
Tide (ft): 3.2
Target Penetration (ft): 5.0
Actual Penetration (ft): 5.0
Recovered Core Length (ft): 5.4

Log of Station ID: B195-200A-C3 Attempt 1

Additional Notes:

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/21/2016 **Time:** 10:15

Latitude: 33°46.149
Longitude: -118°15.110
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -35.0

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
5.0		Sandy Silt (continued)	Black	Gley 1 2.5/N	Moderate Odor	
5.5						Bottom at 5.4'
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0						

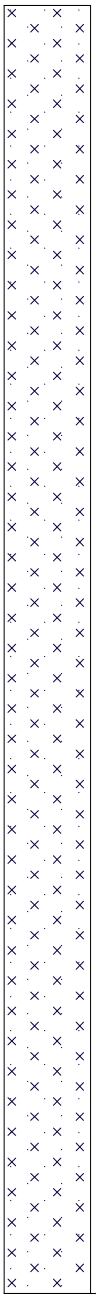
Water Depth (ft): 38.2
Tide (ft): 3.2
Target Penetration (ft): 5.0
Actual Penetration (ft): 5.0
Recovered Core Length (ft): 5.4

Log of Station ID: B195-200A-C3 Attempt 1

Additional Notes:

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/21/2016 **Time:** 11:05

Latitude: 33°46.1906
Longitude: -118°15.0717
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -35.9

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0		Sandy Silt	Black	Gley 1 2.5/N	Moderate Odor	Minor Shell Hash throughout
3.0						Sand content increases at depth (~3.5') Z-layer from 3.0' to 3.7' Some expansion on extraction
4.3						Bottom at 4.3'
5.0						

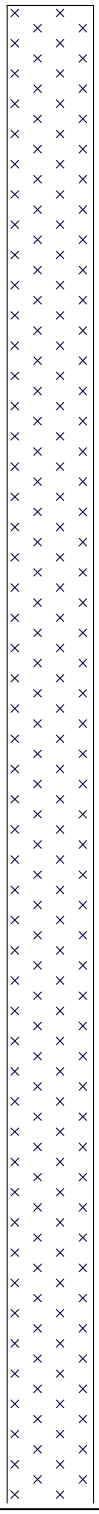
Water Depth (ft): 37.9
Tide (ft): 2.0
Target Penetration (ft): 4.1
Actual Penetration (ft): 4.1
Recovered Core Length (ft): 4.3

Log of Station ID: B195-200A-C4 Attempt 1

Additional Notes:

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 14:25

Latitude: 33°46.2927
Longitude: -118°14.9993
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -34.6

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0		Silt with Sand	Black	Gley 1 2.5/N	Strong Odor	Very Homogenous
0.5						
1.0						
1.5						
2.0						
2.5						
3.0						
3.5						Shell Hash at 3.4', 4.8' & 5.5' Slightly drier at depth
4.0						
4.5						Z-layer from 4.5' to 5.0'
5.0						

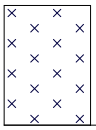
Water Depth (ft): 34.2
Tide (ft): -0.4
Target Penetration (ft): 5.4
Actual Penetration (ft): 5.4
Recovered Core Length (ft): 5.4

Log of Station ID: B195-200A-C5 Attempt 1

Additional Notes: No resistance to penetration (very soft). About 5' from bulkhead.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 14:25

Latitude: 33°46.2927
Longitude: -118°14.9993
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -34.6

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
5.0		Silt with Sand (continued)	Black	Gley 1 2.5/N	Strong Odor	
5.5						Bottom at 5.4'
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0						

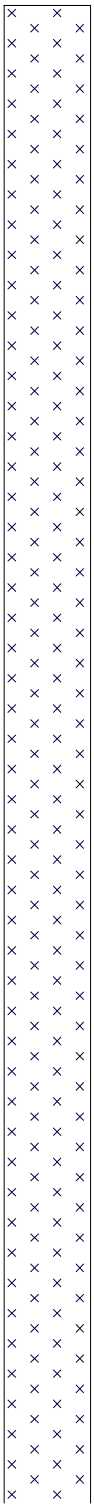
Water Depth (ft): 34.2
Tide (ft): -0.4
Target Penetration (ft): 5.4
Actual Penetration (ft): 5.4
Recovered Core Length (ft): 5.4

Log of Station ID: B195-200A-C5 Attempt 1

Additional Notes: No resistance to penetration (very soft). About 5' from bulkhead.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 09:25

Latitude: 33°45.647
Longitude: -118°15.264
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -33.1

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0 – 1.1		Silt with Sand	Black	Gley 1 2.5/N	None	Shell Hash to 0.9' Archive collected from 0.0 to 1.1' Gravel (0.1' long) from 0.9' to 1.1'
1.1 – 5.0						No Shell Hash/gravel Core is very consolidated Silt with less sand Sand is dry with depth Archive collected from 1.1' to 1.6'

Water Depth (ft): 36.5
Tide (ft): 3.4
Target Penetration (ft): 6.9
Actual Penetration (ft): 6.9
Recovered Core Length (ft): 8.3

Log of Station ID: B210-211-C1 Attempt 1

Additional Notes: Extra foot penetrated to obtain adaquate z-layer sample. Super Solid bottom/catcher seds.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 09:25

Latitude: 33°45.647
Longitude: -118°15.264
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -33.1

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
5.0		Silt with Sand (continued)	Black	Gley 1 2.5/N	None	
7.0		Silty Clay				Native formational material (Malaga Mudstone?) Z-layer from 7.1' to 7.6'
8.3						Bottom at 8.3'
10.0						

Water Depth (ft): 36.5
Tide (ft): 3.4
Target Penetration (ft): 6.9
Actual Penetration (ft): 6.9
Recovered Core Length (ft): 8.3

Log of Station ID: B210-211-C1 Attempt 1

Additional Notes: Extra foot penetrated to obtain adaquate z-layer sample. Super Solid bottom/catcher seds.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 11:05

Latitude: 33°45.660
Longitude: -118°15.228
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -33.9

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0		Silt with Sand	Black	Gley 1 2.5/N	Mild Odor	Less consolidated from 0.0 to 2.8' Archive collected 0.0 to 2.0'
0.5						
1.0						
1.5						
2.0		Sandy Silt				Archive collected from 2.0' to 5.8'
2.5						
3.0		Silt with Sand				Fragments of wood & very minor Shell Hash at 2.8'
3.5						
4.0						
4.5						
5.0						

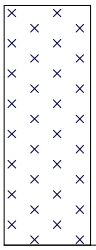
Water Depth (ft): 35.0
Tide (ft): 1.1
Target Penetration (ft): 6.1
Actual Penetration (ft): 6.1
Recovered Core Length (ft): 5.8

Log of Station ID: B210-211-C2 Attempt 1

Additional Notes: Odor on removal of plug, hard at bottom during penetration.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 11:05

Latitude: 33°45.660
Longitude: -118°15.228
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -33.9

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
5.0		Silt with Sand (continued)	Black	Gley 1 2.5/N	Mild Odor	Z-layer does not "look native" from 5.0' to 5.5'
5.5						
						Bottom at 5.8'
6.0						
6.5						
7.0						
7.5						
8.0						
8.5						
9.0						
9.5						
10.0						

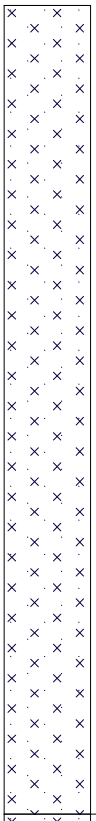
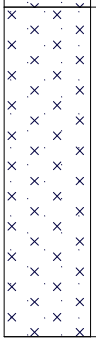
Water Depth (ft): 35.0
Tide (ft): 1.1
Target Penetration (ft): 6.1
Actual Penetration (ft): 6.1
Recovered Core Length (ft): 5.8

Log of Station ID: B210-211-C2 Attempt 1

Additional Notes: Odor on removal of plug, hard at bottom during penetration.

Project Number: 1315102726/27
Project Manager: Kimbrie Gobbi
Logged and Sampled By: KG/KS
Sample Type: Vibracore
Date: 1/20/2016 **Time:** 12:30

Latitude: 33°45.683
Longitude: -118°15.156
Project Depth (ft MLLW): -39, * pen. to -40
Mudline Elevation (ft MLLW): -36.1

Depth in Feet	Lithology	Sediment Description	Color	Munsell Color Notation	Odor	Remarks
0.0		Sandy Silt	Black	Gley 1 2.5/N	None	Biologics in core (worms) Archive collected from 0.0 to 2.7'
0.5						Worms at 0.4' & 0.6'
1.0						
1.5						
2.0						
2.5						Shell Hash from 2.6' to 2.7'
		Sand with Silt				Archive collected from 2.7' to 3.9'
3.0						Z-layer from 3.0' to 3.5'
3.5						Shell Hash from 3.8' to 4.0'
						Bottom at 3.8'
4.0						
4.5						
5.0						

Water Depth (ft): 36.0
Tide (ft): -0.1
Target Penetration (ft): 3.9
Actual Penetration (ft): 5.0
Recovered Core Length (ft): 3.8

Log of Station ID: B210-211-C3 Attempt 1

Additional Notes: About 15' from bulkhead, eand at 3.9', removed 4.0 to 5.0 because over penetrated, no resistance to penetration at depth.

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APPENDIX B

PHOTOGRAPHS OF CORES

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Location: POLA Berths 195-200A
Sample ID: B195-200A-C1
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/20/2016 1340

Location: POLA Berths 195-200A
Sample ID: B195-200A-C1
Attempt #: 1
Core Length: 2.0 - 3.4 ft.
Sample Date & Time: 01/20/2016 1340

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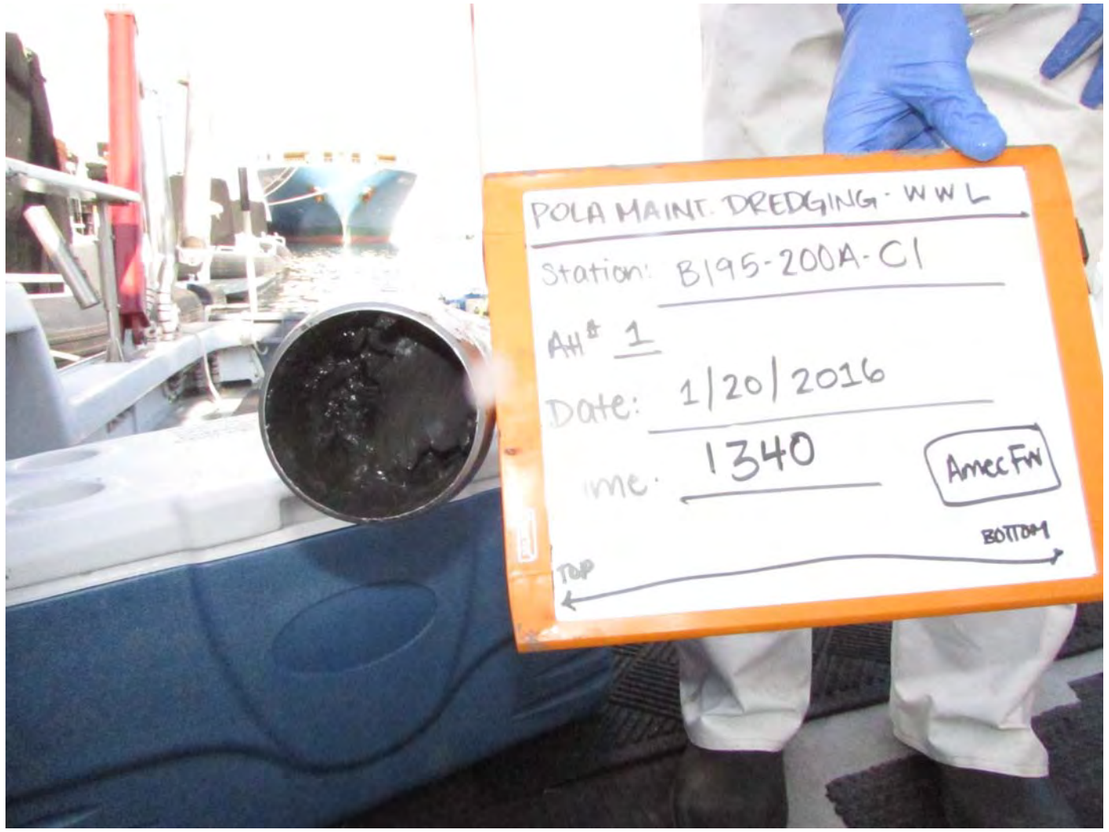
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles



Location: POLA Berths 195-200A
Sample ID: B195-200A-C1
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/20/2016 1340

Location: POLA Berths 195-200A
Sample ID: B195-200A-C1
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/20/2016 1340

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 195-200A
Sample ID: B195-200A-C2
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/21/2016 0920

Location: POLA Berths 195-200A
Sample ID: B195-200A-C2
Attempt #: 1
Core Length: 2.0 - 4.0 ft.
Sample Date & Time: 01/21/2016 0920

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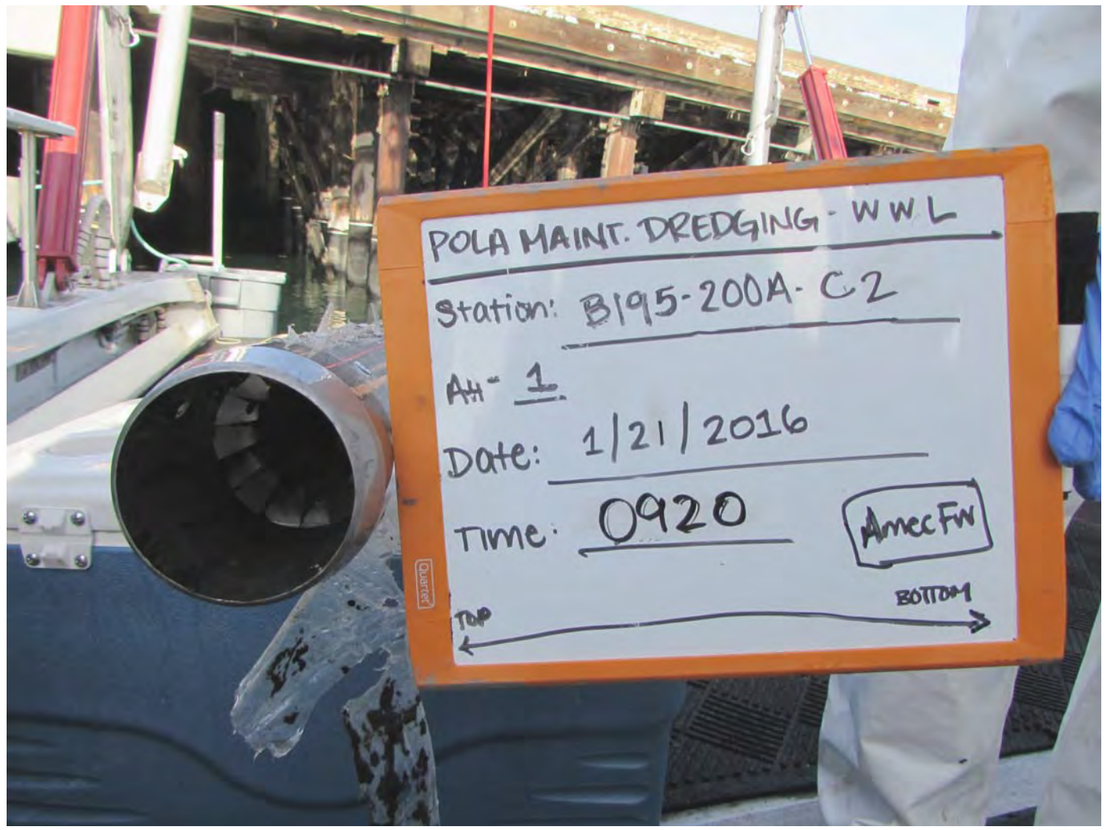
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Graphics/AquaticSciences/POLA 2016/B195_200A_210_211_Sampling_3.ai

Location: POLA Berths 195-200A
Sample ID: B195-200A-C2
Attempt #: 1
Core Length: 4.0 - 6.3 ft.
Sample Date & Time: 01/21/2016 0920



Location: POLA Berths 195-200A
Sample ID: B195-200A-C2
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/21/2016 0920

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Graphics/AquaticSciences/POLA 2016/B195_200A_210_211_Sampling_4.ai

Location: POLA Berths 195-200A
Sample ID: B195-200A-C2
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/21/2016 0920

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 195-200A
Sample ID: B195-200A-C3
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/21/2016 1015

Location: POLA Berths 195-200A
Sample ID: B195-200A-C3
Attempt #: 1
Core Length: 2.0 - 4.0 ft.
Sample Date & Time: 01/21/2016 1015

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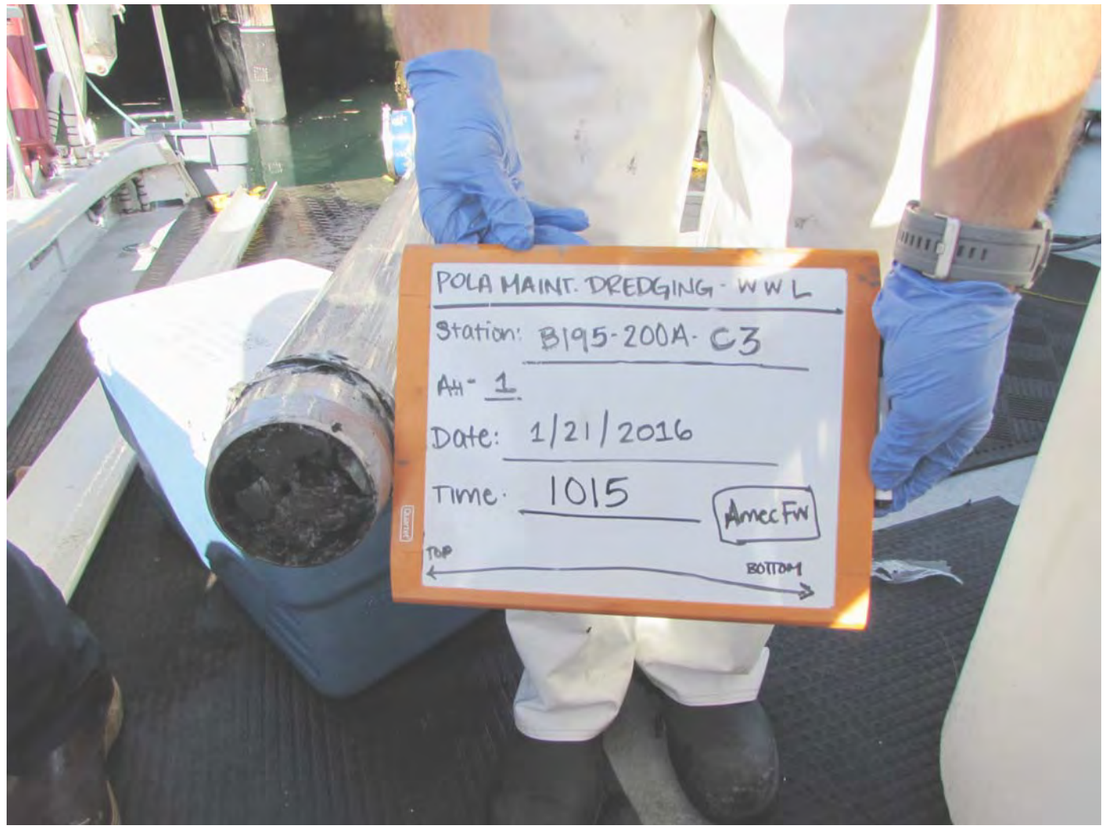
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 195-200A
Sample ID: B195-200A-C3
Attempt #: 1
Core Length: 4.0 - 5.4 ft.
Sample Date & Time: 01/21/2016 1015



Location: POLA Berths 195-200A
Sample ID: B195-200A-C3
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/21/2016 1015

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 195-200A
Sample ID: B195-200A-C3
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/21/2016 1015

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 195-200A
Sample ID: B195-200A-C4
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/21/2016 1105

Location: POLA Berths 195-200A
Sample ID: B195-200A-C4
Attempt #: 1
Core Length: 2.0 - 4.3 ft.
Sample Date & Time: 01/21/2016 1105

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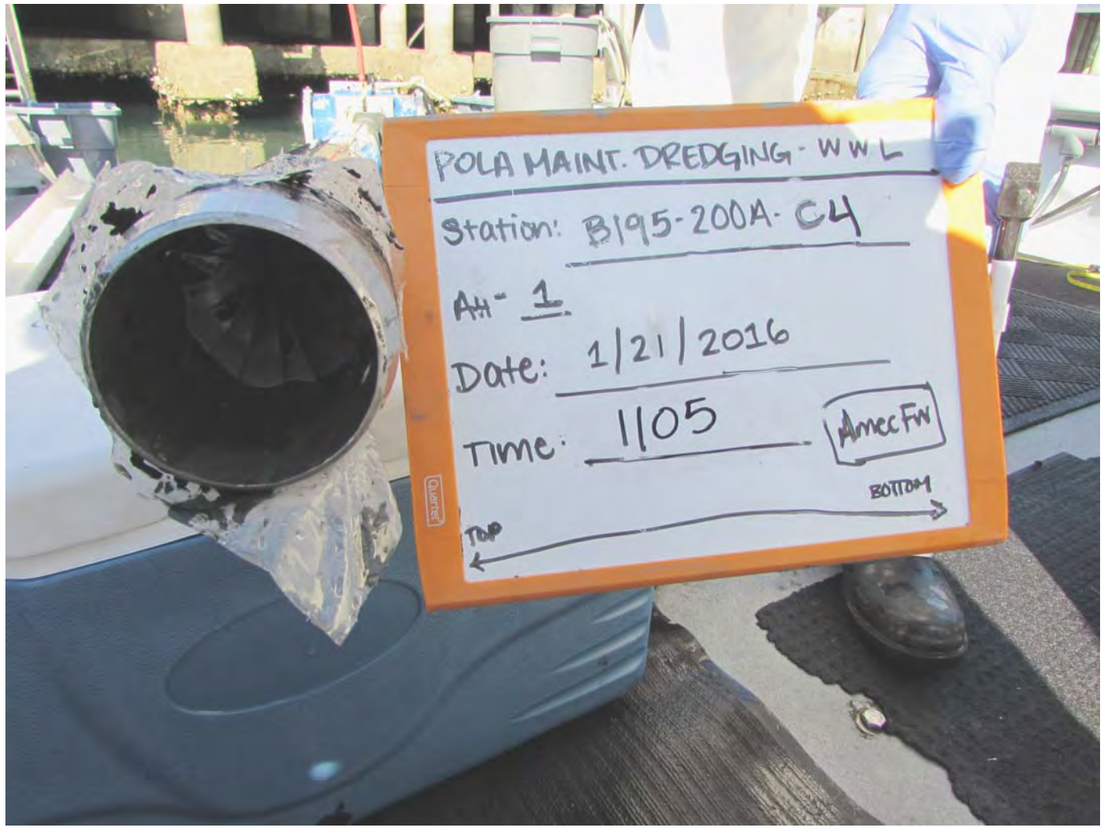
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Graphics/AquaticSciences/POLA 2016/B195_200A_210_211_Sampling_9.ai



Location: POLA Berths 195-200A
Sample ID: B195-200A-C4
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/21/2016 1105

Location: POLA Berths 195-200A
Sample ID: B195-200A-C4
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/21/2016 1105

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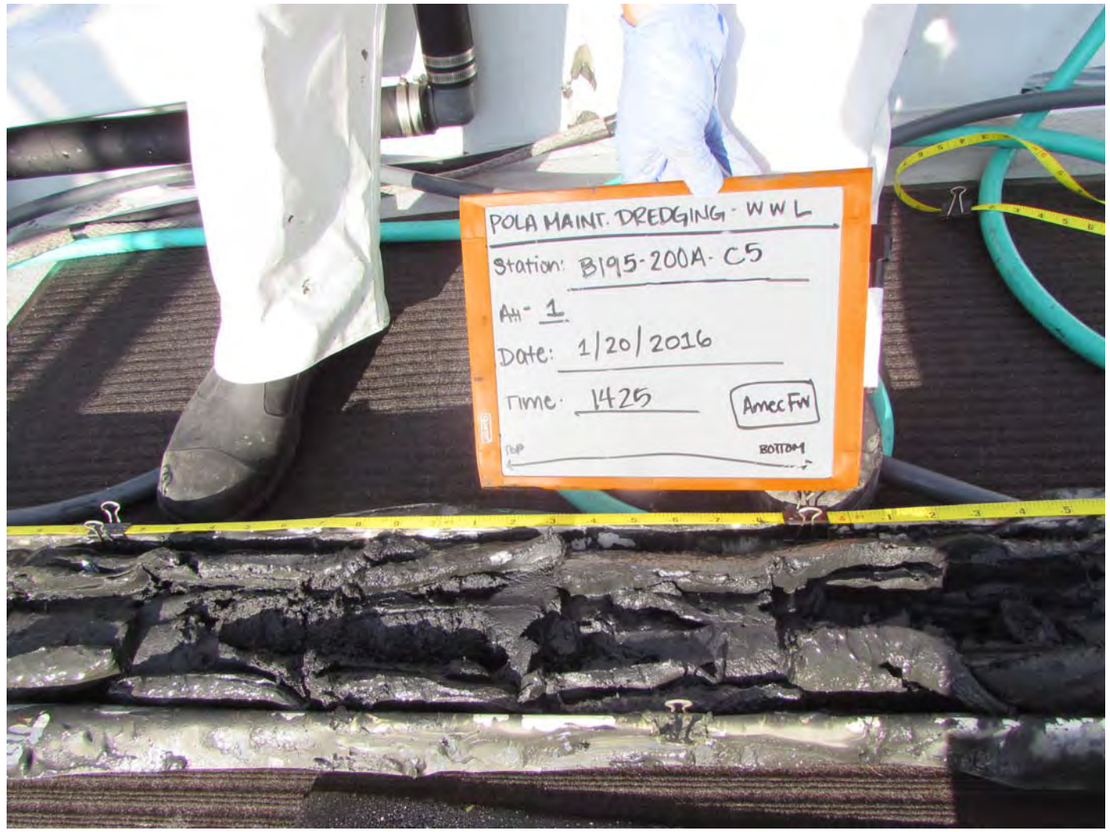
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Graphics/AquaticSciences/POLA 2016/B195_200A_210_211_Sampling_10.ai

Location: POLA Berths 195-200A
Sample ID: B195-200A-C5
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/20/2016 1425



Location: POLA Berths 195-200A
Sample ID: B195-200A-C5
Attempt #: 1
Core Length: 2.0 - 4.0 ft.
Sample Date & Time: 01/20/2016 1425

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

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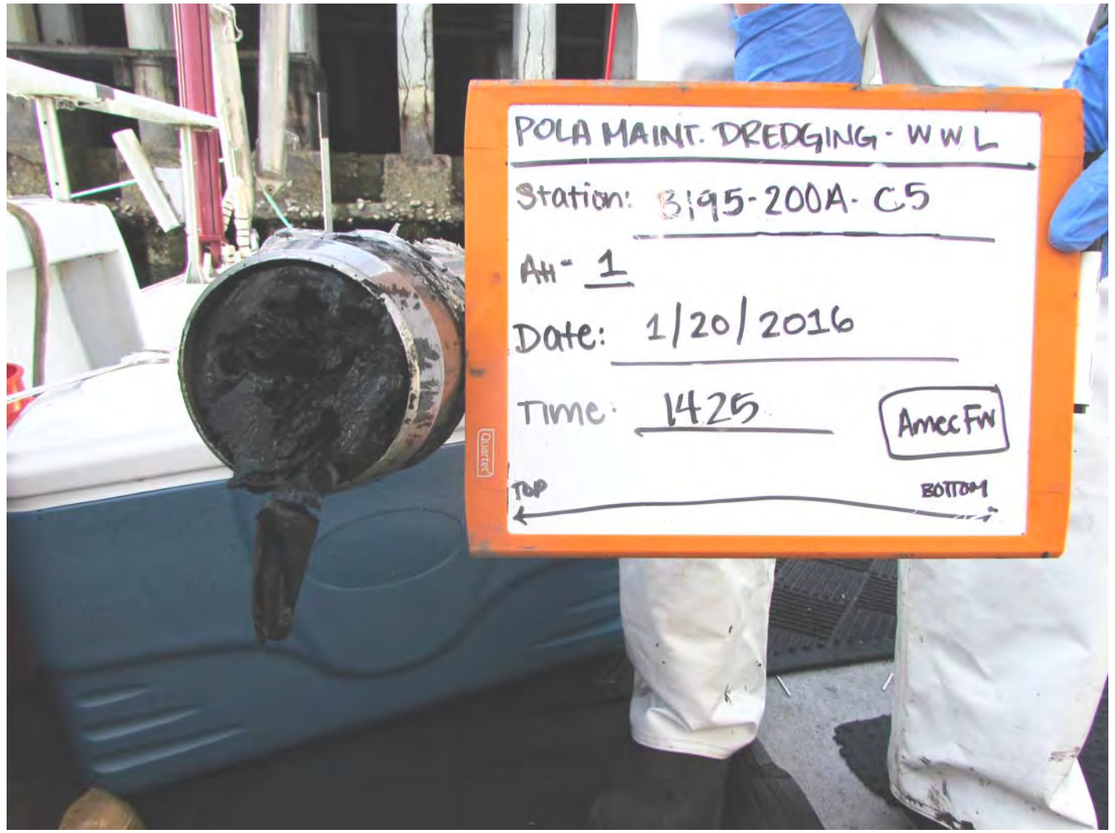
Location: POLA Berths 195-200A
Sample ID: B195-200A-C5
Attempt #: 1
Core Length: 4.0 - 5.4 ft.
Sample Date & Time: 01/20/2016 1425



Location: POLA Berths 195-200A
Sample ID: B195-200A-C5
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/20/2016 1425

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 195-200A
Sample ID: B195-200A-C5
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/20/2016 1425

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 210-211
Sample ID: B210-211-C1
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/20/2016 0925

Location: POLA Berths 210-211
Sample ID: B210-211-C1
Attempt #: 1
Core Length: 2.0 - 4.0 ft.
Sample Date & Time: 01/20/2016 0925

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 210-211
Sample ID: B210-211-C1
Attempt #: 1
Core Length: 4.0 - 6.0 ft.
Sample Date & Time: 01/20/2016 0925

Location: POLA Berths 210-211
Sample ID: B210-211-C1
Attempt #: 1
Core Length: 6.0 - 8.3 ft.
Sample Date & Time: 01/20/2016 0925

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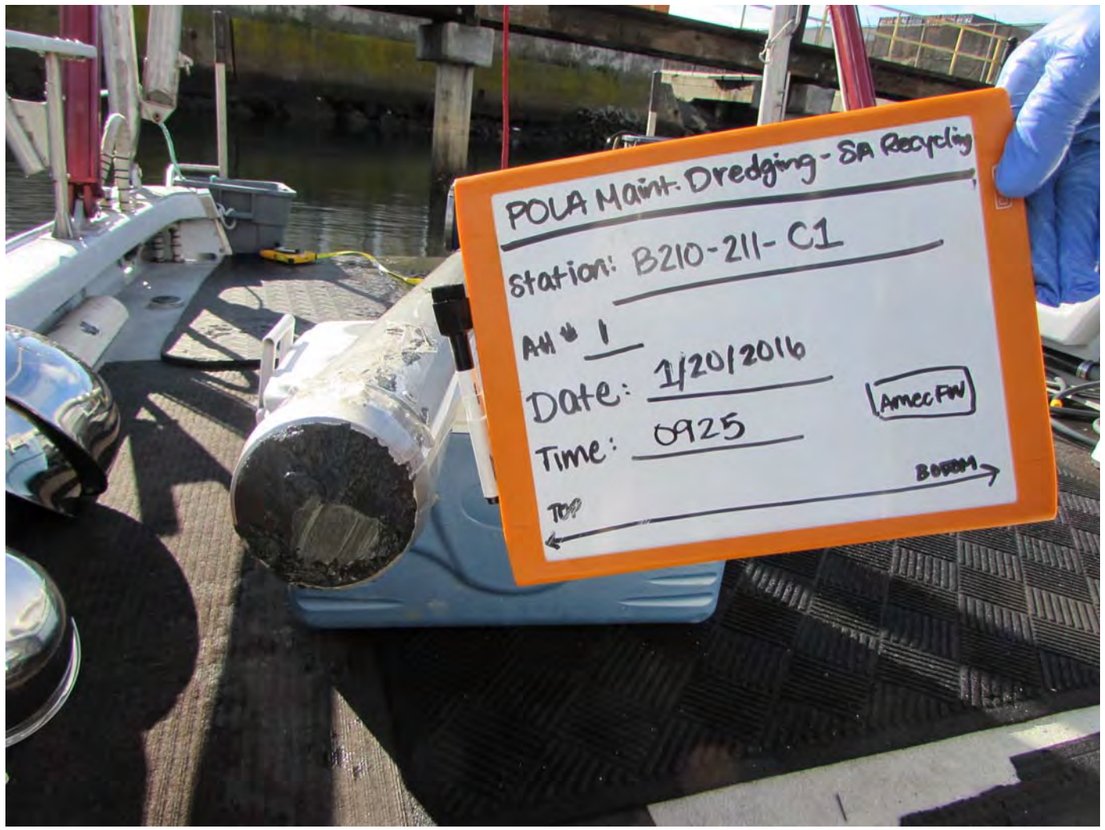
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles



Location: POLA Berths 210-211
Sample ID: B210-211-C1
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/20/2016 0925

Location: POLA Berths 210-211
Sample ID: B210-211-C1
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/20/2016 0925

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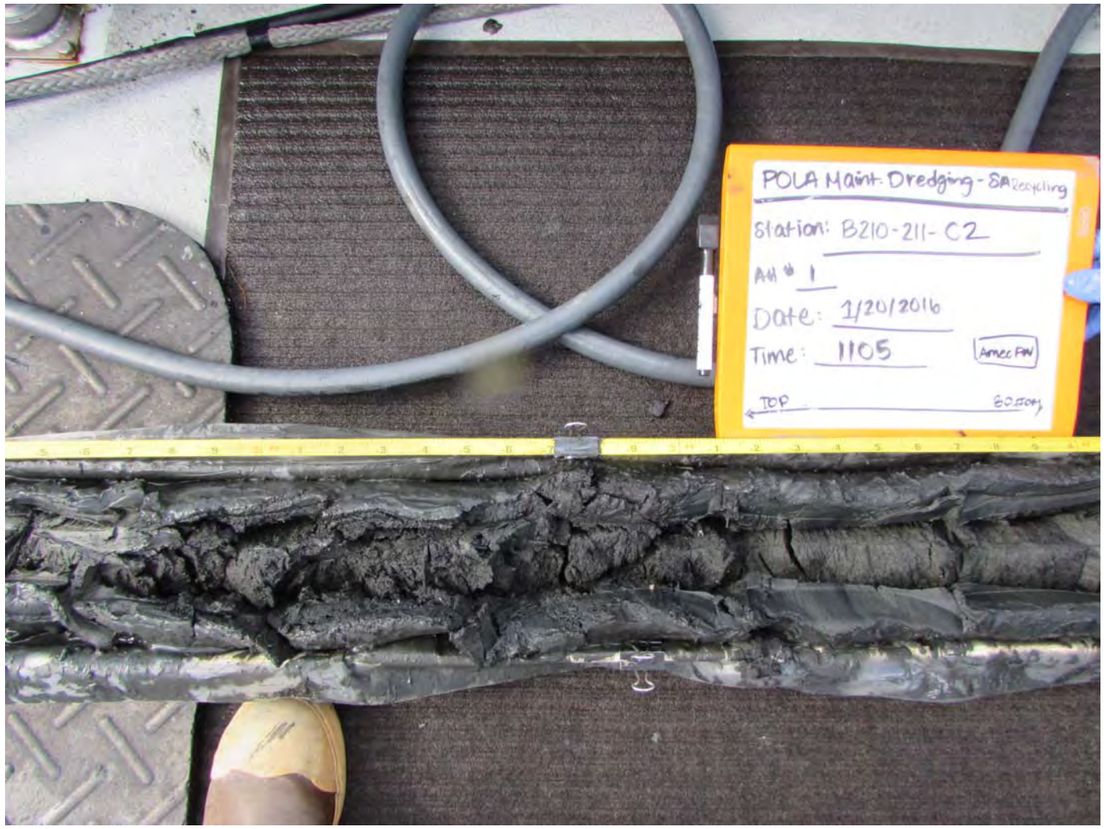
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 210-211
Sample ID: B210-211-C2
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/20/2016 1105



Location: POLA Berths 210-211
Sample ID: B210-211-C2
Attempt #: 1
Core Length: 2.0 - 4.0 ft.
Sample Date & Time: 01/20/2016 1105

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

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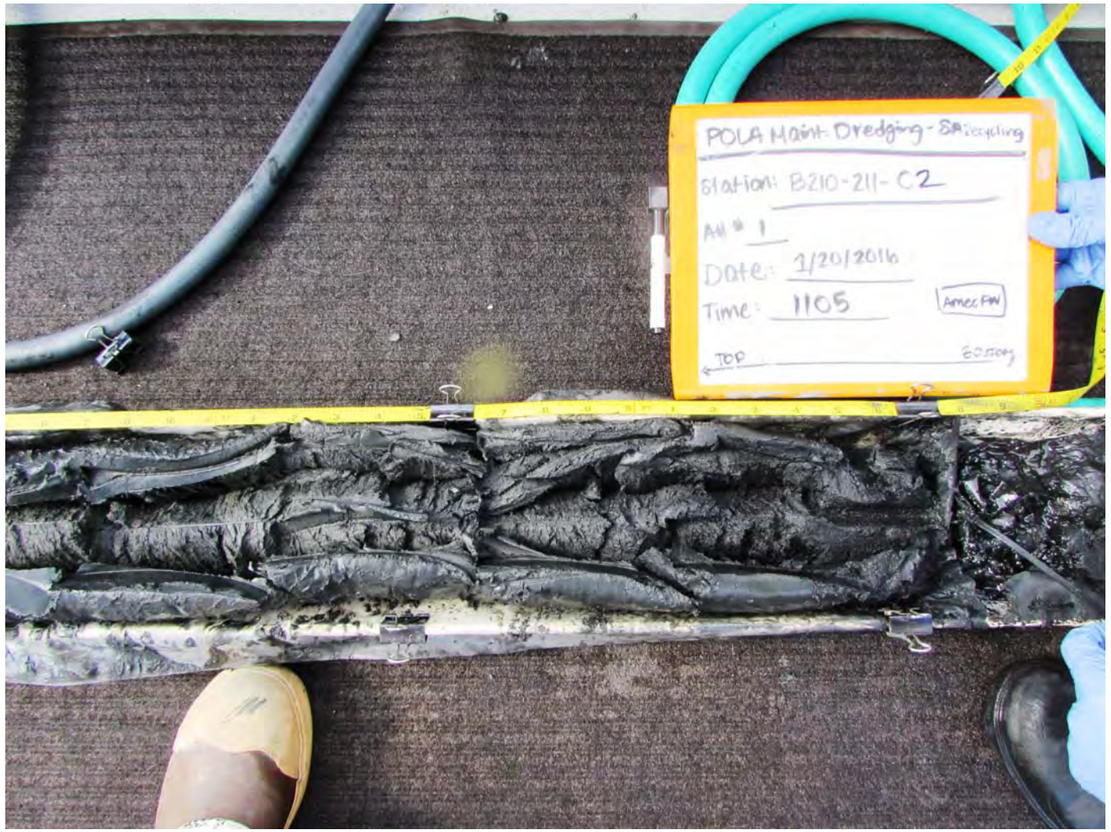
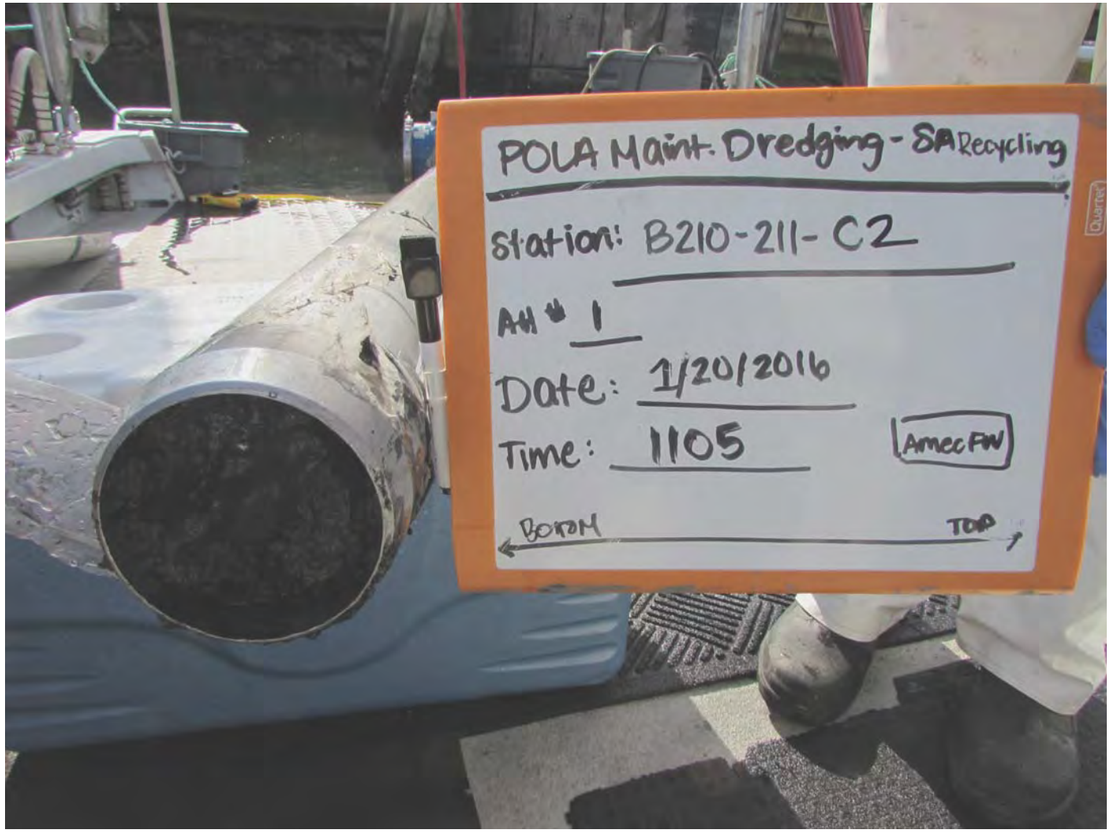


Location: POLA Berths 210-211
Sample ID: B210-211-C2
Attempt #: 1
Core Length: 4.0 - 5.8 ft.
Sample Date & Time: 01/20/2016 1105



Location: POLA Berths 210-211
Sample ID: B210-211-C2
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/20/2016 1105

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 210-211
Sample ID: B210-211-C2
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/20/2016 1105

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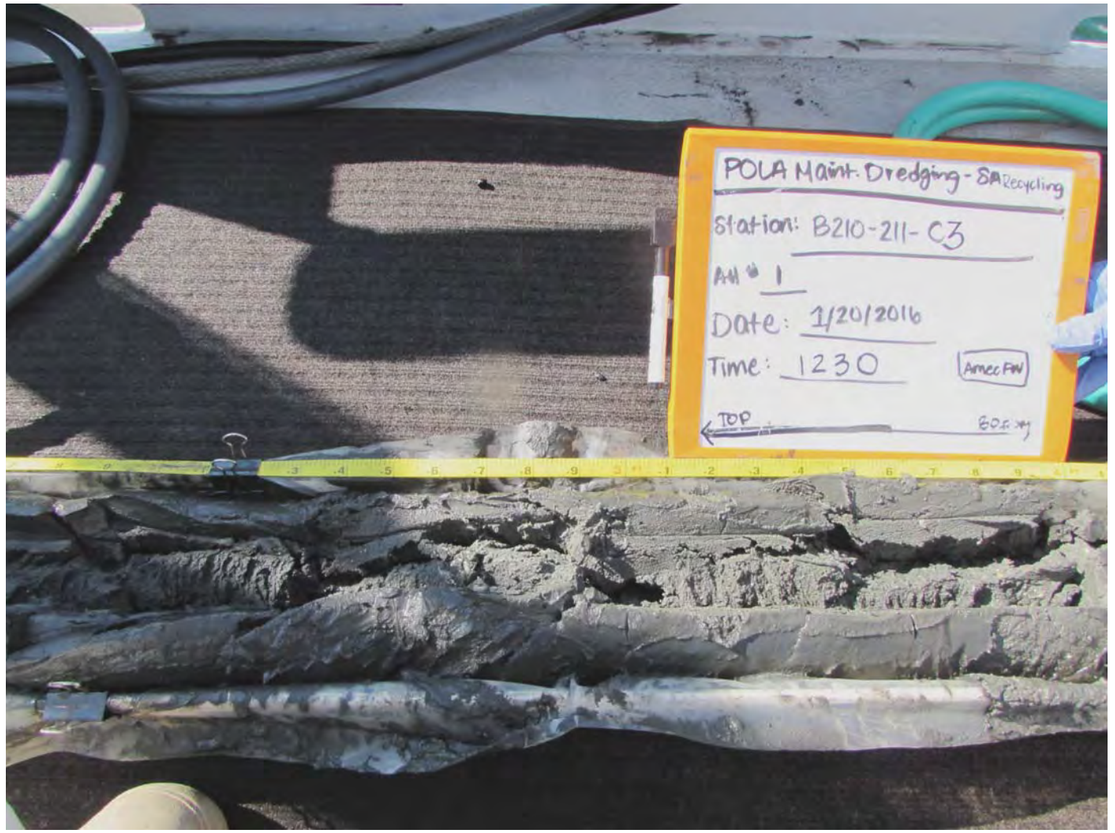
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Location: POLA Berths 210-211
Sample ID: B210-211-C3
Attempt #: 1
Core Length: 0 - 2.0 ft.
Sample Date & Time: 01/20/2016 1230



Location: POLA Berths 210-211
Sample ID: B210-211-C3
Attempt #: 1
Core Length: 2.0 - 3.8 ft.
Sample Date & Time: 01/20/2016 1230

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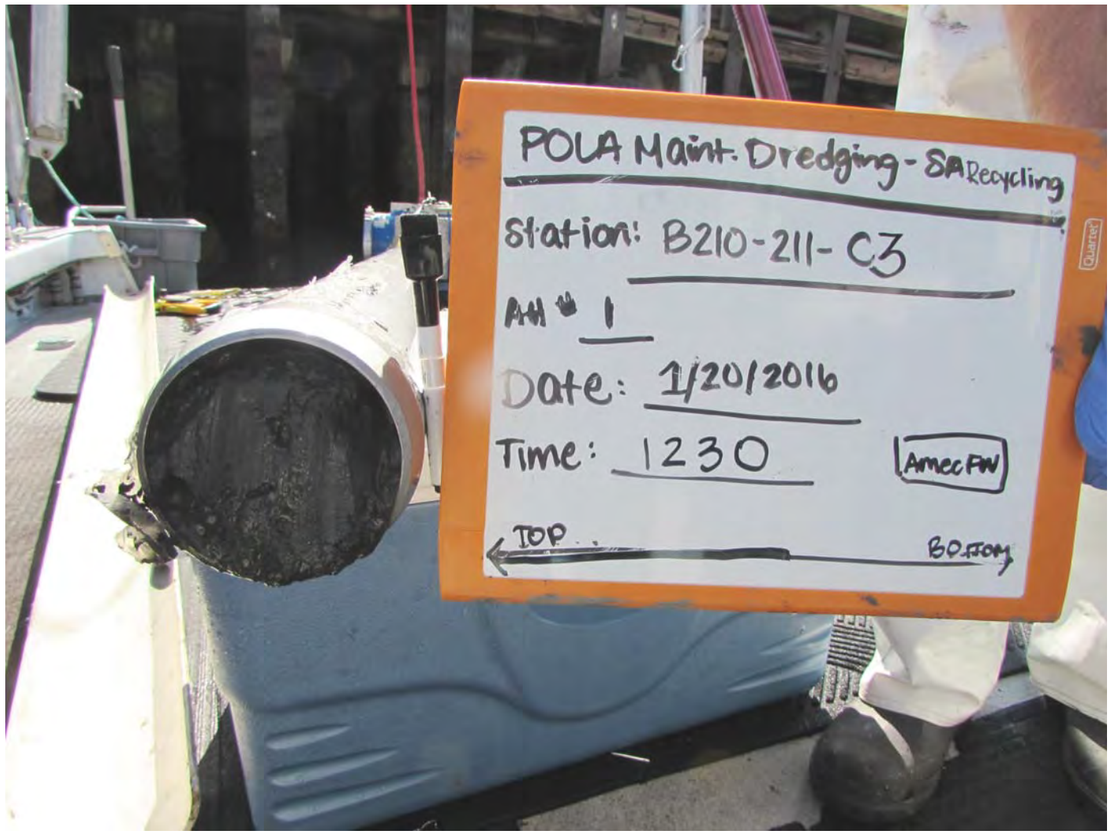
Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

Graphics/AquaticSciences/POLA 2016/B195_200A_210_211_Sampling_20.ai



Location: POLA Berths 210-211
Sample ID: B210-211-C3
Attempt #: 1
Core Length: Plug
Sample Date & Time: 01/20/2016 1230

Location: POLA Berths 210-211
Sample ID: B210-211-C3
Attempt #: 1
Core Length: Plug Closeup
Sample Date & Time: 01/20/2016 1230

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Vibracore Photo Log
Berths 195-200A and 210-211
Maintenance Dredging
Port of Los Angeles

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APPENDIX C

SEDIMENT CHEMISTRY

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Appendix C. Analytical Chemistry Results - Sediment Testing

Analyte	Units	TTLC	Results	
			B195-200A	B210-211
General Chemistry				
Total Solids	%	.	54.3	66.5
Total Organic Carbon	mg/kg	.	1.4	0.73
Ammonia (As N)	mg/kg	.	5.0	4.19
Oil and Grease	mg/kg	.	1303	665
Total Sulfide	mg/kg	.	13	13
Dissolved Sulfide	mg/kg	.	ND < 0.054	ND < 0.067
TRPH	mg/kg	.	1140	266
TPH Carbon Chain				
C6	mg/kg	.	ND < 5.0	ND < 4.9
C7	mg/kg	.	ND < 5.0	ND < 4.9
C8	mg/kg	.	ND < 5.0	ND < 4.9
C9-C10	mg/kg	.	ND < 5.0	ND < 4.9
C11-C12	mg/kg	.	ND < 5.0	ND < 4.9
C13-C14	mg/kg	.	ND < 5.0	ND < 4.9
C15-C16	mg/kg	.	ND < 5.0	ND < 4.9
C17-C18	mg/kg	.	ND < 5.0	ND < 4.9
C19-C20	mg/kg	.	6.0	ND < 4.9
C21-C22	mg/kg	.	8.1	5.4
C23-C24	mg/kg	.	7.6	5.0
C25-C28	mg/kg	.	14	8.0
C29-C32	mg/kg	.	18	11
C33-C36	mg/kg	.	9.8	8.6
C37-C40	mg/kg	.	ND < 5.0	ND < 4.9
C41-C44	mg/kg	.	ND < 5.0	ND < 4.9
C6-C44 Total	mg/kg	.	141	86.45
Metals				
Arsenic	mg/kg	**500**	7.66	8.05
Cadmium	mg/kg	**100**	1.08	1.08
Chromium[1]	mg/kg	**500**	52.6	43.9
Copper	mg/kg	**2500**	92.3	77.1
Lead	mg/kg	**1000**	85.3	75.8
Nickel	mg/kg	**2000**	23.2	27.0
Mercury	mg/kg	**20**	0.30	0.80
Selenium	mg/kg	**100**	0.37	0.44
Silver	mg/kg	**500**	0.51	0.29
Zinc	mg/kg	**5000**	239	243

Appendix C. Analytical Chemistry Results - Sediment Testing

Analyte	Units	TTLC	Results	
			B195-200A	B210-211
Organochlorine Pesticides				
Aldrin	µg/kg	**1400**	ND < 0.20	ND < 0.25
Alpha Chlordane	µg/kg	.	5.4	1.7
Alpha-BHC[2]	µg/kg	**4000**	ND < 0.20	ND < 0.25
Beta-BHC[2]	µg/kg	**4000**	ND < 0.20	ND < 0.25
2,4'-DDD	µg/kg	**1000**	ND < 0.20	ND < 0.25
4,4'-DDD	µg/kg	**1000**	24	ND < 0.25
4,4'-DDE	µg/kg	**1000**	46	47.2
2,4'-DDE	µg/kg	**1000**	ND < 0.20	ND < 0.25
2,4'-DDT	µg/kg	**1000**	ND < 0.20	ND < 0.25
4,4'-DDT	µg/kg	**1000**	ND < 0.20	ND < 0.25
Delta-BHC[2]	µg/kg	**4000**	ND < 0.20	ND < 0.25
Dieldrin	µg/kg	**100000**	ND < 0.20	ND < 0.25
Endosulfan I	µg/kg	.	ND < 0.20	ND < 0.25
Endosulfan II	µg/kg	.	ND < 0.20	ND < 0.25
Endosulfan Sulfate	µg/kg	.	ND < 0.20	ND < 0.25
Endrin	µg/kg	**200**	ND < 0.20	ND < 0.25
Endrin Aldehyde	µg/kg	.	ND < 0.20	ND < 0.25
Gamma Chlordane	µg/kg	.	6.0	1.7
Gamma-BHC[2]	µg/kg	**4000**	60	27
Heptachlor	µg/kg	**4700**	ND < 0.20	ND < 0.25
Heptachlor Epoxide	µg/kg		ND < 0.20	ND < 0.25
Toxaphene	µg/kg	**5000**	ND < 0.20	ND < 0.25

Appendix C. Analytical Chemistry Results - Sediment Testing

Analyte	Units	TTLC	Results	
			B195-200A	B210-211
Semi Volatile Organics				
Acenaphthene	µg/kg	.	14	ND < 10
Acenaphthylene	µg/kg	.	87	27
Benzo (a) Anthracene	µg/kg	.	293	80
Benzo (a) Pyrene	µg/kg	.	652	266
Benzo (b) Fluoranthene	µg/kg	.	706	293
Benzo (g,h,i) Perylene	µg/kg	.	255	93
Benzo (k) Fluoranthene	µg/kg	.	597	259
Chrysene	µg/kg	.	478	160
Dibenz (a,h) Anthracene	µg/kg	.	136	55
Fluoranthene	µg/kg	.	413	113
Fluorene	µg/kg	.	20	ND < 10
Indeno (1,2,3-c,d) Pyrene	µg/kg	.	315	120
Naphthalene	µg/kg	.	21	10
Phenanthrene	µg/kg	.	98	62
Pyrene	µg/kg	.	1738	213
Phenols				
2,4,5-Trichlorophenol	µg/kg	.	ND < 9.8	ND < 10
2,3,4,6-Trichlorophenol	µg/kg	.	ND < 9.8	ND < 10
2,4,6-Trichlorophenol	µg/kg	.	ND < 9.8	ND < 10
2,4-Dichlorophenol	µg/kg	.	ND < 9.8	ND < 10
2,6-Dichlorophenol	µg/kg	.	ND < 9.8	ND < 10
2,4-Dimethylphenol	µg/kg	.	ND < 494	ND < 402
2,4-Dinitrophenol	µg/kg	.	ND < 494	ND < 402
2-Chlorophenol	µg/kg	.	ND < 9.8	ND < 10
2-Methylphenol	µg/kg	.	ND < 9.8	ND < 10
2-Nitrophenol	µg/kg	.	ND < 494	ND < 402
3/4-Methylphenol	µg/kg	.	ND < 9.8	ND < 10
4,6-Dinitro-2-Methylphenol	µg/kg	.	ND < 494	ND < 402
4-Chloro-3-Methylphenol	µg/kg	.	ND < 9.8	ND < 10
4-Nitrophenol	µg/kg	.	ND < 494	ND < 402
Pentachlorophenol	µg/kg	.	ND < 494	ND < 402
Phenol	µg/kg	.	ND < 9.8	ND < 10
Phthalates				
Butyl benzyl Phthalate	µg/kg	.	174	213
Di-n-Butyl Phthalate	µg/kg	.	43	35
Di-n-Octyl Phthalate	µg/kg	.	ND < 9.8	ND < 10
Diethyl Phthalate	µg/kg	.	ND < 9.8	ND < 10
Dimethyl Phthalate	µg/kg	.	16	ND < 10
Bis(2-Ethylhexyl) Phthalate	µg/kg	.	2987	1131

Appendix C. Analytical Chemistry Results - Sediment Testing

Analyte	Units	TTLC	Results	
			B195-200A	B210-211
PCB Congeners				
PCB 018	µg/kg	.	1.3	8.6
PCB 028	µg/kg	.	0.8	6.7
PCB 037	µg/kg	.	3.0	2.4
PCB 044	µg/kg	.	1.4	6.3
PCB 049	µg/kg	.	18.5	3.1
PCB 052	µg/kg	.	32.0	6.3
PCB 066	µg/kg	.	1.8	4.5
PCB 070	µg/kg	.	1.8	5.3
PCB 074	µg/kg	.	1.0	2.5
PCB 077	µg/kg	.	2.7	1.5
PCB 081	µg/kg	.	ND < 0.20	ND < 0.20
PCB 087	µg/kg	.	1.8	2.7
PCB 099	µg/kg	.	6.5	2.5
PCB 101	µg/kg	.	9.2	7.3
PCB 105	µg/kg	.	2.4	3.6
PCB 110	µg/kg	.	4.1	7.3
PCB 114	µg/kg	.	ND < 0.20	ND < 0.20
PCB 118	µg/kg	.	3.6	6.1
PCB 119	µg/kg	.	2.8	ND < 0.20
PCB 123	µg/kg	.	ND < 0.20	ND < 0.20
PCB 126	µg/kg	.	ND < 0.20	ND < 0.20
PCB 128	µg/kg	.	0.9	1.3
PCB 132/153	µg/kg	.	26.6	10.0
PCB 138/158	µg/kg	.	13.0	10.0
PCB 149	µg/kg	.	14.1	5.9
PCB 151	µg/kg	.	7.6	1.9
PCB 156	µg/kg	.	0.9	1.2
PCB 157	µg/kg	.	ND < 0.20	ND < 0.20
PCB 167	µg/kg	.	ND < 0.20	ND < 0.20
PCB 168	µg/kg	.	ND < 0.20	ND < 0.20
PCB 169	µg/kg	.	0.7	ND < 0.20
PCB 170	µg/kg	.	5.1	2.9
PCB 177	µg/kg	.	2.9	1.4
PCB 180	µg/kg	.	12	5.5
PCB 183	µg/kg	.	3.5	1.5
PCB 187	µg/kg	.	14	2.6
PCB 189	µg/kg	.	ND < 0.20	ND < 0.20
PCB 194	µg/kg	.	3.6	1.3
PCB 201	µg/kg	.	0.7	ND < 0.20
PCB 206	µg/kg	.	2.2	0.9
Total PCB Congeners	µg/kg	**50,000**	203	123

Appendix C. Analytical Chemistry Results - Sediment Testing

Analyte	Units	TTLC	Results	
			B195-200A	B210-211
Pyrethroid Pesticides				
Allethrin	µg/kg	.	ND < 0.50	ND < 0.50
Bifenthrin	µg/kg	.	ND < 0.50	ND < 0.50
Cyfluthrin	µg/kg	.	0.92	ND < 0.50
Cypermethrin	µg/kg	.	ND < 0.50	ND < 0.50
Deltamethrin/Tralomethrin	µg/kg	.	ND < 0.50	ND < 0.50
Fenopropathrin	µg/kg	.	ND < 0.50	ND < 0.50
Fenvalerate/Esfenvalerate	µg/kg	.	ND < 0.50	ND < 0.50
Fluvalinate	µg/kg	.	ND < 0.50	ND < 0.50
Permethrin (cis/trans)	µg/kg	.	14	4.9
Phenothrin	µg/kg	.	ND < 0.50	ND < 0.50
Resmethrin/Bioresmethrin	µg/kg	.	ND < 0.50	ND < 0.50
Tetramethrin	µg/kg	.	ND < 0.50	ND < 0.50
lambda-Cyhalothrin	µg/kg	.	ND < 0.50	ND < 0.50
Organotins				
Dibutyltin	µg/kg	.	109	113
Monobutyltin	µg/kg	.	3.1	6.0
Tetrabutyltin	µg/kg	.	ND < 3.0	3.8
Tributyltin	µg/kg	.	81.5	253

Notes:

http://www.torrentlab.com/torrent/resources/resource/STLC_and_TTLC_Limits.pdf

Values are in wet weight.

[1] Chromium TTLC is for chromium (VI)

[2] alpha, beta, delta, and gamma-BHC TTLC regulatory limit are for lindane

TTLC = total threshold limit concentration; µg/kg = micrograms per kilogram; mg/kg = milligrams per kilogram; PCB = polychlorinated biphenyl;
DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene;
DDT = dichlorodiphenyltrichloroethane

Appendix C. Analytical Chemistry Results - Sediment Testing (Dry weight)

Analyte	Units	ERL	ERM	Results	
				B195-200A	B210-211
General Chemistry					
Total Solids	%	.	.	54.3	66.5
Total Organic Carbon	mg/kg	.	.	2.6	1.1
Ammonia (As N)	mg/kg	.	.	9.3	6.3
Oil and Grease	mg/kg	.	.	2400	1000
Total Sulfide	mg/kg	.	.	24	20
Dissolved Sulfide	mg/kg	.	.	ND < 0.10	ND < 0.10
TRPH	mg/kg	.	.	2100	400
Total Petroleum Hydrocarbons					
C6	mg/kg	.	.	ND < 9.2	ND < 7.4
C7	mg/kg	.	.	ND < 9.2	ND < 7.4
C8	mg/kg	.	.	ND < 9.2	ND < 7.4
C9-C10	mg/kg	.	.	ND < 9.2	ND < 7.4
C11-C12	mg/kg	.	.	ND < 9.2	ND < 7.4
C13-C14	mg/kg	.	.	ND < 9.2	ND < 7.4
C15-C16	mg/kg	.	.	ND < 9.2	ND < 7.4
C17-C18	mg/kg	.	.	ND < 9.2	ND < 7.4
C19-C20	mg/kg	.	.	11	ND < 7.4
C21-C22	mg/kg	.	.	15	8.1
C23-C24	mg/kg	.	.	14	7.5
C25-C28	mg/kg	.	.	26	12
C29-C32	mg/kg	.	.	34	17
C33-C36	mg/kg	.	.	18	13
C37-C40	mg/kg	.	.	ND < 9.2	ND < 7.4
C41-C44	mg/kg	.	.	ND < 9.2	ND < 7.4
C6-C44 Total	mg/kg	.	.	260	130
Metals					
Arsenic	mg/kg	**8.2**	**70**	**14.1**	**12.1**
Cadmium	mg/kg	**1.2**	**9.6**	**1.99**	**1.63**
Chromium	mg/kg	**81**	**370**	**96.9**	66.0
Copper	mg/kg	**34**	**270**	**170**	**116**
Lead	mg/kg	**46.7**	**218**	**157**	**114**
Mercury	mg/kg	**0.15**	**0.71**	**0.557**	**1.20**
Nickel	mg/kg	**20.9**	**51.6**	**42.8**	**40.6**
Selenium	mg/kg	.	.	0.688	0.665
Silver	mg/kg	**1.0**	**3.7**	0.939	0.433
Zinc	mg/kg	**150**	**410**	**441**	**365**
Chlorinated Pesticides					
Aldrin	µg/kg	.	.	ND < 0.37	ND < 0.30
Alpha Chlordane	µg/kg	.	.	10	2.5
Alpha-BHC[2]	µg/kg	.	.	ND < 0.37	ND < 0.30
Beta-BHC[2]	µg/kg	.	.	ND < 0.37	ND < 0.30
2,4'-DDD	µg/kg	.	.	ND < 0.37	ND < 0.30

Appendix C. Analytical Chemistry Results - Sediment Testing (Dry weight)

Analyte	Units	ERL	ERM	Results	
				B195-200A	B210-211
2,4'-DDE	µg/kg	.	.	ND < 0.37	ND < 0.30
2,4'-DDT	µg/kg	.	.	ND < 0.37	ND < 0.30
4,4'-DDD	µg/kg	**2.0**	**20.0**	44	ND < 0.30
4,4'-DDE	µg/kg	**2.2**	**27.0**	84	71
4,4'-DDT	µg/kg	**1.0**	**7.0**	ND < 0.37	ND < 0.30
Total DDTs	µg/kg	**1.58**	**46.1**	**128**	**71**
Delta-BHC[2]	µg/kg	.	.	ND < 0.37	ND < 0.30
Dieldrin	µg/kg	**0.02**	**8.0**	ND < 0.37	ND < 0.30
Endosulfan I	µg/kg	.	.	ND < 0.37	ND < 0.30
Endosulfan II	µg/kg	.	.	ND < 0.37	ND < 0.30
Endosulfan Sulfate	µg/kg	.	.	ND < 0.37	ND < 0.30
Endrin	µg/kg	.	.	ND < 0.37	ND < 0.30
Endrin Aldehyde	µg/kg	.	.	ND < 0.37	ND < 0.30
Gamma Chlordane	µg/kg	.	.	11	2.6
Gamma-BHC[2]	µg/kg	.	.	110	41
Heptachlor	µg/kg	.	.	ND < 0.37	ND < 0.30
Heptachlor Epoxide	µg/kg	.	.	ND < 0.37	ND < 0.30
Toxaphene	µg/kg	.	.	ND < 37	ND < 30
Polycyclic Aromatic Hydrocarbons (PAHs)					
1,6,7-Trimethylnaphthalene	µg/kg	.	.	26	ND < 15
1-Methylnaphthalene	µg/kg	.	.	19	ND < 15
1-Methylphenanthrene	µg/kg	.	.	24	ND < 15
2,6-Dimethylnaphthalene	µg/kg	.	.	77	25
2-Methylnaphthalene	µg/kg	**70**	**670**	48	17
Acenaphthene	µg/kg	**16**	**500**	25	ND < 15
Acenaphthylene	µg/kg	**44**	**640**	160	41
Anthracene	µg/kg	**85.3**	**1100**	**430**	**88**
Benzo (a) Anthracene	µg/kg	**261**	**1600**	540	120
Benzo (a) Pyrene	µg/kg	**430**	**1600**	1200	400
Benzo (b) Fluoranthene	µg/kg	.	.	1300	440
Benzo (g,h,i) Perylene	µg/kg	.	.	470	140
Benzo (k) Fluoranthene	µg/kg	.	.	1100	390
Benzo (e) Pyrene	µg/kg	.	.	1000	320
Chrysene	µg/kg	**384**	**2800**	880	240
Dibenz (a,h) Anthracene	µg/kg	**63.4**	**260**	250	83
Fluoranthene	µg/kg	**600**	**5100**	760	170
Fluorene	µg/kg	**19**	**540**	**36**	ND < 15
Indeno (1,2,3-c,d) Pyrene	µg/kg	.	.	580	180
Naphthalene	µg/kg	**160**	**2100**	38	15
Phenanthrene	µg/kg	**240**	**1500**	180	93
Perylene	µg/kg	.	.	370	110
Pyrene	µg/kg	**665**	**2600**	3200	320
Total Detectable PAHs	µg/kg	**4022**	**44792**	**12519**	**3150**

Appendix C. Analytical Chemistry Results - Sediment Testing (Dry weight)

Analyte	Units	ERL	ERM	Results	
				B195-200A	B210-211
Phenols					
2,4,5-Trichlorophenol	µg/kg	.	.	ND < 18	ND < 15
2,3,4,6-Trichlorophenol	µg/kg	.	.	ND < 18	ND < 15
2,4,6-Trichlorophenol	µg/kg	.	.	ND < 18	ND < 15
2,4-Dichlorophenol	µg/kg	.	.	ND < 18	ND < 15
2,6-Dichlorophenol	µg/kg	.	.	ND < 18	ND < 15
2,4-Dimethylphenol	µg/kg	.	.	ND < 910	ND < 740
2,4-Dinitrophenol	µg/kg	.	.	ND < 910	ND < 740
2-Chlorophenol	µg/kg	.	.	ND < 18	17
2-Methylphenol	µg/kg	.	.	ND < 18	ND < 15
2-Nitrophenol	µg/kg	.	.	ND < 910	ND < 740
3/4-Methylphenol	µg/kg	.	.	ND < 18	ND < 15
4,6-Dinitro-2-Methylphenol	µg/kg	.	.	ND < 910	ND < 740
4-Chloro-3-Methylphenol	µg/kg	.	.	ND < 18	ND < 15
4-Nitrophenol	µg/kg	.	.	25	ND < 740
Pentachlorophenol	µg/kg	.	.	ND < 910	ND < 740
Phenol	µg/kg	.	.	ND < 18	ND < 15
Phthalates					
Butyl benzyl Phthalate	µg/kg	.	.	320	320
Di-n-Butyl Phthalate	µg/kg	.	.	79	53
Di-n-Octyl Phthalate	µg/kg	.	.	ND < 18	ND < 15
Diethyl Phthalate	µg/kg	.	.	ND < 18	ND < 15
Dimethyl Phthalate	µg/kg	.	.	30	ND < 15
Bis(2-Ethylhexyl) Phthalate	µg/kg	.	.	5500	1700
PCB Congeners					
PCB 018	µg/kg	.	.	2.4	13
PCB 028	µg/kg	.	.	1.5	10
PCB 037	µg/kg	.	.	5.6	3.6
PCB 044	µg/kg	.	.	2.6	9.5
PCB 049	µg/kg	.	.	34	4.7
PCB 052	µg/kg	.	.	59	9.4
PCB 066	µg/kg	.	.	3.3	6.7
PCB 070	µg/kg	.	.	3.3	8.0
PCB 074	µg/kg	.	.	1.9	3.7
PCB 077	µg/kg	.	.	5.0	2.2
PCB 081	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 087	µg/kg	.	.	3.4	4.1
PCB 099	µg/kg	.	.	12	3.7
PCB 101	µg/kg	.	.	17	11
PCB 105	µg/kg	.	.	4.4	5.4
PCB 110	µg/kg	.	.	7.6	11
PCB 114	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 118	µg/kg	.	.	6.7	9.2

Appendix C. Analytical Chemistry Results - Sediment Testing (Dry weight)

Analyte	Units	ERL	ERM	Results	
				B195-200A	B210-211
PCB 119	µg/kg	.	.	5.1	ND < 0.30
PCB 123	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 126	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 128	µg/kg	.	.	1.7	2.0
PCB 132/153	µg/kg	.	.	49	15
PCB 138/158	µg/kg	.	.	24	15
PCB 149	µg/kg	.	.	26	8.8
PCB 151	µg/kg	.	.	14	2.8
PCB 156	µg/kg	.	.	1.6	1.8
PCB 157	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 167	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 168	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 169	µg/kg	.	.	1.2	ND < 0.30
PCB 170	µg/kg	.	.	9.4	4.3
PCB 177	µg/kg	.	.	5.3	2.1
PCB 180	µg/kg	.	.	23	8.2
PCB 183	µg/kg	.	.	6.4	2.2
PCB 187	µg/kg	.	.	25	3.9
PCB 189	µg/kg	.	.	ND < 0.37	ND < 0.30
PCB 194	µg/kg	.	.	6.7	2.0
PCB 201	µg/kg	.	.	1.2	ND < 0.30
PCB 206	µg/kg	.	.	4.0	1.4
Total PCB Congeners	µg/kg	**22.7**	**180**	**373**	**185**
Pyrethroid Pesticides					
Allethrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Bifenthrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Cyfluthrin	µg/kg	.	.	1.7	ND < 0.75
Cypermethrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Deltamethrin/Tralomethrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Fenopropathrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Fenvalerate/Esfenvalerate	µg/kg	.	.	ND < 0.92	ND < 0.75
Fluvalinate	µg/kg	.	.	ND < 0.92	ND < 0.75
Permethrin (cis/trans)	µg/kg	.	.	26	7.4
Phenothrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Resmethrin/Bioresmethrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Tetramethrin	µg/kg	.	.	ND < 0.92	ND < 0.75
lambda-Cyhalothrin	µg/kg	.	.	ND < 0.92	ND < 0.75
Organotins					
Dibutyltin	µg/kg	.	.	200	170
Monobutyltin	µg/kg	.	.	5.8	9.0
Tetrabutyltin	µg/kg	.	.	ND < 5.5	5.7
Tributyltin	µg/kg	.	.	150	380

Notes:

Appendix C. Analytical Chemistry Results - Sediment Testing (Dry weight)

Analyte	Units	ERL	ERM	Results	
				B195-200A	B210-211

ERL and ERM guideline values are from Buchman, 2008.

Values are in dry weight.

ERL = effects range-low; ERM = effects range-median; µg/kg = micrograms per kilogram; mg/kg = milligrams per kilogram;

Supplemental Report 2

The original report has been revised/corrected.

WORK ORDER NUMBER: 16-01-1373

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Foster Wheeler, Plc.

Client Project Name: POLA Berths 195-200A & 210-211

Attention: Kimbrie Gobbi
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Approved for release on 03/10/2016 by:
Carla Hollowell
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Client Project Name: POLA Berths 195-200A & 210-211
Work Order Number: 16-01-1373

Contents

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/21/16. They were assigned to Work Order 16-01-1373.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AMEC Foster Wheeler, Plc. 9210 Sky Park Court, Suite 200 San Diego, CA 92123-4302	Work Order:	16-01-1373
		Project Name:	POLA Berths 195-200A & 210-211
		PO Number:	
		Date/Time Received:	01/21/16 15:05
		Number of Containers:	12
Attn:	Kimbrie Gobbi		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B195-200A Composite	16-01-1373-1	01/21/16 12:00	2	Sediment
B210-211 Composite	16-01-1373-2	01/21/16 11:30	2	Sediment
B195-200A Site Water	16-01-1373-3	01/21/16 12:35	2	Aqueous
B210-211 Site Water	16-01-1373-4	01/21/16 12:25	2	Aqueous
B195-200A Elutriate	16-01-1373-5	01/21/16 12:00	2	Sediment
B210-211 Elutriate	16-01-1373-6	01/21/16 11:30	2	Sediment

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 1664A (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**N/A**	**02/02/16**	**02/02/16 11:20**	**G0202HEML1**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	2400	180	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**N/A**	**02/02/16**	**02/02/16 11:20**	**G0202HEML1**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	1000	15	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-040-596**	**N/A**	**Solid**	**N/A**	**02/02/16**	**02/02/16 11:20**	**G0202HEML1**

Parameter	Result	RL	DF	Qualifiers
HEM: Oil and Grease	ND	10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 376.2M
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-B**	**01/21/16 12:00**	**Sediment**	**N/A**	**01/25/16**	**01/25/16 19:52**	**G0125SL3**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Sulfide, Total	24	1.8	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-B**	**01/21/16 11:30**	**Sediment**	**N/A**	**01/25/16**	**01/25/16 19:52**	**G0125SL3**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Sulfide, Total	20	1.5	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-352-87**	**N/A**	**Solid**	**N/A**	**01/25/16**	**01/25/16 19:52**	**G0125SL3**

Parameter	Result	RL	DF	Qualifiers
Sulfide, Total	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 376.2M
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-B**	**01/21/16 12:00**	**Sediment**	**N/A**	**01/21/16**	**01/21/16 18:35**	**G0121DSL4**

Parameter	Result	RL	DF	Qualifiers
Sulfide, Dissolved	ND	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-B**	**01/21/16 11:30**	**Sediment**	**N/A**	**01/21/16**	**01/21/16 18:35**	**G0121DSL4**

Parameter	Result	RL	DF	Qualifiers
Sulfide, Dissolved	ND	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-354-34**	**N/A**	**Solid**	**N/A**	**01/21/16**	**01/21/16 18:35**	**G0121DSL4**

Parameter	Result	RL	DF	Qualifiers
Sulfide, Dissolved	ND	0.10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 9060A
Units: %

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-B**	**01/21/16 12:00**	**Sediment**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCL1**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	2.6	0.092	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-B**	**01/21/16 11:30**	**Sediment**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCL1**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	1.1	0.075	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-013-1503**	**N/A**	**Solid**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCL1**

Parameter	Result	RL	DF	Qualifiers
Carbon, Total Organic	ND	0.050	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: SM 2540 B (M)
Units: %

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**N/A**	**01/25/16**	**01/25/16 20:00**	**G0125TSB4**

Parameter	Result	RL	DF	Qualifiers
Solids, Total	54.3	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**N/A**	**01/25/16**	**01/25/16 20:00**	**G0125TSB4**

Parameter	Result	RL	DF	Qualifiers
Solids, Total	66.5	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-019-3187**	**N/A**	**Solid**	**N/A**	**01/25/16**	**01/25/16 20:00**	**G0125TSB4**

Parameter	Result	RL	DF	Qualifiers
Solids, Total	ND	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: SM 4500-NH3 B/C (M)
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**BUR05**	**02/05/16**	**02/05/16 20:00**	**G0205NH3L1**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Ammonia (as N)	9.3	0.37	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**BUR05**	**02/05/16**	**02/05/16 20:00**	**G0205NH3L1**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Ammonia (as N)	6.3	0.30	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-816-125**	**N/A**	**Solid**	**BUR05**	**02/05/16**	**02/05/16 20:00**	**G0205NH3L1**

Parameter	Result	RL	DF	Qualifiers
Ammonia (as N)	ND	0.20	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: Extraction
Method: EPA 418.1M
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
TRPH	2100	180	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
TRPH	400	15	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-015-2134**	**N/A**	**Solid**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129L04**

Parameter	Result	RL	DF	Qualifiers
TRPH	ND	10	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received:	01/21/16
Work Order:	16-01-1373
Preparation:	EPA 3550/SG 10
Method:	EPA 8015B (M)
Units:	mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC 48**	**01/28/16**	**01/28/16 23:20**	**160128B17A**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
C6	ND	9.2	1.00	
C7	ND	9.2	1.00	
C8	ND	9.2	1.00	
C9-C10	ND	9.2	1.00	
C11-C12	ND	9.2	1.00	
C13-C14	ND	9.2	1.00	
C15-C16	ND	9.2	1.00	
C17-C18	ND	9.2	1.00	
C19-C20	11	9.2	1.00	
C21-C22	15	9.2	1.00	
C23-C24	14	9.2	1.00	
C25-C28	26	9.2	1.00	
C29-C32	34	9.2	1.00	
C33-C36	18	9.2	1.00	
C37-C40	ND	9.2	1.00	
C41-C44	ND	9.2	1.00	
C6-C44 Total	260	9.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decanoic Acid	0	0-1	
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550/SG 10
Method: EPA 8015B (M)
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC 48**	**01/28/16**	**01/28/16 23:37**	**160128B17A**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
C6	ND	7.4	1.00	
C7	ND	7.4	1.00	
C8	ND	7.4	1.00	
C9-C10	ND	7.4	1.00	
C11-C12	ND	7.4	1.00	
C13-C14	ND	7.4	1.00	
C15-C16	ND	7.4	1.00	
C17-C18	ND	7.4	1.00	
C19-C20	ND	7.4	1.00	
C21-C22	8.1	7.4	1.00	
C23-C24	7.5	7.4	1.00	
C25-C28	12	7.4	1.00	
C29-C32	17	7.4	1.00	
C33-C36	13	7.4	1.00	
C37-C40	ND	7.4	1.00	
C41-C44	ND	7.4	1.00	
C6-C44 Total	130	7.5	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decanoic Acid	0	0-1	
n-Octacosane	75	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550/SG 10
Method: EPA 8015B (M)
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-526-21**	**N/A**	**Solid**	**GC 48**	**01/28/16**	**01/28/16 20:09**	**160128B17A**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decanoic Acid	0	0-1	
n-Octacosane	83	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-AA**	**01/21/16 12:00**	**Sediment**	**GCTQ 2**	**01/29/16**	**02/02/16 00:17**	**160129L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Allethrin	ND	0.92	1.00	
Bifenthrin	ND	0.92	1.00	
Cyfluthrin	1.7	0.92	1.00	
Cypermethrin	ND	0.92	1.00	
Deltamethrin/Tralomethrin	ND	0.92	1.00	
Fenpropathrin	ND	0.92	1.00	
Fenvalerate/Esfenvalerate	ND	0.92	1.00	
Fluvalinate	ND	0.92	1.00	
Permethrin (cis/trans)	26	1.8	1.00	
Phenothrin	ND	0.92	1.00	
Resmethrin/Bioresmethrin	ND	0.92	1.00	
Tetramethrin	ND	0.92	1.00	
lambda-Cyhalothrin	ND	0.92	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	31	40-160	1,2,6

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-AA**	**01/21/16 11:30**	**Sediment**	**GCTQ 2**	**01/29/16**	**02/02/16 01:06**	**160129L04**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Allethrin	ND	0.75	1.00	
Bifenthrin	ND	0.75	1.00	
Cyfluthrin	ND	0.75	1.00	
Cypermethrin	ND	0.75	1.00	
Deltamethrin/Tralomethrin	ND	0.75	1.00	
Fenpropathrin	ND	0.75	1.00	
Fenvalerate/Esfenvalerate	ND	0.75	1.00	
Fluvalinate	ND	0.75	1.00	
Permethrin (cis/trans)	7.4	1.5	1.00	
Phenothrin	ND	0.75	1.00	
Resmethrin/Bioresmethrin	ND	0.75	1.00	
Tetramethrin	ND	0.75	1.00	
lambda-Cyhalothrin	ND	0.75	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	37	40-160	1,2,6

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-403-94**	**N/A**	**Solid**	**GCTQ 2**	**01/29/16**	**02/01/16 17:40**	**160129L04**

Parameter	Result	RL	DF	Qualifiers
Allethrin	ND	0.50	1.00	
Bifenthrin	ND	0.50	1.00	
Cyfluthrin	ND	0.50	1.00	
Cypermethrin	ND	0.50	1.00	
Deltamethrin/Tralomethrin	ND	0.50	1.00	
Fenpropathrin	ND	0.50	1.00	
Fenvalerate/Esfenvalerate	ND	0.50	1.00	
Fluvalinate	ND	0.50	1.00	
Permethrin (cis/trans)	ND	1.0	1.00	
Phenothrin	ND	0.50	1.00	
Resmethrin/Bioresmethrin	ND	0.50	1.00	
Tetramethrin	ND	0.50	1.00	
lambda-Cyhalothrin	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	90	40-160	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3005A Filt.
Method: EPA 1640
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-B**	**01/21/16 12:35**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 22:39**	**160127L01F**

Parameter	Result	RL	DF	Qualifiers
Cadmium	0.0382	0.0300	1.00	
Chromium	ND	0.500	1.00	
Copper	3.75	0.0300	1.00	
Lead	0.0685	0.0300	1.00	
Nickel	0.562	0.0500	1.00	
Silver	0.337	0.0500	1.00	
Zinc	14.5	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-B**	**01/21/16 12:35**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/28/16 17:23**	**160127L01F**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.39	0.0300	1.00	
Selenium	0.0534	0.0500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-B**	**01/21/16 12:25**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 22:47**	**160127L01F**

Parameter	Result	RL	DF	Qualifiers
Cadmium	0.0335	0.0300	1.00	
Chromium	ND	0.500	1.00	
Copper	4.13	0.0300	1.00	
Lead	0.0539	0.0300	1.00	
Nickel	0.527	0.0500	1.00	
Silver	0.346	0.0500	1.00	
Zinc	13.9	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-B**	**01/21/16 12:25**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/28/16 17:29**	**160127L01F**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.40	0.0300	1.00	
Selenium	ND	0.0500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3005A Filt.
Method: EPA 1640
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-823-182**	**N/A**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 19:03**	**160127L01F**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.0300	1.00	
Cadmium	ND	0.0300	1.00	
Chromium	ND	0.500	1.00	
Copper	ND	0.0300	1.00	
Lead	ND	0.0300	1.00	
Nickel	ND	0.0500	1.00	
Selenium	ND	0.0500	1.00	
Silver	ND	0.0500	1.00	
Zinc	ND	0.500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:50**	**160125L01E**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Arsenic	14.1	0.184	1.00	
Cadmium	1.99	0.184	1.00	
Chromium	96.9	0.184	1.00	
Copper	170	0.184	1.00	
Lead	157	0.184	1.00	
Nickel	42.8	0.184	1.00	
Selenium	0.688	0.184	1.00	
Silver	0.939	0.184	1.00	
Zinc	441	1.84	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**ICP/MS 03**	**01/25/16**	**01/27/16 18:49**	**160125L01E**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Arsenic	12.1	0.150	1.00	
Cadmium	1.63	0.150	1.00	
Chromium	66.0	0.150	1.00	
Copper	116	0.150	1.00	
Lead	114	0.150	1.00	
Nickel	40.6	0.150	1.00	
Selenium	0.665	0.150	1.00	
Silver	0.433	0.150	1.00	
Zinc	365	1.50	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3050B
Method: EPA 6020
Units: mg/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-254-388**	**N/A**	**Solid**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:30**	**160125L01E**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.100	1.00	
Cadmium	ND	0.100	1.00	
Chromium	ND	0.100	1.00	
Copper	ND	0.100	1.00	
Lead	ND	0.100	1.00	
Nickel	ND	0.100	1.00	
Selenium	ND	0.100	1.00	
Silver	ND	0.100	1.00	
Zinc	ND	1.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-A**	**01/21/16 12:35**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:42**	**160202LA1L**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-A**	**01/21/16 12:25**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:45**	**160202LA1L**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-510-692**	**N/A**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:27**	**160202LA1L**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**Mercury 05**	**01/25/16**	**01/25/16 14:52**	**160125L01E**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Mercury	0.557	0.0368	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**Mercury 05**	**01/25/16**	**01/25/16 14:59**	**160125L01E**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Mercury	1.20	0.0286	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-278-198**	**N/A**	**Solid**	**Mercury 05**	**01/25/16**	**01/25/16 14:48**	**160125L01E**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0200	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: ASTM D4464 (M)
Units: %

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-A**	**01/21/16 12:00**	**Sediment**	**LPSA 1**	**N/A**	**01/25/16 15:50**	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	32.83	
Silt (0.00391 to 0.0625mm)	67.17	
Total Silt and Clay (0 to 0.0625mm)	100.0	
Very Fine Sand (0.0625 to 0.125mm)	ND	
Fine Sand (0.125 to 0.25mm)	ND	
Medium Sand (0.25 to 0.5mm)	ND	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-A**	**01/21/16 11:30**	**Sediment**	**LPSA 1**	**N/A**	**01/25/16 15:55**	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	27.76	
Silt (0.00391 to 0.0625mm)	72.24	
Total Silt and Clay (0 to 0.0625mm)	100.0	
Very Fine Sand (0.0625 to 0.125mm)	ND	
Fine Sand (0.125 to 0.25mm)	ND	
Medium Sand (0.25 to 0.5mm)	ND	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-B**	**01/21/16 12:35**	**Aqueous**	**GC 44**	**01/28/16**	**02/01/16 13:37**	**160128L05**

Parameter	Result	RL	DF	Qualifiers
Oxychlordane	ND	0.010	1.00	
Aldrin	ND	0.010	1.00	
Alpha Chlordane	ND	0.010	1.00	
Alpha-BHC	ND	0.010	1.00	
Beta-BHC	ND	0.010	1.00	
Chlordane	ND	0.025	1.00	
Cis-nonachlor	ND	0.010	1.00	
2,4'-DDD	ND	0.010	1.00	
4,4'-DDD	ND	0.010	1.00	
4,4'-DDE	ND	0.010	1.00	
2,4'-DDE	ND	0.010	1.00	
2,4'-DDT	ND	0.010	1.00	
4,4'-DDT	ND	0.010	1.00	
Delta-BHC	ND	0.010	1.00	
Dieldrin	ND	0.010	1.00	
Endosulfan I	ND	0.010	1.00	
Endosulfan II	ND	0.010	1.00	
Endosulfan Sulfate	ND	0.010	1.00	
Endrin	ND	0.010	1.00	
Endrin Aldehyde	ND	0.010	1.00	
Endrin Ketone	ND	0.010	1.00	
Gamma Chlordane	ND	0.010	1.00	
Gamma-BHC	ND	0.010	1.00	
Heptachlor	ND	0.010	1.00	
Heptachlor Epoxide	ND	0.010	1.00	
Hexachlorobenzene	ND	0.010	1.00	
Methoxychlor	ND	0.010	1.00	
Mirex	ND	0.010	1.00	
Toxaphene	ND	0.12	1.00	
Trans-nonachlor	ND	0.010	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	76	50-150	
2,4,5,6-Tetrachloro-m-Xylene	62	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-B**	**01/21/16 12:25**	**Aqueous**	**GC 44**	**01/28/16**	**02/01/16 13:52**	**160128L05**

Parameter	Result	RL	DF	Qualifiers
Oxychlordane	ND	0.010	1.00	
Aldrin	ND	0.010	1.00	
Alpha Chlordane	ND	0.010	1.00	
Alpha-BHC	ND	0.010	1.00	
Beta-BHC	ND	0.010	1.00	
Chlordane	ND	0.025	1.00	
Cis-nonachlor	ND	0.010	1.00	
2,4'-DDD	ND	0.010	1.00	
4,4'-DDD	ND	0.010	1.00	
4,4'-DDE	ND	0.010	1.00	
2,4'-DDE	ND	0.010	1.00	
2,4'-DDT	ND	0.010	1.00	
4,4'-DDT	ND	0.010	1.00	
Delta-BHC	ND	0.010	1.00	
Dieldrin	ND	0.010	1.00	
Endosulfan I	ND	0.010	1.00	
Endosulfan II	ND	0.010	1.00	
Endosulfan Sulfate	ND	0.010	1.00	
Endrin	ND	0.010	1.00	
Endrin Aldehyde	ND	0.010	1.00	
Endrin Ketone	ND	0.010	1.00	
Gamma Chlordane	ND	0.010	1.00	
Gamma-BHC	ND	0.010	1.00	
Heptachlor	ND	0.010	1.00	
Heptachlor Epoxide	ND	0.010	1.00	
Hexachlorobenzene	ND	0.010	1.00	
Methoxychlor	ND	0.010	1.00	
Mirex	ND	0.010	1.00	
Toxaphene	ND	0.12	1.00	
Trans-nonachlor	ND	0.010	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	80	50-150	
2,4,5,6-Tetrachloro-m-Xylene	72	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-435-192**	**N/A**	**Aqueous**	**GC 44**	**01/28/16**	**02/01/16 13:23**	**160128L05**

Parameter	Result	RL	DF	Qualifiers
Oxychlordane	ND	0.010	1.00	
Aldrin	ND	0.010	1.00	
Alpha Chlordane	ND	0.010	1.00	
Alpha-BHC	ND	0.010	1.00	
Beta-BHC	ND	0.010	1.00	
Chlordane	ND	0.025	1.00	
Cis-nonachlor	ND	0.010	1.00	
2,4'-DDD	ND	0.010	1.00	
4,4'-DDD	ND	0.010	1.00	
4,4'-DDE	ND	0.010	1.00	
2,4'-DDE	ND	0.010	1.00	
2,4'-DDT	ND	0.010	1.00	
4,4'-DDT	ND	0.010	1.00	
Delta-BHC	ND	0.010	1.00	
Dieldrin	ND	0.010	1.00	
Endosulfan I	ND	0.010	1.00	
Endosulfan II	ND	0.010	1.00	
Endosulfan Sulfate	ND	0.010	1.00	
Endrin	ND	0.010	1.00	
Endrin Aldehyde	ND	0.010	1.00	
Endrin Ketone	ND	0.010	1.00	
Gamma Chlordane	ND	0.010	1.00	
Gamma-BHC	ND	0.010	1.00	
Heptachlor	ND	0.010	1.00	
Heptachlor Epoxide	ND	0.010	1.00	
Hexachlorobenzene	ND	0.010	1.00	
Methoxychlor	ND	0.010	1.00	
Mirex	ND	0.010	1.00	
Toxaphene	ND	0.12	1.00	
Trans-nonachlor	ND	0.010	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	74	50-150	
2,4,5,6-Tetrachloro-m-Xylene	65	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
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San Diego, CA 92123-4302

Date Received:	01/21/16
Work Order:	16-01-1373
Preparation:	EPA 3541
Method:	EPA 8081A
Units:	ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC 44**	**02/10/16**	**02/11/16 14:46**	**160210L17**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Toxaphene	ND	37	1.00	ET

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	45	25-145	
Decachlorobiphenyl	26	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC 44**	**02/10/16**	**02/11/16 15:00**	**160210L17**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Toxaphene	ND	30	1.00	ET

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	
Decachlorobiphenyl	38	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-598-4**	**N/A**	**Solid**	**GC 44**	**02/10/16**	**02/11/16 14:03**	**160210L17**

Parameter	Result	RL	DF	Qualifiers
Toxaphene	ND	20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	
Decachlorobiphenyl	77	24-168	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 19:11**	**160128L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	0.37	1.00	
Alpha Chlordane	10	0.37	1.00	
Alpha-BHC	ND	0.37	1.00	
Beta-BHC	ND	0.37	1.00	
Cis-nonachlor	3.9	0.37	1.00	
2,4'-DDD	ND	0.37	1.00	
2,4'-DDE	ND	0.37	1.00	
2,4'-DDT	ND	0.37	1.00	
4,4'-DDT	ND	0.37	1.00	
4,4'-DDMU	13	0.37	1.00	
Delta-BHC	ND	0.37	1.00	
4,4'-Dichlorobenzophenone	ND	1.9	1.00	
Dieldrin	ND	0.37	1.00	
Endosulfan I	ND	0.37	1.00	
Endosulfan II	ND	0.37	1.00	
Endosulfan Sulfate	ND	0.37	1.00	
Endrin	ND	0.37	1.00	
Endrin Aldehyde	ND	0.37	1.00	
Endrin Ketone	ND	0.37	1.00	
Gamma Chlordane	11	0.37	1.00	
Heptachlor	ND	0.37	1.00	
Heptachlor Epoxide	ND	0.37	1.00	
Methoxychlor	ND	0.37	1.00	
Mirex	ND	0.37	1.00	
Oxychlordane	ND	0.37	1.00	
Trans-nonachlor	7.4	0.37	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	77	25-200	
2,4,5,6-Tetrachloro-m-Xylene	70	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
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San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 20:19**	**160128L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	44	3.7	10.0	
4,4'-DDE	84	3.7	10.0	
Gamma-BHC	110	3.7	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	169	25-200	
2,4,5,6-Tetrachloro-m-Xylene	76	25-200	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
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San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 19:27**	**160128L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	0.30	1.00	
Alpha Chlordane	2.5	0.30	1.00	
Alpha-BHC	ND	0.30	1.00	
Beta-BHC	ND	0.30	1.00	
Cis-nonachlor	1.2	0.30	1.00	
2,4'-DDD	ND	0.30	1.00	
2,4'-DDE	ND	0.30	1.00	
2,4'-DDT	ND	0.30	1.00	
4,4'-DDD	ND	0.30	1.00	
4,4'-DDT	ND	0.30	1.00	
4,4'-DDMU	3.1	0.30	1.00	
Delta-BHC	ND	0.30	1.00	
4,4'-Dichlorobenzophenone	ND	1.5	1.00	
Dieldrin	ND	0.30	1.00	
Endosulfan I	ND	0.30	1.00	
Endosulfan II	ND	0.30	1.00	
Endosulfan Sulfate	ND	0.30	1.00	
Endrin	ND	0.30	1.00	
Endrin Aldehyde	ND	0.30	1.00	
Endrin Ketone	ND	0.30	1.00	
Gamma Chlordane	2.6	0.30	1.00	
Heptachlor	ND	0.30	1.00	
Heptachlor Epoxide	ND	0.30	1.00	
Methoxychlor	ND	0.30	1.00	
Mirex	ND	0.30	1.00	
Oxychlordane	ND	0.30	1.00	
Trans-nonachlor	1.4	0.30	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	97	25-200	
2,4,5,6-Tetrachloro-m-Xylene	64	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 20:51**	**160128L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	71	3.0	10.0	
Gamma-BHC	41	3.0	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	114	25-200	
2,4,5,6-Tetrachloro-m-Xylene	81	25-200	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
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Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-154-49**	**N/A**	**Solid**	**GC/MS BBB**	**01/28/16**	**01/29/16 12:59**	**160128L13**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	0.20	1.00	
Alpha Chlordane	ND	0.20	1.00	
Alpha-BHC	ND	0.20	1.00	
Beta-BHC	ND	0.20	1.00	
Cis-nonachlor	ND	0.20	1.00	
2,4'-DDD	ND	0.20	1.00	
2,4'-DDE	ND	0.20	1.00	
2,4'-DDT	ND	0.20	1.00	
4,4'-DDD	ND	0.20	1.00	
4,4'-DDE	ND	0.20	1.00	
4,4'-DDT	ND	0.20	1.00	
4,4'-DDMU	ND	0.20	1.00	
Delta-BHC	ND	0.20	1.00	
4,4'-Dichlorobenzophenone	ND	1.0	1.00	
Dieldrin	ND	0.20	1.00	
Endosulfan I	ND	0.20	1.00	
Endosulfan II	ND	0.20	1.00	
Endosulfan Sulfate	ND	0.20	1.00	
Endrin	ND	0.20	1.00	
Endrin Aldehyde	ND	0.20	1.00	
Endrin Ketone	ND	0.20	1.00	
Gamma Chlordane	ND	0.20	1.00	
Gamma-BHC	ND	0.20	1.00	
Heptachlor	ND	0.20	1.00	
Heptachlor Epoxide	ND	0.20	1.00	
Methoxychlor	ND	0.20	1.00	
Mirex	ND	0.20	1.00	
Oxychlordane	ND	0.20	1.00	
Trans-nonachlor	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorendate	90	25-200	
2,4,5,6-Tetrachloro-m-Xylene	78	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
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San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC/MS MM**	**01/27/16**	**01/29/16 21:24**	**160127L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
1-Methylnaphthalene	19	18	1.00	
2,4,5-Trichlorophenol	ND	18	1.00	
2,4,6-Trichlorophenol	ND	18	1.00	
2,4-Dichlorophenol	ND	18	1.00	
2,4-Dimethylphenol	ND	910	1.00	
2,4-Dinitrophenol	ND	910	1.00	
2-Chlorophenol	ND	18	1.00	
2-Methylnaphthalene	48	18	1.00	
2-Methylphenol	ND	18	1.00	
2-Nitrophenol	ND	910	1.00	
3/4-Methylphenol	ND	18	1.00	
4,6-Dinitro-2-Methylphenol	ND	910	1.00	
4-Chloro-3-Methylphenol	ND	18	1.00	
4-Nitrophenol	ND	910	1.00	
Acenaphthene	25	18	1.00	
Acenaphthylene	160	18	1.00	
Anthracene	430	18	1.00	
Benzo (a) Anthracene	540	18	1.00	
Benzo (a) Pyrene	1200	18	1.00	
Benzo (b) Fluoranthene	1300	18	1.00	
Benzo (g,h,i) Perylene	470	18	1.00	
Benzo (k) Fluoranthene	1100	18	1.00	
Butyl Benzyl Phthalate	320	18	1.00	
Chrysene	880	18	1.00	
Di-n-Butyl Phthalate	79	18	1.00	
Di-n-Octyl Phthalate	ND	18	1.00	
Dibenz (a,h) Anthracene	250	18	1.00	
Diethyl Phthalate	ND	18	1.00	
Dimethyl Phthalate	30	18	1.00	
Fluoranthene	760	18	1.00	
Fluorene	36	18	1.00	
Indeno (1,2,3-c,d) Pyrene	580	18	1.00	
Naphthalene	38	18	1.00	
Pentachlorophenol	ND	910	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
Phenanthrene	180	18	1.00	
Phenol	ND	18	1.00	
Pyrene	3200	18	1.00	
1,6,7-Trimethylnaphthalene	26	18	1.00	
2,3,4,6-Tetrachlorophenol	ND	18	1.00	
2,6-Dichlorophenol	ND	18	1.00	
DCPA	ND	18	1.00	
Dibenzothiophene	ND	18	1.00	
Perthane	ND	18	1.00	
1-Methylphenanthrene	24	18	1.00	
Perylene	370	18	1.00	
Biphenyl	ND	18	1.00	
2,6-Dimethylnaphthalene	77	18	1.00	
Isophorone	ND	910	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,6-Tribromophenol	61	32-143	
2-Fluorobiphenyl	87	14-146	
2-Fluorophenol	70	15-138	
Nitrobenzene-d5	76	18-162	
p-Terphenyl-d14	96	34-148	
Phenol-d6	79	17-141	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC/MS MM**	**01/27/16**	**02/02/16 12:29**	**160127L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Bis(2-Ethylhexyl) Phthalate	5500	91	5.00	
Benzo (e) Pyrene	1000	91	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,6-Tribromophenol	67	32-143	
2-Fluorobiphenyl	97	14-146	
2-Fluorophenol	64	15-138	
Nitrobenzene-d5	78	18-162	
p-Terphenyl-d14	88	34-148	
Phenol-d6	78	17-141	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC/MS MM**	**01/27/16**	**01/29/16 21:50**	**160127L13**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
1-Methylnaphthalene	ND	15	1.00	
2,4,5-Trichlorophenol	ND	15	1.00	
2,4,6-Trichlorophenol	ND	15	1.00	
2,4-Dichlorophenol	ND	15	1.00	
2,4-Dimethylphenol	ND	740	1.00	
2,4-Dinitrophenol	ND	740	1.00	
2-Chlorophenol	ND	15	1.00	
2-Methylnaphthalene	17	15	1.00	
2-Methylphenol	ND	15	1.00	
2-Nitrophenol	ND	740	1.00	
3/4-Methylphenol	ND	15	1.00	
4,6-Dinitro-2-Methylphenol	ND	740	1.00	
4-Chloro-3-Methylphenol	ND	15	1.00	
4-Nitrophenol	ND	740	1.00	
Acenaphthene	ND	15	1.00	
Acenaphthylene	41	15	1.00	
Anthracene	88	15	1.00	
Benzo (a) Anthracene	120	15	1.00	
Benzo (a) Pyrene	400	15	1.00	
Benzo (b) Fluoranthene	440	15	1.00	
Benzo (g,h,i) Perylene	140	15	1.00	
Benzo (k) Fluoranthene	390	15	1.00	
Bis(2-Ethylhexyl) Phthalate	1700	15	1.00	
Butyl Benzyl Phthalate	320	15	1.00	
Chrysene	240	15	1.00	
Di-n-Butyl Phthalate	53	15	1.00	
Di-n-Octyl Phthalate	ND	15	1.00	
Dibenz (a,h) Anthracene	83	15	1.00	
Diethyl Phthalate	ND	15	1.00	
Dimethyl Phthalate	ND	15	1.00	
Fluoranthene	170	15	1.00	
Fluorene	ND	15	1.00	
Indeno (1,2,3-c,d) Pyrene	180	15	1.00	
Naphthalene	15	15	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
Pentachlorophenol	ND	740	1.00	
Phenanthrene	93	15	1.00	
Phenol	ND	15	1.00	
Pyrene	320	15	1.00	
1,6,7-Trimethylnaphthalene	ND	15	1.00	
2,3,4,6-Tetrachlorophenol	ND	15	1.00	
2,6-Dichlorophenol	ND	15	1.00	
DCPA	ND	15	1.00	
Dibenzothiophene	ND	15	1.00	
Perthane	ND	15	1.00	
1-Methylphenanthrene	ND	15	1.00	
Benzo (e) Pyrene	320	15	1.00	
Perylene	110	15	1.00	
Biphenyl	ND	15	1.00	
2,6-Dimethylnaphthalene	25	15	1.00	
Isophorone	ND	740	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,6-Tribromophenol	41	32-143	
2-Fluorobiphenyl	72	14-146	
2-Fluorophenol	57	15-138	
Nitrobenzene-d5	58	18-162	
p-Terphenyl-d14	75	34-148	
Phenol-d6	65	17-141	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
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San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-256-141**	**N/A**	**Solid**	**GC/MS MM**	**01/27/16**	**02/02/16 12:59**	**160127L13**

Parameter	Result	RL	DF	Qualifiers
1-Methylnaphthalene	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4-Dichlorophenol	ND	10	1.00	
2,4-Dimethylphenol	ND	500	1.00	
2,4-Dinitrophenol	ND	500	1.00	
2-Chlorophenol	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
2-Nitrophenol	ND	500	1.00	
3/4-Methylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	500	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Nitrophenol	ND	500	1.00	
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Anthracene	ND	10	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
Chrysene	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Naphthalene	ND	10	1.00	
Pentachlorophenol	ND	500	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
1,6,7-Trimethylnaphthalene	ND	10	1.00	
2,3,4,6-Tetrachlorophenol	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
DCPA	ND	10	1.00	
Dibenzothiophene	ND	10	1.00	
Perthane	ND	10	1.00	
1-Methylphenanthrene	ND	10	1.00	
Benzo (e) Pyrene	ND	10	1.00	
Perylene	ND	10	1.00	
Biphenyl	ND	10	1.00	
2,6-Dimethylnaphthalene	ND	10	1.00	
Isophorone	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,6-Tribromophenol	77	32-143	
2-Fluorobiphenyl	68	14-146	
2-Fluorophenol	47	15-138	
Nitrobenzene-d5	78	18-162	
p-Terphenyl-d14	71	34-148	
Phenol-d6	30	17-141	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-B**	**01/21/16 12:35**	**Aqueous**	**GC/MS AAA**	**01/27/16**	**01/28/16 16:26**	**160127L14A**

Parameter	Result	RL	DF	Qualifiers
Dibenzothiophene	ND	0.20	1.00	
Naphthalene	ND	0.20	1.00	
2-Methylnaphthalene	ND	0.20	1.00	
1-Methylnaphthalene	ND	0.20	1.00	
Acenaphthylene	ND	0.20	1.00	
Acenaphthene	ND	0.20	1.00	
Fluorene	ND	0.20	1.00	
Phenanthrene	ND	0.20	1.00	
Anthracene	ND	0.20	1.00	
Fluoranthene	ND	0.20	1.00	
Pyrene	ND	0.20	1.00	
Benzo (a) Anthracene	ND	0.20	1.00	
Chrysene	ND	0.20	1.00	
Benzo (k) Fluoranthene	ND	0.20	1.00	
Benzo (b) Fluoranthene	ND	0.20	1.00	
Benzo (a) Pyrene	ND	0.20	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.20	1.00	
Dibenz (a,h) Anthracene	ND	0.20	1.00	
Benzo (g,h,i) Perylene	ND	0.20	1.00	
Benzo (e) Pyrene	ND	0.20	1.00	
Perylene	ND	0.20	1.00	
Biphenyl	ND	0.20	1.00	
1-Methylphenanthrene	ND	0.20	1.00	
2,6-Dimethylnaphthalene	ND	0.20	1.00	
1,6,7-Trimethylnaphthalene	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	62	28-139	
2-Fluorobiphenyl	72	33-144	
p-Terphenyl-d14	84	23-160	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-B**	**01/21/16 12:25**	**Aqueous**	**GC/MS AAA**	**01/27/16**	**01/28/16 16:46**	**160127L14A**

Parameter	Result	RL	DF	Qualifiers
Dibenzothiophene	ND	0.20	1.00	
Naphthalene	ND	0.20	1.00	
2-Methylnaphthalene	ND	0.20	1.00	
1-Methylnaphthalene	ND	0.20	1.00	
Acenaphthylene	ND	0.20	1.00	
Acenaphthene	ND	0.20	1.00	
Fluorene	ND	0.20	1.00	
Phenanthrene	ND	0.20	1.00	
Anthracene	ND	0.20	1.00	
Fluoranthene	ND	0.20	1.00	
Pyrene	ND	0.20	1.00	
Benzo (a) Anthracene	ND	0.20	1.00	
Chrysene	ND	0.20	1.00	
Benzo (k) Fluoranthene	ND	0.20	1.00	
Benzo (b) Fluoranthene	ND	0.20	1.00	
Benzo (a) Pyrene	ND	0.20	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.20	1.00	
Dibenz (a,h) Anthracene	ND	0.20	1.00	
Benzo (g,h,i) Perylene	ND	0.20	1.00	
Benzo (e) Pyrene	ND	0.20	1.00	
Perylene	ND	0.20	1.00	
Biphenyl	ND	0.20	1.00	
1-Methylphenanthrene	ND	0.20	1.00	
2,6-Dimethylnaphthalene	ND	0.20	1.00	
1,6,7-Trimethylnaphthalene	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	62	28-139	
2-Fluorobiphenyl	75	33-144	
p-Terphenyl-d14	86	23-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-280-114**	**N/A**	**Aqueous**	**GC/MS AAA**	**01/27/16**	**01/28/16 15:27**	**160127L14A**

Parameter	Result	RL	DF	Qualifiers
Dibenzothiophene	ND	0.20	1.00	
Naphthalene	ND	0.20	1.00	
2-Methylnaphthalene	ND	0.20	1.00	
1-Methylnaphthalene	ND	0.20	1.00	
Acenaphthylene	ND	0.20	1.00	
Acenaphthene	ND	0.20	1.00	
Fluorene	ND	0.20	1.00	
Phenanthrene	ND	0.20	1.00	
Anthracene	ND	0.20	1.00	
Fluoranthene	ND	0.20	1.00	
Pyrene	ND	0.20	1.00	
Benzo (a) Anthracene	ND	0.20	1.00	
Chrysene	ND	0.20	1.00	
Benzo (k) Fluoranthene	ND	0.20	1.00	
Benzo (b) Fluoranthene	ND	0.20	1.00	
Benzo (a) Pyrene	ND	0.20	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.20	1.00	
Dibenz (a,h) Anthracene	ND	0.20	1.00	
Benzo (g,h,i) Perylene	ND	0.20	1.00	
Benzo (e) Pyrene	ND	0.20	1.00	
Perylene	ND	0.20	1.00	
Biphenyl	ND	0.20	1.00	
1-Methylphenanthrene	ND	0.20	1.00	
2,6-Dimethylnaphthalene	ND	0.20	1.00	
1,6,7-Trimethylnaphthalene	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	66	28-139	
2-Fluorobiphenyl	76	33-144	
p-Terphenyl-d14	88	23-160	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-B**	**01/21/16 12:35**	**Aqueous**	**GC/MS HHH**	**01/28/16**	**01/29/16 17:47**	**160128L17**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.0020	1.00	
PCB005/008	ND	0.0040	1.00	
PCB015	ND	0.0020	1.00	
PCB018	ND	0.0020	1.00	
PCB027	ND	0.0020	1.00	
PCB028	ND	0.0020	1.00	
PCB029	ND	0.0020	1.00	
PCB031	ND	0.0020	1.00	
PCB033	ND	0.0020	1.00	
PCB037	ND	0.0020	1.00	
PCB044	ND	0.0020	1.00	
PCB049	ND	0.0020	1.00	
PCB052	ND	0.0020	1.00	
PCB056	ND	0.0020	1.00	
PCB060	ND	0.0020	1.00	
PCB066	ND	0.0020	1.00	
PCB070	ND	0.0020	1.00	
PCB074	ND	0.0020	1.00	
PCB077	ND	0.0020	1.00	
PCB081	ND	0.0020	1.00	
PCB087	ND	0.0020	1.00	
PCB095	ND	0.0020	1.00	
PCB097	ND	0.0020	1.00	
PCB099	ND	0.0020	1.00	
PCB101	ND	0.0020	1.00	
PCB105	ND	0.0020	1.00	
PCB110	ND	0.0020	1.00	
PCB114	ND	0.0020	1.00	
PCB118	ND	0.0020	1.00	
PCB119	ND	0.0020	1.00	
PCB123	ND	0.0020	1.00	
PCB126	ND	0.0020	1.00	
PCB128	ND	0.0020	1.00	
PCB132/153	ND	0.0040	1.00	
PCB137	ND	0.0020	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	ND	0.0040	1.00	
PCB141	ND	0.0020	1.00	
PCB149	ND	0.0020	1.00	
PCB151	ND	0.0020	1.00	
PCB156	ND	0.0020	1.00	
PCB157	ND	0.0020	1.00	
PCB167	ND	0.0020	1.00	
PCB168	ND	0.0020	1.00	
PCB169	ND	0.0020	1.00	
PCB170	ND	0.0020	1.00	
PCB174	ND	0.0020	1.00	
PCB177	ND	0.0020	1.00	
PCB180	ND	0.0020	1.00	
PCB183	ND	0.0020	1.00	
PCB184	ND	0.0020	1.00	
PCB187	ND	0.0020	1.00	
PCB189	ND	0.0020	1.00	
PCB194	ND	0.0020	1.00	
PCB195	ND	0.0020	1.00	
PCB200	ND	0.0020	1.00	
PCB201	ND	0.0020	1.00	
PCB203	ND	0.0020	1.00	
PCB206	ND	0.0020	1.00	
PCB209	0.0022	0.0020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	50-150	
p-Terphenyl-d14	84	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-B**	**01/21/16 12:25**	**Aqueous**	**GC/MS HHH**	**01/28/16**	**01/29/16 18:19**	**160128L17**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.0020	1.00	
PCB005/008	ND	0.0040	1.00	
PCB015	ND	0.0020	1.00	
PCB018	ND	0.0020	1.00	
PCB027	ND	0.0020	1.00	
PCB028	ND	0.0020	1.00	
PCB029	ND	0.0020	1.00	
PCB031	ND	0.0020	1.00	
PCB033	ND	0.0020	1.00	
PCB037	ND	0.0020	1.00	
PCB044	ND	0.0020	1.00	
PCB049	ND	0.0020	1.00	
PCB052	ND	0.0020	1.00	
PCB056	ND	0.0020	1.00	
PCB060	ND	0.0020	1.00	
PCB066	ND	0.0020	1.00	
PCB070	ND	0.0020	1.00	
PCB074	ND	0.0020	1.00	
PCB077	ND	0.0020	1.00	
PCB081	ND	0.0020	1.00	
PCB087	ND	0.0020	1.00	
PCB095	ND	0.0020	1.00	
PCB097	ND	0.0020	1.00	
PCB099	ND	0.0020	1.00	
PCB101	ND	0.0020	1.00	
PCB105	ND	0.0020	1.00	
PCB110	ND	0.0020	1.00	
PCB114	ND	0.0020	1.00	
PCB118	ND	0.0020	1.00	
PCB119	ND	0.0020	1.00	
PCB123	ND	0.0020	1.00	
PCB126	ND	0.0020	1.00	
PCB128	ND	0.0020	1.00	
PCB132/153	ND	0.0040	1.00	
PCB137	ND	0.0020	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	ND	0.0040	1.00	
PCB141	ND	0.0020	1.00	
PCB149	ND	0.0020	1.00	
PCB151	ND	0.0020	1.00	
PCB156	ND	0.0020	1.00	
PCB157	ND	0.0020	1.00	
PCB167	ND	0.0020	1.00	
PCB168	ND	0.0020	1.00	
PCB169	ND	0.0020	1.00	
PCB170	ND	0.0020	1.00	
PCB174	ND	0.0020	1.00	
PCB177	ND	0.0020	1.00	
PCB180	ND	0.0020	1.00	
PCB183	ND	0.0020	1.00	
PCB184	ND	0.0020	1.00	
PCB187	ND	0.0020	1.00	
PCB189	ND	0.0020	1.00	
PCB194	ND	0.0020	1.00	
PCB195	ND	0.0020	1.00	
PCB200	ND	0.0020	1.00	
PCB201	ND	0.0020	1.00	
PCB203	ND	0.0020	1.00	
PCB206	ND	0.0020	1.00	
PCB209	ND	0.0020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	50-150	
p-Terphenyl-d14	80	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-414-57**	**N/A**	**Aqueous**	**GC/MS HHH**	**01/28/16**	**01/29/16 16:37**	**160128L17**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.0020	1.00	
PCB005/008	ND	0.0040	1.00	
PCB015	ND	0.0020	1.00	
PCB018	ND	0.0020	1.00	
PCB027	ND	0.0020	1.00	
PCB028	ND	0.0020	1.00	
PCB029	ND	0.0020	1.00	
PCB031	ND	0.0020	1.00	
PCB033	ND	0.0020	1.00	
PCB037	ND	0.0020	1.00	
PCB044	ND	0.0020	1.00	
PCB049	ND	0.0020	1.00	
PCB052	ND	0.0020	1.00	
PCB056	ND	0.0020	1.00	
PCB060	ND	0.0020	1.00	
PCB066	ND	0.0020	1.00	
PCB070	ND	0.0020	1.00	
PCB074	ND	0.0020	1.00	
PCB077	ND	0.0020	1.00	
PCB081	ND	0.0020	1.00	
PCB087	ND	0.0020	1.00	
PCB095	ND	0.0020	1.00	
PCB097	ND	0.0020	1.00	
PCB099	ND	0.0020	1.00	
PCB101	ND	0.0020	1.00	
PCB105	ND	0.0020	1.00	
PCB110	ND	0.0020	1.00	
PCB114	ND	0.0020	1.00	
PCB118	ND	0.0020	1.00	
PCB119	ND	0.0020	1.00	
PCB123	ND	0.0020	1.00	
PCB126	ND	0.0020	1.00	
PCB128	ND	0.0020	1.00	
PCB132/153	ND	0.0040	1.00	
PCB137	ND	0.0020	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	ND	0.0040	1.00	
PCB141	ND	0.0020	1.00	
PCB149	ND	0.0020	1.00	
PCB151	ND	0.0020	1.00	
PCB156	ND	0.0020	1.00	
PCB157	ND	0.0020	1.00	
PCB167	ND	0.0020	1.00	
PCB168	ND	0.0020	1.00	
PCB169	ND	0.0020	1.00	
PCB170	ND	0.0020	1.00	
PCB174	ND	0.0020	1.00	
PCB177	ND	0.0020	1.00	
PCB180	ND	0.0020	1.00	
PCB183	ND	0.0020	1.00	
PCB184	ND	0.0020	1.00	
PCB187	ND	0.0020	1.00	
PCB189	ND	0.0020	1.00	
PCB194	ND	0.0020	1.00	
PCB195	ND	0.0020	1.00	
PCB200	ND	0.0020	1.00	
PCB201	ND	0.0020	1.00	
PCB203	ND	0.0020	1.00	
PCB206	ND	0.0020	1.00	
PCB209	ND	0.0020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	78	50-150	
p-Terphenyl-d14	81	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC/MS HHH**	**01/30/16**	**02/03/16 16:17**	**160130L06**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.37	1.00	
PCB005/008	ND	0.73	1.00	
PCB015	ND	0.37	1.00	
PCB018	2.4	0.37	1.00	
PCB027	2.0	0.37	1.00	
PCB028	1.5	0.37	1.00	
PCB029	ND	0.37	1.00	
PCB031	2.2	0.37	1.00	
PCB033	1.9	0.37	1.00	
PCB037	5.6	0.37	1.00	
PCB044	2.6	0.37	1.00	
PCB049	34	0.37	1.00	
PCB052	59	0.37	1.00	
PCB056	ND	0.37	1.00	
PCB060	ND	0.37	1.00	
PCB066	3.3	0.37	1.00	
PCB070	3.3	0.37	1.00	
PCB074	1.9	0.37	1.00	
PCB077	5.0	0.37	1.00	
PCB081	ND	0.37	1.00	
PCB087	3.4	0.37	1.00	
PCB095	27	0.37	1.00	
PCB097	1.9	0.37	1.00	
PCB099	12	0.37	1.00	
PCB101	17	0.37	1.00	
PCB105	4.4	0.37	1.00	
PCB110	7.6	0.37	1.00	
PCB114	ND	0.37	1.00	
PCB118	6.7	0.37	1.00	
PCB119	5.1	0.37	1.00	
PCB123	ND	0.37	1.00	
PCB126	ND	0.37	1.00	
PCB128	1.7	0.37	1.00	
PCB132/153	49	0.73	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB137	ND	0.37	1.00	
PCB138/158	24	0.73	1.00	
PCB141	4.2	0.37	1.00	
PCB149	26	0.37	1.00	
PCB151	14	0.37	1.00	
PCB156	1.6	0.37	1.00	
PCB157	ND	0.37	1.00	
PCB167	ND	0.37	1.00	
PCB168	ND	0.37	1.00	
PCB169	1.2	0.37	1.00	
PCB170	9.4	0.37	1.00	
PCB174	9.2	0.37	1.00	
PCB177	5.3	0.37	1.00	
PCB180	23	0.37	1.00	
PCB183	6.4	0.37	1.00	
PCB184	ND	0.37	1.00	
PCB187	25	0.37	1.00	
PCB189	ND	0.37	1.00	
PCB194	6.7	0.37	1.00	
PCB195	3.1	0.37	1.00	
PCB200	1.1	0.37	1.00	
PCB201	1.2	0.37	1.00	
PCB203	6.2	0.37	1.00	
PCB206	4.0	0.37	1.00	
PCB209	1.7	0.37	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	50-150	
p-Terphenyl-d14	80	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC/MS HHH**	**01/30/16**	**02/03/16 16:39**	**160130L06**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.30	1.00	
PCB005/008	5.1	0.60	1.00	
PCB015	2.4	0.30	1.00	
PCB018	13	0.30	1.00	
PCB027	0.95	0.30	1.00	
PCB028	10	0.30	1.00	
PCB029	ND	0.30	1.00	
PCB031	9.6	0.30	1.00	
PCB033	8.5	0.30	1.00	
PCB037	3.6	0.30	1.00	
PCB044	9.5	0.30	1.00	
PCB049	4.7	0.30	1.00	
PCB052	9.4	0.30	1.00	
PCB056	3.2	0.30	1.00	
PCB060	2.2	0.30	1.00	
PCB066	6.7	0.30	1.00	
PCB070	8.0	0.30	1.00	
PCB074	3.7	0.30	1.00	
PCB077	2.2	0.30	1.00	
PCB081	ND	0.30	1.00	
PCB087	4.1	0.30	1.00	
PCB095	7.4	0.30	1.00	
PCB097	3.0	0.30	1.00	
PCB099	3.7	0.30	1.00	
PCB101	11	0.30	1.00	
PCB105	5.4	0.30	1.00	
PCB110	11	0.30	1.00	
PCB114	ND	0.30	1.00	
PCB118	9.2	0.30	1.00	
PCB119	ND	0.30	1.00	
PCB123	ND	0.30	1.00	
PCB126	ND	0.30	1.00	
PCB128	2.0	0.30	1.00	
PCB132/153	15	0.60	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB137	ND	0.30	1.00	
PCB138/158	15	0.60	1.00	
PCB141	2.7	0.30	1.00	
PCB149	8.8	0.30	1.00	
PCB151	2.8	0.30	1.00	
PCB156	1.8	0.30	1.00	
PCB157	ND	0.30	1.00	
PCB167	ND	0.30	1.00	
PCB168	ND	0.30	1.00	
PCB169	ND	0.30	1.00	
PCB170	4.3	0.30	1.00	
PCB174	3.5	0.30	1.00	
PCB177	2.1	0.30	1.00	
PCB180	8.2	0.30	1.00	
PCB183	2.2	0.30	1.00	
PCB184	ND	0.30	1.00	
PCB187	3.9	0.30	1.00	
PCB189	ND	0.30	1.00	
PCB194	2.0	0.30	1.00	
PCB195	ND	0.30	1.00	
PCB200	ND	0.30	1.00	
PCB201	ND	0.30	1.00	
PCB203	1.9	0.30	1.00	
PCB206	1.4	0.30	1.00	
PCB209	ND	0.30	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	97	50-150	
p-Terphenyl-d14	90	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-418-193**	**N/A**	**Solid**	**GC/MS HHH**	**01/30/16**	**02/03/16 11:10**	**160130L06**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.20	1.00	
PCB005/008	ND	0.40	1.00	
PCB015	ND	0.20	1.00	
PCB018	ND	0.20	1.00	
PCB027	ND	0.20	1.00	
PCB028	ND	0.20	1.00	
PCB029	ND	0.20	1.00	
PCB031	ND	0.20	1.00	
PCB033	ND	0.20	1.00	
PCB037	ND	0.20	1.00	
PCB044	ND	0.20	1.00	
PCB049	ND	0.20	1.00	
PCB052	ND	0.20	1.00	
PCB056	ND	0.20	1.00	
PCB060	ND	0.20	1.00	
PCB066	ND	0.20	1.00	
PCB070	ND	0.20	1.00	
PCB074	ND	0.20	1.00	
PCB077	ND	0.20	1.00	
PCB081	ND	0.20	1.00	
PCB087	ND	0.20	1.00	
PCB095	ND	0.20	1.00	
PCB097	ND	0.20	1.00	
PCB099	ND	0.20	1.00	
PCB101	ND	0.20	1.00	
PCB105	ND	0.20	1.00	
PCB110	ND	0.20	1.00	
PCB114	ND	0.20	1.00	
PCB118	ND	0.20	1.00	
PCB119	ND	0.20	1.00	
PCB123	ND	0.20	1.00	
PCB126	ND	0.20	1.00	
PCB128	ND	0.20	1.00	
PCB132/153	ND	0.40	1.00	
PCB137	ND	0.20	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	ND	0.40	1.00	
PCB141	ND	0.20	1.00	
PCB149	ND	0.20	1.00	
PCB151	ND	0.20	1.00	
PCB156	ND	0.20	1.00	
PCB157	ND	0.20	1.00	
PCB167	ND	0.20	1.00	
PCB168	ND	0.20	1.00	
PCB169	ND	0.20	1.00	
PCB170	ND	0.20	1.00	
PCB174	ND	0.20	1.00	
PCB177	ND	0.20	1.00	
PCB180	ND	0.20	1.00	
PCB183	ND	0.20	1.00	
PCB184	ND	0.20	1.00	
PCB187	ND	0.20	1.00	
PCB189	ND	0.20	1.00	
PCB194	ND	0.20	1.00	
PCB195	ND	0.20	1.00	
PCB200	ND	0.20	1.00	
PCB201	ND	0.20	1.00	
PCB203	ND	0.20	1.00	
PCB206	ND	0.20	1.00	
PCB209	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	69	50-150	
p-Terphenyl-d14	64	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: Organotins by Krone et al.
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Site Water	**16-01-1373-3-B**	**01/21/16 12:35**	**Aqueous**	**GC/MS Y**	**01/25/16**	**01/29/16 17:05**	**160127L11**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	ND	0.0030	1.00	
Monobutyltin	ND	0.0030	1.00	
Tetrabutyltin	ND	0.0030	1.00	
Tributyltin	ND	0.0030	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	111	19-121	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Site Water	**16-01-1373-4-B**	**01/21/16 12:25**	**Aqueous**	**GC/MS Y**	**01/25/16**	**01/29/16 17:22**	**160127L11**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	ND	0.0029	1.00	
Monobutyltin	ND	0.0029	1.00	
Tetrabutyltin	ND	0.0029	1.00	
Tributyltin	ND	0.0029	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	106	19-121	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-035-367**	**N/A**	**Aqueous**	**GC/MS Y**	**01/27/16**	**01/28/16 16:43**	**160127L11**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	ND	0.0030	1.00	
Monobutyltin	ND	0.0030	1.00	
Tetrabutyltin	ND	0.0030	1.00	
Tributyltin	ND	0.0030	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	99	19-121	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.
Units: ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A Composite	**16-01-1373-1-BB**	**01/21/16 12:00**	**Sediment**	**GC/MS Y**	**01/28/16**	**02/01/16 13:46**	**160128L18**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	200	5.5	1.00	
Monobutyltin	5.8	5.5	1.00	
Tetrabutyltin	ND	5.5	1.00	
Tributyltin	150	5.5	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	81	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC/MS Y**	**01/28/16**	**02/01/16 14:01**	**160128L18**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	170	4.6	1.00	
Monobutyltin	9.0	4.6	1.00	
Tetrabutyltin	5.7	4.6	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	78	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 Composite	**16-01-1373-2-BB**	**01/21/16 11:30**	**Sediment**	**GC/MS Y**	**01/28/16**	**02/02/16 12:47**	**160128L18**

Comment(s): - Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qualifiers
Tributyltin	380	9.1	2.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	74	27-135	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received:	01/21/16
Work Order:	16-01-1373
Preparation:	EPA 3550B (M)
Method:	Organotins by Krone et al.
Units:	ug/kg

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-016-1367**	**N/A**	**Solid**	**GC/MS Y**	**01/28/16**	**02/01/16 12:59**	**160128L18**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	ND	3.0	1.00	
Monobutyltin	ND	3.0	1.00	
Tetrabutyltin	ND	3.0	1.00	
Tributyltin	ND	3.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	114	27-135	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

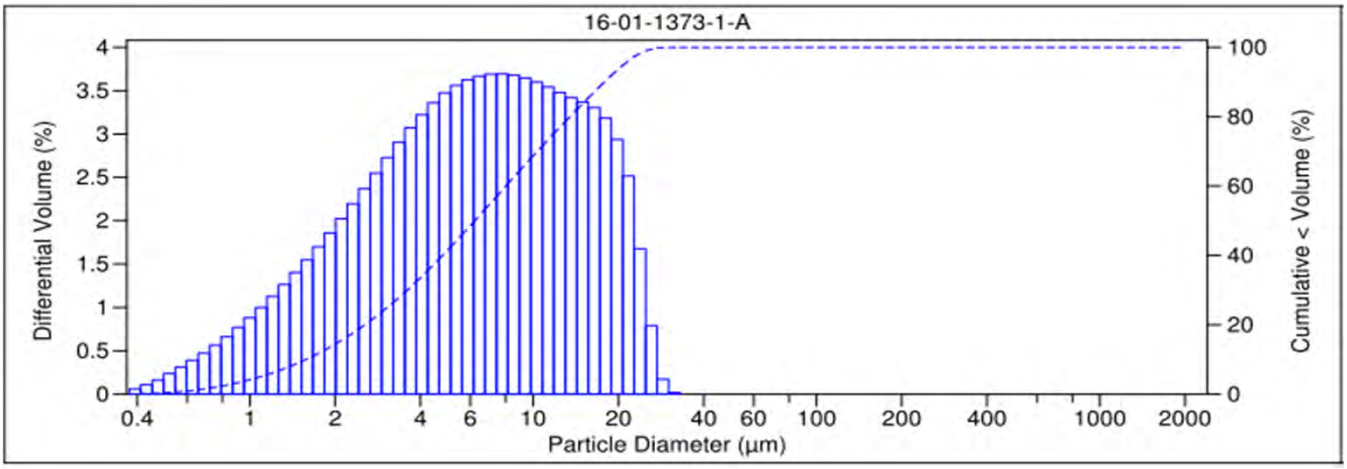
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

AMEC (San Diego)		Date Sampled:	01/21/16
		Date Received:	01/21/16
		Work Order No:	16-01-1373
		Date Analyzed:	01/25/16
		Method:	ASTM D4464M
Project:	POLA Berths 195-200A & 210-211		Page 1 of 2

Sample ID	Depth ft	Description	Mean Grain Size mm
B195-200A Composite		Silt	0.008

Particle Size Distribution, wt by percent								
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	Total Silt & Clay
0.00	0.00	0.00	0.00	0.00	0.00	67.17	32.83	100.00



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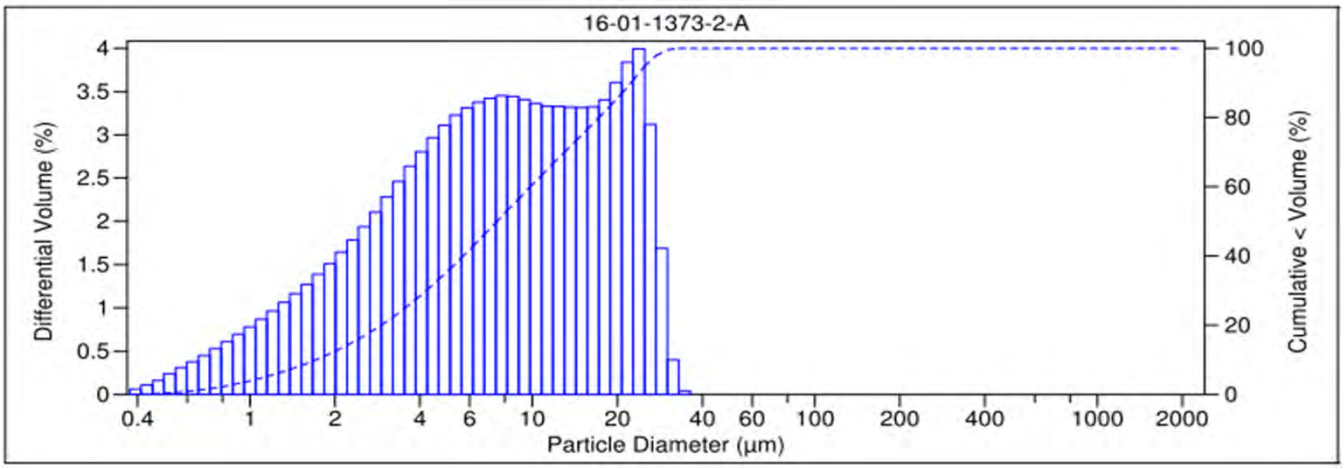
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

AMEC (San Diego)		Date Sampled:	01/21/16
		Date Received:	01/21/16
		Work Order No:	16-01-1373
		Date Analyzed:	01/25/16
		Method:	ASTM D4464M
Project:	POLA Berths 195-200A & 210-211		Page 2 of 2

Sample ID	Depth ft	Description	Mean Grain Size mm
B210-211 Composite		Silt	0.010

Particle Size Distribution, wt by percent								
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	Total Silt & Clay
0.00	0.00	0.00	0.00	0.00	0.00	72.24	27.76	100.00



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Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 9060A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCS1**
B195-200A Composite	**Matrix Spike**	**Sediment**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCS1**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	1.434	3.000	4.433	100	4.560	104	75-125	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: Extraction
Method: EPA 418.1M

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129S04**
B195-200A Composite	**Matrix Spike**	**Sediment**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129S04**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	1154	100.0	1017	0	1051	0	55-135	3	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550/SG 10
Method: EPA 8015B (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1407-2	**Sample**	**Sediment**	**GC 48**	**01/28/16**	**01/28/16 21:28**	**160128S17**
16-01-1407-2	**Matrix Spike**	**Sediment**	**GC 48**	**01/28/16**	**01/28/16 20:57**	**160128S17**
16-01-1407-2	**Matrix Spike Duplicate**	**Sediment**	**GC 48**	**01/28/16**	**01/28/16 21:13**	**160128S17**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	329.8	82	345.6	86	64-130	5	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**GCTQ 2**	**01/29/16**	**02/02/16 00:17**	**160129S04**
B195-200A Composite	**Matrix Spike**	**Sediment**	**GCTQ 2**	**01/29/16**	**02/02/16 01:56**	**160129S04**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**GCTQ 2**	**01/29/16**	**02/02/16 02:46**	**160129S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	4.297	86	5.800	116	10-148	30	0-30	
Bifenthrin	ND	5.000	7.717	154	6.977	140	26-128	10	0-30	3
Cyfluthrin	0.9250	5.000	12.66	235	15.26	287	10-131	19	0-30	3
Cypermethrin	ND	5.000	10.55	211	13.08	262	10-136	21	0-30	3
Deltamethrin/Tralomethrin	ND	5.000	10.43	209	12.16	243	13-190	15	0-30	3
Fenpropathrin	ND	5.000	6.107	122	7.512	150	10-148	21	0-30	3
Fenvalerate/Esfenvalerate	ND	10.00	27.37	274	32.98	330	10-149	19	0-30	3
Fluvalinate	ND	5.000	7.814	156	8.513	170	10-121	9	0-30	3
Permethrin (cis/trans)	14.01	5.000	22.71	174	20.85	137	45-123	9	0-30	3
Phenothrin	ND	5.000	10.47	209	9.665	193	45-165	8	0-30	3
Resmethrin/Bioresmethrin	ND	5.000	9.902	198	10.91	218	38-164	10	0-30	3
Tetramethrin	ND	5.000	9.552	191	10.17	203	15-153	6	0-30	3
lambda-Cyhalothrin	ND	5.000	8.228	165	10.40	208	10-123	23	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3005A Total
Method: EPA 1640

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1181-1	**Sample**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 20:13**	**160127S01**
16-01-1181-1	**Matrix Spike**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 19:26**	**160127S01**
16-01-1181-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 19:34**	**160127S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	1.155	0.5000	1.652	99	1.735	116	50-150	5	0-20	
Cadmium	ND	0.5000	0.5699	114	0.5706	114	50-150	0	0-20	
Chromium	ND	5.000	7.097	142	6.871	137	50-150	3	0-20	
Copper	5.867	0.5000	6.929	4X	6.862	4X	50-150	4X	0-20	Q
Lead	0.3839	0.5000	0.9527	114	0.9417	112	50-150	1	0-20	
Nickel	11.92	0.5000	12.92	4X	13.10	4X	50-150	4X	0-20	Q
Selenium	ND	0.5000	0.5587	112	0.5720	114	50-150	2	0-20	
Silver	0.09293	0.2500	0.3140	88	0.3375	98	50-150	7	0-20	
Zinc	7.349	5.000	14.02	133	14.33	140	50-150	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3050B
Method: EPA 6020

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:50**	**160125S01**
B195-200A Composite	**Matrix Spike**	**Sediment**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:38**	**160125S01**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:41**	**160125S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	7.663	25.00	34.91	109	36.14	114	80-120	3	0-20	
Cadmium	1.082	25.00	29.54	114	29.48	114	80-120	0	0-20	
Chromium	52.64	25.00	80.29	111	79.71	108	80-120	1	0-20	
Copper	92.23	25.00	118.1	103	119.9	111	80-120	2	0-20	
Lead	85.38	25.00	111.8	106	113.3	112	80-120	1	0-20	
Nickel	23.21	25.00	47.88	99	48.56	101	80-120	1	0-20	
Selenium	0.3738	25.00	30.82	122	29.95	118	80-120	3	0-20	3
Silver	0.5097	12.50	13.85	107	13.63	105	80-120	2	0-20	
Zinc	239.3	25.00	275.1	4X	279.7	4X	80-120	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 7470A Total
Method: EPA 7470A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1794-12	**Sample**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:31**	**160202SA1**
16-01-1794-12	**Matrix Spike**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:33**	**160202SA1**
16-01-1794-12	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:36**	**160202SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	10.00	9.196	92	8.925	89	55-133	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**Mercury 05**	**01/25/16**	**01/25/16 14:52**	**160125S01**
B195-200A Composite	**Matrix Spike**	**Sediment**	**Mercury 05**	**01/25/16**	**01/25/16 14:54**	**160125S01**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**Mercury 05**	**01/25/16**	**01/25/16 14:57**	**160125S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.3026	0.8350	1.074	92	1.008	85	76-136	6	0-16	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8081A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B210-211 Composite	**Sample**	**Sediment**	**GC 44**	**02/10/16**	**02/11/16 15:00**	**160210S17**
B210-211 Composite	**Matrix Spike**	**Sediment**	**GC 44**	**02/10/16**	**02/11/16 14:18**	**160210S17**
B210-211 Composite	**Matrix Spike Duplicate**	**Sediment**	**GC 44**	**02/10/16**	**02/11/16 14:32**	**160210S17**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	5.480	110	4.611	92	50-135	17	0-25	
Alpha-BHC	ND	5.000	2.869	57	2.241	45	50-135	25	0-25	3
Beta-BHC	ND	5.000	0.7511	15	0	0	50-135	200	0-25	3,4
Delta-BHC	ND	5.000	2.188	44	1.848	37	50-135	17	0-25	3
Gamma-BHC	ND	5.000	1.933	39	1.611	32	50-135	18	0-25	3
Dieldrin	ND	5.000	3.871	77	3.378	68	50-135	14	0-25	
4,4'-DDD	3.075	5.000	4.663	32	4.114	21	50-135	13	0-25	3
4,4'-DDE	11.02	5.000	22.49	229	19.97	179	50-135	12	0-25	3
4,4'-DDT	1.478	5.000	3.637	43	2.989	30	50-135	20	0-25	3
Endosulfan I	ND	5.000	2.352	47	2.317	46	50-135	1	0-25	3
Endosulfan II	ND	5.000	3.889	78	3.324	66	50-135	16	0-25	
Endosulfan Sulfate	ND	5.000	1.420	28	1.355	27	50-135	5	0-25	3
Endrin	ND	5.000	1.949	39	1.605	32	50-135	19	0-25	3
Endrin Aldehyde	ND	5.000	1.661	33	1.465	29	50-135	13	0-25	3
Endrin Ketone	ND	5.000	2.888	58	2.300	46	50-135	23	0-25	3
Heptachlor	ND	5.000	2.495	50	2.203	44	50-135	12	0-25	3
Heptachlor Epoxide	ND	5.000	7.611	152	0	0	50-135	200	0-25	3,4
Methoxychlor	ND	5.000	2.023	40	1.940	39	50-135	4	0-25	3

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 20:19**	**160128S13**
B195-200A Composite	**Matrix Spike**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 19:43**	**160128S13**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**GC/MS BBB**	**01/28/16**	**01/29/16 20:04**	**160128S13**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	0	0	0	0	25-200	0	0-25	3
Alpha Chlordane	5.500	5.000	11.47	119	13.30	156	25-200	15	0-25	
Alpha-BHC	ND	5.000	0	0	0	0	25-200	0	0-25	3
Beta-BHC	ND	5.000	0	0	0	0	25-200	0	0-25	3
4,4'-DDD	24.13	5.000	30.42	126	33.78	193	25-200	10	0-25	
4,4'-DDE	45.83	5.000	56.91	221	61.76	318	25-200	8	0-25	3
4,4'-DDT	ND	5.000	0	0	0	0	25-200	0	0-25	3
Delta-BHC	ND	5.000	0	0	0	0	25-200	0	0-25	3
Dieldrin	ND	5.000	0	0	0	0	25-200	0	0-25	3
Endosulfan I	ND	5.000	0	0	0	0	25-200	0	0-25	3
Endosulfan II	ND	5.000	0	0	0	0	25-200	0	0-25	3
Endosulfan Sulfate	ND	5.000	0	0	0	0	25-200	0	0-25	3
Endrin	ND	5.000	0	0	0	0	25-200	0	0-25	3
Endrin Aldehyde	ND	5.000	0	0	0	0	25-200	0	0-25	3
Endrin Ketone	ND	5.000	0	0	0	0	25-200	0	0-25	3
Gamma Chlordane	5.761	5.000	10.14	88	10.27	90	25-200	1	0-25	
Gamma-BHC	59.10	5.000	39.29	0	41.64	0	25-200	6	0-25	3
Heptachlor	ND	5.000	0	0	0	0	25-200	0	0-25	3
Heptachlor Epoxide	ND	5.000	0	0	0	0	25-200	0	0-25	3
Methoxychlor	ND	5.000	0	0	0	0	25-200	0	0-25	3

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**GC/MS MM**	**01/27/16**	**02/02/16 12:29**	**160127S13**
B195-200A Composite	**Matrix Spike**	**Sediment**	**GC/MS MM**	**01/27/16**	**01/29/16 22:17**	**160127S13**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**GC/MS MM**	**01/27/16**	**01/29/16 22:43**	**160127S13**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4,6-Trichlorophenol	ND	1000	819.9	82	804.3	80	40-160	2	0-20	
2,4-Dichlorophenol	ND	1000	704.1	70	745.9	75	40-160	6	0-20	
2-Methylphenol	ND	1000	947.3	95	1018	102	40-160	7	0-20	
2-Nitrophenol	ND	1000	627.7	63	664.7	66	40-160	6	0-20	
4-Chloro-3-Methylphenol	ND	1000	774.0	77	813.2	81	40-160	5	0-20	
Acenaphthene	13.37	1000	803.8	79	755.2	74	40-160	6	0-20	
Benzo (a) Pyrene	677.8	1000	1365	69	1239	56	17-163	10	0-20	
Chrysene	477.9	1000	1391	91	1203	72	17-168	15	0-20	
Di-n-Butyl Phthalate	42.69	1000	848.7	81	835.7	79	40-160	2	0-20	
Dimethyl Phthalate	16.31	1000	636.5	62	552.7	54	40-160	14	0-20	
Fluoranthene	414.1	1000	1427	101	1413	100	26-137	1	0-20	
Fluorene	19.45	1000	841.0	82	809.3	79	59-121	4	0-20	
Naphthalene	20.47	1000	721.7	70	758.7	74	21-133	5	0-20	
Phenanthrene	96.82	1000	1048	95	923.8	83	54-120	13	0-20	
Phenol	ND	1000	807.0	81	837.5	84	40-160	4	0-20	
Pyrene	1725	1000	3010	129	2367	64	6-156	24	0-46	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1970-5	**Sample**	**Sediment**	**GC/MS HHH**	**01/30/16**	**02/03/16 12:19**	**160130S06**
16-01-1970-5	**Matrix Spike**	**Sediment**	**GC/MS HHH**	**01/30/16**	**02/03/16 13:27**	**160130S06**
16-01-1970-5	**Matrix Spike Duplicate**	**Sediment**	**GC/MS HHH**	**01/30/16**	**02/03/16 13:49**	**160130S06**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	27.90	56	26.70	53	50-150	4	0-25	
PCB028	ND	50.00	30.03	60	28.33	57	50-150	6	0-25	
PCB044	ND	50.00	28.07	56	26.71	53	50-150	5	0-25	
PCB052	ND	50.00	27.51	55	26.27	53	50-150	5	0-25	
PCB066	ND	50.00	31.86	64	29.96	60	50-150	6	0-25	
PCB077	ND	50.00	29.84	60	27.54	55	50-150	8	0-25	
PCB101	ND	50.00	26.54	53	24.85	50	50-150	7	0-25	
PCB105	ND	50.00	31.45	63	28.64	57	50-150	9	0-25	
PCB118	ND	50.00	31.84	64	29.17	58	50-150	9	0-25	
PCB126	ND	50.00	31.07	62	28.59	57	50-150	8	0-25	
PCB128	ND	50.00	28.82	58	26.53	53	50-150	8	0-25	
PCB170	ND	50.00	33.64	67	31.18	62	50-150	8	0-25	
PCB180	ND	50.00	33.17	66	29.75	60	50-150	11	0-25	
PCB187	ND	50.00	29.48	59	26.96	54	50-150	9	0-25	
PCB195	ND	50.00	34.68	69	32.20	64	50-150	7	0-25	
PCB206	ND	50.00	36.19	72	33.29	67	50-150	8	0-25	
PCB209	ND	50.00	33.59	67	30.93	62	50-150	8	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**GC/MS Y**	**01/28/16**	**02/01/16 13:46**	**160128S18**
B195-200A Composite	**Matrix Spike**	**Sediment**	**GC/MS Y**	**01/28/16**	**02/01/16 17:26**	**160128S18**
B195-200A Composite	**Matrix Spike Duplicate**	**Sediment**	**GC/MS Y**	**01/28/16**	**02/01/16 17:42**	**160128S18**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	ND	100.0	80.65	81	86.90	87	33-129	7	0-36	
Tributyltin	80.81	100.0	110.8	30	123.8	43	34-142	11	0-50	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

AMEC Foster Wheeler, Plc.		Date Received:	01/21/16
9210 Sky Park Court, Suite 200		Work Order:	16-01-1373
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: POLA Berths 195-200A & 210-211			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
B195-200A Composite	**Sample**	**Sediment**	**ICP/MS 03**	**01/25/16 00:00**	**01/27/16 17:50**	**160125S01**
B195-200A Composite	**PDS**	**Sediment**	**ICP/MS 03**	**01/25/16 00:00**	**01/27/16 17:44**	**160125S01**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Arsenic	7.663	25.00	34.82	109	75-125	
Cadmium	1.082	25.00	28.56	110	75-125	
Chromium	52.64	25.00	78.77	105	75-125	
Copper	92.23	25.00	114.1	87	75-125	
Lead	85.38	25.00	111.9	106	75-125	
Nickel	23.21	25.00	47.40	97	75-125	
Selenium	0.3738	25.00	28.80	114	75-125	
Silver	0.5097	12.50	11.39	87	75-125	
Zinc	239.3	25.00	260.1	4X	75-125	Q

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Sample Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 376.2M

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-01-1551-1	**Sample**	**Sediment**	**N/A**	**01/25/16 00:00**	**01/25/16 19:52**	**G0125SD3**
16-01-1551-1	**Sample Duplicate**	**Sediment**	**N/A**	**01/25/16 00:00**	**01/25/16 19:52**	**G0125SD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Sulfide, Total	ND	ND	N/A	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Sample Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 376.2M

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
B210-211 Composite	**Sample**	**Sediment**	**N/A**	**01/21/16 00:00**	**01/21/16 18:35**	**G0121DSD4**
B210-211 Composite	**Sample Duplicate**	**Sediment**	**N/A**	**01/21/16 00:00**	**01/21/16 18:35**	**G0121DSD4**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Sulfide, Dissolved	ND	ND	N/A	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - Sample Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: SM 2540 B (M)

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
B195-200A Composite	**Sample**	**Sediment**	**N/A**	**01/25/16 00:00**	**01/25/16 20:00**	**G0125TSD4**
B195-200A Composite	**Sample Duplicate**	**Sediment**	**N/A**	**01/25/16 00:00**	**01/25/16 20:00**	**G0125TSD4**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total	54.30	55.20	2	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 1664A (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-040-596	**LCS**	**Solid**	**N/A**	**02/02/16**	**02/02/16 11:20**	**G0202HEML1**
099-12-040-596	**LCSD**	**Solid**	**N/A**	**02/02/16**	**02/02/16 11:20**	**G0202HEML1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
HEM: Oil and Grease	40.00	33.33	83	36.67	92	78-114	10	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 376.2M

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-352-87	**LCS**	**Solid**	**N/A**	**01/25/16**	**01/25/16 19:52**	**G0125SL3**
099-16-352-87	**LCSD**	**Solid**	**N/A**	**01/25/16**	**01/25/16 19:52**	**G0125SL3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sulfide, Total	1.000	0.8000	80	0.8000	80	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 376.2M

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-354-34	**LCS**	**Solid**	**N/A**	**01/21/16**	**01/21/16 18:35**	**G0121DSL4**
099-16-354-34	**LCSD**	**Solid**	**N/A**	**01/21/16**	**01/21/16 18:35**	**G0121DSL4**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sulfide, Dissolved	1.000	0.8500	85	0.9000	90	80-120	6	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: EPA 9060A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-1503	**LCS**	**Solid**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCL1**
099-06-013-1503	**LCSD**	**Solid**	**TOC 10**	**02/03/16**	**02/04/16 00:13**	**G0203TOCL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.6000	0.5752	96	0.6017	100	80-120	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: N/A
Method: SM 4500-NH3 B/C (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-816-125	**LCS**	**Solid**	**BUR05**	**02/05/16**	**02/05/16 20:00**	**G0205NH3L1**
099-12-816-125	**LCSD**	**Solid**	**BUR05**	**02/05/16**	**02/05/16 20:00**	**G0205NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	10.00	8.820	88	8.820	88	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: Extraction
Method: EPA 418.1M

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-015-2134	**LCS**	**Solid**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129L04**
099-07-015-2134	**LCSD**	**Solid**	**IR 2**	**01/29/16**	**01/29/16 11:22**	**160129L04**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TRPH	100.0	97.68	98	97.85	98	70-130	0	0-30	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550/SG 10
Method: EPA 8015B (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-526-21	**LCS**	**Solid**	**GC 48**	**01/28/16**	**01/28/16 20:25**	**160128B17A**
099-15-526-21	**LCSD**	**Solid**	**GC 48**	**01/28/16**	**01/28/16 20:41**	**160128B17A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	400.0	409.5	102	400.8	100	75-123	2	0-12	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-403-94	**LCS**	**Solid**	**GCTQ 2**	**01/29/16**	**02/01/16 15:10**	**160129L04**
099-14-403-94	**LCSD**	**Solid**	**GCTQ 2**	**01/29/16**	**02/01/16 16:00**	**160129L04**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	6.171	123	6.082	122	10-148	0-171	1	0-25	
Bifenthrin	5.000	5.937	119	5.776	116	26-128	9-145	3	0-25	
Cyfluthrin	5.000	5.364	107	4.661	93	10-131	0-151	14	0-25	
Cypermethrin	5.000	4.824	96	4.416	88	10-136	0-157	9	0-25	
Deltamethrin/Tralomethrin	5.000	5.248	105	4.975	100	13-190	0-220	5	0-25	
Fenpropathrin	5.000	5.813	116	5.553	111	10-148	0-171	5	0-25	
Fenvalerate/Esfenvalerate	10.00	10.45	105	8.933	89	10-149	0-172	16	0-25	
Fluvalinate	5.000	5.105	102	3.953	79	10-121	0-140	25	0-25	
Permethrin (cis/trans)	5.000	6.500	130	5.765	115	45-123	32-136	12	0-25	ME
Phenothrin	5.000	7.045	141	6.987	140	45-165	25-185	1	0-25	
Resmethrin/Bioresmethrin	5.000	7.949	159	7.884	158	38-164	17-185	1	0-25	
Tetramethrin	5.000	6.096	122	6.079	122	15-153	0-176	0	0-25	
lambda-Cyhalothrin	5.000	5.026	101	4.636	93	10-123	0-142	8	0-25	

Total number of LCS compounds: 13
Total number of ME compounds: 1
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3005A Filt.
Method: EPA 1640

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-823-182	**LCS**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 19:11**	**160127L01F**
099-15-823-182	**LCSD**	**Aqueous**	**ICP/MS 05**	**01/27/16**	**01/27/16 19:19**	**160127L01F**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	0.5000	0.5217	104	0.5162	103	70-130	1	0-20	
Cadmium	0.5000	0.5062	101	0.5118	102	70-130	1	0-20	
Chromium	5.000	5.634	113	5.550	111	70-130	2	0-20	
Copper	0.5000	0.4944	99	0.5299	106	70-130	7	0-20	
Lead	0.5000	0.4948	99	0.4938	99	70-130	0	0-20	
Nickel	0.5000	0.5947	119	0.5171	103	70-130	14	0-20	
Selenium	0.5000	0.5259	105	0.5405	108	70-130	3	0-20	
Silver	0.2500	0.2530	101	0.2592	104	70-130	2	0-20	
Zinc	5.000	4.739	95	4.944	99	70-130	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3050B
Method: EPA 6020

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-388	**LCS**	**Solid**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:33**	**160125L01E**
099-15-254-388	**LCSD**	**Solid**	**ICP/MS 03**	**01/25/16**	**01/27/16 17:35**	**160125L01E**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	26.86	107	27.11	108	80-120	1	0-20	
Cadmium	25.00	26.93	108	26.77	107	80-120	1	0-20	
Chromium	25.00	26.83	107	26.49	106	80-120	1	0-20	
Copper	25.00	27.28	109	27.01	108	80-120	1	0-20	
Lead	25.00	26.39	106	26.16	105	80-120	1	0-20	
Nickel	25.00	26.45	106	26.73	107	80-120	1	0-20	
Selenium	25.00	27.91	112	28.85	115	80-120	3	0-20	
Silver	12.50	11.13	89	10.93	87	80-120	2	0-20	
Zinc	25.00	27.68	111	27.75	111	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 7470A Total
Method: EPA 7470A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-510-692	**LCS**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/02/16 18:29**	**160202LA1L**
099-12-510-692	**LCSD**	**Aqueous**	**Mercury 04**	**02/02/16**	**02/03/16 14:26**	**160202LA1L**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	10.00	9.806	98	10.06	101	80-120	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 7471A Total
Method: EPA 7471A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-278-198	**LCS**	**Solid**	**Mercury 05**	**01/25/16**	**01/25/16 14:50**	**160125L01E**
099-16-278-198	**LCSD**	**Solid**	**Mercury 05**	**01/25/16**	**01/25/16 17:07**	**160125L01E**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.8510	102	0.8599	103	82-124	1	0-16	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8081A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-192	**LCS**	**Aqueous**	**GC 44**	**01/28/16**	**02/01/16 14:06**	**160128L05**
099-14-435-192	**LCSD**	**Aqueous**	**GC 44**	**01/28/16**	**02/01/16 14:23**	**160128L05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	0.2500	0.1594	64	0.1634	65	50-150	33-167	2	0-25	
Alpha Chlordane	0.2500	0.1913	77	0.1970	79	50-150	33-167	3	0-25	
Alpha-BHC	0.2500	0.2030	81	0.2063	83	50-150	33-167	2	0-25	
Beta-BHC	0.2500	0.1951	78	0.2016	81	50-150	33-167	3	0-25	
4,4'-DDD	0.2500	0.2028	81	0.2075	83	50-150	33-167	2	0-25	
4,4'-DDE	0.2500	0.2129	85	0.2178	87	50-150	33-167	2	0-25	
4,4'-DDT	0.2500	0.2030	81	0.2077	83	50-150	33-167	2	0-25	
Delta-BHC	0.2500	0.2098	84	0.2146	86	50-150	33-167	2	0-25	
Dieldrin	0.2500	0.2086	83	0.2131	85	50-150	33-167	2	0-25	
Endosulfan I	0.2500	0.2066	83	0.2141	86	50-150	33-167	4	0-25	
Endosulfan II	0.2500	0.2487	99	0.2568	103	50-150	33-167	3	0-25	
Endosulfan Sulfate	0.2500	0.1904	76	0.1951	78	50-150	33-167	2	0-25	
Endrin	0.2500	0.2169	87	0.2230	89	50-150	33-167	3	0-25	
Endrin Aldehyde	0.2500	0.2077	83	0.2064	83	50-150	33-167	1	0-25	
Endrin Ketone	0.2500	0.1918	77	0.1972	79	50-150	33-167	3	0-25	
Gamma Chlordane	0.2500	0.1929	77	0.2000	80	50-150	33-167	4	0-25	
Gamma-BHC	0.2500	0.2070	83	0.2058	82	50-150	33-167	1	0-25	
Heptachlor	0.2500	0.1795	72	0.1826	73	50-150	33-167	2	0-25	
Heptachlor Epoxide	0.2500	0.1809	72	0.1863	75	50-150	33-167	3	0-25	
Methoxychlor	0.2500	0.2104	84	0.2172	87	50-150	33-167	3	0-25	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8081A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-598-4	**LCS**	**Solid**	**GC 44**	**02/10/16**	**02/11/16 15:15**	**160210L17**
099-16-598-4	**LCSD**	**Solid**	**GC 44**	**02/10/16**	**02/11/16 15:29**	**160210L17**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	3.728	75	3.640	73	50-135	36-149	2	0-25	
Alpha-BHC	5.000	3.516	70	3.201	64	50-135	36-149	9	0-25	
Beta-BHC	5.000	4.532	91	5.325	106	50-135	36-149	16	0-25	
Delta-BHC	5.000	3.875	77	4.022	80	50-135	36-149	4	0-25	
Gamma-BHC	5.000	3.877	78	3.648	73	50-135	36-149	6	0-25	
Dieldrin	5.000	4.087	82	4.462	89	50-135	36-149	9	0-25	
4,4'-DDD	5.000	4.270	85	4.796	96	50-135	36-149	12	0-25	
4,4'-DDE	5.000	4.567	91	4.896	98	50-135	36-149	7	0-25	
4,4'-DDT	5.000	4.252	85	5.041	101	50-135	36-149	17	0-25	
Endosulfan I	5.000	3.811	76	4.105	82	50-135	36-149	7	0-25	
Endosulfan II	5.000	5.021	100	5.658	113	50-135	36-149	12	0-25	
Endosulfan Sulfate	5.000	4.140	83	4.352	87	50-135	36-149	5	0-25	
Endrin	5.000	4.417	88	4.851	97	50-135	36-149	9	0-25	
Endrin Aldehyde	5.000	3.514	70	3.586	72	50-135	36-149	2	0-25	
Endrin Ketone	5.000	4.002	80	4.347	87	50-135	36-149	8	0-25	
Heptachlor	5.000	4.005	80	3.727	75	50-135	36-149	7	0-25	
Heptachlor Epoxide	5.000	3.908	78	4.067	81	50-135	36-149	4	0-25	
Methoxychlor	5.000	4.389	88	4.846	97	50-135	36-149	10	0-25	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C PEST-SIM

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-154-49	**LCS**	**Solid**	**GC/MS BBB**	**01/28/16**	**01/29/16 13:15**	**160128L13**
099-16-154-49	**LCSD**	**Solid**	**GC/MS BBB**	**01/28/16**	**01/29/16 13:31**	**160128L13**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	4.639	93	4.327	87	25-200	0-229	7	0-25	
Alpha Chlordane	5.000	4.555	91	4.354	87	25-200	0-229	5	0-25	
Alpha-BHC	5.000	4.348	87	4.212	84	25-200	0-229	3	0-25	
Beta-BHC	5.000	4.622	92	4.440	89	25-200	0-229	4	0-25	
4,4'-DDD	5.000	4.278	86	4.168	83	25-200	0-229	3	0-25	
4,4'-DDE	5.000	4.826	97	4.622	92	25-200	0-229	4	0-25	
4,4'-DDT	5.000	4.880	98	4.917	98	25-200	0-229	1	0-25	
Delta-BHC	5.000	4.669	93	4.380	88	25-200	0-229	6	0-25	
Dieldrin	5.000	4.749	95	4.468	89	25-200	0-229	6	0-25	
Endosulfan I	5.000	4.446	89	4.288	86	25-200	0-229	4	0-25	
Endosulfan II	5.000	4.805	96	4.751	95	25-200	0-229	1	0-25	
Endosulfan Sulfate	5.000	4.997	100	4.961	99	25-200	0-229	1	0-25	
Endrin	5.000	2.861	57	2.835	57	25-200	0-229	1	0-25	
Endrin Aldehyde	5.000	4.726	95	4.704	94	25-200	0-229	0	0-25	
Endrin Ketone	5.000	4.946	99	4.717	94	25-200	0-229	5	0-25	
Gamma Chlordane	5.000	4.511	90	4.424	88	25-200	0-229	2	0-25	
Gamma-BHC	5.000	4.811	96	4.614	92	25-200	0-229	4	0-25	
Heptachlor	5.000	4.924	98	4.997	100	25-200	0-229	1	0-25	
Heptachlor Epoxide	5.000	4.273	85	4.108	82	25-200	0-229	4	0-25	
Methoxychlor	5.000	7.315	146	7.404	148	25-200	0-229	1	0-25	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-256-141	**LCS**	**Solid**	**GC/MS MM**	**01/27/16**	**01/29/16 17:01**	**160127L13**
099-14-256-141	**LCSD**	**Solid**	**GC/MS MM**	**01/27/16**	**01/29/16 17:27**	**160127L13**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
2,4,6-Trichlorophenol	1000	790.8	79	868.5	87	40-160	20-180	9	0-20	
2,4-Dichlorophenol	1000	772.8	77	800.6	80	40-160	20-180	4	0-20	
2-Methylphenol	1000	900.2	90	961.0	96	40-160	20-180	7	0-20	
2-Nitrophenol	1000	736.3	74	786.8	79	40-160	20-180	7	0-20	
4-Chloro-3-Methylphenol	1000	810.4	81	826.2	83	40-160	20-180	2	0-20	
Acenaphthene	1000	892.1	89	943.5	94	48-108	38-118	6	0-11	
Benzo (a) Pyrene	1000	858.0	86	879.8	88	17-163	0-187	3	0-20	
Chrysene	1000	918.9	92	960.8	96	17-168	0-193	4	0-20	
Di-n-Butyl Phthalate	1000	883.0	88	959.2	96	40-160	20-180	8	0-20	
Dimethyl Phthalate	1000	889.9	89	916.0	92	40-160	20-180	3	0-20	
Fluoranthene	1000	905.1	91	963.3	96	26-137	8-156	6	0-20	
Fluorene	1000	871.4	87	894.1	89	59-121	49-131	3	0-20	
Naphthalene	1000	815.6	82	867.0	87	21-133	2-152	6	0-20	
Phenanthrene	1000	903.5	90	914.5	91	54-120	43-131	1	0-20	
Phenol	1000	859.0	86	901.2	90	40-160	20-180	5	0-20	
Pyrene	1000	922.9	92	961.2	96	28-106	15-119	4	0-16	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-280-114	**LCS**	**Aqueous**	**GC/MS AAA**	**01/27/16**	**01/28/16 15:46**	**160127L14A**
099-14-280-114	**LCSD**	**Aqueous**	**GC/MS AAA**	**01/27/16**	**01/28/16 16:06**	**160127L14A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Naphthalene	2.000	1.506	75	1.529	76	21-133	2-152	2	0-25	
2-Methylnaphthalene	2.000	1.658	83	1.691	85	21-140	1-160	2	0-25	
1-Methylnaphthalene	2.000	1.377	69	1.546	77	20-140	0-160	12	0-25	
Acenaphthylene	2.000	1.600	80	1.592	80	33-145	14-164	1	0-25	
Acenaphthene	2.000	1.615	81	1.602	80	55-121	44-132	1	0-25	
Fluorene	2.000	1.623	81	1.608	80	59-121	49-131	1	0-25	
Phenanthrene	2.000	1.628	81	1.619	81	54-120	43-131	1	0-25	
Anthracene	2.000	1.553	78	1.541	77	27-133	9-151	1	0-25	
Fluoranthene	2.000	1.624	81	1.611	81	26-137	8-156	1	0-25	
Pyrene	2.000	1.702	85	1.684	84	45-129	31-143	1	0-25	
Benzo (a) Anthracene	2.000	1.547	77	1.539	77	33-143	15-161	1	0-25	
Chrysene	2.000	1.574	79	1.574	79	17-168	0-193	0	0-25	
Benzo (k) Fluoranthene	2.000	1.583	79	1.563	78	24-159	2-182	1	0-25	
Benzo (b) Fluoranthene	2.000	1.605	80	1.580	79	24-159	2-182	2	0-25	
Benzo (a) Pyrene	2.000	1.567	78	1.548	77	17-163	0-187	1	0-25	
Indeno (1,2,3-c,d) Pyrene	2.000	1.403	70	1.411	71	25-175	0-200	1	0-25	
Dibenz (a,h) Anthracene	2.000	1.393	70	1.399	70	25-175	0-200	0	0-25	
Benzo (g,h,i) Perylene	2.000	1.436	72	1.453	73	25-157	3-179	1	0-25	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-414-57	**LCS**	**Aqueous**	**GC/MS HHH**	**01/28/16**	**01/29/16 17:00**	**160128L17**
099-16-414-57	**LCSD**	**Aqueous**	**GC/MS HHH**	**01/28/16**	**01/29/16 17:24**	**160128L17**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	0.5000	0.3341	67	0.4136	83	50-150	33-167	21	0-25	
PCB028	0.5000	0.3512	70	0.4359	87	50-150	33-167	22	0-25	
PCB044	0.5000	0.3396	68	0.4200	84	50-150	33-167	21	0-25	
PCB052	0.5000	0.3266	65	0.4059	81	50-150	33-167	22	0-25	
PCB066	0.5000	0.3956	79	0.4884	98	50-150	33-167	21	0-25	
PCB077	0.5000	0.3607	72	0.4514	90	50-150	33-167	22	0-25	
PCB101	0.5000	0.3244	65	0.4058	81	50-150	33-167	22	0-25	
PCB105	0.5000	0.3669	73	0.4605	92	50-150	33-167	23	0-25	
PCB118	0.5000	0.3803	76	0.4772	95	50-150	33-167	23	0-25	
PCB126	0.5000	0.3614	72	0.4557	91	50-150	33-167	23	0-25	
PCB128	0.5000	0.3381	68	0.4189	84	50-150	33-167	21	0-25	
PCB170	0.5000	0.3408	68	0.4248	85	50-150	33-167	22	0-25	
PCB180	0.5000	0.3637	73	0.4610	92	50-150	33-167	24	0-25	
PCB187	0.5000	0.3523	70	0.4377	88	50-150	33-167	22	0-25	
PCB195	0.5000	0.3463	69	0.4366	87	50-150	33-167	23	0-25	
PCB206	0.5000	0.3418	68	0.4346	87	50-150	33-167	24	0-25	
PCB209	0.5000	0.3098	62	0.3925	78	50-150	33-167	24	0-25	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-418-193	**LCS**	**Solid**	**GC/MS HHH**	**01/30/16**	**02/03/16 11:33**	**160130L06**
099-16-418-193	**LCSD**	**Solid**	**GC/MS HHH**	**01/30/16**	**02/03/16 11:56**	**160130L06**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	50.00	34.69	69	33.40	67	50-150	33-167	4	0-25	
PCB028	50.00	36.31	73	35.00	70	50-150	33-167	4	0-25	
PCB044	50.00	34.87	70	33.84	68	50-150	33-167	3	0-25	
PCB052	50.00	33.69	67	32.19	64	50-150	33-167	5	0-25	
PCB066	50.00	40.32	81	38.87	78	50-150	33-167	4	0-25	
PCB077	50.00	36.63	73	35.60	71	50-150	33-167	3	0-25	
PCB101	50.00	32.82	66	32.12	64	50-150	33-167	2	0-25	
PCB105	50.00	37.75	75	35.99	72	50-150	33-167	5	0-25	
PCB118	50.00	39.11	78	37.71	75	50-150	33-167	4	0-25	
PCB126	50.00	36.69	73	35.64	71	50-150	33-167	3	0-25	
PCB128	50.00	34.96	70	33.49	67	50-150	33-167	4	0-25	
PCB170	50.00	38.84	78	37.65	75	50-150	33-167	3	0-25	
PCB180	50.00	37.72	75	36.24	72	50-150	33-167	4	0-25	
PCB187	50.00	35.65	71	34.43	69	50-150	33-167	3	0-25	
PCB195	50.00	40.92	82	39.73	79	50-150	33-167	3	0-25	
PCB206	50.00	41.02	82	40.30	81	50-150	33-167	2	0-25	
PCB209	50.00	36.70	73	36.06	72	50-150	33-167	2	0-25	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3510C
Method: Organotins by Krone et al.

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-035-367	**LCS**	**Aqueous**	**GC/MS Y**	**01/27/16**	**01/28/16 16:27**	**160127L11**
099-07-035-367	**LCSD**	**Aqueous**	**GC/MS Y**	**01/27/16**	**01/28/16 15:03**	**160127L11**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	0.2000	0.2497	125	0.2351	118	35-131	6	0-20	
Tributyltin	0.2000	0.2183	109	0.2173	109	50-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/21/16
Work Order: 16-01-1373
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-016-1367	**LCS**	**Solid**	**GC/MS Y**	**01/28/16**	**02/01/16 13:14**	**160128L18**
099-07-016-1367	**LCSD**	**Solid**	**GC/MS Y**	**01/28/16**	**02/01/16 13:30**	**160128L18**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	100.0	117.9	118	117.5	118	40-142	0	0-20	
Tributyltin	100.0	100.8	101	104.6	105	33-147	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Glossary of Terms and Qualifiers

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY
16-01-1373

DATE: 1/ /2016
PAGE: 1 OF 2

LABORATORY CLIENT: Amec Foster Wheeler
ADDRESS: 9210 Sky Park Ct. Ste 200
CITY: San Diego STATE: CA ZIP: 92123
TEL: 858-300-4326 E-MAIL: kimbrie.gobbi@amecfw.com

CLIENT PROJECT NAME / NUMBER: POLA Berths 195-200A & 210-211
P.O. NO.: 1315102726 and 1315102727
PROJECT CONTACT: Kimbrie Gobbi
SAMPLER(S): (PRINT) Kimbrie Gobbi, Kevin Stolzenbach

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
Please report results in dry weight. Contact Kimbrie Gobbi with any questions.
Carla Hollowell is PM.
Please report Total PAHs, Total PCBs, and Total Pesticides.
Please report ONLY and ALL analytes on attached list, see list for details.

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Grain Size (ASTM D4464)	Total Solids (SM 2540 B)	Total Organic Carbon (9060)	Total Ammonia (SM 4500-NH3 B/C (M)	Total Sulfides (376.2 M)	Soluble Sulfides (SM 4500 S2-D)	Oil and Grease (EPA 413.2M)	Metals (EPA 6020/6010B)	Mercury (EPA 7471A)	TPH C6-C44 (EPA 8015B (M)/8015B)	TRPH (418.1M)	PAHs (8270C SIM/ GC/TQ)	Pesticides (8081A)	PCB Congeners (8270C SIM PCB)	Phenols (8270C SIM)	Phthalates (8270C SIM)	Pyrethroids (GC/MS/MS)	Organotins (Rice/Krone)
1	B195-200A Composite	1/ 21 /2016	1200	sediment	2	x			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	B210-211 Composite	1/ 21 /2016	1130	sediment	2	x			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	B195-200A Site Water	1/ 21 /2016	1235	water	2	x										X				X	X	X				X
4	B210-211 Site Water	1/ 21 /2016	1225	water	2	x										X				X	X	X				X
5	B195-200A Elutriate	1/ 21 /2016	1200	sediment	2	x										X				X	X	X				X
6	B210-211 Elutriate	1/ 21 /2016	1130	sediment	2	x										X				X	X	X				X

Relinquished by: (Signature) Kimbrie Gobbi @amec	Received by: (Signature/Affiliation) Dannyle ECL	Date: 1/21/16	Time: 15:05
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

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Analyte	Analysis Method	Sediment Target Detection Limits[1,2]	Elutriate Target Detection Limits[1,2]
Grain Size	ASTM D4464	0.10%	NA
Total Solids	SM 2540 B	0.10%	NA
Total Organic Carbon	9060	0.10%	NA
Total Ammonia	SM 4500-NH3 B/C (M)[c]	0.2 mg/kg	NA
Total Sulfides	376.2M[3]	0.5 mg/kg	NA
Soluble Sulfides	SM 4500 S2 - D	0.5 mg/kg	NA
Oil and Grease	EPA 413.2M	10 mg/kg	NA
Arsenic	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Cadmium	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Chromium	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Copper	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Lead	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Mercury	7471A[4]	0.02 mg/kg	0.0002 mg/L
Nickel	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Selenium	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Silver	6020/6010B[4]	0.1 mg/kg	0.001 mg/L
Zinc	6020/6010B[4]	1.0 mg/kg	0.005 mg/L
TPH (C6-C44)	EPA 8015B(M)/8015B	5.0 mg/kg	NA
TRPH	418.1M[4]	10 mg/kg	NA
PAHs[5]	8270C SIM/ GC/TQ[4]	10 µg/kg	0.2 µg/L
Chlorinated Pesticides[6]	8081A[4]	1.0 - 20 µg/kg[10]	0.1 µg/L
PCB Congeners[7]	8270C SIM PCB[4]	0.5 µg/kg	0.02 µg/L
Phenols	8270C SIM[4]	20 - 100 µg/kg	NA
Phthalates	8270C SIM[4]	10 µg/kg	NA
Pyrethroids	GC/MS/MS[8]	0.5 – 1.0 µg/kg	NA
Organotins	Rice/Krone[9]	3.0 µg/kg	3.0 ng/L

Notes:

1 - Sediment minimum detection limits are on a dry-weight basis.

2 - Reporting limits were provided by Eurofins Calscience Environmental Laboratories, Inc.

3 - Standard Methods for the Examination of Water and Wastewater, 19th edition, American Public Health Association et al. 1995.

4 - EPA 1986-1996. SW -846. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, 3rd Edition.

5 - Includes naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b,k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene.

6 - Includes aldrin, α-benzene hexachloride (BHC), β-BHC, γ-BHC (lindane), δ-BHC, chlordane, 2,4- and 4,4- dichlorodiphenyldiethane (DDD), 2,4- and 4,4- dichlorodiphenylethylene (DDE), 2,4- and 4,4- dichlorodiphenyltrichloroethane (DDT), dieldrin, endosulfan I and II, endosulfan sulfate, endrin, endrin aldehyde, heptachlor, heptachlor epoxide, and toxaphene.

7 - PCBs (sum of 41 congeners: 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194,201, and 206)

8 - Allethrin (Bioallethrin), Bifenthrin, Cyfluthrin-beta (Baythroid), Cyhalothrin-Lamba, Cypermethrin, Deltamethrin (Decamethrin), Esfenvalerate, Fenpropathrin (Danitol), Fenvalerate (sanmarton), Fluvalinate Permethrin (cis and trans), Resmethrin (Bioresmethrin), Resmethrin, Sumithrin (Phenothrin), Tetramethrin, and Tralomethrin

9 - Rice et al. 1987 or similar (e.g., Krone et al. 1989)

10. Except toxaphene, which is 1,000 µg/kg

µg/kg = micrograms per kilogram (parts per billion); µg/L = micrograms per liter; mg/kg = milligrams per kilogram (parts per million); mg/L = milligrams per liter; NA = not applicable; ng/L = nanograms per liter; PAH = polycyclic aromatic hydrocarbons;

PCB = polychlorinated biphenyl; SM = Standard Method; SOP = standard operating procedure; TPH = total petroleum hydrocarbons; TRPH = total recoverable petroleum hydrocarbons

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WORK ORDER NUMBER: 16-01- 1373

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 3

CLIENT: AMEC

DATE: 01 / 21 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.9 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 619

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 619

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1058

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑ 1/21/16 MC
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☐

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☑ SoilCube ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☑ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (Z): ☑ ~~2 Bag~~ ☑ ~~5996 SoilCube~~ 1/21/16 MC

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1058

Reviewed by: 1017

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WORK ORDER NUMBER: 16-01- 1373

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 3

CLIENT: AMEC

DATE: 01 / 21 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 4.1 °C (w/ CF): 4.4 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 659

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 659

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1058

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☑ 5gal Cubi ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☑ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1058

Reviewed by: 1017

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WORK ORDER NUMBER: 16-01- 1373

SAMPLE RECEIPT CHECKLIST

COOLER 3 OF 3

CLIENT: AMEC

DATE: 01 / 21 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 4.5 °C (w/ CF): 4.8 °C; ☐ Blank ☒ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 659

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☒ Not Present	☐ N/A	Checked by: 659
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☒ Not Present	☐ N/A	Checked by: 1058

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☒	☐	☐
COC document(s) received complete	☒	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☒	☐	☐
Sample container label(s) consistent with COC	☒	☐	☐
Sample container(s) intact and in good condition	☒	☐	☐
Proper containers for analyses requested	☒	☐	☐
Sufficient volume/mass for analyses requested	☒	☐	☐
Samples received within holding time	☒	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☒
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☒
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☒

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☒ Soil Core ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☒ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1058

Reviewed by: 1017

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APPENDIX D

ELUTRIATE CHEMISTRY

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Appendix C. Analytical Chemistry Results - Site Water and Elutriate

Analyte	Units	CCC	CMC	Site Water Results		Elutriate Results	
				B195-200A	B210-211	B195-200A	B210-211
Metals							
Arsenic	µg/L	**36**	**69**	1.39	1.40	ND < 1.00	1.20
Cadmium	µg/L	**8.8**	**40**	0.0380	0.0333	ND < 10.0	ND < 10.0
Chromium[1]	µg/L	**50**	**1100**	ND < 0.500	ND < 0.500	ND < 10.0	ND < 10.0
Copper	µg/L	**3.1**	**4.8**	**3.11**	**3.43**	**6.71**	**7.98**
Lead	µg/L	**8.1**	**210**	0.0651	0.0513	ND < 10.0	ND < 10.0
Nickel	µg/L	**8.2**	**74**	0.556	0.522	**10.2**	**11.1**
Mercury[2]	µg/L	**0.94**	**1.8**	ND < 0.0500	ND < 0.0500	ND < 0.500	ND < 0.500
Selenium	µg/L	**71**	**290**	0.0533	ND < 0.0500	ND < 10.0	ND < 10.0
Silver	µg/L	**1.9**	-	0.286	0.294	ND < 10.0	ND < 10.0
Zinc	µg/L	**81**	**90**	13.7	13.1	13.5	13.3
Organochlorine Pesticides							
Oxychlordane	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Aldrin	µg/L	-	**1.3**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Alpha Chlordane	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Alpha-BHC	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Beta-BHC	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Chlordane	µg/L	**0.004**	**0.09**	ND < 0.010	ND < 0.010	ND < 0.024	ND < 0.025
Cis-nonachlor	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
2,4'-DDD	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
4,4'-DDD	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
4,4'-DDE	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
2,4'-DDE	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
2,4'-DDT	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
4,4'-DDT	µg/L	**0.001**	**0.013**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Delta-BHC	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Dieldrin	µg/L	**0.0019**	**0.71**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Endosulfan I	µg/L	**0.0087**	**0.034**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Endosulfan II	µg/L	**0.0087**	**0.034**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Endosulfan Sulfate	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Endrin	µg/L	**0.0023**	**0.037**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Endrin Aldehyde	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Endrin Ketone	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Gamma Chlordane	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Gamma-BHC	µg/L	-	**0.16**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Heptachlor	µg/L	**0.0036**	**0.053**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Heptachlor Epoxide	µg/L	**0.0036**	**0.053**	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Hexachlorobenzene	µg/L	-	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Methoxychlor	µg/L	**0.03**	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Mirex	µg/L	**0.001**	-	ND < 0.010	ND < 0.010	ND < 0.0097	ND < 0.0098
Toxaphene	µg/L	**0.0002**	**0.21**	ND < 0.12	ND < 0.12	ND < 0.12	ND < 0.12
Trans-nonachlor	µg/L	-	-	ND <0.010	ND <0.010	ND < 0.0097	ND < 0.0098
Semi Volatile Organics							
1,6,7-Trimethylnaphthalene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
1-Methylnaphthalene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
1-Methylphenanthrene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
2,6-Dimethylnaphthalene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20

Appendix C. Analytical Chemistry Results - Site Water and Elutriate

Analyte	Units	CCC	CMC	Site Water Results		Elutriate Results	
				B195-200A	B210-211	B195-200A	B210-211
2-Methylnaphthalene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
Acenaphthene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Acenaphthylene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Anthracene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
Benzo (a) Anthracene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Benzo (a) Pyrene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Benzo (b) Fluoranthene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Benzo (e) Pyrene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
Benzo (g,h,i) Perylene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Benzo (k) Fluoranthene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Biphenyl	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
Chrysene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Dibenz (a,h) Anthracene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Dibenzothiophene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
Fluoranthene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Fluorene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Indeno (1,2,3-c,d) Pyrene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Naphthalene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Perylene	µg/L	-	-	NT	NT	ND < 0.19	ND < 0.20
Phenanthrene	µg/L	-	-	ND < 0.20	ND < 0.20	ND < 0.19	ND < 0.20
Pyrene	µg/L	-	-	ND < 0.20	ND < 0.20	0.30	ND < 0.20
PCB Congeners							
PCB 003	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 005/008	µg/L	-	-	ND <0.0040	ND <0.0040	ND <0.0038	ND <0.0038
PCB 015	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 018	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	0.0068
PCB 027	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 028	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	0.0026
PCB 029	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 031	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	0.0025
PCB 033	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 037	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 044	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 049	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0060	ND <0.0019
PCB 052	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0095	0.0028
PCB 056	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 060	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 066	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 070	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 074	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 077	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 081	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 087	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 095	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0041	ND <0.0019
PCB 097	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 099	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 101	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0022	ND <0.0019
PCB 105	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019

Appendix C. Analytical Chemistry Results - Site Water and Elutriate

Analyte	Units	CCC	CMC	Site Water Results		Elutriate Results	
				B195-200A	B210-211	B195-200A	B210-211
PCB 110	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 114	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 118	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 119	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 123	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 126	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 128	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 132/153	µg/L	-	-	ND < 0.0040	ND < 0.0040	0.0065	ND <0.0038
PCB 137	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 138/158	µg/L	-	-	ND < 0.0040	ND < 0.0040	0.0045	ND <0.0038
PCB 141	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 149	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0040	ND <0.0019
PCB 151	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 156	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 157	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 167	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 168	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 169	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 170	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 174	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 177	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 180	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0035	ND <0.0019
PCB 183	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 184	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 187	µg/L	-	-	ND < 0.0020	ND < 0.0020	0.0030	ND <0.0019
PCB 189	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 194	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 195	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 200	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 201	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 203	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 206	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
PCB 209	µg/L	-	-	ND < 0.0020	ND < 0.0020	ND <0.0019	ND <0.0019
Total PCB Congeners	µg/L	**0.03**	-	0.00	0.00	**0.0433**	0.0147
Organotins							
Dibutyltin	µg/L	-	-	ND < 0.0030	ND < 0.0029	ND < 0.0029	0.013
Monobutyltin	µg/L	-	-	ND < 0.0030	ND < 0.0029	ND < 0.0029	ND < 0.0029
Tetrabutyltin	µg/L	-	-	ND < 0.0030	ND < 0.0029	ND < 0.0029	ND < 0.0029
Tributyltin	µg/L	**0.0074**	**0.42**	ND < 0.0030	ND < 0.0029	0.0046	**0.028**

Notes:

http://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table

[1] CCC and CMC values are for Chromium VI

[2] CCC and CMC values are for Mercury/Methylmercury

CCC = criterion continuous concentration; CMC = criterion maximum concentration; µg/L = micrograms per liter; PCB = polychlorinated biphenyl;DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene; DDT = dichlorodiphenyltrichloroethane

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WORK ORDER NUMBER: 16-01-1743

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AMEC Foster Wheeler, Plc.

Client Project Name: POLA Berths 195-200A & 210-211

Attention: Kimbrie Gobbi
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Approved for release on 02/05/2016 by:
Carla Hollowell
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: POLA Berths 195-200A & 210-211
Work Order Number: 16-01-1743

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Work Order Narrative

Work Order: 16-01-1743 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/28/16. They were assigned to Work Order 16-01-1743.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	AMEC Foster Wheeler, Plc. 9210 Sky Park Court, Suite 200 San Diego, CA 92123-4302	Work Order:	16-01-1743
		Project Name:	POLA Berths 195-200A & 210-211
		PO Number:	
		Date/Time Received:	01/28/16 16:30
		Number of Containers:	12
Attn:	Kimbrie Gobbi		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B195-200A (DRET)	16-01-1743-1	01/28/16 15:35	6	Aqueous
B210-211 (DRET)	16-01-1743-2	01/28/16 15:50	6	Aqueous

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3020A Total
Method: EPA 6020
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-F**	**01/28/16 15:35**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/03/16 15:22**	**160202LA1**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	1.00	1.00	
Copper	8.08	1.00	1.00	
Nickel	10.3	1.00	1.00	
Zinc	14.3	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-F**	**01/28/16 15:35**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 20:29**	**160202LA1**

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	10.0	10.0	
Chromium	ND	10.0	10.0	
Lead	ND	10.0	10.0	
Selenium	ND	10.0	10.0	
Silver	ND	10.0	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-F**	**01/28/16 15:50**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/03/16 15:24**	**160202LA1**

Parameter	Result	RL	DF	Qualifiers
Arsenic	1.20	1.00	1.00	
Copper	9.61	1.00	1.00	
Nickel	11.2	1.00	1.00	
Zinc	14.1	5.00	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-F**	**01/28/16 15:50**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 20:32**	**160202LA1**

Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	10.0	10.0	
Chromium	ND	10.0	10.0	
Lead	ND	10.0	10.0	
Selenium	ND	10.0	10.0	
Silver	ND	10.0	10.0	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3020A Total
Method: EPA 6020
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5078**	**N/A**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 12:29**	**160202LA1**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	1.00	1.00	
Cadmium	ND	1.00	1.00	
Chromium	ND	1.00	1.00	
Copper	ND	1.00	1.00	
Lead	ND	1.00	1.00	
Nickel	ND	1.00	1.00	
Selenium	ND	1.00	1.00	
Silver	ND	1.00	1.00	
Zinc	ND	5.00	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-E**	**01/28/16 15:35**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:47**	**160203LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-E**	**01/28/16 15:50**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:54**	**160203LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7742**	**N/A**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:34**	**160203LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.500	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-A**	**01/28/16 15:35**	**Aqueous**	**GC 44**	**02/02/16**	**02/03/16 14:08**	**160202L10**

Parameter	Result	RL	DF	Qualifiers
Oxychlordane	ND	0.0097	1.00	
Aldrin	ND	0.0097	1.00	
Alpha Chlordane	ND	0.0097	1.00	
Alpha-BHC	ND	0.0097	1.00	
Beta-BHC	ND	0.0097	1.00	
Chlordane	ND	0.024	1.00	
Cis-nonachlor	ND	0.0097	1.00	
2,4'-DDD	ND	0.0097	1.00	
4,4'-DDD	ND	0.0097	1.00	
4,4'-DDE	ND	0.0097	1.00	
2,4'-DDE	ND	0.0097	1.00	
2,4'-DDT	ND	0.0097	1.00	
4,4'-DDT	ND	0.0097	1.00	
Delta-BHC	ND	0.0097	1.00	
Dieldrin	ND	0.0097	1.00	
Endosulfan I	ND	0.0097	1.00	
Endosulfan II	ND	0.0097	1.00	
Endosulfan Sulfate	ND	0.0097	1.00	
Endrin	ND	0.0097	1.00	
Endrin Aldehyde	ND	0.0097	1.00	
Endrin Ketone	ND	0.0097	1.00	
Gamma Chlordane	ND	0.0097	1.00	
Gamma-BHC	ND	0.0097	1.00	
Heptachlor	ND	0.0097	1.00	
Heptachlor Epoxide	ND	0.0097	1.00	
Hexachlorobenzene	ND	0.0097	1.00	
Methoxychlor	ND	0.0097	1.00	
Mirex	ND	0.0097	1.00	
Toxaphene	ND	0.12	1.00	
Trans-nonachlor	ND	0.0097	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	50-150	
2,4,5,6-Tetrachloro-m-Xylene	79	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-A**	**01/28/16 15:50**	**Aqueous**	**GC 44**	**02/02/16**	**02/03/16 14:22**	**160202L10**

Parameter	Result	RL	DF	Qualifiers
Oxychlordane	ND	0.0098	1.00	
Aldrin	ND	0.0098	1.00	
Alpha Chlordane	ND	0.0098	1.00	
Alpha-BHC	ND	0.0098	1.00	
Beta-BHC	ND	0.0098	1.00	
Chlordane	ND	0.025	1.00	
Cis-nonachlor	ND	0.0098	1.00	
2,4'-DDD	ND	0.0098	1.00	
4,4'-DDD	ND	0.0098	1.00	
4,4'-DDE	ND	0.0098	1.00	
2,4'-DDE	ND	0.0098	1.00	
2,4'-DDT	ND	0.0098	1.00	
4,4'-DDT	ND	0.0098	1.00	
Delta-BHC	ND	0.0098	1.00	
Dieldrin	ND	0.0098	1.00	
Endosulfan I	ND	0.0098	1.00	
Endosulfan II	ND	0.0098	1.00	
Endosulfan Sulfate	ND	0.0098	1.00	
Endrin	ND	0.0098	1.00	
Endrin Aldehyde	ND	0.0098	1.00	
Endrin Ketone	ND	0.0098	1.00	
Gamma Chlordane	ND	0.0098	1.00	
Gamma-BHC	ND	0.0098	1.00	
Heptachlor	ND	0.0098	1.00	
Heptachlor Epoxide	ND	0.0098	1.00	
Hexachlorobenzene	ND	0.0098	1.00	
Methoxychlor	ND	0.0098	1.00	
Mirex	ND	0.0098	1.00	
Toxaphene	ND	0.12	1.00	
Trans-nonachlor	ND	0.0098	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	68	50-150	
2,4,5,6-Tetrachloro-m-Xylene	68	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-435-193**	**N/A**	**Aqueous**	**GC 44**	**02/02/16**	**02/03/16 13:54**	**160202L10**

Parameter	Result	RL	DF	Qualifiers
Oxychlordane	ND	0.010	1.00	
Aldrin	ND	0.010	1.00	
Alpha Chlordane	ND	0.010	1.00	
Alpha-BHC	ND	0.010	1.00	
Beta-BHC	ND	0.010	1.00	
Chlordane	ND	0.025	1.00	
Cis-nonachlor	ND	0.010	1.00	
2,4'-DDD	ND	0.010	1.00	
4,4'-DDD	ND	0.010	1.00	
4,4'-DDE	ND	0.010	1.00	
2,4'-DDE	ND	0.010	1.00	
2,4'-DDT	ND	0.010	1.00	
4,4'-DDT	ND	0.010	1.00	
Delta-BHC	ND	0.010	1.00	
Dieldrin	ND	0.010	1.00	
Endosulfan I	ND	0.010	1.00	
Endosulfan II	ND	0.010	1.00	
Endosulfan Sulfate	ND	0.010	1.00	
Endrin	ND	0.010	1.00	
Endrin Aldehyde	ND	0.010	1.00	
Endrin Ketone	ND	0.010	1.00	
Gamma Chlordane	ND	0.010	1.00	
Gamma-BHC	ND	0.010	1.00	
Heptachlor	ND	0.010	1.00	
Heptachlor Epoxide	ND	0.010	1.00	
Hexachlorobenzene	ND	0.010	1.00	
Methoxychlor	ND	0.010	1.00	
Mirex	ND	0.010	1.00	
Toxaphene	ND	0.12	1.00	
Trans-nonachlor	ND	0.010	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	50-150	
2,4,5,6-Tetrachloro-m-Xylene	72	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-C**	**01/28/16 15:35**	**Aqueous**	**GC/MS EEE**	**02/02/16**	**02/03/16 18:34**	**160202L12A**

Parameter	Result	RL	DF	Qualifiers
Dibenzothiophene	ND	0.19	1.00	
Naphthalene	ND	0.19	1.00	
2-Methylnaphthalene	ND	0.19	1.00	
1-Methylnaphthalene	ND	0.19	1.00	
Acenaphthylene	ND	0.19	1.00	
Acenaphthene	ND	0.19	1.00	
Fluorene	ND	0.19	1.00	
Phenanthrene	ND	0.19	1.00	
Anthracene	ND	0.19	1.00	
Fluoranthene	ND	0.19	1.00	
Pyrene	0.30	0.19	1.00	
Benzo (a) Anthracene	ND	0.19	1.00	
Chrysene	ND	0.19	1.00	
Benzo (k) Fluoranthene	ND	0.19	1.00	
Benzo (b) Fluoranthene	ND	0.19	1.00	
Benzo (a) Pyrene	ND	0.19	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.19	1.00	
Dibenz (a,h) Anthracene	ND	0.19	1.00	
Benzo (g,h,i) Perylene	ND	0.19	1.00	
Benzo (e) Pyrene	ND	0.19	1.00	
Perylene	ND	0.19	1.00	
Biphenyl	ND	0.19	1.00	
1-Methylphenanthrene	ND	0.19	1.00	
2,6-Dimethylnaphthalene	ND	0.19	1.00	
1,6,7-Trimethylnaphthalene	ND	0.19	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	67	28-139	
2-Fluorobiphenyl	70	33-144	
p-Terphenyl-d14	80	23-160	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-A**	**01/28/16 15:50**	**Aqueous**	**GC/MS EEE**	**02/02/16**	**02/03/16 18:55**	**160202L12A**

Parameter	Result	RL	DF	Qualifiers
Dibenzothiophene	ND	0.20	1.00	
Naphthalene	ND	0.20	1.00	
2-Methylnaphthalene	ND	0.20	1.00	
1-Methylnaphthalene	ND	0.20	1.00	
Acenaphthylene	ND	0.20	1.00	
Acenaphthene	ND	0.20	1.00	
Fluorene	ND	0.20	1.00	
Phenanthrene	ND	0.20	1.00	
Anthracene	ND	0.20	1.00	
Fluoranthene	ND	0.20	1.00	
Pyrene	ND	0.20	1.00	
Benzo (a) Anthracene	ND	0.20	1.00	
Chrysene	ND	0.20	1.00	
Benzo (k) Fluoranthene	ND	0.20	1.00	
Benzo (b) Fluoranthene	ND	0.20	1.00	
Benzo (a) Pyrene	ND	0.20	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.20	1.00	
Dibenz (a,h) Anthracene	ND	0.20	1.00	
Benzo (g,h,i) Perylene	ND	0.20	1.00	
Benzo (e) Pyrene	ND	0.20	1.00	
Perylene	ND	0.20	1.00	
Biphenyl	ND	0.20	1.00	
1-Methylphenanthrene	ND	0.20	1.00	
2,6-Dimethylnaphthalene	ND	0.20	1.00	
1,6,7-Trimethylnaphthalene	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	78	28-139	
2-Fluorobiphenyl	85	33-144	
p-Terphenyl-d14	87	23-160	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-280-115**	**N/A**	**Aqueous**	**GC/MS EEE**	**02/02/16**	**02/03/16 17:33**	**160202L12A**

Parameter	Result	RL	DF	Qualifiers
Dibenzothiophene	ND	0.20	1.00	
Naphthalene	ND	0.20	1.00	
2-Methylnaphthalene	ND	0.20	1.00	
1-Methylnaphthalene	ND	0.20	1.00	
Acenaphthylene	ND	0.20	1.00	
Acenaphthene	ND	0.20	1.00	
Fluorene	ND	0.20	1.00	
Phenanthrene	ND	0.20	1.00	
Anthracene	ND	0.20	1.00	
Fluoranthene	ND	0.20	1.00	
Pyrene	ND	0.20	1.00	
Benzo (a) Anthracene	ND	0.20	1.00	
Chrysene	ND	0.20	1.00	
Benzo (k) Fluoranthene	ND	0.20	1.00	
Benzo (b) Fluoranthene	ND	0.20	1.00	
Benzo (a) Pyrene	ND	0.20	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.20	1.00	
Dibenz (a,h) Anthracene	ND	0.20	1.00	
Benzo (g,h,i) Perylene	ND	0.20	1.00	
Benzo (e) Pyrene	ND	0.20	1.00	
Perylene	ND	0.20	1.00	
Biphenyl	ND	0.20	1.00	
1-Methylphenanthrene	ND	0.20	1.00	
2,6-Dimethylnaphthalene	ND	0.20	1.00	
1,6,7-Trimethylnaphthalene	ND	0.20	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	80	28-139	
2-Fluorobiphenyl	88	33-144	
p-Terphenyl-d14	89	23-160	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-B**	**01/28/16 15:35**	**Aqueous**	**GC/MS HHH**	**02/03/16**	**02/04/16 19:57**	**160203L13**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.0019	1.00	
PCB005/008	ND	0.0038	1.00	
PCB015	ND	0.0019	1.00	
PCB018	ND	0.0019	1.00	
PCB027	ND	0.0019	1.00	
PCB028	ND	0.0019	1.00	
PCB029	ND	0.0019	1.00	
PCB031	ND	0.0019	1.00	
PCB033	ND	0.0019	1.00	
PCB037	ND	0.0019	1.00	
PCB044	ND	0.0019	1.00	
PCB049	0.0060	0.0019	1.00	
PCB052	0.0095	0.0019	1.00	
PCB056	ND	0.0019	1.00	
PCB060	ND	0.0019	1.00	
PCB066	ND	0.0019	1.00	
PCB070	ND	0.0019	1.00	
PCB074	ND	0.0019	1.00	
PCB077	ND	0.0019	1.00	
PCB081	ND	0.0019	1.00	
PCB087	ND	0.0019	1.00	
PCB095	0.0041	0.0019	1.00	
PCB097	ND	0.0019	1.00	
PCB099	ND	0.0019	1.00	
PCB101	0.0022	0.0019	1.00	
PCB105	ND	0.0019	1.00	
PCB110	ND	0.0019	1.00	
PCB114	ND	0.0019	1.00	
PCB118	ND	0.0019	1.00	
PCB119	ND	0.0019	1.00	
PCB123	ND	0.0019	1.00	
PCB126	ND	0.0019	1.00	
PCB128	ND	0.0019	1.00	
PCB132/153	0.0065	0.0038	1.00	
PCB137	ND	0.0019	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	0.0045	0.0038	1.00	
PCB141	ND	0.0019	1.00	
PCB149	0.0040	0.0019	1.00	
PCB151	ND	0.0019	1.00	
PCB156	ND	0.0019	1.00	
PCB157	ND	0.0019	1.00	
PCB167	ND	0.0019	1.00	
PCB168	ND	0.0019	1.00	
PCB169	ND	0.0019	1.00	
PCB170	ND	0.0019	1.00	
PCB174	ND	0.0019	1.00	
PCB177	ND	0.0019	1.00	
PCB180	0.0035	0.0019	1.00	
PCB183	ND	0.0019	1.00	
PCB184	ND	0.0019	1.00	
PCB187	0.0030	0.0019	1.00	
PCB189	ND	0.0019	1.00	
PCB194	ND	0.0019	1.00	
PCB195	ND	0.0019	1.00	
PCB200	ND	0.0019	1.00	
PCB201	ND	0.0019	1.00	
PCB203	ND	0.0019	1.00	
PCB206	ND	0.0019	1.00	
PCB209	ND	0.0019	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	99	50-150	
p-Terphenyl-d14	100	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-B**	**01/28/16 15:50**	**Aqueous**	**GC/MS HHH**	**02/03/16**	**02/04/16 20:22**	**160203L13**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.0019	1.00	
PCB005/008	ND	0.0038	1.00	
PCB015	ND	0.0019	1.00	
PCB018	0.0068	0.0019	1.00	
PCB027	ND	0.0019	1.00	
PCB028	0.0026	0.0019	1.00	
PCB029	ND	0.0019	1.00	
PCB031	0.0025	0.0019	1.00	
PCB033	ND	0.0019	1.00	
PCB037	ND	0.0019	1.00	
PCB044	ND	0.0019	1.00	
PCB049	ND	0.0019	1.00	
PCB052	0.0028	0.0019	1.00	
PCB056	ND	0.0019	1.00	
PCB060	ND	0.0019	1.00	
PCB066	ND	0.0019	1.00	
PCB070	ND	0.0019	1.00	
PCB074	ND	0.0019	1.00	
PCB077	ND	0.0019	1.00	
PCB081	ND	0.0019	1.00	
PCB087	ND	0.0019	1.00	
PCB095	ND	0.0019	1.00	
PCB097	ND	0.0019	1.00	
PCB099	ND	0.0019	1.00	
PCB101	ND	0.0019	1.00	
PCB105	ND	0.0019	1.00	
PCB110	ND	0.0019	1.00	
PCB114	ND	0.0019	1.00	
PCB118	ND	0.0019	1.00	
PCB119	ND	0.0019	1.00	
PCB123	ND	0.0019	1.00	
PCB126	ND	0.0019	1.00	
PCB128	ND	0.0019	1.00	
PCB132/153	ND	0.0038	1.00	
PCB137	ND	0.0019	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	ND	0.0038	1.00	
PCB141	ND	0.0019	1.00	
PCB149	ND	0.0019	1.00	
PCB151	ND	0.0019	1.00	
PCB156	ND	0.0019	1.00	
PCB157	ND	0.0019	1.00	
PCB167	ND	0.0019	1.00	
PCB168	ND	0.0019	1.00	
PCB169	ND	0.0019	1.00	
PCB170	ND	0.0019	1.00	
PCB174	ND	0.0019	1.00	
PCB177	ND	0.0019	1.00	
PCB180	ND	0.0019	1.00	
PCB183	ND	0.0019	1.00	
PCB184	ND	0.0019	1.00	
PCB187	ND	0.0019	1.00	
PCB189	ND	0.0019	1.00	
PCB194	ND	0.0019	1.00	
PCB195	ND	0.0019	1.00	
PCB200	ND	0.0019	1.00	
PCB201	ND	0.0019	1.00	
PCB203	ND	0.0019	1.00	
PCB206	ND	0.0019	1.00	
PCB209	ND	0.0019	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	103	50-150	
p-Terphenyl-d14	100	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-414-58**	**N/A**	**Aqueous**	**GC/MS HHH**	**02/03/16**	**02/04/16 17:07**	**160203L13**

Parameter	Result	RL	DF	Qualifiers
PCB003	ND	0.0020	1.00	
PCB005/008	ND	0.0040	1.00	
PCB015	ND	0.0020	1.00	
PCB018	ND	0.0020	1.00	
PCB027	ND	0.0020	1.00	
PCB028	ND	0.0020	1.00	
PCB029	ND	0.0020	1.00	
PCB031	ND	0.0020	1.00	
PCB033	ND	0.0020	1.00	
PCB037	ND	0.0020	1.00	
PCB044	ND	0.0020	1.00	
PCB049	ND	0.0020	1.00	
PCB052	ND	0.0020	1.00	
PCB056	ND	0.0020	1.00	
PCB060	ND	0.0020	1.00	
PCB066	ND	0.0020	1.00	
PCB070	ND	0.0020	1.00	
PCB074	ND	0.0020	1.00	
PCB077	ND	0.0020	1.00	
PCB081	ND	0.0020	1.00	
PCB087	ND	0.0020	1.00	
PCB095	ND	0.0020	1.00	
PCB097	ND	0.0020	1.00	
PCB099	ND	0.0020	1.00	
PCB101	ND	0.0020	1.00	
PCB105	ND	0.0020	1.00	
PCB110	ND	0.0020	1.00	
PCB114	ND	0.0020	1.00	
PCB118	ND	0.0020	1.00	
PCB119	ND	0.0020	1.00	
PCB123	ND	0.0020	1.00	
PCB126	ND	0.0020	1.00	
PCB128	ND	0.0020	1.00	
PCB132/153	ND	0.0040	1.00	
PCB137	ND	0.0020	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: POLA Berths 195-200A & 210-211

Parameter	Result	RL	DF	Qualifiers
PCB138/158	ND	0.0040	1.00	
PCB141	ND	0.0020	1.00	
PCB149	ND	0.0020	1.00	
PCB151	ND	0.0020	1.00	
PCB156	ND	0.0020	1.00	
PCB157	ND	0.0020	1.00	
PCB167	ND	0.0020	1.00	
PCB168	ND	0.0020	1.00	
PCB169	ND	0.0020	1.00	
PCB170	ND	0.0020	1.00	
PCB174	ND	0.0020	1.00	
PCB177	ND	0.0020	1.00	
PCB180	ND	0.0020	1.00	
PCB183	ND	0.0020	1.00	
PCB184	ND	0.0020	1.00	
PCB187	ND	0.0020	1.00	
PCB189	ND	0.0020	1.00	
PCB194	ND	0.0020	1.00	
PCB195	ND	0.0020	1.00	
PCB200	ND	0.0020	1.00	
PCB201	ND	0.0020	1.00	
PCB203	ND	0.0020	1.00	
PCB206	ND	0.0020	1.00	
PCB209	ND	0.0020	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	89	50-150	
p-Terphenyl-d14	89	50-150	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: Organotins by Krone et al.
Units: ng/L

Project: POLA Berths 195-200A & 210-211

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B195-200A (DRET)	**16-01-1743-1-D**	**01/28/16 15:35**	**Aqueous**	**GC/MS Y**	**02/02/16**	**02/03/16 11:57**	**160202L01**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	ND	2.9	1.00	
Monobutyltin	ND	2.9	1.00	
Tetrabutyltin	ND	2.9	1.00	
Tributyltin	4.6	2.9	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	119	19-121	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B210-211 (DRET)	**16-01-1743-2-C**	**01/28/16 15:50**	**Aqueous**	**GC/MS Y**	**02/02/16**	**02/03/16 12:27**	**160202L01**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	13	2.9	1.00	
Monobutyltin	ND	2.9	1.00	
Tetrabutyltin	ND	2.9	1.00	
Tributyltin	28	2.9	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	116	19-121	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-035-369**	**N/A**	**Aqueous**	**GC/MS Y**	**02/02/16**	**02/03/16 11:10**	**160202L01**

Parameter	Result	RL	DF	Qualifiers
Dibutyltin	ND	3.0	1.00	
Monobutyltin	ND	3.0	1.00	
Tetrabutyltin	ND	3.0	1.00	
Tributyltin	ND	3.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	105	19-121	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3020A Total
Method: EPA 6020

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1978-12	**Sample**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 13:09**	**160202SA1**
16-01-1978-12	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 12:45**	**160202SA1**
16-01-1978-12	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 12:48**	**160202SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	ND	100.0	98.23	98	98.95	99	73-127	1	0-11	
Cadmium	ND	100.0	94.62	95	96.97	97	84-114	2	0-8	
Chromium	ND	100.0	108.5	108	113.7	114	73-133	5	0-11	
Copper	ND	100.0	99.91	100	103.2	103	72-108	3	0-10	
Lead	ND	100.0	113.3	113	115.4	115	79-121	2	0-10	
Nickel	2.202	100.0	104.4	102	108.8	107	68-122	4	0-10	
Selenium	ND	100.0	85.20	85	87.00	87	59-125	2	0-12	
Silver	ND	50.00	49.46	99	51.48	103	68-128	4	0-14	
Zinc	45.24	100.0	106.4	61	99.41	54	43-145	7	0-39	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

AMEC Foster Wheeler, Plc.	Date Received:	01/28/16
9210 Sky Park Court, Suite 200	Work Order:	16-01-1743
San Diego, CA 92123-4302	Preparation:	EPA 7470A Total
	Method:	EPA 7470A
Project: POLA Berths 195-200A & 210-211		Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-01-1897-1	**Sample**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:41**	**160203SA2**
16-01-1897-1	**Matrix Spike**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:43**	**160203SA2**
16-01-1897-1	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:45**	**160203SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	10.00	9.358	94	9.457	95	75-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

AMEC Foster Wheeler, Plc.		Date Received:	01/28/16
9210 Sky Park Court, Suite 200		Work Order:	16-01-1743
San Diego, CA 92123-4302		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: POLA Berths 195-200A & 210-211			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-01-1978-12	**Sample**	**Aqueous**	**ICP/MS 03**	**02/02/16 00:00**	**02/04/16 13:09**	**160202SA1**
16-01-1978-12	**PDS**	**Aqueous**	**ICP/MS 03**	**02/02/16 00:00**	**02/04/16 12:51**	**160202SA1**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Arsenic	ND	100.0	93.44	93	75-125	
Cadmium	ND	100.0	92.52	93	75-125	
Chromium	ND	100.0	105.7	106	75-125	
Copper	ND	100.0	97.79	98	75-125	
Lead	ND	100.0	110.0	110	75-125	
Nickel	2.202	100.0	100.6	98	75-125	
Selenium	ND	100.0	89.63	90	75-125	
Silver	ND	50.00	41.02	82	75-125	
Zinc	45.24	100.0	115.5	70	75-125	5

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3020A Total
Method: EPA 6020

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-5078	**LCS**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 12:40**	**160202LA1**
096-06-003-5078	**LCSD**	**Aqueous**	**ICP/MS 03**	**02/02/16**	**02/04/16 12:43**	**160202LA1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	100.0	99.51	100	99.57	100	80-120	0	0-20	
Cadmium	100.0	101.8	102	102.3	102	80-120	1	0-20	
Chromium	100.0	100.6	101	102.2	102	80-120	2	0-20	
Copper	100.0	102.5	102	102.9	103	80-120	0	0-20	
Lead	100.0	103.2	103	102.6	103	80-120	1	0-20	
Nickel	100.0	101.4	101	102.5	103	80-120	1	0-20	
Selenium	100.0	108.6	109	110.3	110	80-120	1	0-20	
Silver	50.00	42.23	84	42.72	85	80-120	1	0-20	
Zinc	100.0	100.8	101	100.5	101	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 7470A Total
Method: EPA 7470A
Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-7742	**LCS**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:36**	**160203LA2**
099-04-008-7742	**LCSD**	**Aqueous**	**Mercury 04**	**02/03/16**	**02/03/16 20:39**	**160203LA2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	10.00	9.411	94	9.757	98	80-120	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8081A

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-193	**LCS**	**Aqueous**	**GC 44**	**02/02/16**	**02/03/16 14:37**	**160202L10**
099-14-435-193	**LCSD**	**Aqueous**	**GC 44**	**02/02/16**	**02/03/16 14:51**	**160202L10**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	0.2500	0.1344	54	0.1330	53	50-150	33-167	1	0-25	
Alpha Chlordane	0.2500	0.1482	59	0.1486	59	50-150	33-167	0	0-25	
Alpha-BHC	0.2500	0.1361	54	0.1336	53	50-150	33-167	2	0-25	
Beta-BHC	0.2500	0.1527	61	0.1517	61	50-150	33-167	1	0-25	
4,4'-DDD	0.2500	0.1553	62	0.1541	62	50-150	33-167	1	0-25	
4,4'-DDE	0.2500	0.1541	62	0.1514	61	50-150	33-167	2	0-25	
4,4'-DDT	0.2500	0.1558	62	0.1555	62	50-150	33-167	0	0-25	
Delta-BHC	0.2500	0.1488	60	0.1480	59	50-150	33-167	1	0-25	
Dieldrin	0.2500	0.1590	64	0.1590	64	50-150	33-167	0	0-25	
Endosulfan I	0.2500	0.1636	65	0.1643	66	50-150	33-167	0	0-25	
Endosulfan II	0.2500	0.1978	79	0.1978	79	50-150	33-167	0	0-25	
Endosulfan Sulfate	0.2500	0.1531	61	0.1530	61	50-150	33-167	0	0-25	
Endrin	0.2500	0.1672	67	0.1663	67	50-150	33-167	1	0-25	
Endrin Aldehyde	0.2500	0.1532	61	0.1515	61	50-150	33-167	1	0-25	
Endrin Ketone	0.2500	0.1562	62	0.1562	62	50-150	33-167	0	0-25	
Gamma Chlordane	0.2500	0.1460	58	0.1453	58	50-150	33-167	1	0-25	
Gamma-BHC	0.2500	0.1346	54	0.1338	54	50-150	33-167	1	0-25	
Heptachlor	0.2500	0.1416	57	0.1407	56	50-150	33-167	1	0-25	
Heptachlor Epoxide	0.2500	0.1350	54	0.1342	54	50-150	33-167	1	0-25	
Methoxychlor	0.2500	0.1608	64	0.1610	64	50-150	33-167	0	0-25	

Total number of LCS compounds: 20
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PAHs

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-280-115	**LCS**	**Aqueous**	**GC/MS EEE**	**02/02/16**	**02/03/16 17:53**	**160202L12A**
099-14-280-115	**LCSD**	**Aqueous**	**GC/MS EEE**	**02/02/16**	**02/03/16 18:13**	**160202L12A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Naphthalene	2.000	1.617	81	1.621	81	21-133	2-152	0	0-25	
2-Methylnaphthalene	2.000	1.681	84	1.700	85	21-140	1-160	1	0-25	
1-Methylnaphthalene	2.000	1.472	74	1.486	74	20-140	0-160	1	0-25	
Acenaphthylene	2.000	1.656	83	1.591	80	33-145	14-164	4	0-25	
Acenaphthene	2.000	1.673	84	1.631	82	55-121	44-132	3	0-25	
Fluorene	2.000	1.710	85	1.678	84	59-121	49-131	2	0-25	
Phenanthrene	2.000	1.751	88	1.698	85	54-120	43-131	3	0-25	
Anthracene	2.000	1.654	83	1.592	80	27-133	9-151	4	0-25	
Fluoranthene	2.000	1.780	89	1.732	87	26-137	8-156	3	0-25	
Pyrene	2.000	1.590	80	1.548	77	45-129	31-143	3	0-25	
Benzo (a) Anthracene	2.000	1.683	84	1.656	83	33-143	15-161	2	0-25	
Chrysene	2.000	1.638	82	1.612	81	17-168	0-193	2	0-25	
Benzo (k) Fluoranthene	2.000	1.584	79	1.596	80	24-159	2-182	1	0-25	
Benzo (b) Fluoranthene	2.000	1.709	85	1.664	83	24-159	2-182	3	0-25	
Benzo (a) Pyrene	2.000	1.731	87	1.671	84	17-163	0-187	4	0-25	
Indeno (1,2,3-c,d) Pyrene	2.000	1.767	88	1.777	89	25-175	0-200	1	0-25	
Dibenz (a,h) Anthracene	2.000	1.879	94	1.861	93	25-175	0-200	1	0-25	
Benzo (g,h,i) Perylene	2.000	1.739	87	1.741	87	25-157	3-179	0	0-25	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners

Project: POLA Berths 195-200A & 210-211

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-414-58	**LCS**	**Aqueous**	**GC/MS HHH**	**02/03/16**	**02/04/16 17:30**	**160203L13**
099-16-414-58	**LCSD**	**Aqueous**	**GC/MS HHH**	**02/03/16**	**02/04/16 17:53**	**160203L13**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	0.5000	0.4344	87	0.4516	90	50-150	33-167	4	0-25	
PCB028	0.5000	0.4641	93	0.4788	96	50-150	33-167	3	0-25	
PCB044	0.5000	0.4467	89	0.4661	93	50-150	33-167	4	0-25	
PCB052	0.5000	0.4294	86	0.4414	88	50-150	33-167	3	0-25	
PCB066	0.5000	0.5161	103	0.5357	107	50-150	33-167	4	0-25	
PCB077	0.5000	0.4718	94	0.4879	98	50-150	33-167	3	0-25	
PCB101	0.5000	0.4232	85	0.4344	87	50-150	33-167	3	0-25	
PCB105	0.5000	0.4841	97	0.4978	100	50-150	33-167	3	0-25	
PCB118	0.5000	0.4982	100	0.5173	103	50-150	33-167	4	0-25	
PCB126	0.5000	0.4681	94	0.4815	96	50-150	33-167	3	0-25	
PCB128	0.5000	0.4443	89	0.4600	92	50-150	33-167	3	0-25	
PCB170	0.5000	0.4758	95	0.4958	99	50-150	33-167	4	0-25	
PCB180	0.5000	0.4787	96	0.4990	100	50-150	33-167	4	0-25	
PCB187	0.5000	0.4554	91	0.4706	94	50-150	33-167	3	0-25	
PCB195	0.5000	0.4910	98	0.5105	102	50-150	33-167	4	0-25	
PCB206	0.5000	0.4808	96	0.5060	101	50-150	33-167	5	0-25	
PCB209	0.5000	0.4397	88	0.4638	93	50-150	33-167	5	0-25	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

AMEC Foster Wheeler, Plc.
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Project: POLA Berths 195-200A & 210-211

Date Received: 01/28/16
Work Order: 16-01-1743
Preparation: EPA 3510C
Method: Organotins by Krone et al.

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-035-369	**LCS**	**Aqueous**	**GC/MS Y**	**02/02/16**	**02/03/16 11:26**	**160202L01**
099-07-035-369	**LCSD**	**Aqueous**	**GC/MS Y**	**02/02/16**	**02/03/16 11:41**	**160202L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	200.0	203.2	102	228.2	114	35-131	12	0-20	
Tributyltin	200.0	183.0	92	206.9	103	50-120	12	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 16-01-1743 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-01-1743**

DATE: 01/28/16

PAGE: 1 OF 1

LABORATORY CLIENT: Amec Foster Wheeler

ADDRESS: 9210 Sky Park Ct. Ste 200

CITY: San Diego STATE: CA ZIP: 92123

TEL: 858-300-4326 E-MAIL: kimbrie.gobbi@amecfw.com

CLIENT PROJECT NAME / NUMBER: POLA Berths 195-200A & 210-211

P.O. NO.:

PROJECT CONTACT: Kimbrie Gobbi

SAMPLER(S): (PRINT) Annis Pabbas

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

DRET generated samples

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals (EPA 6020/6010B)	PAHs (8270C SIM/ GC/TQ)	Pesticides (8081A)	PCB Congeners (8270C SIM PCB	Organotins
1	B195-200A (DRET)	1/28/2016	15:35	W	6	4	2		X	X	X	X	X
2	B210-211 (DRET)	1/28/2016	15:50	W	6	4	2		X	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 01/28/16	Time: 16:30
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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WORK ORDER NUMBER: 16-01- 1743

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: AMEC

DATE: 01 / 28 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.9 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 950

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 950

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1050

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☑ 250PB**n** (2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☑ 1AGB (4) ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: 1050

s = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH Reviewed by: 300

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