WESTON SOLUTIONS, INC.
2433 Impala Drive
Carlsbad, CA 92010
(760) 931-8081 / (760) 931-1580 FAX
www.westonsolutions.com

October 12, 2006

Dear Wendy;

Please find enclosed the results for 4 samples. These samples were analyzed for grain size, and specific gravity for your job POLB Pier E received on September 22, 2006. These samples were processed according to procedures described by Plumb, 1981 and ASTM 2710F. All analyses were performed consistent with our laboratory's quality assurance program, and all samples met the quality control criteria specified in the above methods and/or our internal SOPs.

We will dispose of the samples in 30 days unless you specify otherwise. Please let me know if you have any questions.

Sincerely,

Sheila Holt
Benthic Laboratory Manager

ACCREDITED IN ACCORDANCE WITH
nelac
NELAP Accredited #01128-A
At Carlsbad, CA Facility

GRAIN SIZE ANALYSIS

Contract Number/Name: POLB Pier E
Contact person: Wendy Rose
Date of analysis: 25Sep06
Date of report: 12Oct06
Analysis method: Sieve/pipette (Plumb, 1981)
Sample Identification: B060922.03
Client Sample Name: 1 TOP COMP
Total sample weight: 24.293 grams

-------- Size ------ Microns	Phi	Weight grams	Percent	Cumulative Percent
2000.000	-1.0	0.367	1.511	1.511
1414.214	-0.5	0.058	0.239	1.749
1000.000	0.0	0.036	0.148	1.898
707.107	0.5	0.047	0.193	2.091
500.000	1.0	0.038	0.156	2.248
353.553	1.5	0.068	0.280	2.528
250.000	2.0	0.164	0.675	3.203
176.777	2.5	0.262	1.079	4.281
125.000	3.0	0.469	1.931	6.212
88.388	3.5	0.720	2.964	9.176
62.500	4.0	1.140	4.693	13.868
31.250	5.0	3.586	14.760	28.629
15.625	6.0	4.044	16.648	45.277
7.812	7.0	3.836	15.790	61.067
3.906	8.0	2.585	10.641	71.708
1.953	9.0	1.835	7.552	79.260
< 1.953	> 9.0	5.038	20.740	100.000

% < 4 phi = 86.132
% > 1 phi = 2.091
% gravel = 1.511
% sand = 12.358
% silt = 57.840
% clay = 28.292

Sample Statistics

Median phi	Median microns	Mean phi	Mean microns	Dispersion	Skewness
6.299	12.70	6.791	9.03	2.647	0.186

5th percentile = 2.686
16th percentile = 4.144
50th percentile = 6.299
84th percentile = 9.438
95th percentile = .
*** 84th percentile extrapolated ***
*** 95th percentile not reached ***

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GRAIN SIZE ANALYSIS

Contract Number/Name: POLB Pier E
Contact person: Wendy Rose
Date of analysis: 25Sep06
Date of report: 12Oct06
Analysis method: Sieve/pipette (Plumb, 1981)
Sample Identification: B060922.04
Client Sample Name: 1 BOTTOM COMP
Total sample weight: 27.826 grams

-------- Size ------ Microns	Phi	Weight grams	Percent	Cumulative Percent
2000.000	-1.0	0.078	0.280	0.280
1414.214	-0.5	0.047	0.169	0.449
1000.000	0.0	0.023	0.083	0.532
707.107	0.5	0.030	0.108	0.640
500.000	1.0	0.032	0.115	0.755
353.553	1.5	0.301	1.082	1.836
250.000	2.0	0.535	1.923	3.759
176.777	2.5	1.679	6.034	9.793
125.000	3.0	3.010	10.817	20.610
88.388	3.5	3.393	12.194	32.804
62.500	4.0	4.070	14.627	47.431
31.250	5.0	6.046	21.727	69.157
15.625	6.0	2.960	10.639	79.796
7.812	7.0	1.793	6.443	86.239
3.906	8.0	0.917	3.296	89.535
1.953	9.0	0.542	1.948	91.483
< 1.953	> 9.0	2.370	8.517	100.000

% < 4 phi = 52.569
% > 1 phi = 0.640
% gravel = 0.280
% sand = 47.150
% silt = 42.105
% clay = 10.465

Sample Statistics

Median phi	Median microns	Mean phi	Mean microns	Dispersion	Skewness
4.118	57.58	4.720	37.95	1.933	0.311

5th percentile = 2.103
16th percentile = 2.787
50th percentile = 4.118
84th percentile = 6.653
95th percentile = .
*** 95th percentile not reached ***

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GRAIN SIZE ANALYSIS

Contract Number/Name: POLB Pier E
Contact person: Wendy Rose
Date of analysis: 25Sep06
Date of report: 12Oct06
Analysis method: Sieve/pipette (Plumb, 1981)
Sample Identification: B060922.05
Client Sample Name: 2 TOP COMP
Total sample weight: 26.893 grams

-------- Size ------ Microns	Phi	Weight grams	Percent	Cumulative Percent
2000.000	-1.0	1.765	6.563	6.563
1414.214	-0.5	0.312	1.160	7.723
1000.000	0.0	0.292	1.086	8.809
707.107	0.5	0.254	0.944	9.754
500.000	1.0	0.278	1.034	10.787
353.553	1.5	0.591	2.198	12.985
250.000	2.0	0.395	1.469	14.454
176.777	2.5	0.664	2.469	16.923
125.000	3.0	1.080	4.016	20.939
88.388	3.5	1.995	7.418	28.357
62.500	4.0	2.971	11.048	39.405
31.250	5.0	3.919	14.574	53.978
15.625	6.0	2.585	9.612	63.591
7.812	7.0	2.460	9.147	72.738
3.906	8.0	1.918	7.132	79.870
1.953	9.0	1.251	4.651	84.521
< 1.953	> 9.0	4.163	15.479	100.000

% < 4 phi = 60.595
% > 1 phi = 9.754
% gravel = 6.563
% sand = 32.842
% silt = 40.465
% clay = 20.130

Sample Statistics

Median phi	Median microns	Mean phi	Mean microns	Dispersion	Skewness
4.727	37.76	5.601	20.61	3.287	0.266

5th percentile = .
16th percentile = 2.313
50th percentile = 4.727
84th percentile = 8.888
95th percentile = .
*** 5th percentile not obtainable ***
*** 95th percentile not reached ***

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GRAIN SIZE ANALYSIS

Contract Number/Name: POLB Pier E
Contact person: Wendy Rose
Date of analysis: 25Sep06
Date of report: 12Oct06
Analysis method: Sieve/pipette (Plumb, 1981)
Sample Identification: B060922.06
Client Sample Name: 2 BOTTOM COMP
Total sample weight: 30.926 grams

-------- Size ------		Weight		Cumulative
Microns	Phi	grams	Percent	Percent
2000.000	-1.0	0.001	0.003	0.003
1414.214	-0.5	0.008	0.026	0.029
1000.000	0.0	0.020	0.065	0.094
707.107	0.5	0.051	0.165	0.259
500.000	1.0	0.257	0.831	1.090
353.553	1.5	1.363	4.407	5.497
250.000	2.0	3.170	10.250	15.747
176.777	2.5	2.978	9.630	25.377
125.000	3.0	4.063	13.138	38.515
88.388	3.5	4.324	13.982	52.497
62.500	4.0	4.399	14.224	66.721
31.250	5.0	5.087	16.448	83.169
15.625	6.0	1.751	5.662	88.832
7.812	7.0	1.084	3.505	92.337
3.906	8.0	0.542	1.753	94.089
1.953	9.0	0.375	1.213	95.303
< 1.953	> 9.0	1.453	4.697	100.000

% < 4 phi = 33.279
% > 1 phi = 0.259
% gravel = 0.003
% sand = 66.718
% silt = 27.368
% clay = 5.911

Sample Statistics

Median		Mean		Dispersion	Skewness
phi	microns	phi	microns		
3.411	94.03	3.580	83.62	1.567	0.108

5th percentile = 1.444
16th percentile = 2.013
50th percentile = 3.411
84th percentile = 5.147
95th percentile = 8.750

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Analytical Report

Contract Name: POLB Pier E
Contact person: Wendy Rose

Date of analysis: 12Oct06
Date of report: 22Sep06

SPECIFIC GRAVITY
Analysis method: ASTM 2710F

Sample I.D.	Client I.D.	Result	Duplicate	RPD %
B060922.03	1 TOP COMP	1.54		
B060922.04	1 BOTTOM COMP	1.76		
B060922.05	2 TOP COMP	1.70		
B060922.06	2 BOTTOM COMP	1.82	1.85	1.36

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WESTON SOLUTIONS

☒ 2433 Impala Drive • Carlsbad, CA 92008 • (760) 931-8081, FAX 931-1580
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☐ 1440 Broadway, Ste. 908 • Oakland, CA 94612 • (510) 808-0302, FAX 891-9710
☐ 152 Sunset View Lane • Sequim, WA 98382 • (360) 582-1758, FAX 582-1679
☐ 4729 NE View Drive • Port Gamble, WA 98364 • (360) 297-6903, FAX 297-6905

CHAIN OF CUSTODY
13472

DATE_____ PAGE_____ OF_____

PROJECT NAME / SURVEY / PROJECT NUMBER: POLB Pier E

PROJECT MANAGER: Wendy Rose / David Moore

COMPANY: Weston Solutions

ADDRESS: (see above)

PHONE/FAX:

SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS	NUMBER & TYPE OF CONTAINERS	Grain Size	Specific Gravity				PRESERVED HOW/ COMMENTS	SAMPLE TEMP. UPON RECEIPT	WESTON LAB ID
1 Top Comp	9/21/06	1415	sed	KS	1 plastic	X	X						
1 Bottom Comp	9/21/06	1505 ~~1600~~	↓	↓	↓	X	X						
2 Top Comp	9/19/06	1600	↓	↓	↓	X	X						
2 Bottom Comp	9/21/06	1335 ~~1325~~	↓	↓	↓	X	X						

ANALYSIS/TEST REQUESTED

FOR WESTON USE ONLY

SPECIAL INSTRUCTIONS/COMMENTS: ① 1E 9/22/06 KS

SHIPPING:

Shipping VIA: Airbill No:

SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Kasey Skrivseth	[illegible]				
Signature	Signature	Signature	Signature	Signature	Signature
Weston Solutions	Weston				
Firm	Firm	Firm	Firm	Firm	Firm
9/22/06 1340	9/22/06 1340				
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WHITE – return to originator • YELLOW – lab • PINK – retained by originator