RESULTS FOR SAMPLING AND ANALYSIS OF SEDIMENTS COLLECTED ADJACENT TO THE SDG&E SOUTH BAY POWER PLANT

Prepared for:

Port of San Diego
Unified Port District
3165 Pacific Highway
San Diego, California 92101

Prepared by:

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October 1998

Background

MEC Analytical Systems Inc. (MEC) provided sampling and analytical services in support of a due diligence investigation on behalf of the Port of San Diego (the Port). Sediment samples were collected and analyzed to evaluate potential contamination of the aquatic environment adjacent to SDG&E's South Bay Power Plant. Because of short time constraints the Port has requested that MEC provide two sampling designs representing differing levels of effort and spatial resolution of potential contamination. Option one represents the smallest level of effort of the two options presented. Field sampling design was intended to provide a moderate level of spatial coverage for potentially contaminated aquatic sites adjacent to the South Bay facility with archival of additional samples for a subsequent, more detailed assessment if required.

A total of 22 push cores (2" diameter) were collected to depths of 3' below mud line from 15 sites indicated in figure 1. Sites were selected to represent two distinct areas: the mudflat just north of the intake channel jetty and adjacent to the former wastewater impoundment and leaking fuel tank and the discharge channel. Twelve of these sites (A-1 thru A-8, and B-1 thru B-3) were cored twice at each location. The first core was homogenized over the entire core length and a sub-sample of this homogenized sediment was analyzed for priority pollutants under a quick turn analytical schedule. The second core collected at each of these locations was divided into upper and lower strata (at about 1.5' below mudline) these strata were homogenized separately and archived for future analysis should greater spatial resolution be required. Two additional push cores (A-10 and A-12) were collected from sites located slightly further offshore in the the mudflat area (figure 1) these samples were divided into upper and lower strata as described previously and archived for future analysis.

Results and Discussion

Core locations (latitude and longitude, WGS84), core penetration depths, and sample retrieval depths are given in table 1. At a limited number of locations (B-2, B-3, A-5, A-10) a target retrieval depth of 3 feet could not be achieved. At sites B-1 and B-3 refusal was encountered at 1.5 - 2.0 feet below the mudline due to hard pack sand. At sites A-5 and A-10 penetration depths were 3-4 feet but retrieval was less, likely due to compaction of soft clay.

Results of chemical analysis are summarized in table 2. To evaluate chemistry data measured sediment chemistry concentrations were compared with published screening level values. These values include the Threshold Effect Level (TEL) and Probable Effect Level (PEL) of MacDonald et al. (1996) and the Effects Range Low (ER-L) and Effects Range Median (ER-M) of Long et al. (1995) (see Appendix C). Both sets of screening values are derived via correlative analysis of data sets which contain matching chemical and biological data. A more detailed description of the data sets used to develop these screening values can be found in MacDonald et al. (1996) and Long et al. (1995). MacDonald et al.'s TEL values were derived by calculating the geometric mean of the

15th percentile of concentrations resulting in effects and the 50th percentile of sediment concentrations for which no effects were reported. The TEL was intended to provide a screening level estimate of the sediment concentration for a specific contaminant below which effects rarely occur. PELs were derived by calculating the geometric mean of the 50th percentile of the effects data and the 85 percentile of the no effects data and was intended to provide a screening level estimate of the sediment concentration for a specific contaminant above which effects frequently occurred. Long et al.'s ER-L values were derived by calculating the 10 percentile of concentrations resulting in effects and was intended to provide a level below which effects were unlikely (i.e. <10% of the time). Similarly the ER-M value was derived as the 50th percentile of effects data and was intended to provide screening estimate of the sediment concentration above which effects were more likely to occur (i.e., about 50% of the time).

Metals were detected at all sample locations which underwent chemical analysis. However, metal concentrations were less than published screening level values (TELs [MacDonald et al., 1996]; ER-Ls [Long et al., 1995]). The only exceptions were cadmium which was slightly higher than the TEL (0.68 mg/Kg) at sites A-2 (0.7 mg/Kg), A-5 (0.7 mg/Kg), A-7 (0.9 mg/Kg) and silver was slightly above the ER-L (1.0 mg/Kg) at site B-2 (1.1 mg/Kg). All values were well below PELs (MacDonald et al., 1996) and ER-Ms (Long et al., 1995). For the few metals with concentrations slightly higher than the TEL/ER-L the measured concentrations were all within ± 20% of the TEL/ER-L value (i.e., the normal range of analytical error). Concentrations of measured organic contaminants at all sites were well below published screening values and for contaminants with no published screening value were within a factor of three of the detection limit.

Summary

Measured concentrations for all sites analyzed were low (close to detection limits and/or below published screening values). Consequently, contaminants measured in sediments from selected sites adjacent to the SDG&E South Bay power plant pose no significant risk.

References

Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder. 1995. "Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments." Environmental Management 19:81-97.

MacDonald, D.G., R.S. Carr, F.D. Calder, E.R. Long, C.G. Ingersoll. 1996. "Development and evaluation of sediment quality guidelines for Florida coastal waters." *Ecotoxicology*, 5:253-278.

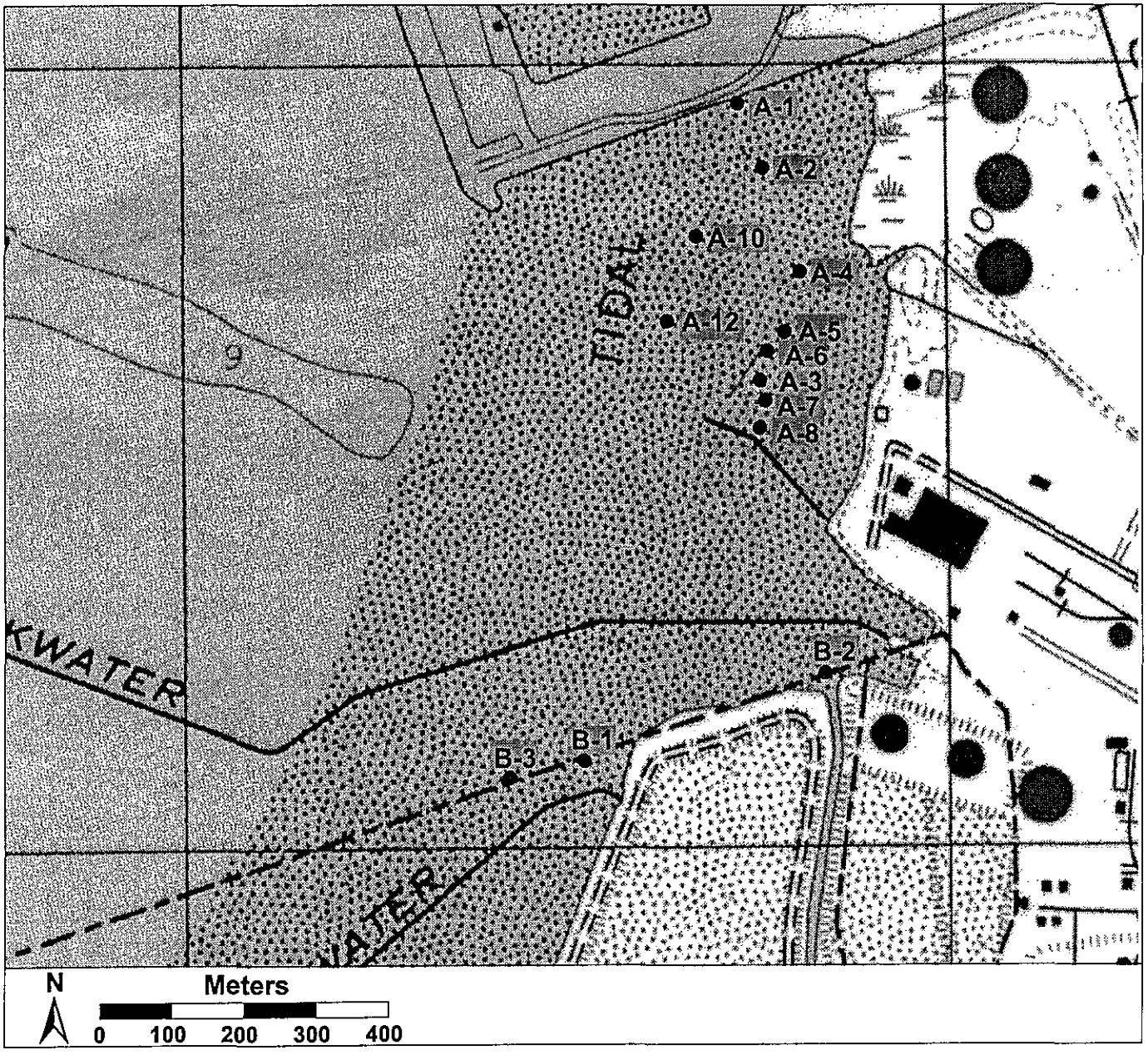

Figure 1. Sample Locations - SDG&E South Bay Power Plant.

Table 1: Sampling locations for Port of San Diego-South Bay Project.

Station I.D.	Latitude (WGS 84)	Longitude (WGS 84)	Penetration Depth* (feet)	Retrieval Depth* (feet)
A-1	32° 37.1816	117° 05.9773	4.0	2.25
A-1-O	32° 37.1816	117° 05.9773	3.5	3.25
A-2	32° 37.1382	117° 05.9613	4.0	2.75
A-2-O	32° 37.1382	117° 05.9613	4.0	3.0
A-3	32° 36.9927	117° 05.9626	4.0	3.75
A-3-O	32° 36.9927	117° 05.9626	3.75	2.75
A-4	32° 37.0696	117° 05.9290	3.0	2.25
A-4-O	32° 37.0696	117° 05.9290	3.25	3.0
A-5	32° 37.0253	117° 05.9431	3.0	1.5
A-5-O	32° 37.0253	117° 05.9431	3.0	2.25
A-6	32° 37.0082	117° 05.9517	3.25	2.75
A-6-O	32° 37.0082	117° 05.9517	3.25	2.75
A-7	32° 36.9919	117° 05.9589	3.75	3.0
A-7-O	32° 36.9919	117° 05.9589	3.75	2.75
A-8	32° 36.9708	117° 05.9603	3.0	3.0
A-8-0	32° 36.9708	117° 05.9603	3.0	3.0
A-10-O	32° 37.0905	117° 06.0174	3.0	2.0
A-12-O	32° 37.0356	117° 06.0393	4.0	2.5
B-1	32° 36.7261	117° 06.1079	3.75	3.0
B-1-O	32° 36.7261	117° 06.1079	3.5	2.75
B-2	32° 36.7907	117° 05.9075	1.75	1.5
B-2-O	32° 36.7907	117° 05.9075	2.0	1.75
B-3	32° 36.7157	117° 06.1709	3.0	2.0
B-3-O	32° 36.7157	117° 06.1709	3.0	2.0

*Relative to mudline

Table 2. Summary of sediment-associated contaminants above method detection limits.

Site	Chemical/Analyte	Concentration	TEL	ER-L	Ratio of Measured Concentration: Detection Limit
A-1	Arsenic	5.2 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	26
	Cadmium	0.5 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	2.5
	Chromium	25.7 mg/Kg	52.3 mg/Kg	81 mg/Kg	126
	Copper	15.7 mg/Kg	18.7 mg/Kg	34 mg/Kg	78.5
	Lead	13.0 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	65
	Nickel	8.9 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	44.5
	Zinc	48.6 mg/Kg	124 mg/Kg	150 mg/Kg	243
	Selenium	0.4 mg/Kg	N.A.	N.A.	2
	Pyrene	23 ug/Kg	153ug/Kg	665 ug/Kg	1.3
	Benzo(a)pyrene	19 ug/Kg	88.8ug/Kg	430 ug/Kg	1.05
A-2	Arsenic	3.5 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	35
	Cadmium	**0.7 mg/Kg**	**0.68 mg/Kg**	**1.2 mg/Kg**	**7**
	Chromium	20.3 mg/Kg	52.3 mg/Kg	81 mg/Kg	203
	Copper	11.6 mg/Kg	18.7 mg/Kg	34 mg/Kg	116
	Lead	8.7 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	87
	Nickel	5.8 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	58
	Zinc	33.9 mg/Kg	124 mg/Kg	150 mg/Kg	339
	Selenium	0.2 mg/Kg	N.A.	N.A.	2
	Arochlor-1260	22 ug/Kg	N.A.	N.A.	1.47
A-3	Arsenic	2.3 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	23
	Cadmium	0.2 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	2
	Chromium	9.4 mg/Kg	52.3 mg/Kg	81 mg/Kg	94
	Copper	7.4 mg/Kg	18.7 mg/Kg	34 mg/Kg	74
	Lead	7.7 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	77
	Nickel	4.0 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	40
	Zinc	20.3 mg/Kg	124 mg/Kg	150 mg/Kg	203
	Selenium	0.2 mg/Kg	N.A.	N.A.	2
A-4	Arsenic	1.9 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	19
	Cadmium	0.3 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	3
	Chromium	9.0 mg/Kg	52.3 mg/Kg	81 mg/Kg	90
	Copper	6.8 mg/Kg	18.7 mg/Kg	34 mg/Kg	68
	Lead	12.8 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	128
	Nickel	3.7 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	37
	Zinc	22.4 mg/Kg	124 mg/Kg	150 mg/Kg	224
	Selenium	0.2 mg/Kg	N.A.	N.A.	2
	Arochlor-1260	18 ug/Kg	N.A.	N.A.	1.3
A-5	Arsenic	2.4 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	24
	Cadmium	**0.7 mg/Kg**	**0.68 mg/Kg**	**1.2 mg/Kg**	**7**
	Chromium	15.7 mg/Kg	52.3 mg/Kg	81 mg/Kg	157
	Copper	9.6 mg/Kg	18.7 mg/Kg	34 mg/Kg	96
	Lead	12.3 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	123
	Nickel	5.9 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	59
	Zinc	33.2 mg/Kg	124 mg/Kg	150 mg/Kg	332
	Selenium	0.2 mg/Kg	N.A.	N.A.	2
	Pyrene	19 ug/Kg	153 ug/Kg	665 ug/Kg	1.4
	Benzo(a)pyrene	20 ug/Kg	88.8 ug/Kg	430 ug/Kg	1.4
	Arochlor-1260	18 ug/Kg	N.A.	N.A.	1.3

Site	Chemical/Analyte	Concentration	TEL	ER-L	Ratio of Measured Concentration: Detection Limit
A-6	Arsenic	2.1 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	21
	Cadmium	0.4 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	4
	Chromium	12.4 mg/Kg	52.3 mg/Kg	81 mg/Kg	90
	Copper	7.1 mg/Kg	18.7 mg/Kg	34 mg/Kg	71
	Lead	14.2 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	142
	Nickel	4.8 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	48
	Zinc	26.4 mg/Kg	124 mg/Kg	150 mg/Kg	264
	Selenium	0.2 mg/Kg	N.A.	N.A.	2
	Pyrene	20 ug/Kg	153 ug/Kg	665 ug/Kg	1.4
	Benzo(k)fluoranthene	22 ug/Kg	N.A.	N.A.	1.6
A-7	Arsenic	2.1 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	21
	Cadmium	**0.9 mg/Kg**	**0.68 mg/Kg**	**1.2 mg/Kg**	**9**
	Chromium	19.4 mg/Kg	52.3 mg/Kg	81 mg/Kg	194
	Copper	10.0 mg/Kg	18.7 mg/Kg	34 mg/Kg	100
	Lead	15.9 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	159
	Nickel	6.4 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	64
	Zinc	32.1 mg/Kg	124 mg/Kg	150 mg/Kg	321
	Selenium	0.2 mg/Kg	N.A.	N.A.	2
	Pyrene	16 ug/Kg	153 ug/Kg	665 ug/Kg	1.1
	Benzo(a)pyrene	14 ug/Kg	88.8 ug/Kg	430 ug/Kg	1
	Arochlor-1260	25 ug/Kg	N.A.	N.A.	1.8
A-8	Arsenic	4.2 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	21
	Cadmium	0.5 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	2.5
	Chromium	23.6 mg/Kg	52.3 mg/Kg	81 mg/Kg	118
	Copper	16.9 mg/Kg	18.7 mg/Kg	34 mg/Kg	84.5
	Lead	21.0 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	105
	Nickel	8.9 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	44.5
	Zinc	54.2 mg/Kg	124 mg/Kg	150 mg/Kg	271
	Selenium	0.3 mg/Kg	N.A.	N.A.	1.5
	Fluoranthene	24 ug/Kg	113 ug/Kg	N.A.	1.5
	Pyrene	39 ug/Kg	153 ug/Kg	665 ug/Kg	2.4
	Benzo(a)anthracene	21 ug/Kg	74.8 ug/Kg	261 ug/Kg	1.3
	Chrysene	23 ug/Kg	108 ug/Kg	384 ug/Kg	1.4
	Benzo(b)fluoranthene	34 ug/Kg	N.A.	N.A.	2.1
	Benzo(k)fluoranthene	21 ug/Kg	N.A.	N.A.	1.3
	Benzo(a)pyrene	34 ug/Kg	88.8 ug/Kg	430 ug/Kg	2.1
	Indeno(1,2,3-cd)pyrene	28 ug/Kg	N.A.	N.A.	1.8
	Benzo(g,h,i)perylene	33 ug/Kg	N.A.	N.A.	2.1
	Arochlor-1260	62 ug/Kg	N.A.	N.A.	3.9
B-1	Arsenic	1.8 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	18
	Cadmium	0.2 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	2
	Chromium	10.1 mg/Kg	52.3 mg/Kg	81 mg/Kg	101
	Copper	8.5 mg/Kg	18.7 mg/Kg	34 mg/Kg	85
	Lead	5.3 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	53
	Nickel	3.8 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	38
	Zinc	23.7 mg/Kg	124 mg/Kg	150 mg/Kg	237
	Selenium	0.2 mg/Kg	N.A.	N.A.	2

Site	Chemical/Analyte	Concentration	TEL	ER-L	Ratio of Measured Concentration: Detection Limit
B-2	Arsenic	1.3 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	13
	Cadmium	0.2 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	2
	Chromium	5.2 mg/Kg	52.3 mg/Kg	81 mg/Kg	52
	Copper	9.9 mg/Kg	18.7 mg/Kg	34 mg/Kg	99
	Lead	6.3 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	63
	Nickel	2.6 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	26
	Zinc	29.0 mg/Kg	124 mg/Kg	150 mg/Kg	290
	Silver	**1.2 mg/Kg**	**0.73 mg/Kg**	**1 mg/Kg**	**12**
	Pyrene	21 ug/Kg	153 ug/Kg	665 ug/Kg	1.5
B-3	Arsenic	3.6 mg/Kg	7.24 mg/Kg	8.2 mg/Kg	36
	Cadmium	0.2 mg/Kg	0.68 mg/Kg	1.2 mg/Kg	2
	Chromium	13.6 mg/Kg	52.3 mg/Kg	81 mg/Kg	136
	Copper	16.4 mg/Kg	18.7 mg/Kg	34 mg/Kg	164
	Lead	7.8 mg/Kg	30.2 mg/Kg	46.7 mg/Kg	78
	Nickel	5.4 mg/Kg	15.9 mg/Kg	20.9 mg/Kg	54
	Zinc	42.9 mg/Kg	124 mg/Kg	150 mg/Kg	429
	Selenium	0.3 mg/Kg	N.A.	N.A.	3

APPENDIX A

Aerial Photograph of SDG&E South Bay Facility

APPENDIX B

Sediment Chemistry

Pacific Treatment
Analytical Services, Inc.

4340 Viewridge Avenue, Suite A • San Diego, CA 92123
(619) 560-7717 • Fax (619) 560-7763
Analytical Chemistry Laboratory

October 16, 1998

MEC Analytical Systems, Inc.
Attn.: David Moore
2433 Impala Drive
Carlsbad, California 92009

Project Name/No.: POSD-Southbay
Laboratory Log No.: 2002-98
Date Received: 10/09/98
Sample Matrix: Eleven sediment samples
PO No.: POSD-Southbay

Please find the following enclosures for the above referenced project identified:

1) Analytical Report
2) QA/QC Report
3) Chain of Custody Form

.....***Certificate of Analysis***.....

Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Date of extraction, date of analysis, detection limits and dilution factor are reported for each compound analyzed. All samples were analyzed within the method required holding time from sample collection.

Data for each analytical method was evaluated by assessing the following QA/QC functions, as applicable to the methodology:

- Quality Control Standard
- Surrogate Percent Recovery
- Laboratory Control Sample (LCS) percent recoveries for all analyses
- Matrix Spike Recovery/Matrix Spike Duplicate Recovery (MSR & MSDR) and/or
- Relative Percent Difference (RPD from MSR & MSDR).

I certify that this data report is in compliance both technically and for completeness. Release of the data contained in this hardcopy data report has been authorized by the following signature.

Janis Columbo
Vice President/Laboratory Director

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE RECEIVED:	10/09/98
ANALYSIS METHOD:	SMEWW 2540 G	DATE ANALYZED:	10/12/98
ANALYSIS:	PERCENT SOLIDS	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	REPORTING LIMITS %	DF	RESULTS %
B-2	2002-98-1	0.1	1	73.6
B-2 (DUP.)	2002-98-1 (DUP.)	0.1	1	72.3
B-1	2002-98-2	0.1	1	70.0
B-3	2002-98-3	0.1	1	67.4
A-8	2002-98-4	0.1	1	61.5
A-4	2002-98-5	0.1	1	71.7
A-5	2002-98-6	0.1	1	70.0
A-6	2002-98-7	0.1	1	69.1
A-7	2002-98-8	0.1	1	69.3
A-3	2002-98-9	0.1	1	70.7
A-2	2002-98-10	0.1	1	66.9
A-1	2002-98-11	0.1	1	57.0

DF = DILUTION FACTOR

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	CADMIUM	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	0.1	0.1	0.2
B-1	2002-98-2	0.1	0.1	0.1	0.2
B-3	2002-98-3	0.1	0.2	0.1	0.2
A-8	2002-98-4	0.1	0.3	0.2	0.5
A-4	2002-98-5	0.1	0.2	0.1	0.3
A-5	2002-98-6	0.1	0.5	0.1	0.7
A-6	2002-98-7	0.1	0.3	0.1	0.4
A-7	2002-98-8	0.1	0.6	0.1	0.9
A-3	2002-98-9	0.1	0.1	0.1	0.2
A-2	2002-98-10	0.1	0.5	0.1	0.7
A-1	2002-98-11	0.1	0.3	0.2	0.5
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	0.3	0.2	0.5

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	CHROMIUM	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	3.8	0.1	5.2
B-1	2002-98-2	0.1	7.1	0.1	10.1
B-3	2002-98-3	0.1	9.2	0.1	13.6
A-8	2002-98-4	0.1	14.5	0.2	23.6
A-4	2002-98-5	0.1	6.4	0.1	9.0
A-5	2002-98-6	0.1	11.0	0.1	15.7
A-6	2002-98-7	0.1	8.6	0.1	12.4
A-7	2002-98-8	0.1	13.4	0.1	19.4
A-3	2002-98-9	0.1	6.6	0.1	9.4
A-2	2002-98-10	0.1	13.6	0.1	20.3
A-1	2002-98-11	0.1	14.6	0.2	25.7
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	14.4	0.2	25.2

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	COPPER	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	7.2	0.1	9.9
B-1	2002-98-2	0.1	6.0	0.1	8.5
B-3	2002-98-3	0.1	11.1	0.1	16.4
A-8	2002-98-4	0.1	10.4	0.2	16.9
A-4	2002-98-5	0.1	4.9	0.1	6.8
A-5	2002-98-6	0.1	6.7	0.1	9.6
A-6	2002-98-7	0.1	4.9	0.1	7.1
A-7	2002-98-8	0.1	7.0	0.1	10.0
A-3	2002-98-9	0.1	5.2	0.1	7.4
A-2	2002-98-10	0.1	7.7	0.1	11.6
A-1	2002-98-11	0.1	9.0	0.2	15.7
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	9.5	0.2	16.6

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	LEAD	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	4.6	0.1	6.3
B-1	2002-98-2	0.1	3.7	0.1	5.3
B-3	2002-98-3	0.1	5.3	0.1	7.8
A-8	2002-98-4	0.1	12.9	0.2	21.0
A-4	2002-98-5	0.1	9.2	0.1	12.8
A-5	2002-98-6	0.1	8.6	0.1	12.3
A-6	2002-98-7	0.1	9.8	0.1	14.2
A-7	2002-98-8	0.1	11.1	0.1	15.9
A-3	2002-98-9	0.1	5.5	0.1	7.7
A-2	2002-98-10	0.1	5.8	0.1	8.7
A-1	2002-98-11	0.1	7.4	0.2	13.0
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	7.9	0.2	13.8

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	NICKEL	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	1.9	0.1	2.6
B-1	2002-98-2	0.1	2.7	0.1	3.8
B-3	2002-98-3	0.1	3.6	0.1	5.4
A-8	2002-98-4	0.1	5.5	0.2	8.9
A-4	2002-98-5	0.1	2.6	0.1	3.7
A-5	2002-98-6	0.1	4.1	0.1	5.9
A-6	2002-98-7	0.1	3.3	0.1	4.8
A-7	2002-98-8	0.1	4.4	0.1	6.4
A-3	2002-98-9	0.1	2.8	0.1	4.0
A-2	2002-98-10	0.1	3.9	0.1	5.8
A-1	2002-98-11	0.1	5.1	0.2	8.9
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	5.3	0.2	9.2

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	ZINC	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	21.2	0.1	29.0
B-1	2002-98-2	0.1	16.6	0.1	23.7
B-3	2002-98-3	0.1	28.9	0.1	42.9
A-8	2002-98-4	0.1	33.3	0.2	54.2
A-4	2002-98-5	0.1	16.1	0.1	22.4
A-5	2002-98-6	0.1	23.3	0.1	33.2
A-6	2002-98-7	0.1	18.3	0.1	26.4
A-7	2002-98-8	0.1	22.3	0.1	32.1
A-3	2002-98-9	0.1	14.7	0.1	20.8
A-2	2002-98-10	0.1	22.7	0.1	33.9
A-1	2002-98-11	0.1	27.7	0.2	48.6
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	28.2	0.2	49.5

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	ARSENIC	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	0.9	0.1	1.3
B-1	2002-98-2	0.1	1.3	0.1	1.8
B-3	2002-98-3	0.1	2.4	0.1	3.6
A-8	2002-98-4	0.1	2.6	0.2	4.2
A-4	2002-98-5	0.1	1.4	0.1	1.9
A-5	2002-98-6	0.1	1.7	0.1	2.4
A-6	2002-98-7	0.1	1.5	0.1	2.1
A-7	2002-98-8	0.1	1.6	0.1	2.3
A-3	2002-98-9	0.1	1.6	0.1	2.3
A-2	2002-98-10	0.1	2.4	0.1	3.5
A-1	2002-98-11	0.1	3.0	0.2	5.2
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	3.1	0.2	5.4

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	SELENIUM	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	< 0.1	0.1	< 0.1
B-1	2002-98-2	0.1	0.1	0.1	0.2
B-3	2002-98-3	0.1	0.2	0.1	0.3
A-8	2002-98-4	0.1	0.2	0.2	0.3
A-4	2002-98-5	0.1	0.1	0.1	0.2
A-5	2002-98-6	0.1	0.2	0.1	0.2
A-6	2002-98-7	0.1	0.1	0.1	0.2
A-7	2002-98-8	0.1	0.1	0.1	0.2
A-3	2002-98-9	0.1	0.2	0.1	0.2
A-2	2002-98-10	0.1	0.2	0.1	0.2
A-1	2002-98-11	0.1	0.2	0.2	0.4
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	0.3	0.2	0.5

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/12/98
ANALYSIS METHOD:	EPA 3050/6020 M	DATE ANALYZED:	10/14/98
ANALYSIS:	SILVER	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.1	0.9	0.1	1.2
B-1	2002-98-2	0.1	< 0.1	0.1	< 0.1
B-3	2002-98-3	0.1	< 0.1	0.1	< 0.1
A-8	2002-98-4	0.1	< 0.1	0.2	< 0.2
A-4	2002-98-5	0.1	< 0.1	0.1	< 0.1
A-5	2002-98-6	0.1	< 0.1	0.1	< 0.1
A-6	2002-98-7	0.1	< 0.1	0.1	< 0.1
A-7	2002-98-8	0.1	< 0.1	0.1	< 0.1
A-3	2002-98-9	0.1	< 0.1	0.1	< 0.1
A-2	2002-98-10	0.1	< 0.1	0.1	< 0.1
A-1	2002-98-11	0.1	< 0.1	0.2	< 0.2
A-1 (DUP.)	2002-98-11 (DUP.)	0.1	< 0.1	0.2	< 0.2

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTHBAY	DATE DIGESTED:	10/13/98
ANALYSIS METHOD:	EPA 7471	DATE ANALYZED:	10/13/98
ANALYSIS:	MERCURY	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	WET WEIGHT		DRY WEIGHT	
		RL PPM (MG/KG)	RESULTS PPM (MG/KG)	RL PPM (MG/KG)	RESULTS PPM (MG/KG)
B-2	2002-98-1	0.02	< 0.02	0.03	< 0.03
B-1	2002-98-2	0.02	< 0.02	0.03	< 0.03
B-3	2002-98-3	0.02	< 0.02	0.03	< 0.03
A-8	2002-98-4	0.02	< 0.02	0.03	< 0.03
A-4	2002-98-5	0.02	< 0.02	0.03	< 0.03
A-5	2002-98-6	0.02	< 0.02	0.03	< 0.03
A-6	2002-98-7	0.02	< 0.02	0.03	< 0.03
A-7	2002-98-8	0.02	< 0.02	0.03	< 0.03
A-3	2002-98-9	0.02	< 0.02	0.03	< 0.03
A-2	2002-98-10	0.02	< 0.02	0.03	< 0.03
A-1	2002-98-11	0.02	< 0.02	0.04	< 0.04
A-1 (DUP.)	2002-98-11 (DUP.)	0.02	< 0.02	0.04	< 0.04

RL = REPORTING LIMIT

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: N/A
	DATE RECEIVED: N/A
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: METHOD BLANK	DATE ANALYZED: 10/12/98
SAMPLE ID: N/A	MATRIX: SOLID
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	10	< 10
ACENAPHTHYLENE	10	< 10	10	< 10
ACENAPHTHENE	10	< 10	10	< 10
FLUORENE	10	< 10	10	< 10
PHENANTHRENE	10	< 10	10	< 10
ANTHRACENE	10	< 10	10	< 10
FLUORANTHENE	10	< 10	10	< 10
PYRENE	10	< 10	10	< 10
BENZO(A)ANTHRACENE	10	< 10	10	< 10
CHRYSENE	10	< 10	10	< 10
BENZO(B)FLUORANTHENE	10	< 10	10	< 10
BENZO(K)FLUORANTHENE	10	< 10	10	< 10
BENZO(A)PYRENE	10	< 10	10	< 10
DIBENZO(A,H)ANTHRACENE	10	< 10	10	< 10
INDENO(1,2,3-CD)PYRENE	10	< 10	10	< 10
BENZO(GHI)PERYLENE	10	< 10	10	< 10
TOTAL PAH'S	10	< 10	10	< 10

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	96
2-FLUOROBIPHENYL	30-115	96
4-TERPHENYL-d14	18-137	124

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-1		DATE ANALYZED:	10/12/98
SAMPLE ID: B-2		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	**10**	**15**	**14**	**21**
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	10	< 10	14	< 14
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	**10**	**15**	**14**	**21**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	85
2-FLUOROBIPHENYL	30-115	92
4-TERPHENYL-d14	18-137	142 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: 10/09/98
	DATE RECEIVED: 10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: 2002-98-2	DATE ANALYZED: 10/12/98
SAMPLE ID: B-1	MATRIX: SEDIMENT
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	10	< 10	14	< 14
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	10	< 10	14	< 14
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	10	< 10	14	< 14

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	86
2-FLUOROBIPHENYL	30-115	92
4-TERPHENYL-d14	18-137	131

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-3		DATE ANALYZED:	10/12/98
SAMPLE ID: B-3		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	15	< 15
ACENAPHTHYLENE	10	< 10	15	< 15
ACENAPHTHENE	10	< 10	15	< 15
FLUORENE	10	< 10	15	< 15
PHENANTHRENE	10	< 10	15	< 15
ANTHRACENE	10	< 10	15	< 15
FLUORANTHENE	10	< 10	15	< 15
PYRENE	10	< 10	15	< 15
BENZO(A)ANTHRACENE	10	< 10	15	< 15
CHRYSENE	10	< 10	15	< 15
BENZO(B)FLUORANTHENE	10	< 10	15	< 15
BENZO(K)FLUORANTHENE	10	< 10	15	< 15
BENZO(A)PYRENE	10	< 10	15	< 15
DIBENZO(A,H)ANTHRACENE	10	< 10	15	< 15
INDENO(1,2,3-CD)PYRENE	10	< 10	15	< 15
BENZO(GHI)PERYLENE	10	< 10	15	< 15
TOTAL PAH'S	10	< 10	15	< 15

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	74
2-FLUOROBIPHENYL	30-115	81
4-TERPHENYL-d14	18-137	135

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-4		DATE ANALYZED:	10/12/98
SAMPLE ID: A-8		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	16	< 16
ACENAPHTHYLENE	10	< 10	16	< 16
ACENAPHTHENE	10	< 10	16	< 16
FLUORENE	10	< 10	16	< 16
PHENANTHRENE	10	< 10	16	< 16
ANTHRACENE	10	< 10	16	< 16
FLUORANTHENE	**10**	**15**	**16**	**24**
PYRENE	**10**	**24**	**16**	**39**
BENZO(A)ANTHRACENE	**10**	**13**	**16**	**21**
CHRYSENE	**10**	**14**	**16**	**23**
BENZO(B)FLUORANTHENE	**10**	**21**	**16**	**34**
BENZO(K)FLUORANTHENE	**10**	**13**	**16**	**21**
BENZO(A)PYRENE	**10**	**21**	**16**	**34**
DIBENZO(A,H)ANTHRACENE	10	< 10	16	< 16
INDENO(1,2,3-CD)PYRENE	**10**	**17**	**16**	**28**
BENZO(GHI)PERYLENE	**10**	**20**	**16**	**33**
TOTAL PAH'S	**10**	**158**	**16**	**257**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	77
2-FLUOROBIPHENYL	30-115	92
4-TERPHENYL-d14	18-137	134

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-5		DATE ANALYZED:	10/12/98
SAMPLE ID: A-4		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	10	< 10	14	< 14
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	10	< 10	14	< 14
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	10	< 10	14	< 14

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	86
2-FLUOROBIPHENYL	30-115	92
4-TERPHENYL-d14	18-137	138 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-6		DATE ANALYZED:	10/12/98
SAMPLE ID: A-5		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	**10**	**13**	**14**	**19**
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	**10**	**14**	**14**	**20**
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	**10**	**27**	**14**	**39**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	85
2-FLUOROBIPHENYL	30-115	91
4-TERPHENYL-d14	18-137	141 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-6 (DUPLICATE)		DATE ANALYZED:	10/12/98
SAMPLE ID: A-5 (DUPLICATE)		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	**10**	**16**	**14**	**23**
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	**10**	**11**	**14**	**16**
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	**10**	**12**	**14**	**17**
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	**10**	**11**	**14**	**16**
BENZO(GHI)PERYLENE	**10**	**10**	**14**	**14**
TOTAL PAH'S	**10**	**60**	**14**	**86**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	79
2-FLUOROBIPHENYL	30-115	88
4-TERPHENYL-d14	18-137	141 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-7		DATE ANALYZED:	10/12/98
SAMPLE ID: A-6		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	**10**	**14**	**14**	**20**
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	**10**	**15**	**14**	**22**
BENZO(A)PYRENE	10	< 10	14	< 14
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	**10**	**29**	**14**	**42**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	90
2-FLUOROBIPHENYL	30-115	94
4-TERPHENYL-d14	18-137	138 *

* NOTE: POOR SURROGATE RECOVERY ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-8		DATE ANALYZED:	10/12/98
SAMPLE ID: A-7		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	**10**	**11**	**14**	**16**
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	**10**	**10**	**14**	**14**
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	**10**	**21**	**14**	**30**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	83
2-FLUOROBIPHENYL	30-115	92
4-TERPHENYL-d14	18-137	128

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-9		DATE ANALYZED:	10/12/98
SAMPLE ID: A-3		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	14	< 14
ACENAPHTHYLENE	10	< 10	14	< 14
ACENAPHTHENE	10	< 10	14	< 14
FLUORENE	10	< 10	14	< 14
PHENANTHRENE	10	< 10	14	< 14
ANTHRACENE	10	< 10	14	< 14
FLUORANTHENE	10	< 10	14	< 14
PYRENE	10	< 10	14	< 14
BENZO(A)ANTHRACENE	10	< 10	14	< 14
CHRYSENE	10	< 10	14	< 14
BENZO(B)FLUORANTHENE	10	< 10	14	< 14
BENZO(K)FLUORANTHENE	10	< 10	14	< 14
BENZO(A)PYRENE	10	< 10	14	< 14
DIBENZO(A,H)ANTHRACENE	10	< 10	14	< 14
INDENO(1,2,3-CD)PYRENE	10	< 10	14	< 14
BENZO(GHI)PERYLENE	10	< 10	14	< 14
TOTAL PAH'S	10	< 10	14	< 14

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	87
2-FLUOROBIPHENYL	30-115	90
4-TERPHENYL-d14	18-137	127

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-10		DATE ANALYZED:	10/12/98
SAMPLE ID: A-2		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	15	< 15
ACENAPHTHYLENE	10	< 10	15	< 15
ACENAPHTHENE	10	< 10	15	< 15
FLUORENE	10	< 10	15	< 15
PHENANTHRENE	10	< 10	15	< 15
ANTHRACENE	10	< 10	15	< 15
FLUORANTHENE	10	< 10	15	< 15
PYRENE	10	< 10	15	< 15
BENZO(A)ANTHRACENE	10	< 10	15	< 15
CHRYSENE	10	< 10	15	< 15
BENZO(B)FLUORANTHENE	10	< 10	15	< 15
BENZO(K)FLUORANTHENE	10	< 10	15	< 15
BENZO(A)PYRENE	10	< 10	15	< 15
DIBENZO(A,H)ANTHRACENE	10	< 10	15	< 15
INDENO(1,2,3-CD)PYRENE	10	< 10	15	< 15
BENZO(GHI)PERYLENE	10	< 10	15	< 15
TOTAL PAH'S	10	< 10	15	< 15

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	82
2-FLUOROBIPHENYL	30-115	89
4-TERPHENYL-d14	18-137	133

ANALYSIS RESULTS - EPA 8270
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-11		DATE ANALYZED:	10/12/98
SAMPLE ID: A-1		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
NAPHTHALENE	10	< 10	18	< 18
ACENAPHTHYLENE	10	< 10	18	< 18
ACENAPHTHENE	10	< 10	18	< 18
FLUORENE	10	< 10	18	< 18
PHENANTHRENE	10	< 10	18	< 18
ANTHRACENE	10	< 10	18	< 18
FLUORANTHENE	10	< 10	18	< 18
PYRENE	**10**	**13**	**18**	**23**
BENZO(A)ANTHRACENE	10	< 10	18	< 18
CHRYSENE	10	< 10	18	< 18
BENZO(B)FLUORANTHENE	10	< 10	18	< 18
BENZO(K)FLUORANTHENE	10	< 10	18	< 18
BENZO(A)PYRENE	**10**	**11**	**18**	**19**
DIBENZO(A,H)ANTHRACENE	10	< 10	18	< 18
INDENO(1,2,3-CD)PYRENE	10	< 10	18	< 18
BENZO(GHI)PERYLENE	10	< 10	18	< 18
TOTAL PAH'S	**10**	**24**	**18**	**42**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
NITROBENZENE-d5	23-120	79
2-FLUOROBIPHENYL	30-115	82
4-TERPHENYL-d14	18-137	128

APPENDIX C

Published Sediment Chemistry Screening Values

Sediment quality screening values.

Chemical	TEL	PEL	ER-L	ER-M
Metals (mg/kg)				
Arsenic	7.24	41.6	8.2	70
Cadmium	0.68	4.21	1.2	9.6
Chromium	52.3	160	81	370
Copper	18.7	108	34	270
Lead	30.2	112	46.7	218
Mercury	0.13	0.7	0.15	0.71
Nickel	15.9	42.8	20.9	51.6
Silver	0.73	1.77	1	3.7
Zinc	124	271	150	410
Polychlorinated biphenyls (ug/kg)				
Total PCBs	21.6	189	22.7	180
Pesticides (ug/kg)				
Chlordane	2.26	4.79	0.5	6
Dieldrin	0.72	4.3	0.02	8
p,p-DDD	1.22	7.81	2	20
p,p-DDE	2.07	374	2.2	27
p,p-DDT	1.19	4.77	1	7
Total DDT	3.89	51.7	1.58	46.1
Lindane	0.32	0.99	N.A.	N.A.
Phthalates (ug/kg)				
Bis(2-ethylhexyl)phthalate	182	2647	N.A.	N.A.
Low Molecular Weight Polycyclic Aromatic Hydrocarbons (ug/kg)				
Acenapthene	6.71	88.9	16	500
Acenapthylene	5.87	128	44	640
Anthracene	46.9	245	85.3	1100
Fluorene	21.2	144	19	540
Napthalene	34.6	391	160	2100
2-Methylnapthalene	20.2	201	70	670
Phenanthrene	86.7	544	240	1500
Total LMW PAHs	312	1442	552	3160
High Molecular Weight Polycyclic Aromatic Hydrocarbons (ug/kg)				
Benzo(a)anthracene	74.8	693	261	1600
Benzo(a)pyrene	88.8	763	430	1600
Chrysene	108	846	384	2800
Dibenzo(a,h)anthracene	6.22	135	63.4	260
Fluoranthene	113	1494	600	5100
Pyrene	153	1398	665	2600
Total HMW PAHs	655	6676	1700	9600
Total PAHs	1684	16770	4022	44792

TELs & PELs are from "MacDonald, D.G., R.S. Carr, F.D. Calder, E.R. Long, C.G. Ingersoll. 1996. Development and evaluation of sediment quality guidelines for Florida coastal waters. *Ecotoxicology*, 5:253-278."

ER-Ls & ER-Ms are from "Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder. 1995. Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments. *Environmental Management* 19:81-97.

APPENDIX D

Core Logs

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	DWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
A-1	WGS 84	32 37.1816	117 05.9773

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	3:00	→			

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Same as previous	Same as previous	Same as previous		
2	2					
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
A-1-0	WGS 84	32 37.1816	117 05.9773

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	2:50		1.4	3.8'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1					
2	2					
3	3	Clay/Silt	None	green/gray		
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

A-1-0-T ≈ 0-1.5'

A-1-0-B ≈ 1.5-3.0'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southern	10-9	Moore	DWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
A-2	WGS 84	32° 37.1382	117° 05.9613

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	2:20		1.5'	5.2	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1					
2	2	same as previous	same as previous	same as previous		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSN - Southbay	10-9-98	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
A-2-0	WGS 84	32° 37.1382	117 05.9613

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	2:20		1.5'	5.2	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Silty clay		gray		
2	2	~~[illegible]~~	None	5gy		
3	3	Sand coarse clay				
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

A-2-0-T = 0 - 1.5'

A-2-0-B = 1.5 - 3.0'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD- Southbay	10-9-98	Moore	PWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
A-3	WGS 84	32° 36.9927	117° 05.9626

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	1:50		1.2'	6.0'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1					
2	2	Same as previous	Same as previous	Same as previous		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSA - Southbay	10-9-98	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
A-3-0	WGS 84	32° 36.9927	117° 05.9626

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	1:45		1.2'	6.0'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	sandy/silt sand				
2	2	silty/clay	none	green/gray		
3	3	sand clay				
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

A-3-0-T = 0-1.5'

A-3-0-B = 1.5-3.0'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD Southbay	10-9-98	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
A-4	WGS 84	32 37.0696	117° 05.9290

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	12:20		2'	6.5'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Same as previous	None	Same as previous		
2	2					
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	DWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
A-4-0	WGS 84	32° 37.0696	117° 05.9290

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	12:04		2'	6.5'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Detrital 3" clay Sand		Brown Gray		
2	2	clay ~~Sandy clay~~ Sand	none	green/gray black		
3	~~3~~	clay ~~clay~~ Sand		green gray gray		
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

Top 0 – 1.5'

Bottom 1.5 - 3.0'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	DWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
A-3	WGS 84	32° 36.9703	117° 05.9603

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	11:15		2.9	6	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1					
2	2	Clay	None	Green gray		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD- Southbay	10-9-98	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
A-8-0	WGS 84	32° 36.9708	117° 05.9603

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	11:00		2.9	6'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1		None			
2	2	Clay	~~green gray~~	Green Gray		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

A-8-0-T = 0-1.5'

A-8-0-B = 1.5-3'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Sandbay	12-9	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
A-10-0	WGS 84	32°.37.0905	117°.06.0174

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	3:25		8'	3.8	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Clay	None	gray		
2	2			brn		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

A-10-0-T = 0-1

A-10-0-B = 1-2

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Sandbay	10-9-98	Moore	DWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
A-12-0	WGS 84	32 37.0356	117 05.0393

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	3:40		8"	3.8'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Clay				
2	2		None	green gray		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

A-12-0 + T = 0-1.2'

A-12-0-B = 1.2'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	DWM

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
B1	WGS 84	32° 36.7261	117° 06.1079

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	9:20				

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Sand		gray		
2	2		sulfur			
3	3	clay		green		
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9	Moore	DWH

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
B1-0	WGS 84	32° 36.7261	117° 06.1079

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	9:10		0.5'	3.75'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	organic/brown silty sand		black Dark gray		
2	2	clay		green/ gray		
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

Top - 0-1.2'

Bottom - 1.2-2.9'

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSQ - Southbay	10-98	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
B2	WGS 84	32 36.7907	117° 05.7025

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	9:00		4.5'	2.6	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	silty sand	Organic			
2	2	sand				
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	PWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
B2-0	WGS 84	32° 36.7907	117° 05.9075

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	8:20		4.8'	2.6	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Silty Sand	Organic	Black / Gray		
2	2	Sand Shell				
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

T - 0-8"

B - 8-1.8"

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-96	Moore	DWM
STATION ID	**NAV DATUM**	**LATITUDE**	**LONGITUDE**
B-3	WGS 84	32° 36.7157	117° 06.1709

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	10:05			5'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Silty Clay	None	Green Gray		
2	2	Clay				
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

MEC ANALYTICAL SYSTEMS, INC.

PUSHCORE CORING LOG

PROJECT/SURVEY	DATE	PROJECT MANAGER	RECORDER
POSD - Southbay	10-9-98	Moore	DWY

STATION ID	NAV DATUM	LATITUDE	LONGITUDE
B-3-D	WGS 84	32°36.7157	117°06.1709

ATTEMPT	TIME STARTED	TIME FINISHED	WATER DEPTH (FT)	TIDE (FT)	MLLW (FT) = WATER DEPTH - TIDE
	9:45		3'	4.5'	

SAP DEPTH (FT)	SAP DEPTH - MLLW	TARGET CORE LENGTH (FT)	FINAL CORE LENGTH (FT)	CORE DIAMETER (IN)
				2.0

START TAPE (FT)	FINISH TAPE (FT)	PENETRATION (FT) = FINISH - START	RECOVERY

PEN. DEP.(FT)	RETRV. DEP.(FT)	SEDIMENT TYPE	ODOR	COLOR (CHROMA/VALUE/HUE)	SAMPLE ID BY DEPTH	MISC
1	1	Silty clay 2" Clay	NO			
2	2	SANDY Clay 4"	NO			
3	3					
4	4					
5	5					
6	6					
7	7					
8	8					
9	9					
10	10					

NOTES

B-3-D-T: 0-1'
B-3-D-B: 1-2'

APPENDIX E

Chain-of-Custody Forms

MEC ANALYTICAL SYSTEMS, INC. 2081-98

(☒ Check One)

☒ 6060 Corte del Cedro • Carlsbad, CA 92009-1514 • (619) 931-9225, FAX 931-9251
☐ 2433 Impala Drive • Carlsbad, CA 92008 • (619) 931-8081, FAX 931-1580
☐ 98 Main Street, Suite #428 • Tiburon, CA 94920 • (415) 435-1847, FAX 435-0479

CHAIN OF CUSTODY

02193

DATE 10-20 PAGE 1 OF 1

PROJECT NAME/SURVEY/PROJECT NUMBER: POSD - South Bay

PROJECT MANAGER: David Moore

COMPANY:

ADDRESS:

PHONE/FAX:

ANALYSIS/TEST REQUESTED: 98 OCT 21 A11:33

5 DAY

SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS	NUMBER & TYPE OF CONTAINERS						PRESERVED HOW/ COMMENTS
A-2-0-T	10/9	2:20	Sed	DWM	1 Jar						
A-4-0-T	"	12:10	"	"	"						
A-5-0-T	"	12:45	"	"	"						
A-7-0-T	"	1:20	"	"	"						
A-8-0-T	"	11:05	"	"	"						

SHIPPING:

Shipping VIA: _____ Airbill No: _____

SPECIAL INSTRUCTIONS/COMMENTS: 5-day turn-around PCB aroclors
RETURN SAMPLE

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Wanda Hamilton	J. Edwards	J. Edwards	John Mofeeli		
Signature	Signature	Signature	Signature	Signature	Signature
MEC	PTAS	PTAS	PTAS		
Firm	Firm	Firm	Firm	Firm	Firm
10-21-98 / 10:45a	10/21/98 10:45	10/21/98	10/21/98 1133		
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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

MEC ANALYTICAL SYSTEMS, INC.

(⊠ Check One)

☑ 6060 Corte del Cedro • Carlsbad, CA 92009-1514 • (619) 931-9225, FAX 931-9251
☐ 2433 Impala Drive • Carlsbad, CA 92008 • (619) 931-8081, FAX 931-1580
☐ 98 Main Street, Suite #428 • Tiburon, CA 94920 • (415) 435-1847, FAX 435-0479

CHAIN OF CUSTODY

02838

DATE 10-9-98 PAGE 1 OF 2

PROJECT NAME/SURVEY/PROJECT NUMBER: POSD- Southbay

PROJECT MANAGER: Moore

COMPANY:

ADDRESS:

PHONE/FAX:

ANALYSIS/TEST REQUESTED

SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS	NUMBER & TYPE OF CONTAINERS						PRESERVED HOW/ COMMENTS
B-2-0-T	10-9	8:20	Sed.	DWM	1 J.						
B-2-0-B	"	"	"	"	"						
B-1-0-T	"	9:10	"	"	"						
B-1-0-B	"	"	"	"	"						
B-3-0-T	"	9:45	"	"	"						
B-3-0-B	"	"	"	"	"						
A-3-0-T	"	11:00	"	"	"						
A-3-0-B	"	11:00	"	"	"						
A-4-0-T	"	12:04	"	"	"						
A-4-0-B	"	"	"	"	"						
A-5-0-T	"	12:45	"	"	"						
A-5-0-B	"	12:45	"	"	"						
A-6-0-T	"	12:50	"	"	"						
A-6-0-B	"	"	"	"	"						
A-7-0-T	"	13:20	"	"	"						

SHIPPING:

Shipping VIA: _____ Airbill No: _____

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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

FIAS-2002-98

MEC ANALYTICAL SYSTEMS, INC.

(☒ Check One)

☐ 6060 Corte del Cedro • Carlsbad, CA 92009-1514 • (619) 931-9225, FAX 931-9261
☑ 2433 Impala Drive • Carlsbad, CA 92008 • (619) 931-8081, FAX 931-1580
☐ 98 Main Street, Suite #428 • Tiburon, CA 94920 • (415) 435-1847, FAX 435-0479

3 DAY

CHAIN C USTODY

02837

DATE 10-9-98 PAGE 1 OF 1

PROJECT NAME/SURVEY/PROJECT NUMBER: POSO-Southbay

PROJECT MANAGER: D. Moore

COMPANY: MEC

ADDRESS:

PHONE/FAX:

ANALYSIS/TEST REQUESTED: 98 OCT 9 P5:52

SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS	NUMBER & TYPE OF CONTAINERS						PRESERVED HOW/ COMMENTS	PTAS #
B-2	10-9	9:00	Sed	DWM	1							2002-1
B-1	10-9	9:20	"	↓	↓							-2
B-3	10-9	10:05	↓	↓	↓							-3
A-8	10-9	11:00	↓	↓	↓							-4
A-4	10-9	12:20	↓	↓	↓							-5
A-5	10-9	12:40	↓	↓	↓							-6
A-6	10-9	1:05	↓	↓	↓							-7
A-7	10-9	1:30	↓	↓	↓							-8
A-3	10-9	1:50	↓	↓	↓							-9
A-2	10-9	2:20	↓	↓	↓							-10
A-1	10-9	3:00	↓	↓	↓							-11

SHIPPING:

Shipping VIA: _____ Airbill No: _____

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
D. M. W.	J Edwards	J Edwards	Roger [illegible]		
Signature: MEC	Signature: PTAS	Signature: PTAS	Signature: PTAS	Signature	Signature
Firm: 10-9-98 5:00 pm	Firm: 10/9/98 5:00 pm	Firm: 10/9/98 5:52	Firm: 10/9/98 5:52	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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

MEC

2433 Impala Dr.
Carlsbad, CA 92008

MFC ANALYTICAL SYSTEMS, INC.

RECEIVED
OCT 19 1998
ENVIRONMENTAL SERVICES

October 16, 1998

Ms. Eileen Maher
Port of San Diego
P.O. Box 488
San Diego, CA 92112

Subject: Report of Sediment Sampling and Evaluation at the South Bay Power Plant

Dear Ms. Maher:

Enclosed for your review is a report of the Sediment Sampling and Chemical Evaluation of Sediments at the South Bay Power Plant in Chula Vista, California.

Please call me with any questions you may have. We appreciate your business.

Sincerely,

David W. Moore
Senior Toxicologist

Enclosure

2433 Impala Dr., Carlsbad, CA 92008
(760) 931-8081 FAX (760) 931-1580

6060 Corte del Cedro, Carlsbad, CA 92009
(760) 931-9225 FAX (760) 931-9251

98 Main St., Suite 428, Tiburon, CA 94920
(415) 435-1847 FAX (415) 435-0479

Pacific Treatment
Analytical Services, Inc.
4340 Viewridge Avenue, Suite A • San Diego, CA 92123
(619) 560-7717 • Fax (619) 560-7763
Analytical Chemistry Laboratory

RECEIVED OCT 30 1998 ENVIRONMENTAL SERVICES

October 28, 1998

MEC Analytical Systems, Inc.
Attn: David Moore
6060 Corte del Cedro
Carlsbad, California 92009

Project Name/No.: POSD-South Bay
Laboratory Log No.: 2081-98
Date Received: 10/21/98
Sample Matrix: Five sediment samples
PO No.: POSD-South Bay

Please find the following enclosures for the above referenced project identified:

1) Analytical Report
2) QA/QC Report
3) Chain of Custody Form

.....***Certificate of Analysis***.....

Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Date of extraction, date of analysis, detection limits and dilution factor are reported for each compound analyzed. All samples were analyzed within the method required holding time from sample collection.

Data for each analytical method was evaluated by assessing the following QA/QC functions, as applicable to the methodology:

- Quality Control Standard
- Surrogate Percent Recovery
- Laboratory Control Sample (LCS) percent recoveries for all analyses,
- Matrix Spike Recovery/Matrix Spike Duplicate Recovery (MSR & MSDR) and/or
- Relative Percent Difference (RPD from MSR & MSDR).

I certify that this data report is in compliance both technically and for completeness. Release of the data contained in this hardcopy data report has been authorized by the following signature.

Janis Columbo
Vice President/Laboratory Director

ANALYSIS RESULTS - EPA 8080, PCBs ONLY
POLYCHLORINATED BIPHENYLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	N/A
		DATE RECEIVED:	N/A
PROJECT NAME/No.: POSD-SOUTH BAY		DATE EXTRACTED:	10/21/98
PTAS LOG #: METHOD BLANK		DATE ANALYZED:	10/21/98
SAMPLE ID: N/A		MATRIX:	SOLID
DILUTION FACTOR:	1	SAMPLE VOL./WT.:	30 GM

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
AROCHLOR-1016	20	< 20	20	< 20
AROCHLOR-1221	20	< 20	20	< 20
AROCHLOR-1232	20	< 20	20	< 20
AROCHLOR-1242	20	< 20	20	< 20
AROCHLOR-1248	20	< 20	20	< 20
AROCHLOR-1254	20	< 20	20	< 20
AROCHLOR-1260	20	< 20	20	< 20

RL = REPORTING LIMITS

ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	79

ANALYSIS RESULTS - EPA 8080, PCBs ONLY
POLYCHLORINATED BIPHENYLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/21/98
PROJECT NAME/No.: POSD-SOUTH BAY		DATE EXTRACTED:	10/21/98
PTAS LOG #: 2081-98-1		DATE ANALYZED:	10/22/98
SAMPLE ID: A-2-0-T		MATRIX:	SEDIMENT
DILUTION FACTOR:	1	SAMPLE VOL./WT.:	30 GM

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
AROCHLOR-1016	20	< 20	32	< 32
AROCHLOR-1221	20	< 20	32	< 32
AROCHLOR-1232	20	< 20	32	< 32
AROCHLOR-1242	20	< 20	32	< 32
AROCHLOR-1248	20	< 20	32	< 32
AROCHLOR-1254	20	< 20	32	< 32
AROCHLOR-1260	20	< 20	32	< 32

RL = REPORTING LIMITS

ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	76

ANALYSIS RESULTS - EPA 8080, PCBs ONLY
POLYCHLORINATED BIPHENYLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/21/98
PROJECT NAME/No.: POSD-SOUTH BAY		DATE EXTRACTED:	10/21/98
PTAS LOG #: 2081-98-2		DATE ANALYZED:	10/22/98
SAMPLE ID: A-4-0-T		MATRIX:	SEDIMENT
DILUTION FACTOR:	1	SAMPLE VOL./WT.:	30 GM

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
AROCHLOR-1016	20	< 20	30	< 30
AROCHLOR-1221	20	< 20	30	< 30
AROCHLOR-1232	20	< 20	30	< 30
AROCHLOR-1242	20	< 20	30	< 30
AROCHLOR-1248	20	< 20	30	< 30
AROCHLOR-1254	20	< 20	30	< 30
AROCHLOR-1260	20	< 20	30	< 30

RL = REPORTING LIMITS

ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	68

ANALYSIS RESULTS - EPA 8080, PCBs ONLY
POLYCHLORINATED BIPHENYLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/21/98
PROJECT NAME/No.: POSD-SOUTH BAY		DATE EXTRACTED:	10/21/98
PTAS LOG #: 2081-98-3		DATE ANALYZED:	10/22/98
SAMPLE ID: A-5-0-T		MATRIX:	SEDIMENT
DILUTION FACTOR:	1	SAMPLE VOL./WT.:	30 GM

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
AROCHLOR-1016	20	< 20	30	< 30
AROCHLOR-1221	20	< 20	30	< 30
AROCHLOR-1232	20	< 20	30	< 30
AROCHLOR-1242	20	< 20	30	< 30
AROCHLOR-1248	20	< 20	30	< 30
AROCHLOR-1254	**20**	**62**	**30**	**94**
AROCHLOR-1260	20	< 20	30	< 30

RL = REPORTING LIMITS

ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	137

ANALYSIS RESULTS - EPA 8080, PCBs ONLY
POLYCHLORINATED BIPHENYLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/21/98
PROJECT NAME/No.: POSD-SOUTH BAY		DATE EXTRACTED:	10/21/98
PTAS LOG #: 2081-98-4		DATE ANALYZED:	10/22/98
SAMPLE ID: A-7-0-T		MATRIX:	SEDIMENT
DILUTION FACTOR:	1	SAMPLE VOL./WT.:	30 GM

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
AROCHLOR-1016	20	< 20	26	< 26
AROCHLOR-1221	20	< 20	26	< 26
AROCHLOR-1232	20	< 20	26	< 26
AROCHLOR-1242	20	< 20	26	< 26
AROCHLOR-1248	20	< 20	26	< 26
AROCHLOR-1254	20	< 20	26	< 26
AROCHLOR-1260	20	< 20	26	< 26

RL = REPORTING LIMITS

ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	85

ANALYSIS RESULTS - EPA 8080, PCBs ONLY
POLYCHLORINATED BIPHENYLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/21/98
PROJECT NAME/No.: POSD-SOUTH BAY		DATE EXTRACTED:	10/21/98
PTAS LOG #: 2081-98-5		DATE ANALYZED:	10/22/98
SAMPLE ID: A-8-0-T		MATRIX:	SEDIMENT
DILUTION FACTOR:	1	SAMPLE VOL./WT.:	30 GM

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
AROCHLOR-1016	20	< 20	33	< 33
AROCHLOR-1221	20	< 20	33	< 33
AROCHLOR-1232	20	< 20	33	< 33
AROCHLOR-1242	20	< 20	33	< 33
AROCHLOR-1248	20	< 20	33	< 33
AROCHLOR-1254	**20**	**49**	**33**	**81**
AROCHLOR-1260	20	< 20	33	< 33

RL = REPORTING LIMITS

ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	121

QA/QC REPORT						
METHOD:	PCB by EPA 8080-SEDIMENT				ACCEPTABLE LCS/LCSD CRITERIA	ACCEPTABLE RPD CRITERIA
DATE ANALYZED:	10/21/98					
QA/QC SAMPLE:	PTAS 2069-98-5					
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
AROCHLOR-1254	99	104	59	55*	29-131	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY
MS % R = MATRIX SPIKE PERCENT RECOVERY
MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY
RPD = RELATIVE PERCENT DIFFERENCE

AROCHLOR ACCEPTABLE CONTROL LIMITS:

AROCHLOR-1016	50-114
AROCHLOR-1221	15-178
AROCHLOR-1232	10-215
AROCHLOR-1242	39-150
AROCHLOR-1248	38-158
AROCHLOR-1254	29-131
AROCHLOR-1260	8-127

* NOTE: POOR RPD ATTRIBUTABLE TO NON-HOMOGENEITY OF SAMPLE SPIKED.

ANALYSIS RESULTS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

		DATE SAMPLED:	10/09/98
PROJECT NAME/No.:	POSD-SOUTH BAY	DATE RECEIVED:	10/21/98
ANALYSIS METHOD:	SMEWW 2540 G	DATE ANALYZED:	10/26/98
ANALYSIS:	PERCENT SOLIDS	MATRIX:	SEDIMENT

SAMPLE ID	PTAS LOG #	REPORTING LIMITS %	DF	RESULTS %
A-2-0-T	2081-98-1	0.1	1	63.7
A-2-0-T (DUP.)	2081-98-1 (DUP.)	0.1	1	60.0
A-4-0-T	2081-98-2	0.1	1	66.3
A-5-0-T	2081-98-3	0.1	1	66.1
A-7-0-T	2081-98-4	0.1	1	78.4
A-8-0-T	2081-98-5	0.1	1	60.7

DF = DILUTION FACTOR

DUP. = DUPLICATE

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

ANALYSIS RESULTS - TPH BY DOHS MODIFIED EPA 8015
TOTAL PETROLEUM HYDROCARBONS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.
PROJECT NAME/No.: POSD-SOUTHBAY

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/12/98
DATE ANALYZED: 10/12-13/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 10 G

PTAS LOG #:	SAMPLE ID:	WET WEIGHT TPH-DIESEL & JP5 RESULTS			DRY WEIGHT TPH-DIESEL & JP5 RESULTS		
		RL	DF	PPM (MG/KG)	RL	DF	PPM (MG/KG)
METHOD BLANK	-------	10	1	< 10	10	1	< 10
2002-98-1	B-2	10	1	< 10	14	1	< 14
2002-98-2	B-1	10	1	< 10	14	1	< 14
2002-98-3	B-3	10	1	< 10	15	1	< 15
2002-98-4	A-8	10	1	< 10	16	1	< 16
2002-98-5	A-4	10	1	< 10	14	1	< 14
2002-98-6	A-5	10	1	< 10	14	1	< 14
2002-98-7	A-6	10	1	< 10	14	1	< 14
2002-98-7 (DUP.)	A-6 (DUP.)	10	1	< 10	14	1	< 14
2002-98-8	A-7	10	1	< 10	14	1	< 14
2002-98-9	A-3	10	1	< 10	14	1	< 14
2002-98-10	A-2	10	1	< 10	15	1	< 15
2002-98-11	A-1	10	1	< 10	17	1	< 17

CARBON RANGES: DIESEL C10-C30
RL = REPORTING LIMITS
DF = DILUTION FACTOR
DUP. = DUPLICATE
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

Pacific Treatment Analytical Services, Inc.

ANALYSIS RESULTS - TPH BY DOHS MODIFIED EPA 8015
TOTAL PETROLEUM HYDROCARBONS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.
PROJECT NAME/No.: POSD-SOUTHBAY

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/12/98
DATE ANALYZED: 10/12-13/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 10 G

PTAS LOG #:	SAMPLE ID:	WET WEIGHT TPH-GASOLINE			DRY WEIGHT TPH-GASOLINE		
		RL	DF	RESULTS PPM (MG/KG)	RL	DF	RESULTS PPM (MG/KG)
METHOD BLANK	--------	10	1	< 10	10	1	< 10
2002-98-1	B-2	10	1	< 10	14	1	< 14
2002-98-2	B-1	10	1	< 10	14	1	< 14
2002-98-3	B-3	10	1	< 10	15	1	< 15
2002-98-4	A-8	10	1	< 10	16	1	< 16
2002-98-5	A-4	10	1	< 10	14	1	< 14
2002-98-6	A-5	10	1	< 10	14	1	< 14
2002-98-7	A-6	10	1	< 10	14	1	< 14
2002-98-7 (DUP.)	A-6 (DUP.)	10	1	< 10	14	1	< 14
2002-98-8	A-7	10	1	< 10	14	1	< 14
2002-98-9	A-3	10	1	< 10	14	1	< 14
2002-98-10	A-2	10	1	< 10	15	1	< 15
2002-98-11	A-1	10	1	< 10	17	1	< 17

CARBON RANGES: GASOLINE C6-C12
RL = REPORTING LIMITS
DF = DILUTION FACTOR
DUP. = DUPLICATE
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

Pacific Treatment Analytical Services, Inc. 4340 Viewridge Ave., Suite A, San Diego, CA 92123

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-11		DATE ANALYZED:	10/14/98
SAMPLE ID: A-1		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	3.5	< 3.5
ALPHA-BHC	2	< 2	3.5	< 3.5
BETA-BHC	2	< 2	3.5	< 3.5
GAMMA-BHC	2	< 2	3.5	< 3.5
DELTA-BHC	2	< 2	3.5	< 3.5
CHLORDANE	20	< 20	35	< 35
4,4-DDD	2	< 2	3.5	< 3.5
4,4-DDE	2	< 2	3.5	< 3.5
4,4-DDT	2	< 2	3.5	< 3.5
DIELDRIN	2	< 2	3.5	< 3.5
ENDOSULFAN I	2	< 2	3.5	< 3.5
ENDOSULFAN II	2	< 2	3.5	< 3.5
ENDOSULFAN SULFATE	2	< 2	3.5	< 3.5
ENDRIN	2	< 2	3.5	< 3.5
ENDRIN ALDEHYDE	2	< 2	3.5	< 3.5
HEPTACHLOR	2	< 2	3.5	< 3.5
HEPTACHLOR EPOXIDE	2	< 2	3.5	< 3.5
METHOXYCHLOR	20	< 20	35	< 35
TOXAPHENE	25	< 25	44	< 44
AROCHLOR-1016	10	< 10	18	< 18
AROCHLOR-1221	10	< 10	18	< 18
AROCHLOR-1232	10	< 10	18	< 18
AROCHLOR-1242	10	< 10	18	< 18
AROCHLOR-1248	10	< 10	18	< 18
AROCHLOR-1254	10	< 10	18	< 18
AROCHLOR-1260	10	< 10	18	< 18

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	93

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-11		DATE ANALYZED:	10/12/98
SAMPLE ID: A-1		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	35	< 35
2-CHLOROPHENOL	25	< 25	44	< 44
2,4-DICHLOROPHENOL	20	< 20	35	< 35
2,4-DIMETHYLPHENOL	80	< 80	140	< 140
2,4-DINITROPHENOL	100	< 100	175	< 175
4,6-DINITRO-2-METHYLPHENOL	50	< 50	88	< 88
2-NITROPHENOL	20	< 20	35	< 35
4-NITROPHENOL	40	< 40	70	< 70
PENTACHLOROPHENOL	40	< 40	70	< 70
PHENOL	30	< 30	53	< 53
2,4,6-TRICHLOROPHENOL	30	< 30	53	< 53

RL = REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	44
PHENOL(d6)	24-113	84
2,4,6-TRIBROMOPHENOL	19-122	25

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-10
SAMPLE ID: A-2
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/14/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT RL PPB (UG/KG)	WET WEIGHT RESULTS PPB (UG/KG)	DRY WEIGHT RL PPB (UG/KG)	DRY WEIGHT RESULTS PPB (UG/KG)
ALDRIN	2	< 2	3.0	< 3.0
ALPHA-BHC	2	< 2	3.0	< 3.0
BETA-BHC	2	< 2	3.0	< 3.0
GAMMA-BHC	2	< 2	3.0	< 3.0
DELTA-BHC	2	< 2	3.0	< 3.0
CHLORDANE	20	< 20	30	< 30
4,4-DDD	2	< 2	3.0	< 3.0
4,4-DDE	2	< 2	3.0	< 3.0
4,4-DDT	2	< 2	3.0	< 3.0
DIELDRIN	2	< 2	3.0	< 3.0
ENDOSULFAN I	2	< 2	3.0	< 3.0
ENDOSULFAN II	2	< 2	3.0	< 3.0
ENDOSULFAN SULFATE	2	< 2	3.0	< 3.0
ENDRIN	2	< 2	3.0	< 3.0
ENDRIN ALDEHYDE	2	< 2	3.0	< 3.0
HEPTACHLOR	2	< 2	3.0	< 3.0
HEPTACHLOR EPOXIDE	2	< 2	3.0	< 3.0
METHOXYCHLOR	20	< 20	30	< 30
TOXAPHENE	25	< 25	37	< 37
AROCHLOR-1016	10	< 10	15	< 15
AROCHLOR-1221	10	< 10	15	< 15
AROCHLOR-1232	10	< 10	15	< 15
AROCHLOR-1242	10	< 10	15	< 15
AROCHLOR-1248	10	< 10	15	< 15
AROCHLOR-1254	10	< 10	15	< 15
AROCHLOR-1260	**10**	**15**	**15**	**22**

RL = REPORTING LIMITS
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	104

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-10		DATE ANALYZED:	10/12/98
SAMPLE ID: A-2		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	30	< 30
2-CHLOROPHENOL	25	< 25	37	< 37
2,4-DICHLOROPHENOL	20	< 20	30	< 30
2,4-DIMETHYLPHENOL	80	< 80	120	< 120
2,4-DINITROPHENOL	100	< 100	149	< 149
4,6-DINITRO-2-METHYLPHENOL	50	< 50	75	< 75
2-NITROPHENOL	20	< 20	30	< 30
4-NITROPHENOL	40	< 40	60	< 60
PENTACHLOROPHENOL	40	< 40	60	< 60
PHENOL	30	< 30	45	< 45
2,4,6-TRICHLOROPHENOL	30	< 30	45	< 45

RL = REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	30
PHENOL(d6)	24-113	86
2,4,6-TRIBROMOPHENOL	19-122	36

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-9		DATE ANALYZED:	10/14/98
SAMPLE ID: A-3		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.8	< 2.8
ALPHA-BHC	2	< 2	2.8	< 2.8
BETA-BHC	2	< 2	2.8	< 2.8
GAMMA-BHC	2	< 2	2.8	< 2.8
DELTA-BHC	2	< 2	2.8	< 2.8
CHLORDANE	20	< 20	28	< 28
4,4-DDD	2	< 2	2.8	< 2.8
4,4-DDE	2	< 2	2.8	< 2.8
4,4-DDT	2	< 2	2.8	< 2.8
DIELDRIN	2	< 2	2.8	< 2.8
ENDOSULFAN I	2	< 2	2.8	< 2.8
ENDOSULFAN II	2	< 2	2.8	< 2.8
ENDOSULFAN SULFATE	2	< 2	2.8	< 2.8
ENDRIN	2	< 2	2.8	< 2.8
ENDRIN ALDEHYDE	2	< 2	2.8	< 2.8
HEPTACHLOR	2	< 2	2.8	< 2.8
HEPTACHLOR EPOXIDE	2	< 2	2.8	< 2.8
METHOXYCHLOR	20	< 20	28	< 28
TOXAPHENE	25	< 25	35	< 35
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	14	< 14
AROCHLOR-1232	10	< 10	14	< 14
AROCHLOR-1242	10	< 10	14	< 14
AROCHLOR-1248	10	< 10	14	< 14
AROCHLOR-1254	10	< 10	14	< 14
AROCHLOR-1260	10	< 10	14	< 14

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	105

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-9
SAMPLE ID: A-3
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	28	< 28
2-CHLOROPHENOL	25	< 25	35	< 35
2,4-DICHLOROPHENOL	20	< 20	28	< 28
2,4-DIMETHYLPHENOL	80	< 80	113	< 113
2,4-DINITROPHENOL	100	< 100	141	< 141
4,6-DINITRO-2-METHYLPHENOL	50	< 50	71	< 71
2-NITROPHENOL	20	< 20	28	< 28
4-NITROPHENOL	40	< 40	57	< 57
PENTACHLOROPHENOL	40	< 40	57	< 57
PHENOL	30	< 30	42	< 42
2,4,6-TRICHLOROPHENOL	30	< 30	42	< 42

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	41
PHENOL(d6)	24-113	91
2,4,6-TRIBROMOPHENOL	19-122	37

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-5		DATE ANALYZED:	10/13/98
SAMPLE ID: A-4		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.8	< 2.8
ALPHA-BHC	2	< 2	2.8	< 2.8
BETA-BHC	2	< 2	2.8	< 2.8
GAMMA-BHC	2	< 2	2.8	< 2.8
DELTA-BHC	2	< 2	2.8	< 2.8
CHLORDANE	20	< 20	28	< 28
4,4-DDD	2	< 2	2.8	< 2.8
4,4-DDE	2	< 2	2.8	< 2.8
4,4-DDT	2	< 2	2.8	< 2.8
DIELDRIN	2	< 2	2.8	< 2.8
ENDOSULFAN I	2	< 2	2.8	< 2.8
ENDOSULFAN II	2	< 2	2.8	< 2.8
ENDOSULFAN SULFATE	2	< 2	2.8	< 2.8
ENDRIN	2	< 2	2.8	< 2.8
ENDRIN ALDEHYDE	2	< 2	2.8	< 2.8
HEPTACHLOR	2	< 2	2.8	< 2.8
HEPTACHLOR EPOXIDE	2	< 2	2.8	< 2.8
METHOXYCHLOR	20	< 20	28	< 28
TOXAPHENE	25	< 25	35	< 35
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	14	< 14
AROCHLOR-1232	10	< 10	14	< 14
AROCHLOR-1242	10	< 10	14	< 14
AROCHLOR-1248	10	< 10	14	< 14
AROCHLOR-1254	10	< 10	14	< 14
AROCHLOR-1260	**10**	**13**	**14**	**18**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	109

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-5
SAMPLE ID: A-4
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	28	< 28
2-CHLOROPHENOL	25	< 25	35	< 35
2,4-DICHLOROPHENOL	20	< 20	28	< 28
2,4-DIMETHYLPHENOL	80	< 80	112	< 112
2,4-DINITROPHENOL	100	< 100	139	< 139
4,6-DINITRO-2-METHYLPHENOL	50	< 50	70	< 70
2-NITROPHENOL	20	< 20	28	< 28
4-NITROPHENOL	40	< 40	56	< 56
PENTACHLOROPHENOL	40	< 40	56	< 56
PHENOL	30	< 30	42	< 42
2,4,6-TRICHLOROPHENOL	30	< 30	42	< 42

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	38
PHENOL(d6)	24-113	91
2,4,6-TRIBROMOPHENOL	19-122	25

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: 10/09/98
	DATE RECEIVED: 10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: 2002-98-6	DATE ANALYZED: 10/13/98
SAMPLE ID: A-5	MATRIX: SEDIMENT
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.9	< 2.9
ALPHA-BHC	2	< 2	2.9	< 2.9
BETA-BHC	2	< 2	2.9	< 2.9
GAMMA-BHC	2	< 2	2.9	< 2.9
DELTA-BHC	2	< 2	2.9	< 2.9
CHLORDANE	20	< 20	29	< 29
4,4-DDD	2	< 2	2.9	< 2.9
4,4-DDE	2	< 2	2.9	< 2.9
4,4-DDT	2	< 2	2.9	< 2.9
DIELDRIN	2	< 2	2.9	< 2.9
ENDOSULFAN I	2	< 2	2.9	< 2.9
ENDOSULFAN II	2	< 2	2.9	< 2.9
ENDOSULFAN SULFATE	2	< 2	2.9	< 2.9
ENDRIN	2	< 2	2.9	< 2.9
ENDRIN ALDEHYDE	2	< 2	2.9	< 2.9
HEPTACHLOR	2	< 2	2.9	< 2.9
HEPTACHLOR EPOXIDE	2	< 2	2.9	< 2.9
METHOXYCHLOR	20	< 20	29	< 29
TOXAPHENE	25	< 25	36	< 36
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	14	< 14
AROCHLOR-1232	10	< 10	14	< 14
AROCHLOR-1242	10	< 10	14	< 14
AROCHLOR-1248	10	< 10	14	< 14
AROCHLOR-1254	10	< 10	14	< 14
AROCHLOR-1260	**10**	**40**	**14**	**57**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	105

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-6		DATE ANALYZED:	10/12/98
SAMPLE ID: A-5		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	29	< 29
2-CHLOROPHENOL	25	< 25	36	< 36
2,4-DICHLOROPHENOL	20	< 20	29	< 29
2,4-DIMETHYLPHENOL	80	< 80	114	< 114
2,4-DINITROPHENOL	100	< 100	143	< 143
4,6-DINITRO-2-METHYLPHENOL	50	< 50	71	< 71
2-NITROPHENOL	20	< 20	29	< 29
4-NITROPHENOL	40	< 40	57	< 57
PENTACHLOROPHENOL	40	< 40	57	< 57
PHENOL	30	< 30	43	< 43
2,4,6-TRICHLOROPHENOL	30	< 30	43	< 43

RL = REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	37
PHENOL(d6)	24-113	94
2,4,6-TRIBROMOPHENOL	19-122	46

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-6 (DUPLICATE)
SAMPLE ID: A-5 (DUPLICATE)
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	29	< 29
2-CHLOROPHENOL	25	< 25	36	< 36
2,4-DICHLOROPHENOL	20	< 20	29	< 29
2,4-DIMETHYLPHENOL	80	< 80	114	< 114
2,4-DINITROPHENOL	100	< 100	143	< 143
4,6-DINITRO-2-METHYLPHENOL	50	< 50	71	< 71
2-NITROPHENOL	20	< 20	29	< 29
4-NITROPHENOL	40	< 40	57	< 57
PENTACHLOROPHENOL	40	< 40	57	< 57
PHENOL	30	< 30	43	< 43
2,4,6-TRICHLOROPHENOL	30	< 30	43	< 43

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	42
PHENOL(d6)	24-113	98
2,4,6-TRIBROMOPHENOL	19-122	49

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-7		DATE ANALYZED:	10/14/98
SAMPLE ID: A-6		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.9	< 2.9
ALPHA-BHC	2	< 2	2.9	< 2.9
BETA-BHC	2	< 2	2.9	< 2.9
GAMMA-BHC	2	< 2	2.9	< 2.9
DELTA-BHC	2	< 2	2.9	< 2.9
CHLORDANE	20	< 20	29	< 29
4,4-DDD	2	< 2	2.9	< 2.9
4,4-DDE	2	< 2	2.9	< 2.9
4,4-DDT	2	< 2	2.9	< 2.9
DIELDRIN	2	< 2	2.9	< 2.9
ENDOSULFAN I	2	< 2	2.9	< 2.9
ENDOSULFAN II	2	< 2	2.9	< 2.9
ENDOSULFAN SULFATE	2	< 2	2.9	< 2.9
ENDRIN	2	< 2	2.9	< 2.9
ENDRIN ALDEHYDE	2	< 2	2.9	< 2.9
HEPTACHLOR	2	< 2	2.9	< 2.9
HEPTACHLOR EPOXIDE	2	< 2	2.9	< 2.9
METHOXYCHLOR	20	< 20	29	< 29
TOXAPHENE	25	< 25	36	< 36
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	14	< 14
AROCHLOR-1232	10	< 10	14	< 14
AROCHLOR-1242	10	< 10	14	< 14
AROCHLOR-1248	10	< 10	14	< 14
AROCHLOR-1254	10	< 10	14	< 14
AROCHLOR-1260	10	< 10	14	< 14

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	125

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-7
SAMPLE ID: A-6
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	29	< 29
2-CHLOROPHENOL	25	< 25	36	< 36
2,4-DICHLOROPHENOL	20	< 20	29	< 29
2,4-DIMETHYLPHENOL	80	< 80	116	< 116
2,4-DINITROPHENOL	100	< 100	145	< 145
4,6-DINITRO-2-METHYLPHENOL	50	< 50	72	< 72
2-NITROPHENOL	20	< 20	29	< 29
4-NITROPHENOL	40	< 40	58	< 58
PENTACHLOROPHENOL	40	< 40	58	< 58
PHENOL	30	< 30	43	< 43
2,4,6-TRICHLOROPHENOL	30	< 30	43	< 43

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	43
PHENOL(d6)	24-113	97
2,4,6-TRIBROMOPHENOL	19-122	31

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: 10/09/98
	DATE RECEIVED: 10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: 2002-98-8	DATE ANALYZED: 10/14/98
SAMPLE ID: A-7	MATRIX: SEDIMENT
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.9	< 2.9
ALPHA-BHC	2	< 2	2.9	< 2.9
BETA-BHC	2	< 2	2.9	< 2.9
GAMMA-BHC	2	< 2	2.9	< 2.9
DELTA-BHC	2	< 2	2.9	< 2.9
CHLORDANE	20	< 20	29	< 29
4,4-DDD	2	< 2	2.9	< 2.9
4,4-DDE	2	< 2	2.9	< 2.9
4,4-DDT	2	< 2	2.9	< 2.9
DIELDRIN	2	< 2	2.9	< 2.9
ENDOSULFAN I	2	< 2	2.9	< 2.9
ENDOSULFAN II	2	< 2	2.9	< 2.9
ENDOSULFAN SULFATE	2	< 2	2.9	< 2.9
ENDRIN	2	< 2	2.9	< 2.9
ENDRIN ALDEHYDE	2	< 2	2.9	< 2.9
HEPTACHLOR	2	< 2	2.9	< 2.9
HEPTACHLOR EPOXIDE	2	< 2	2.9	< 2.9
METHOXYCHLOR	20	< 20	29	< 29
TOXAPHENE	25	< 25	36	< 36
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	14	< 14
AROCHLOR-1232	10	< 10	14	< 14
AROCHLOR-1242	10	< 10	14	< 14
AROCHLOR-1248	10	< 10	14	< 14
AROCHLOR-1254	10	< 10	14	< 14
AROCHLOR-1260	**10**	**17**	**14**	**25**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	89

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-8		DATE ANALYZED:	10/12/98
SAMPLE ID: A-7		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	29	< 29
2-CHLOROPHENOL	25	< 25	36	< 36
2,4-DICHLOROPHENOL	20	< 20	29	< 29
2,4-DIMETHYLPHENOL	80	< 80	115	< 115
2,4-DINITROPHENOL	100	< 100	144	< 144
4,6-DINITRO-2-METHYLPHENOL	50	< 50	72	< 72
2-NITROPHENOL	20	< 20	29	< 29
4-NITROPHENOL	40	< 40	58	< 58
PENTACHLOROPHENOL	40	< 40	58	< 58
PHENOL	30	< 30	43	< 43
2,4,6-TRICHLOROPHENOL	30	< 30	43	< 43

RL = REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	42
PHENOL(d6)	24-113	92
2,4,6-TRIBROMOPHENOL	19-122	29

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-4		DATE ANALYZED:	10/13/98
SAMPLE ID: A-8		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	3.2	< 3.2
ALPHA-BHC	2	< 2	3.2	< 3.2
BETA-BHC	2	< 2	3.2	< 3.2
GAMMA-BHC	2	< 2	3.2	< 3.2
DELTA-BHC	2	< 2	3.2	< 3.2
CHLORDANE	20	< 20	32	< 32
4,4-DDD	2	< 2	3.2	< 3.2
4,4-DDE	2	< 2	3.2	< 3.2
4,4-DDT	2	< 2	3.2	< 3.2
DIELDRIN	2	< 2	3.2	< 3.2
ENDOSULFAN I	2	< 2	3.2	< 3.2
ENDOSULFAN II	2	< 2	3.2	< 3.2
ENDOSULFAN SULFATE	2	< 2	3.2	< 3.2
ENDRIN	2	< 2	3.2	< 3.2
ENDRIN ALDEHYDE	2	< 2	3.2	< 3.2
HEPTACHLOR	2	< 2	3.2	< 3.2
HEPTACHLOR EPOXIDE	2	< 2	3.2	< 3.2
METHOXYCHLOR	20	< 20	32	< 32
TOXAPHENE	25	< 25	41	< 41
AROCHLOR-1016	10	< 10	16	< 16
AROCHLOR-1221	10	< 10	16	< 16
AROCHLOR-1232	10	< 10	16	< 16
AROCHLOR-1242	10	< 10	16	< 16
AROCHLOR-1248	10	< 10	16	< 16
AROCHLOR-1254	10	< 10	16	< 16
AROCHLOR-1260	**10**	**38**	**16**	**62**

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	102

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-4
SAMPLE ID: A-8
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	33	< 33
2-CHLOROPHENOL	25	< 25	41	< 41
2,4-DICHLOROPHENOL	20	< 20	33	< 33
2,4-DIMETHYLPHENOL	80	< 80	130	< 130
2,4-DINITROPHENOL	100	< 100	163	< 163
4,6-DINITRO-2-METHYLPHENOL	50	< 50	81	< 81
2-NITROPHENOL	20	< 20	33	< 33
4-NITROPHENOL	40	< 40	65	< 65
PENTACHLOROPHENOL	40	< 40	65	< 65
PHENOL	30	< 30	49	< 49
2,4,6-TRICHLOROPHENOL	30	< 30	49	< 49

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	39
PHENOL(d6)	24-113	94
2,4,6-TRIBROMOPHENOL	19-122	32

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-2		DATE ANALYZED:	10/13/98
SAMPLE ID: B-1		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.9	< 2.9
ALPHA-BHC	2	< 2	2.9	< 2.9
BETA-BHC	2	< 2	2.9	< 2.9
GAMMA-BHC	2	< 2	2.9	< 2.9
DELTA-BHC	2	< 2	2.9	< 2.9
CHLORDANE	20	< 20	29	< 29
4,4-DDD	2	< 2	2.9	< 2.9
4,4-DDE	2	< 2	2.9	< 2.9
4,4-DDT	2	< 2	2.9	< 2.9
DIELDRIN	2	< 2	2.9	< 2.9
ENDOSULFAN I	2	< 2	2.9	< 2.9
ENDOSULFAN II	2	< 2	2.9	< 2.9
ENDOSULFAN SULFATE	2	< 2	2.9	< 2.9
ENDRIN	2	< 2	2.9	< 2.9
ENDRIN ALDEHYDE	2	< 2	2.9	< 2.9
HEPTACHLOR	2	< 2	2.9	< 2.9
HEPTACHLOR EPOXIDE	2	< 2	2.9	< 2.9
METHOXYCHLOR	20	< 20	29	< 29
TOXAPHENE	25	< 25	36	< 36
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	14	< 14
AROCHLOR-1232	10	< 10	14	< 14
AROCHLOR-1242	10	< 10	14	< 14
AROCHLOR-1248	10	< 10	14	< 14
AROCHLOR-1254	10	< 10	14	< 14
AROCHLOR-1260	10	< 10	14	< 14

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	114

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-2		DATE ANALYZED:	10/12/98
SAMPLE ID: B-1		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	29	< 29
2-CHLOROPHENOL	25	< 25	36	< 36
2,4-DICHLOROPHENOL	20	< 20	29	< 29
2,4-DIMETHYLPHENOL	80	< 80	114	< 114
2,4-DINITROPHENOL	100	< 100	143	< 143
4,6-DINITRO-2-METHYLPHENOL	50	< 50	71	< 71
2-NITROPHENOL	20	< 20	29	< 29
4-NITROPHENOL	40	< 40	57	< 57
PENTACHLOROPHENOL	40	< 40	57	< 57
PHENOL	30	< 30	43	< 43
2,4,6-TRICHLOROPHENOL	30	< 30	43	< 43

RL = REPORTING LIMIT

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	55
PHENOL(d6)	24-113	97
2,4,6-TRIBROMOPHENOL	19-122	33

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.		DATE SAMPLED:	10/09/98
		DATE RECEIVED:	10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY		DATE EXTRACTED:	10/10/98
PTAS LOG #: 2002-98-1		DATE ANALYZED:	10/13/98
SAMPLE ID: B-2		MATRIX:	SEDIMENT
DILUTION FACTOR: 1		SAMPLE VOL./WT.:	30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2.7	< 2.7
ALPHA-BHC	2	< 2	2.7	< 2.7
BETA-BHC	2	< 2	2.7	< 2.7
GAMMA-BHC	2	< 2	2.7	< 2.7
DELTA-BHC	2	< 2	2.7	< 2.7
CHLORDANE	20	< 20	27	< 27
4,4-DDD	2	< 2	2.7	< 2.7
4,4-DDE	2	< 2	2.7	< 2.7
4,4-DDT	2	< 2	2.7	< 2.7
DIELDRIN	2	< 2	2.7	< 2.7
ENDOSULFAN I	2	< 2	2.7	< 2.7
ENDOSULFAN II	2	< 2	2.7	< 2.7
ENDOSULFAN SULFATE	2	< 2	2.7	< 2.7
ENDRIN	2	< 2	2.7	< 2.7
ENDRIN ALDEHYDE	2	< 2	2.7	< 2.7
HEPTACHLOR	2	< 2	2.7	< 2.7
HEPTACHLOR EPOXIDE	2	< 2	2.7	< 2.7
METHOXYCHLOR	20	< 20	27	< 27
TOXAPHENE	25	< 25	34	< 34
AROCHLOR-1016	10	< 10	14	< 14
AROCHLOR-1221	10	< 10	17	< 17
AROCHLOR-1232	10	< 10	17	< 17
AROCHLOR-1242	10	< 10	17	< 17
AROCHLOR-1248	10	< 10	17	< 17
AROCHLOR-1254	10	< 10	17	< 17
AROCHLOR-1260	10	< 10	17	< 17

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	113

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-1
SAMPLE ID: B-2
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	27	< 27
2-CHLOROPHENOL	25	< 25	34	< 34
2,4-DICHLOROPHENOL	20	< 20	27	< 27
2,4-DIMETHYLPHENOL	80	< 80	110	< 110
2,4-DINITROPHENOL	100	< 100	137	< 137
4,6-DINITRO-2-METHYLPHENOL	50	< 50	69	< 69
2-NITROPHENOL	20	< 20	27	< 27
4-NITROPHENOL	40	< 40	55	< 55
PENTACHLOROPHENOL	40	< 40	55	< 55
PHENOL	30	< 30	41	< 41
2,4,6-TRICHLOROPHENOL	30	< 30	41	< 41

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	52
PHENOL(d6)	24-113	97
2,4,6-TRIBROMOPHENOL	19-122	40

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: 10/09/98
	DATE RECEIVED: 10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: 2002-98-3	DATE ANALYZED: 10/13/98
SAMPLE ID: B-3	MATRIX: SEDIMENT
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	3.0	< 3.0
ALPHA-BHC	2	< 2	3.0	< 3.0
BETA-BHC	2	< 2	3.0	< 3.0
GAMMA-BHC	2	< 2	3.0	< 3.0
DELTA-BHC	2	< 2	3.0	< 3.0
CHLORDANE	20	< 20	30	< 30
4,4-DDD	2	< 2	3.0	< 3.0
4,4-DDE	2	< 2	3.0	< 3.0
4,4-DDT	2	< 2	3.0	< 3.0
DIELDRIN	2	< 2	3.0	< 3.0
ENDOSULFAN I	2	< 2	3.0	< 3.0
ENDOSULFAN II	2	< 2	3.0	< 3.0
ENDOSULFAN SULFATE	2	< 2	3.0	< 3.0
ENDRIN	2	< 2	3.0	< 3.0
ENDRIN ALDEHYDE	2	< 2	3.0	< 3.0
HEPTACHLOR	2	< 2	3.0	< 3.0
HEPTACHLOR EPOXIDE	2	< 2	3.0	< 3.0
METHOXYCHLOR	20	< 20	30	< 30
TOXAPHENE	25	< 25	37	< 37
AROCHLOR-1016	10	< 10	15	< 15
AROCHLOR-1221	10	< 10	15	< 15
AROCHLOR-1232	10	< 10	15	< 15
AROCHLOR-1242	10	< 10	15	< 15
AROCHLOR-1248	10	< 10	15	< 15
AROCHLOR-1254	10	< 10	15	< 15
AROCHLOR-1260	10	< 10	15	< 15

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	105

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: 2002-98-3
SAMPLE ID: B-3
DILUTION FACTOR: 1

DATE SAMPLED: 10/09/98
DATE RECEIVED: 10/09/98
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	30	< 30
2-CHLOROPHENOL	25	< 25	37	< 37
2,4-DICHLOROPHENOL	20	< 20	30	< 30
2,4-DIMETHYLPHENOL	80	< 80	119	< 119
2,4-DINITROPHENOL	100	< 100	149	< 149
4,6-DINITRO-2-METHYLPHENOL	50	< 50	74	< 74
2-NITROPHENOL	20	< 20	30	< 30
4-NITROPHENOL	40	< 40	59	< 59
PENTACHLOROPHENOL	40	< 40	59	< 59
PHENOL	30	< 30	45	< 45
2,4,6-TRICHLOROPHENOL	30	< 30	45	< 45

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	37
PHENOL(d6)	24-113	84
2,4,6-TRIBROMOPHENOL	19-122	35

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: 10/09/98
	DATE RECEIVED: 10/09/98
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: 2002-98-3 (DUPLICATE)	DATE ANALYZED: 10/13/98
SAMPLE ID: B-3 (DUPLICATE)	MATRIX: SEDIMENT
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	3.0	< 3.0
ALPHA-BHC	2	< 2	3.0	< 3.0
BETA-BHC	2	< 2	3.0	< 3.0
GAMMA-BHC	2	< 2	3.0	< 3.0
DELTA-BHC	2	< 2	3.0	< 3.0
CHLORDANE	20	< 20	30	< 30
4,4-DDD	2	< 2	3.0	< 3.0
4,4-DDE	2	< 2	3.0	< 3.0
4,4-DDT	2	< 2	3.0	< 3.0
DIELDRIN	2	< 2	3.0	< 3.0
ENDOSULFAN I	2	< 2	3.0	< 3.0
ENDOSULFAN II	2	< 2	3.0	< 3.0
ENDOSULFAN SULFATE	2	< 2	3.0	< 3.0
ENDRIN	2	< 2	3.0	< 3.0
ENDRIN ALDEHYDE	2	< 2	3.0	< 3.0
HEPTACHLOR	2	< 2	3.0	< 3.0
HEPTACHLOR EPOXIDE	2	< 2	3.0	< 3.0
METHOXYCHLOR	20	< 20	30	< 30
TOXAPHENE	25	< 25	37	< 37
AROCHLOR-1016	10	< 10	15	< 15
AROCHLOR-1221	10	< 10	15	< 15
AROCHLOR-1232	10	< 10	15	< 15
AROCHLOR-1242	10	< 10	15	< 15
AROCHLOR-1248	10	< 10	15	< 15
AROCHLOR-1254	10	< 10	15	< 15
AROCHLOR-1260	10	< 10	15	< 15

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	112

ANALYSIS RESULTS - EPA 8080
ORGANOCHLORINE PESTICIDES AND PCBs

CLIENT: MEC ANALYTICAL SYSTEMS, INC.	DATE SAMPLED: N/A
	DATE RECEIVED: N/A
PROJECT NAME/No.: POSD-SOUTHBAY	DATE EXTRACTED: 10/10/98
PTAS LOG #: METHOD BLANK	DATE ANALYZED: 10/13/98
SAMPLE ID: N/A	MATRIX: SOLID
DILUTION FACTOR: 1	SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
ALDRIN	2	< 2	2	< 2
ALPHA-BHC	2	< 2	2	< 2
BETA-BHC	2	< 2	2	< 2
GAMMA-BHC	2	< 2	2	< 2
DELTA-BHC	2	< 2	2	< 2
CHLORDANE	20	< 20	20	< 20
4,4-DDD	2	< 2	2	< 2
4,4-DDE	2	< 2	2	< 2
4,4-DDT	2	< 2	2	< 2
DIELDRIN	2	< 2	2	< 2
ENDOSULFAN I	2	< 2	2	< 2
ENDOSULFAN II	2	< 2	2	< 2
ENDOSULFAN SULFATE	2	< 2	2	< 2
ENDRIN	2	< 2	2	< 2
ENDRIN ALDEHYDE	2	< 2	2	< 2
HEPTACHLOR	2	< 2	2	< 2
HEPTACHLOR EPOXIDE	2	< 2	2	< 2
METHOXYCHLOR	20	< 20	20	< 20
TOXAPHENE	25	< 25	25	< 25
AROCHLOR-1016	10	< 10	10	< 10
AROCHLOR-1221	10	< 10	10	< 10
AROCHLOR-1232	10	< 10	10	< 10
AROCHLOR-1242	10	< 10	10	< 10
AROCHLOR-1248	10	< 10	10	< 10
AROCHLOR-1254	10	< 10	10	< 10
AROCHLOR-1260	10	< 10	10	< 10

RL = REPORTING LIMITS

REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RECOVERIES	% RECOVERY
TCMX	26-146	91

ANALYSIS RESULTS - EPA 8270
PHENOLS

CLIENT: MEC ANALYTICAL SYSTEMS, INC.

PROJECT NAME/No.: POSD-SOUTHBAY
PTAS LOG #: METHOD BLANK
SAMPLE ID: N/A
DILUTION FACTOR: 1

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 10/10/98
DATE ANALYZED: 10/12/98
MATRIX: SEDIMENT
SAMPLE VOL./WT.: 30 G

ANALYTE	WET WEIGHT		DRY WEIGHT	
	RL PPB (UG/KG)	RESULTS PPB (UG/KG)	RL PPB (UG/KG)	RESULTS PPB (UG/KG)
4-CHLORO-3-METHYLPHENOL	20	< 20	20	< 20
2-CHLOROPHENOL	25	< 25	25	< 25
2,4-DICHLOROPHENOL	20	< 20	20	< 20
2,4-DIMETHYLPHENOL	80	< 80	80	< 80
2,4-DINITROPHENOL	100	< 100	100	< 100
4,6-DINITRO-2-METHYLPHENOL	50	< 50	50	< 50
2-NITROPHENOL	20	< 20	20	< 20
4-NITROPHENOL	40	< 40	40	< 40
PENTACHLOROPHENOL	40	< 40	40	< 40
PHENOL	30	< 30	30	< 30
2,4,6-TRICHLOROPHENOL	30	< 30	30	< 30

RL = REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTABLE RANGE	% RECOVERY
2-FLUOROPHENOL	25-121	95
PHENOL(d6)	24-113	95
2,4,6-TRIBROMOPHENOL	19-122	90

QA/QC REPORT						
DATE ANALYZED:	10/13-14/98				ACCEPTABLE LCS,MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
CADMIUM	81	89	91	2	75-125	< 20
CHROMIUM	80	88	84	5	75-125	< 20
COPPER	79	83	83	0	75-125	< 20
LEAD	79	95	95	0	75-125	< 20
NICKEL	78	85	85	0	75-125	< 20
ZINC	84	77	78	1	75-125	< 20
ARSENIC	81	81	80	1	75-125	< 20
SELENIUM	83	89	90	1	75-125	< 20
SILVER	83	59*	54*	9	75-125	< 20
MERCURY	109	113	111	2	75-125	< 20

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY
MS % R = MATRIX SPIKE PERCENT RECOVERY
MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY
RPD = RELATIVE PERCENT DIFFERENCE

* NOTE: POOR MATRIX SPIKE RECOVERIES ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS. A DUPLICATE LCS WAS ANALYZED WITH THE SAMPLE BATCH AND THE RESULTING RECOVERY AND RPD MET OR EXCEEDED ACCEPTANCE CRITERIA. LCSD %R FOR SILVER = 96%.

QA/QC REPORT

METHOD: PAHS by EPA 8270-SEDIMENT DATE ANALYZED: 10/12/98 QA/QC SAMPLE: PTAS 2002-98-6					ACCEPTABLE LCS,MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
ACENAPHTHENE	116	110	113	3	47-145	<30
ACENAPHTHYLENE	113	106	109	3	33-145	<30
ANTHRACENE	108	112	121	8	27-133	<30
BENZO(A)ANTHRACENE	117	116	121	4	33-143	<30
BENZO(A)PYRENE	110	113	135	18	17-163	<30
BENZO(B)FLUORANTHENE	130	125	123	2	24-159	<30
BENZO(GHI)PERYLENE	128	121	120	1	D-219	<30
BENZO(K)FLUORANTHENE	111	102	111	8	11-162	<30
CHRYSENE	118	116	120	3	17-168	<30
DIBENZO(A,H)ANTHRACENE	125	119	117	2	D-227	<30
FLUORANTHENE	119	106	109	3	26-137	<30
FLUORENE	116	107	116	8	59-121	<30
INDENO(1,2,3-CD)PYRENE	138	126	125	1	D-171	<30
NAPHTHALENE	109	96	98	2	21-133	<30
PHENANTHRENE	117	119	128*	7	54-120	<30
PYRENE	117**	130*	141*	8	52-115	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY
MS % R = MATRIX SPIKE PERCENT RECOVERY
MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY
RPD = RELATIVE PERCENT DIFFERENCE
D = DETECTION LIMIT

* NOTE: POOR MATRIX SPIKE RECOVERIES ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

** NOTE: RECOVERY HIGH BUT CONSIDERED ACCEPTABLE.

Pacific Treatment Analytical Services, Inc.

QA/QC REPORT						
METHOD:	EPA 8080-SEDIMENT				ACCEPTABLE LCS, MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
DATE ANALYZED:	10/13/98					
QA/QC SAMPLE:	PTAS 2002-98-3					
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
GAMMA-BHC	80	77	81	5	32-127	<30
HEPTACHLOR	85	82	81	1	34-111	<30
ALDRIN	80	69	82	17	42-122	<30
DIELDRIN	87	90	90	0	36-146	<30
ENDRIN	100	102	103	1	30-147	<30
4,4-DDT	86	68	56	19	25-160	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY
MS % R = MATRIX SPIKE PERCENT RECOVERY
MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY
RPD = RELATIVE PERCENT DIFFERENCE

QA/QC REPORT						
METHOD: EPA 8270-SEDIMENT-PHENOLS DATE ANALYZED: 10/12/98 PTAS LOG# SPIKED: PTAS 2002-98-6					ACCEPTABLE LCS, MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
4,6-DINITRO-2-METHYLPHENOL	103	7*	8*	13	D-181	<30
4-CHLORO-3-METHYLPHENOL	69	64	63	2	22-147	<30
2-CHLOROPHENOL	89	55	61	10	23-134	<30
2,4-DICHLOROPHENOL	83	50	32*	44*	39-135	<30
2,4-DIMETHYLPHENOL	33	80	76	5	32-119	<30
2,4-DINITROPHENOL	89	0*	0*	0*	D-191	<30
2-NITROPHENOL	93	68	66	3	29-182	<30
4-NITROPHENOL	104	1*	2*	67*	D-132	<30
PENTACHLOROPHENOL	119	9*	2*	127*	14-176	<30
PHENOL	87	79	82	4	5-112	<30
2,3,4,6-TETRACHLOROPHENOL	75	34*	30*	13	37-144	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY

MS % R = MATRIX SPIKE PERCENT RECOVERY

MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY

RPD = RELATIVE PERCENT DIFFERENCE

* NOTE: POOR MATRIX SPIKE RECOVERIES AND RPD ATTRIBUTABLE TO SAMPLE MATRIX EFFECTS.

QA/QC REPORT						
METHOD:	TPH-EPA DOHS MODIFIED 8015-SOIL				ACCEPTABLE LCS, MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
DATE ANALYZED:	10/12-13/98					
QA/QC SAMPLE:	PTAS 2002-98-7					
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
GASOLINE	97	108	110	2	75-125	<30
DIESEL	110	108	103	5	75-125	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY

MS % R = MATRIX SPIKE PERCENT RECOVERY

MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY

RPD = RELATIVE PERCENT DIFFERENCE