Comparison of 2001-2002 and 2011 Chemical Conditions in Surface Sediment at the San Diego Shipyard Sediment Site

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Contents

1 Introduction

This report presents an analysis of Spatially Weighted Average Concentrations (SWACs) of the five primary chemicals of concern (COCs; polychlorinated biphenyls (PCBs), high molecular weight polycyclic aromatic hydrocarbons (HPAHs), tributyltin (TBT), copper, and mercury) identified by the California Regional Water Quality Control Board (CRWQCB) at the San Diego Shipyard Sediment Site (Site). SWACs represent average concentrations for a given area, and were used to evaluate chemical risks to aquatic dependent wildlife and human health (CRWQCB, 2010). SWACs were also used, in part, by the CRWQCB to derive a proposed remedial footprint based on human health and aquatic dependent wildlife Beneficial Use Impairments (BUIs) identified by CRWQCB (2010). The analysis in this report uses data from a recent (2011) investigation by BAE Systems Shipyard (BAE) of chemicals in surface sediment at a portion of the Site to estimate current Site-wide SWACs for each of the five primary Site COCs.

The Site is located along the eastern shore of central San Diego Bay at the National Steel and Shipbuilding Company Shipyard facility (NASSCO) and the BAE, formerly known as the Southwest Marine (SWM) Shipyard, as identified in *Draft Technical Report For Tentative Cleanup And Abatement Order No. R9-2011-0001 for the Shipyard Sediment Site*, published by the California Regional Water Quality Control Board (CRWQCB, 2010). The latest publicly-available Site-wide evaluation of concentrations of chemicals in surface sediment originates from an investigation in 2001-2002 by Exponent (2003). This data was used to inform Site decision making by CRWQCB (2010).

My expertise is in the area of environmental toxicology and chemistry, with a particular focus on ecotoxicology, environmental chemistry, and bioaccumulation of chemicals by invertebrates, fish, and wildlife. I have been employed with ENVIRON International Corporation (ENVIRON), an environmental consultancy, since July 2004. The main focus of my experience with ENVIRON has been on ecological and human health risk assessment of contaminated sites. I am listed as a primary or co-author on over 20 peer-reviewed publications in environmental toxicology, environmental chemistry, and risk assessment. My career vita is included as Appendix A of this report.

The remainder of this report is organized in the following sections:

- Section 2 presents an overview of the BAE 2011 surface sediment investigation.
- Section 3 describes the methods and results of the SWAC analysis.
- Section 4 presents the conclusions of the analysis.

2 2011 BAE Surface Sediment Investigation

In January and February 2011, a surface sediment investigation was conducted by AMEC to investigate surface sediment chemical conditions following December 2010 to January 2011 dock dredging activity at BAE (BAE, 2010). Samples of surface sediment (0-2 cm) were obtained at 32 locations in the Site within and adjacent to the BAE leasehold (Figure 1) using the same techniques used to collect the 2001-2002 data (Exponent, 2003). Chemical analyses were conducted for each the five Site primary COCs, as defined in CRWQCB (2010): copper, mercury, Total High Molecular Weight Polycyclic Aromatic Hydrocarbons (HPAHs, sum of 10 HPAH compounds), Total Polychlorinated Biphenyls (PCBs, sum of 40 PCB congeners), and Tributyltin (TBT).

The analytical data for the 2011 investigation are shown in Table 1, and analytical chemistry laboratory reports are provided in Appendix B. It should be noted that duplicate analyses were completed at locations G11 and G17. The analytical results from location G17 were averaged for the parent and duplicate sample because the locations for these samples were nearly identical. Samples G11 and G11 Dup were not averaged, because samples were collected at different locations such that it is likely that they may represent discrete samples. The averaging method used in Table 1 followed the CRWQCB (2010) algorithm for averaging multiple surface sediment chemistry results for the sediment stations.

Summation of total PCB congeners and total HPAHs followed the algorithm used by CRWQCB (2010) and Exponent (2003). For PCBs, the congener-specific detection limit used by the laboratory that analyzed the 2011 samples (8-15 µg/kg) was approximately 300 to 600 times higher than that used by the laboratory that analyzed the 2001-2002 samples (0.025 µg/kg; Exponent (2003)). This results in uncertainty for the estimation of the concentration of total PCB congeners for samples with lower detection frequencies (numbers of PCB congeners with results above detection limits). For example, results for PCB congeners in sample G1 has a detection frequency of 0/40, indicating all congeners were not detected. The CRWQCB (2010) summation algorithm for PCB congeners used a value corresponding to one-half the reported detection limit for congeners that are not detected. Thus, despite the absence of detectable PCB congeners (each congener in G1 sample was less than 14 µg/kg), the total concentration for PCB congeners is reported in Table 1 as 280 µg/kg. The summation technique, as applied to this dataset, is likely to overestimate the total concentrations of PCBs for samples with low detection frequencies. This overestimation applies to approximately 60% of the samples in the 2011 investigation, which exhibited detection frequencies less than 10%. Thus, 2011 SWAC for PCBs likely represents a conservative estimate.

3 Analysis of Spatially Weighted Average Concentrations

3.1 Approach

SWACs have been derived for Site using Thiessen polygons using approaches detailed in (CRWCB, 2010). SWACs explicitly consider the spatial aspects of sample station experimental design to derive an average concentration of COC in an area. 95% and 99% Confidence Intervals (95% CIs and 99% CIs) were also estimated (Bevington and Robinson, 1992; CRWQCB, 2010) to provide insight into the variance associated with SWACs.

To compare surface sediment chemistry results in 2011 to those of 2001-2002, SWACs were estimated for the area investigated in 2011 ("2011 Grab Sampling Area"). Two SWAC estimates for this area were calculated: 1) a 2001-2002 SWAC that relied on 2001-2002 data (Exponent, 2003); and 2) a 2011 SWAC that relied on 2011 data (Table 1). The same area, defined as the 2011 Grab Sampling Area, was used for both SWAC estimates so that the change in concentrations in surface sediment between 2001-2002 and 2011 could be evaluated consistently and on a spatially-weighted average basis. This allowed a direct comparison of surface sediment chemical conditions between 2001-2002 and 2011 because the same area was evaluated for both time periods. The 2011 Grab Sampling Area was defined based on the intersection of the 2011 sample stations with the Thiessen polygons developed using the 2001-2002 data (CRWQCB, 2010). All 2001-2002 Thiessen polygons in which 2011 grab sample stations were located were included to define the 2011 Grab Sampling Area, as shown in Figure 1.

New Thiessen polygons within the 2011 Grab Sampling Area were derived from the 2011 sample station locations (Figure 2). New Thiessen polygons allow a more precise and accurate estimation of the 2011 SWAC for the 2011 Grab Sampling Area. Although the underlying Thiessen polygon grids differ between the 2001-2002 samples and 2011 samples (Figure 1, Figure 2), both SWAC estimates are directly comparable because they are derived using the same area (the 2011 Grab Sampling Area).

3.2 Results

3.2.1 Overview

Results and supporting data for SWAC calculation of the 2011 Grab Sampling Area are presented in Table 2 using the 2001-2002 sediment chemistry results and areas presented in Table A32-1 of CRWQCB (2010). SWACs for the 2011 Grab Sampling Area are similar to the Site-wide SWACs calculated by CRWQCB (2010), suggesting that the presence of COCs in 2011 Grab Sampling Area was similar to the rest of the Site in 2001-2002.

The results and supporting data for SWAC calculation of the 2011 Grab Sampling Area are presented in Table 3 using the 2011 sediment chemistry results and 2011 Thiessen polygons. Comparison of 2001-2002 SWACs and 2011 SWACs indicates that SWACs have decreased by 24 to 76% (Table 4). Extrapolation of this decrease to the entire Site reveals that the 2011 predicted Site-wide SWACs are below SWAC Trigger Goals (CRWQCB, 2010) used to evaluate the success of the proposed remedy for the Site (Table 4). As noted by the CRWQCB (2010; pg 34-7): *"If the SWAC after remediation is below the trigger concentration then remediation will be considered successful."* Predicted 2011 Site-wide SWACs suggest that current Site

chemical conditions meet Site-specific risk-based remedy goals, and there may not be a need for active sediment management to address human health and aquatic dependent wildlife, as currently proposed by CRWQCB (2010).

It should be noted that this extrapolation assumes reductions in concentrations within the 2011 Grab Sampling Area apply to the entire Site. There is no evidence to suggest that conditions at this location would or would not be representative of the entire Site. However, it is acknowledged that definitive, current Site-wide SWACs can only be estimated via a complete chemistry survey of Site surface sediments in a manner similar to that performed by Exponent (2003).

3.2.2 Consideration of Natural Recovery and Source Control

Reductions of concentrations of the five primary Site COCs in surface sediment in the time period between the 2001-2002 investigation and the 2011 investigation suggest that natural recovery processes and/or shipyard chemical source control may be resulting in risk reduction at the Site. It is unclear whether changes in the chemical content or volumes of stormwater, discharges, source control actions adopted by NASSCO and/or BAE, or some other factors are responsible for the observed reductions in primary COC concentrations

Natural recovery processes could also be responsible for reductions in concentrations of COCs in surface sediment. Monitored Natural Recovery (MNR) was highlighted as one of the potential Site management strategies by CRWQCB (2010; page 30-2; Magar et al., 2009), noting that "*Underlying MNR processes may include biodegradation, biotransformation, bioturbation, diffusion, dilution, adsorption, volatilization, chemical reaction or destruction, resuspension, and burial by clean sediment*". However, CRWQCB (2010) remarked that these processes may not be effective in reducing sediment concentrations, and concluded that MNR was not a viable remedy for the Site because current shipbuilding and repair activities disturb sediment and chemical source control had not been fully demonstrated. In regards to disturbance by shipyard activities, CRWQCB (2010) has not provided evidence to suggest that ship activity at the Site would limit natural recovery processes to an extent such that dredging would be the only effective remedy. The analysis in this report suggests that Site natural recovery processes may be sufficiently robust to overcome shipyard disturbances. A substantial portion of the 2011 Grab Sampling Area was in an area that appears to host significant shipyard activity. As shown in Figure 3, tugboats positioning ships at BAE generate substantial disturbance within the 2011 Grab Sampling Area, as shown by the discoloration of surface water from sediment suspended by boat propeller wash. Despite this level of activity within and near the 2011 Grab Sampling Area, the SWAC has decreased between 2001-2002 and 2011.

4 Conclusion

A comparison of SWACs at a portion of the BAE leasehold between 2001-2002 and 2011 indicates that concentrations of the five primary Site COCs in surface sediment have decreased by 24 to 76%. Extrapolation of the proportionate decreases to the entire Site suggests that current (2011) Site-wide SWACs are below Site-specific risk-based sediment management criteria set by CRWQCB (2010) for the restoration of aquatic dependent wildlife and human health Beneficial Uses. Thus, active sediment remediation via dredging to meet chemical risk-based goals to address aquatic dependent wildlife and human health Beneficial Use Impairment is not required. Furthermore, 2011 results indicate natural recovery processes and/or source control may be sufficient to support a Monitored Natural Recovery management approach for addressing aquatic dependent wildlife and human health BUIs at the Site.

5 References

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Tables

Table 1. Analytical Results for Surface Sediments Collected in 2011

2011 Grab Sample Station	METHOD	SM 2540 B	EPA 6020	EPA 7471A	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM PAHs	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM
	COMPOUND NAME	Total Solids	Copper	Mercury	Benzo (a) Anthracene	Benzo (a) Pyrene	Benzo (b) Fluoranthene	Benzo (g,h,i) Perylene	Benzo (k) Fluoranthene	Chrysene	Dibenz (a,h) Anthracene	Fluoranthene	Indeno (1,2,3-c,d) Pyrene	Perylene	Pyrene	Total HPAH**	Total HPAH Detection Frequency	Max ND	PCB018	PCB028	PCB037	PCB044	PCB049	PCB052
	GROUP	General Chemistry	Metals	Metals	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	HPAH	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners
	UNITS	%	mg/kg	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg			µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
G1		37	174	0.551	95	240	220	120	200	170	40	100	120	42	110	1,457	11/11		<14	<14	<14	<14	<14	<14
G2		39.3	223	1.4	49	110	110	69	96	130	<25	42	64	<25	62	757	9/11	<25	<13	<13	<13	<13	<13	<13
G3		34.6	251	0.849	73	190	200	110	160	130	34	58	110	35	77	1,177	11/11		<14	<14	<14	<14	<14	<14
G4		46	108	0.443	27	62	51	52	42	40	<22	28	45	<22	38	407	9/11	<22	<11	<11	<11	<11	<11	<11
G5		31.3	272	1.31	120	270	250	180	200	200	46	140	150	56	270	1,882	11/11		<16	<16	<16	<16	<16	<16
G6		39.2	177	0.571	110	290	270	190	200	160	53	130	170	48	160	1,781	11/11		<13	<13	<13	<13	<13	<13
G7		55.8	77.8	0.338	54	160	150	100	130	85	31	51	98	31	70	960	11/11		<9.0	<9.0	<9.0	<9.0	<9.0	<9.0
G8		58.2	123	0.852	3,200	3,400	2,600	1,600	2,500	3,300	540	14,000	1,600	610	13,000	46,350	11/11		<8.6	<8.6	<8.6	13	<8.6	25
G9		45.2	149	0.421	110	350	340	220	280	190	80	120	210	62	150	2,112	11/11		<11	<11	<11	<11	<11	<11
G10		41.8	283	0.747	240	2,100	2,100	830	1,600	410	260	240	820	140	370	9,110	11/11		<12	13	<12	12	21	20
G11		39.1	260	0.555	170	630	670	450	500	290	120	190	430	120	290	3,860	11/11		<13	<13	<13	<13	<13	<13
G11 Dup		36.9	226	0.674	220	1,000	980	600	890	380	180	220	590	160	300	5,520	11/11		<14	<14	<14	<14	15	14
G12		35	290	0.749	370	2,700	2,700	1,000	2,100	790	430	280	1,100	240	410	12,120	11/11		<14	<14	<14	<14	19	16
G13		39.4	359	0.649	270	1,600	1,700	710	1,100	480	230	340	740	190	450	7,810	11/11		<13	17	<13	16	31	21
G14		43.7	144	0.558	70	230	200	120	190	130	43	89	120	36	160	1,388	11/11		<11	<11	<11	<11	<11	<11
G15		40	191	0.693	57	260	260	86	210	150	35	26	97	47	37	1,265	11/11		<12	<12	<12	<12	<12	<12
G16		53.9	68.8	0.291	54	120	120	78	95	75	23	85	75	23	87	835	11/11		<9.3	<9.3	<9.3	<9.3	<9.3	<9.3
G17		51	97.5	0.383	54	150	150	130	130	80	32	64	120	31	84	1,025	11/11		<9.8	<9.8	<9.8	<9.8	<9.8	<9.8
G17 Dup		50.5	92.1	0.37	21	41	38	32	33	31	<20	27	26	<20	35	304	9/11	<20	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9
G17 Average*		50.75	94.8	0.3765	38	96	94	81	82	56	21	46	73	21	60	665	11/11		<9.9	<9.9	<9.9	<9.9	<9.9	<9.9
G18		52.1	88.8	0.359	50	120	110	96	85	67	23	53	82	22	78	786	11/11		<9.6	<9.6	<9.6	<9.6	<9.6	<9.6
G19		49.9	105	0.412	72	130	130	97	100	100	31	78	86	27	89	940	11/11		<10	<10	<10	<10	<10	<10
G20		47.5	109	0.38	79	200	190	140	160	130	48	95	130	39	110	1,321	11/11		<11	<11	<11	<11	<11	<11
G21		37.2	245	0.678	240	1,300	1,500	650	1,100	440	250	230	680	190	340	6,920	11/11		<13	<13	<13	<13	<13	<13
G22		51	97.6	0.383	88	200	180	130	140	140	37	110	120	36	140	1,321	11/11		<9.8	<9.8	<9.8	<9.8	<9.8	<9.8
G23		54.3	165	0.366	250	1,300	1,200	390	890	480	180	360	440	210	450	6,150	11/11		<9.2	<9.2	<9.2	<9.2	<9.2	9.4
G24		37.2	281	0.593	200	950	760	310	700	470	170	120	380	180	170	4,410	11/11		<13	<13	<13	<13	<13	<13
G25		34.9	213	0.675	700	1,200	1,200	610	1,000	1,300	240	680	570	250	550	8,300	11/11		<14	<14	<14	<14	<14	<14
G26		48.8	125	0.387	170	410	330	220	310	300	90	230	230	66	220	2,576	11/11		<10	<10	<10	<10	<10	<10
G27		44.3	127	0.49	77	150	130	100	98	120	28	87	93	28	130	1,041	11/11		<11	<11	<11	<11	<11	<11
G28		59.4	69	0.272	55	120	110	68	96	86	21	63	66	22	79	786	11/11		<8.4	<8.4	<8.4	<8.4	<8.4	<8.4
G29		35.2	232	2.53	180	500	360	260	340	210	70	160	230	100	630	3,040	11/11		<14	19	<14	20	26	25
G30		33.8	233	1.06	48	110	120	59	94	75	<30	61	58	<30	65	720	9/11	<30	<15	<15	<15	<15	<15	<15

Notes:
*G17 Average = average concentration of G17 and G17 Dup. Where values are ND, 1/2 reported value used in summation of values
** Total HPAH and PCB Congeners use 1/2 reported value in summation of values
HPAH - High Molecular Weight Polycyclic Aromatic Hydrocarbon
PCB - Polychlorinated Biphenyl

Table 1. Analytical Results for :Table 1. Analytical Results for Surface Sediments Collected in 2011, continued

2011 Grab Sample Station	METHOD	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM
	COMPOUND NAME	PCB066	PCB070	PCB074	PCB077	PCB081	PCB087	PCB099	PCB101	PCB105	PCB110	PCB114	PCB118	PCB119	PCB123	PCB126	PCB128	PCB138/158	PCB149	PCB151	PCB153	PCB156	PCB157	PCB167
	GROUP	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners
	UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
G1		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
G2		<13	<13	<13	<13	<13	<13	<13	14	<13	14	<13	<13	<13	<13	<13	<13	19	<13	<13	14	<13	<13	<13
G3		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
G4		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	12	<11	<11	14	<11	<11	<11
G5		<16	<16	<16	<16	<16	<16	<16	22	<16	20	<16	18	<16	<16	<16	<16	22	<16	<16	22	<16	<16	<16
G6		<13	<13	<13	<13	<13	<13	<13	17	<13	15	<13	13	<13	<13	<13	<13	16	<13	<13	16	<13	<13	<13
G7		<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0
G8		<8.6	15	<8.6	<8.6	<8.6	15	17	38	15	35	<8.6	23	<8.6	<8.6	<8.6	<8.6	35	21	<8.6	33	<8.6	<8.6	<8.6
G9		<11	<11	<11	<11	<11	<11	<11	12	<11	<11	<11	<11	<11	<11	<11	<11	18	<11	<11	14	<11	<11	<11
G10		<12	<12	<12	<12	<12	<12	14	33	15	26	<12	20	<12	<12	<12	<12	53	32	<12	48	<12	35	<12
G11		<13	<13	<13	<13	<13	<13	<13	17	<13	<13	<13	<13	<13	<13	<13	<13	35	18	<13	28	<13	30	<13
G11 Dup		<14	<14	<14	<14	<14	<14	<14	28	<14	23	<14	21	<14	<14	<14	<14	38	25	<14	40	<14	35	<14
G12		<14	<14	<14	<14	<14	<14	<14	31	<14	24	<14	21	<14	<14	<14	<14	59	32	<14	55	<14	42	<14
G13		<13	<13	<13	<13	<13	13	22	43	19	32	<13	28	<13	<13	<13	<13	75	59	20	91	<13	39	<13
G14		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
G15		<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12
G16		<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	9.6	<9.3	9.3	<9.3
G17		<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8
G17 Dup		<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9
G17 Average*		<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9
G18		<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6
G19		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	<10	<10	<10
G20		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
G21		<13	<13	<13	<13	<13	<13	<13	20	<13	18	<13	14	<13	<13	<13	<13	34	21	<13	34	<13	32	<13
G22		<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	10	<9.8	<9.8	12	<9.8	<9.8	<9.8
G23		<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	16	<9.2	14	<9.2	12	<9.2	<9.2	<9.2	<9.2	16	9.9	<9.2	16	<9.2	<9.2	<9.2
G24		<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13
G25		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
G26		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
G27		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
G28		<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	8.7	<8.4	<8.4	11	<8.4	10	<8.4
G29		<14	19	<14	<14	<14	<14	<14	31	<14	27	<14	24	<14	<14	<14	<14	29	20	<14	28	<14	15	<14
G30		<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15

Table 1. Analytical Results for :Table 1. Analytical Results for Surface Sediments Collected in 2011, continued

2011 Grab Sample Station	METHOD	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	EPA 8270C SIM	Organotins by Krone et al.
	COMPOUND NAME	PCB168	PCB169	PCB170	PCB177	PCB180	PCB183	PCB187	PCB189	PCB194	PCB201	PCB206	Total PCB Congeners**	Total PCB Detection Frequency	Max ND	Tributyltin
	GROUP	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	PCB Congeners	TBT
	UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg			µg/kg
G1		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	280	0/40	<14	11
G2		<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	295	4/40	<13	9.8
G3		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	280	0/40	<14	7.9
G4		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	235	2/40	<11	6.4
G5		<16	<16	<16	<16	<16	<16	<16	<16	<16	<16	<16	384	5/40	<16	<9.6
G6		<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	304.5	5/40	<13	<7.7
G7		<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	<9.0	180	0/40	<9.0	3.8
G8		<8.6	<8.6	<8.6	<8.6	8.9	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	410	13/40	<8.6	11
G9		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	247.5	3/40	<11	3.4
G10		<12	<12	15	<12	25	<12	18	<12	<12	<12	<12	544	16/40	<12	150
G11		<13	<13	<13	<13	14	<13	<13	<13	<13	<13	<13	363	6/40	<13	110
G11 Dup		<14	<14	14	<14	19	<14	14	<14	<14	<14	<14	482	12/40	<14	63
G12		<14	<14	16	<14	26	<14	20	<14	<14	<14	<14	557	12/40	<14	70
G13		<13	<13	36	<13	62	14	37	<13	<13	15	<13	820	20/40	<13	260
G14		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	220	0/40	<11	22
G15		<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	<12	240	0/40	<12	48
G16		<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	<9.3	195.6	2/40	<9.3	4.7
G17		<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	196	0/40	<9.8	<5.9
G17 Dup		<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	198	0/40	<9.9	2
G17 Average*		<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	196	0/40	<9.9	2.5
G18		<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	192	0/40	<9.6	<5.8
G19		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	206	1/40	<10	5.1
G20		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	220	0/40	<11	6.8
G21		<13	<13	<13	<13	17	<13	<13	<13	<13	<13	<13	398	8/40	<13	54
G22		<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	208.2	2/40	<9.8	7.6
G23		<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2	245.1	7/40	<9.2	7.7
G24		<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	<13	260	0/40	<13	31
G25		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	280	0/40	<14	24
G26		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	200	0/40	<10	11
G27		<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11	220	0/40	<11	6.2
G28		<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	<8.4	185.1	3/40	<8.4	4.2
G29		<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	479	12/40	<14	<8.5
G30		<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	300	0/40	<15	18

Table 2. Supporting Calculation for SWACs in the 2011 Surface Grab Sampling Area Based on 2001 Surface Sediment Chemistry

2001 Grab Sample Station	Polygon Area (A) (ft^2)**	Concentration in Surface Sediment, 2001-2002** (C)				
		Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
SW02*	39,162	580.0	4.5	14,500	5,450.0	167.0
SW03	48,811	190.0	1.2	6,800	410.0	53.0
SW06	25,751	170.0	0.8	12,000	380.0	100.0
SW07	40,947	150.0	0.5	3,800	170.0	44.0
SW11	36,689	170.0	0.8	8,000	200.0	140.0
SW12	112,942	119.5	0.5	3,000	155.0	36.0
SW15	55,766	230.0	0.9	7,700	380.0	170.0
SW18	52,601	220.0	0.8	8,100	440.0	130.0
SW19	214,747	110.0	2.1	1,100	94.0	37.0
SW25*	69,690	230.0	0.8	8,150	350.0	230.5
SW26	86,923	120.0	0.4	1,600	293.0	49.0
SW27	78,889	210.0	0.7	12,000	200.0	250.0
SW30	72,231	240.0	1.1	4,900	380.0	200.0
SW31	83,498	54.0	0.2	1,200	66.0	36.0
SW34	304,572	320.0	0.8	1,400	130.0	38.0
SW36	90,730	240.0	0.8	4,000	200.0	49.0

Total Area	1,413,949
N	16

C*A					
	Cu mg*ft^2/kg	Hg mg*ft^2/kg	HPAH µg*ft^2/kg	PCB µg*ft^2/kg	TBT µg*ft^2/kg
	22,713,960	176,229	567,849,000	213,432,900	6,540,054
	9,274,090	58,573	331,914,800	20,012,510	2,586,983
	4,377,670	20,601	309,012,000	9,785,380	2,575,100
	6,142,050	20,474	155,598,600	6,960,990	1,801,668
	6,237,130	29,351	293,512,000	7,337,800	5,136,460
	13,496,569	56,471	338,826,000	17,506,010	4,065,912
	12,826,180	50,189	429,398,200	21,191,080	9,480,220
	11,572,220	42,081	426,068,100	23,144,440	6,838,130
	23,622,170	450,969	236,221,700	20,186,218	7,945,639
	16,028,700	55,752	567,973,500	24,391,500	16,063,545
	10,430,760	34,769	139,076,800	25,468,439	4,259,227
	16,566,690	55,222	946,668,000	15,777,800	19,722,250
	17,335,440	79,454	353,931,900	27,447,780	14,446,200
	4,508,892	16,700	100,197,600	5,510,868	3,005,928
	97,463,040	243,658	426,400,800	39,594,360	11,573,736
	21,775,200	72,584	362,920,000	18,146,000	4,445,770

Weighted Squared Deviation from the SWAC‡‡ (A * ((C-SWAC)^2)				
Cu	Hg	HPAH	PCB	TBT
5.41E+09	4.70E+05	4.13E+12	1.02E+12	2.62E+08
1.62E+07	1.33E+03	3.22E+11	1.72E+08	5.07E+07
3.76E+07	1.42E+03	1.55E+12	2.21E+07	5.63E+06
1.39E+08	1.17E+04	7.69E+09	1.34E+09	6.95E+07
5.35E+07	2.02E+03	5.21E+11	8.33E+08	1.10E+08
8.88E+08	3.23E+04	1.72E+11	4.33E+09	2.74E+08
2.65E+07	1.01E+03	6.70E+11	4.78E+07	4.01E+08
7.34E+06	2.90E+03	7.86E+11	4.19E+08	1.06E+08
2.07E+09	2.44E+05	2.11E+12	1.42E+10	4.99E+08
3.31E+07	3.84E+03	1.07E+12	3.57E+04	1.47E+09
6.76E+08	3.50E+04	6.03E+11	2.90E+08	1.14E+08
2.58E+05	8.84E+03	4.76E+12	1.79E+09	2.14E+09
7.31E+07	3.08E+02	3.21E+10	6.19E+07	9.52E+08
1.99E+09	5.82E+04	7.68E+11	6.77E+09	2.02E+08
3.81E+09	1.68E+04	2.44E+12	1.48E+10	6.79E+08
9.18E+07	5.00E+03	4.94E+09	2.06E+09	1.19E+08

	Cu mg*ft^2/kg	Hg mg*ft^2/kg	HPAH µg*ft^2/kg	PCB µg*ft^2/kg	TBT µg*ft^2/kg
Sum C*A	294,370,761	1,463,076	5,985,569,000	495,894,075	120,486,822
SWAC†	**208**	**1.0**	**4,233**	**351**	**85**

	Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
variance of data (Sum of Weighted Squared Deviations ÷ Total Area) * (N ÷ (N-1))	11,557	0.6749	15048971	803754	5625
variance of mean (variance of data ÷ N)	722	0.0422	940561	50235	352
standard error (variance of mean)$^{0.5}$	27	0.2054	970	224	19
95% confidence interval (t value * standard error)	57	0.44	2,067	478	40
95% upper confidence limit (SWAC + 95% confidence interval)	**265**	**1.5**	**6,300**	**828**	**125**
99% confidence interval (t value * standard error)	79	0.61	2,858	660	55
99% upper confidence limit (SWAC + 99% confidence interval)	**287**	**1.6**	**7,091**	**1,011**	**140**

Notes:

**Areas and concentrations from Appendix for Section 32 of CRWWCB (2010).

†SWAC = Spatially Weighted Average Concentration = (Sum C*A) ÷ Total Area, as cited in CRWQCB (2010).

‡‡Variance calculations from Bevington and Robinson 1992 as cited in CRWQCB (2010).

Table 3. Supporting Calculation for SWACs in the 2011 Surface Grab Sampling Area Based on 2011 Surface Sediment Chemistry

2011 Grab Sample Station	Intersecting 2001 Station	Polygon Area (A) (ft^2)**	Concentration in Surface Sediment, 2011** (C)				
			Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
G1	SW30	38,369	174.0	0.551	1,457	280.0	11.0
G2	SW03	41,988	223.0	1.400	757	295.0	9.8
G3	SW06	35,463	251.0	0.849	1,177	280.0	7.9
G4	SW30	31,146	108.0	0.443	407	235.0	6.4
G5	SW02	26,551	272.0	1.310	1,882	384.0	4.8
G6	SW07	32,351	177.0	0.571	1,781	304.5	3.9
G7	SW12	37,727	77.8	0.338	960	180.0	3.8
G8	SW12	21,151	123.0	0.852	46,350	410.0	11.0
G9	SW11	31,855	149.0	0.421	2,112	247.5	3.4
G10	SW15	41,871	283.0	0.747	9,110	544.0	150.0
G11	SW36	9,649	260.0	0.555	3,860	363.0	110.0
G11 Dup	SW36	20,923	226.0	0.674	5,520	482.0	63.0
G12	SW18	18,805	290.0	0.749	12,120	557.0	70.0
G13	SW15	23,292	359.0	0.649	7,810	820.0	260.0
G14	SW36	21,463	144.0	0.558	1,388	220.0	22.0
G15	SW36	41,205	191.0	0.693	1,265	240.0	48.0
G16	SW36	33,604	68.8	0.291	835	195.6	4.7
G17 Average*	SW26	91,849	94.8	0.377	665	196.0	2.5
G18	SW19	154,516	88.8	0.359	786	192.0	2.9
G19	SW26	113,718	105.0	0.412	940	206.0	5.1
G20	SW31	37,339	109.0	0.380	1,321	220.0	6.8
G21	SW18	35,242	245.0	0.678	6,920	398.0	54.0
G22	SW31	39,667	97.6	0.383	1,321	208.2	7.6
G23	SW31	49,119	165.0	0.366	6,150	245.1	7.7
G24	SW25	61,606	281.0	0.593	4,410	260.0	31.0
G25	SW27	39,812	213.0	0.675	8,300	280.0	24.0
G26	SW27	26,132	125.0	0.387	2,576	200.0	11.0
G27	SW34	211,166	127.0	0.490	1,041	220.0	6.2
G28	SW12	24,294	69.0	0.272	786	185.1	4.2
G29	SW02	12,538	232.0	2.530	3,040	479.0	4.3
G30	SW03	30,801	233.0	1.060	720	300.0	18.0

Total Area	1,435,210
N	31

C*A					
Cu $mg*ft^2/kg$	Hg $mg*ft^2/kg$	HPAH $µg*ft^2/kg$	PCB $µg*ft^2/kg$	TBT $µg*ft^2/kg$
6,676,290	21,142	55,904,334	10,743,455	422,064
9,363,362	58,783	31,785,045	12,386,510	411,484
8,901,154	30,108	41,739,677	9,929,575	280,156
3,363,730	13,798	12,676,278	7,319,227	199,332
7,221,831	34,782	49,968,698	10,195,526	127,444
5,726,080	18,472	57,616,654	9,850,798	124,550
2,935,138	12,752	36,217,638	6,790,807	143,361
2,601,538	18,020	980,335,686	8,671,794	232,658
4,746,358	13,411	67,277,231	7,884,050	108,306
11,849,485	31,278	381,444,568	22,777,810	6,280,646
2,508,726	5,355	37,244,936	3,502,568	1,061,384
4,728,561	14,102	115,494,058	10,084,807	1,318,139
5,453,350	14,085	227,912,439	10,474,194	1,316,326
8,361,918	15,117	181,912,479	19,099,646	6,055,985
3,090,735	11,977	29,791,252	4,721,956	472,196
7,870,129	28,555	52,124,154	9,889,168	1,977,834
2,311,972	9,779	28,059,544	6,572,990	157,940
8,707,303	34,581	61,033,789	18,002,442	227,327
13,721,013	55,471	121,449,508	29,667,055	448,096
11,940,386	46,852	106,894,886	23,425,900	579,962
4,069,977	14,189	49,325,136	8,214,633	253,907
8,634,282	23,894	243,874,423	14,026,304	1,903,066
3,871,455	15,192	52,399,514	8,258,576	301,466
8,104,621	17,978	302,081,330	12,039,046	378,216
17,311,265	36,532	271,682,123	16,017,540	1,909,784
8,480,039	26,873	330,442,819	11,147,469	955,497
3,266,447	10,113	67,314,950	5,226,316	287,447
26,818,055	103,471	219,823,587	46,456,474	1,309,228
1,676,274	6,608	19,094,943	4,496,786	102,034
2,908,781	31,721	38,115,057	6,005,629	53,286
7,176,598	32,649	22,176,613	9,240,255	554,415

Weighted Squared Deviation from the SWAC‡‡ ($(A * ((C-SWAC)^2)$)				
Cu	Hg	HPAH	PCB	TBT
1.20E+07	5.28E+00	9.03E+10	6.54E+06	3.74E+06
1.87E+08	2.94E+04	2.10E+11	3.31E+07	5.15E+06
3.18E+08	2.91E+03	1.17E+11	6.05E+06	5.97E+06
7.28E+07	4.46E+02	2.08E+11	3.18E+07	6.52E+06
3.55E+08	1.48E+04	3.27E+10	3.64E+08	6.86E+06
1.38E+07	2.21E+00	4.74E+10	4.56E+07	9.37E+06
2.33E+08	1.91E+03	1.56E+11	2.85E+08	1.10E+07
2.35E+07	1.77E+03	3.98E+13	4.33E+08	2.06E+06
1.72E+06	6.40E+02	2.46E+10	1.20E+07	9.72E+06
6.72E+08	1.42E+03	1.57E+12	3.21E+09	6.98E+08
1.04E+08	5.77E-01	7.28E+09	8.90E+07	7.67E+07
1.01E+08	2.59E+02	1.34E+11	9.68E+08	3.71E+07
3.36E+08	6.52E+02	1.57E+12	1.58E+09	4.54E+07
9.57E+08	1.73E+02	5.41E+11	7.12E+09	1.33E+09
3.27E+06	4.81E-01	5.52E+10	4.73E+07	2.74E+04
4.95E+07	6.99E+02	1.23E+11	2.99E+07	3.03E+07
2.58E+08	2.48E+03	1.56E+11	1.71E+08	8.79E+06
3.48E+08	3.19E+03	4.97E+11	4.62E+08	3.11E+07
7.05E+08	6.41E+03	7.51E+11	8.68E+08	4.99E+07
3.00E+08	2.58E+03	4.79E+11	4.22E+08	2.83E+07
8.37E+07	1.25E+03	1.04E+11	8.23E+07	7.39E+06
2.77E+08	4.68E+02	5.44E+11	6.05E+08	3.87E+07
1.37E+08	1.28E+03	1.11E+11	1.37E+08	6.99E+06
3.67E+06	1.90E+03	4.90E+11	2.34E+07	8.52E+06
9.57E+08	5.64E+01	1.24E+11	2.97E+06	6.32E+06
1.28E+08	5.02E+02	1.12E+12	6.79E+06	3.90E+05
2.57E+07	8.07E+02	4.51E+09	1.17E+08	2.55E+06
1.82E+08	1.12E+03	8.03E+11	4.65E+08	4.54E+07
1.85E+08	2.05E+03	1.18E+11	1.63E+08	6.75E+06
7.18E+07	4.85E+04	2.97E+07	5.64E+08	3.46E+06
1.81E+08	7.62E+03	1.59E+11	3.37E+07	2.54E+05

	Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
Sum C*A	224,396,855	807,638	4,293,213,349	383,119,305	29,953,536
SWAC‡	**156**	**0.56**	**2,991**	**267**	**21**

	Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
variance of data (Sum of Weighted Squared Deviations ÷ Total Area) * (N ÷ (N-1))	5,242	0.0975	36,075,371	13,244	1,818
variance of mean (variance of data ÷ N)	169	0.0031	1,163,722	427	59
standard error (variance of mean)$^{0.5}$	13	0.0561	1,079	21	8
95% confidence interval (t value * standard error)	27	0.1145	2,203	42	16
95% upper confidence limit (SWAC + 95% confidence interval)	**183**	**0.68**	**5,194**	**309**	**37**
99% confidence interval (t value * standard error)	36	0.15	2,967	57	21
99% upper confidence limit (SWAC + 99% confidence interval)	**192**	**0.72**	**5,958**	**324**	**42**

Notes:

*Results for parent and duplicate samples at G17 are averaged.

**Concentrations from AMEC 2011 grab sampling (Table 1).

†Areas derived from ENVIRON constructed Thiessen polygons for the locations sampled. The 2011 Thiessen polygons were constrained by the 2001 Thiessen polygon extent for the intersecting sample locations.

†SWAC = Spatially Weighted Average Concentration = (Sum C*A) ÷ Total Area, as cited in CRWQCB (2010).

‡‡Variance calculations from Bevington and Robinson 1992 as cited in CRWQCB (2010).

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Table 4. Summary of Results and Extrapolation of the 2011 Surface Grab Sampling Area SWAC Results to a Current Site SWAC

Historic 2001 SWAC in the 2011 Surface Grab Sampling Area	Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
SWAC 2001*	**208**	**1.03**	**4,233**	**351**	**85**

Current 2011 SWAC in the 2011 Surface Grab Sampling Area	Cu mg/kg	Hg mg/kg	HPAH µg/kg	PCB µg/kg	TBT µg/kg
SWAC 2011**	**156**	**0.56**	**2,991**	**267**	**21**

SWAC Decrease from 2001 to 2011[†]	25%	46%	29%	24%	76%
2001 Site-wide SWAC[††]	187	0.75	3,509	308	162
Expected Site-wide (2011) SWAC[‡]	**140**	**0.41**	**2,480**	**234**	**40**
Post-remedy SWAC Trigger Goal[††]	**185**	**0.78**	**3,208**	**253**	**156**

Notes:

* Surface Weighted Average Concentration (SWAC) From Table 2.

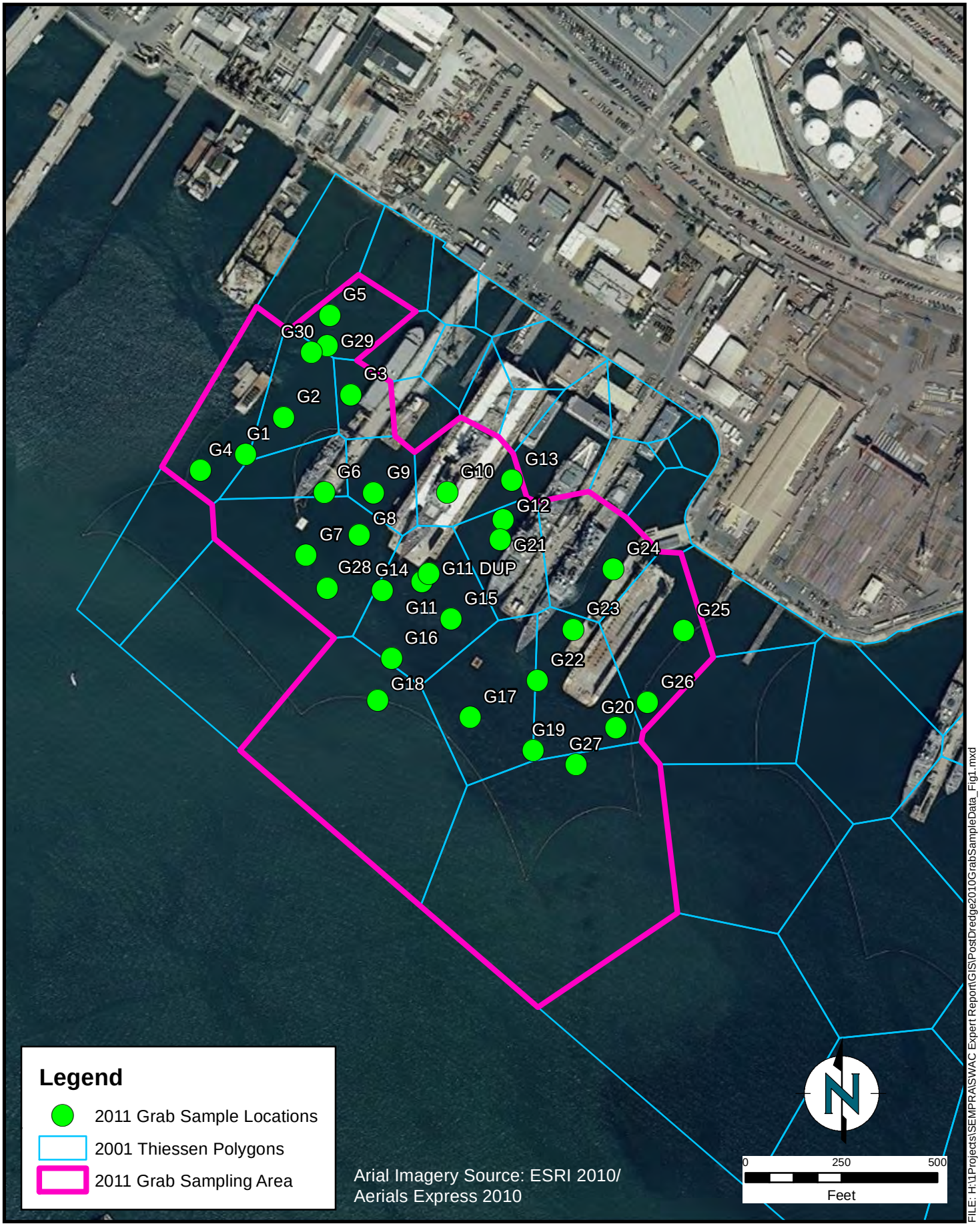
**From Table 3.

[†]SWAC Decrease from 2001 to 2011 = 100% × (1 - (2011 SWAC ÷ 2001 SWAC))

‡Expected Site-wide (2011) SWAC = Pre-remedy (2001) Site-wide SWAC x (100% - SWAC Decrease from 2001 to 2011)

[††]Trigger Concentration for Primary COCs and 2001 Site-wide SWAC from CRWQCB (2010).

Figures



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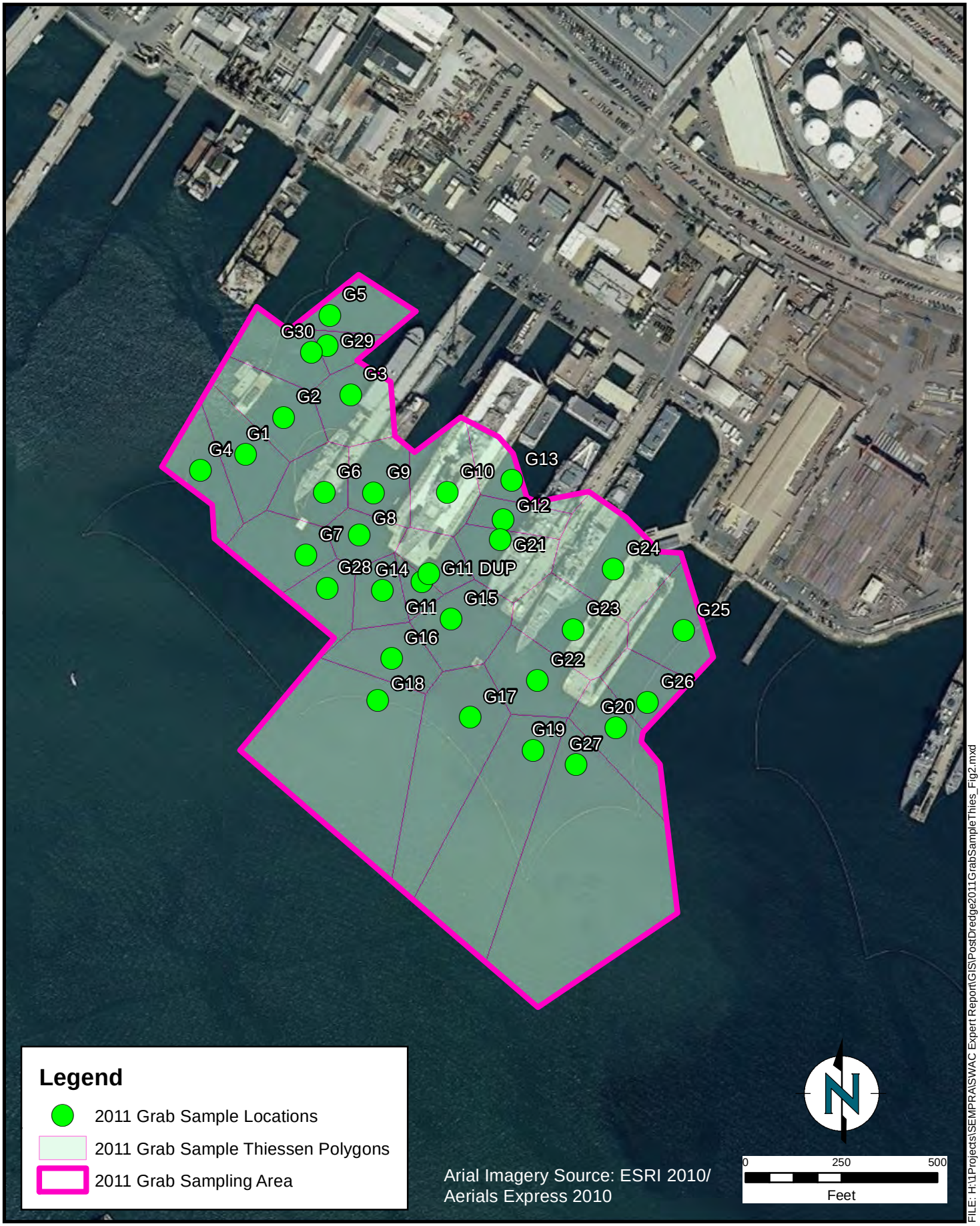
DRAFTED BY: JBW | DATE: 03/04/2011

2001 Thiessen Polygons with 2011 Grab Sampling Locations

San Diego Shipyard Sediment Site
San Diego, CA

Figure
1

PROJECT: 03-19562A



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DRAFTED BY: JBW | DATE: 03/04/2011

2011 Thiessen Polygons with 2011 Grab Sampling Locations

San Diego Shipyard Sediment Site
San Diego, CA

Figure 2

PROJECT: 03-19562A

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DRAFTED BY: JBW | DATE: 03/04/2011

Sediment Disturbance Within the 2011 Surface Grab Sampling Area

San Diego Shipyard Sediment Site
San Diego, CA

Figure
3

PROJECT: 03-19562A

Appendix A

Curriculum Vitae for Jason Conder

Jason M. Conder, PhD

EDUCATION

2004	PhD, Environmental Science, University of North Texas (UNT)
2000	MS, Zoology, Oklahoma State University (OSU)
1997	BS, Wildlife and Fisheries Ecology, OSU

EXPERIENCE

Dr. Jason M. Conder is a Manager in the Ecological/Sediment Practice at ENVIRON. He has over 10 years research and consulting experience in environmental toxicology, ecological risk assessment, bioaccumulation and bioavailability of environmental contaminants, environmental chemistry, environmental monitoring technology, wildlife ecology and management, plant and animal taxonomy, and statistics. Project-related experience includes the assessment of ecotoxicity, bioaccumulation, and bioavailability of organic compounds and metals to aquatic and terrestrial invertebrates, plants, mammals, reptiles, and fish exposed to contaminated soils, sediments, and water. A key focus of his expertise is contaminant bioavailability. Jason has extensive experience with the measurement and interpretation of environmental contaminants in soil, sediment, water, and biological tissues, including innovative methods to predict contaminant bioavailability and toxicity.

Jason has published over 20 peer-reviewed articles in the primary scientific literature in environmental toxicology and chemistry, including several book chapters on contaminant bioavailability and sediment quality assessment. He serves as a peer reviewer for scientific journals, including: Environmental Toxicology and Chemistry, Integrated Environmental Assessment and Management, Chemosphere, Archives of Environmental Contamination and Toxicology, and Journal of Soils and Sediments.

Since joining ENVIRON in 2004, Jason has led ecological risk assessments, ecological/biological investigations, ecotoxicological studies, environmental fate and transport studies, and human health risk assessments. Representative experience includes:

- Fish Bioaccumulation Assessment, Metropolitan Council, Upper Mississippi River, MN. Evaluated bioaccumulation of PFOS in benthic and pelagic fish from water column and sediment PFOS sources. Investigated chemical fate and source issues relevant to exposure of fish to PFOS.
- Ecological Risk Assessment, Private Client, Augusta Bay, Sicily. Prepared an Ecological Risk Assessment and Sediment Quality Triad Evaluation for an industrial pier impacted with a variety of organics and metals, including mercury, methylmercury, and PAHs. Managed a team of 3 ecotoxicologists in providing a full assessment using various lines of evidence, including habitat information and chemical measurements in sediment, sediment porewater, fish, mussels, and benthic invertebrates. Key components of the assessment included food chain and bioavailability modeling and risk assessment to evaluate risks to invertebrates, fish, and piscivorous birds. Geospatial modeling was also conducted to identify areas of Augusta Bay that are associated with potentially-elevated chemical exposures.
- Contaminated Sediment Risk and Chemical Fate and Transport Evaluation, San Diego Gas & Electric (Subsidiary of Sempra Energy), San Diego Bay, CA. Evaluation of human health and ecological risks, sediment cleanup values, remedial strategies, sediment hydrodynamics, chemical fate and transport, remedial cost allocation, and chemical sources and uses in San Diego Bay. Served as project manager and technical advisor in proceedings with the California Regional Water Quality Control Board (CRWQCB) and other parties named in the CRWQCB's Cleanup and Abatement Order.

- Monitored Natural Recovery (MNR) Guidance, United States Department of Defense (DoD). Technical advisor on a resource document used to guide DoD remedial project managers on the evaluation and application of MNR for contaminated sediment.
- Evaluation of Water Quality Impacts from Terrestrial Burn Dump, Private Client, San Francisco Bay, CA. With hydrogeologists, evaluated the ecological and human risks associated with the hypothetical transport of metals and organic chemicals to San Francisco Bay via ground water flow from a former burn dump site located 0.25 miles upland of the Bay. With considerations of appropriate aquatic life screening values and sediment geochemistry conditions, the evaluation demonstrated insignificant risk associated with the site.
- Quantico Bay Thin-Layer Cap Demonstration Project, United States Department of Defense (DoD). Led evaluation of a Thin-Layer Cap remediation project for 14-acres of sediments impacted with chlorinated pesticides (DDT, DDD, and DDE). The 5-year study is evaluating a variety of endpoints involving chemical fate and transport, chemical bioavailability measurements via *in situ* organism deployment and SPME measurements, cap physical stability, and degree of ecological risk reduction. Responsibilities included project management, coordination of field work, and interpretation and presentation of results.
- Ecotoxicological Data Review, The Dow Chemical Company, Saginaw River and Bay Watershed, MI. Review and synthesis of 30+ years of environmental data to support the avian and aquatic ecological risk assessment of dioxins and furans present in the Tittabawassee River, Saginaw River, and Saginaw Bay.
- Contaminated Sediment Management Decision-making Framework, The Dow Chemical Company. Led the development of a decision-making framework for evaluating the cause-effect relationships between chemically-impacted sediments and 16 different Beneficial Use Impairments identified by the State of Michigan. Using a tiered approach, frameworks begin with simple and resource-efficient screening steps using sediment quality guidelines and ecological benchmarks, then proceeds to considerations of more site-specific factors and determinations of probable linkages between sediments and specific Beneficial Use Impairments. Higher tiers in the frameworks utilize more advanced, but scientifically rigorous and agency-accepted approaches utilizing tools such as chemical fate and transport modeling, risk assessment, and Sediment Quality Triad, complete with decision rules for the interpretation of results with respect to resource impairment. The frameworks place screening and investigative tools in the proper context and facilitate a more efficient characterization of natural resources suspected to be affected by chemically-impacted sediment.
- Ecological Risk Assessment, Honeywell, NY/NJ Estuary System, Jersey City, NJ. Avian and aquatic ecological risk assessment of 66-acre area offshore of a former chromium ore processing facility. In addition to evaluation of chemicals in sediment, pore water, and surface water and wildlife species and habitat at the Site, responsibilities included TrophicTrace modeling to predict chemical bioaccumulation in avian and human food chains and application of the Sediment Quality Triad (SQT), a line-of-evidence approach that integrates chemistry data, laboratory toxicity results, and benthic community surveys to understand ecological risk. Using the SQT with equilibrium partitioning modeling to quantify risks, revealed that benthic community impacts and sediment toxicity were associated with widespread background PAH contamination in the local estuary, not site-related chromium releases. Key work also included evaluation of the effectiveness and risks associated with application of 11 sediment remedial alternatives, highlighting the ability of cost-effective remedies to reduce risk to ecological and human receptors.

- Sediment Monitoring Guidance and Web Portal, US Navy Space and Naval Warfare Systems Center, San Diego, CA. Prepared a guidance document and online web portal/database (http://www.ISRAP.org) of monitoring needs and tools associated with sediment remediation (dredging, capping, and monitored natural recovery). The guidance and online web portal assists Navy remedial project managers in developing efficient and effective monitoring plans and includes a decision-making framework to aid in selecting effective monitoring tools to assess all phases of remediation, including short-term monitoring (construction and remedial design performance) and long-term monitoring (ecological and human health risk).
- Landscape-level Ecological Risk Assessment, ICF Consulting/US Department of Energy, Bakersfield, CA. Developed a unique landscape-level approach for performing a California Department of Toxic Substances Control (DTSC) Part B Scoping Ecological Risk Assessment at a 75-square mile petroleum reserve located in southern California. The novel approach used landscape ecology and population indices to discern potential effects of active and historical petroleum exploration and production activities on the habitat and populations of endangered species and other sensitive receptors. The first step in this assessment included the site-wide investigation of the spatial co-occurrence of soil contamination and ecological receptors, as predicted by landscape-level models integrating historical ecological monitoring data, topography, and soil type.
- Ecological Risk Assessment, Private Client, CA. Conducted a DTSC Part B Scoping Ecological Risk Assessment for a former 996-acre munitions, explosives, and solid rocket fuel manufacturing facility located in southern California. Project responsibilities included the compilation of generic ecological risk-based soil screening benchmarks, preparation of a technical brief on the ecotoxicity of perchlorate, and development of a site-specific ecological risk-based soil screening level for perchlorate.
- Ecological Risk Assessment, Private Client, CA. Prepared a DTSC Part B Scoping and Phase I Predictive Ecological Risk Assessment for a 429-acre site in southern California at which explosives, solid rocket motor fuel, cryogenics, petroleum hydrocarbons, hypergolic fuels, and solvents were used. Project responsibilities have included the compilation of generic ecological risk-based soil screening benchmarks, field inspection of the Site, interpretation of biological survey information for development of the conceptual site model, food chain modeling to predict chemical bioaccumulation, and ecological risk calculations, including estimation of inhalation risks to burrowing mammals and development of toxicity reference values. Through interpretation of historical site use and the spatial pattern of chemical impacts and projected future land uses, narrowed the focus of the assessment to an undeveloped riparian area comprising approximately 5-10% of the site, enabling a more efficient and realistic approach to characterizing long-term ecological risk.
- Human Health Risk Assessment for Perchlorate Associated with Homegrown Produce, Private Client, CA. Designed and managed a laboratory plant-uptake study to determine bioconcentration factors for perchlorate accumulation by garden crops from perchlorate-impacted soils at a site in southern California. Results from the three-species study were used to generate site-specific, risk-based perchlorate concentrations associated with the consumption of homegrown garden produce by future residents. Responsibilities included experimental design and management, collection of site soils, and analysis and interpretation of data. Risk-based concentrations estimated with site-specific data developed in this study were approximately 100-fold higher than concentrations estimated using data from previous studies, which were shown to be unrealistic and overly conservative.
- Food-chain Modeling of Perfluorinated Compounds, E.I. du Pont de Nemours and Company (DuPont), Canadian Arctic. With a multi-disciplinary team of environmental chemists, engineers,

and risk assessors, assessed of the global fate and transport of perfluorinated carboxylic acids (PFCAs) to the Canadian Arctic. As lead technical advisor in ecotoxicology, responsibilities included development of a 5-tier food chain bioaccumulation model. The model integrated biological receptor life history and behavior, toxicokinetics of PFCAs, and environmental fate and transport processes in the Arctic Ocean to predict concentrations of PFCAs in polar bear liver tissue. Key challenges of the project included developing a model that did not rely on octanol-water partition coefficients (KOW values). Model development included Monte Carlo analysis to account for uncertainty and variability associated with model parameters and predictions.

- Critical Review of the Bioaccumulative Potential of Perfluorinated Compounds, E.I. du Pont de Nemours and Company (DuPont). Performed a survey of environmental monitoring and laboratory data on the bioaccumulation, bioconcentration, and biomagnification of perfluorinated carboxylic acids (PFCAs) and perfluorinated sulfonates (PFASs). Results were synthesized in a scientific manuscript submitted to a peer-reviewed scientific journal (Environmental Science & Technology) that summarized the bioaccumulative potential of these compounds according to guidance from current US and European chemical regulatory frameworks.

PROFESSIONAL AFFILIATIONS & ACTIVITIES

Member, Society of Environmental Toxicology and Chemistry (1997-Present)

Member, American Chemical Society (2005-Present)

PUBLICATIONS & PRESENTATIONS

Publications

Conder, J.M., Gobas, F.A.P.C., Borgå, K., Muir, D.C.G., Powell, D.E. In press. Characterizing bioaccumulative potential of chemicals using trophic magnification factors and related measures. Integr. Environ. Assess. Manag. 0:000-000.

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Jason M. Conder, PhD

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Jason M. Conder, PhD

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Appendix B

Laboratory Analytical Chemistry Reports for 2011 Surface Sediment Samples

Calscience
Environmental
Laboratories, Inc.

February 23, 2011

Barry Snyder
AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Subject: **Calscience Work Order No.: 11-02-0364**
Client Reference: BAE Systems San Diego Ship Repair
Post-Dredge Survey

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/4/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Danielle Gonsman
Project Manager

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

Calscience Work Order No.: 11-02-0364
Project Name: BAE Systems San Diego Ship Repair Post-Dredge Survey

Provided below is a narrative of our analytical effort, including any unique features or anomalies encountered as part of the analysis of the marine sediment samples.

Sample Condition on Receipt

Twenty-six sediment samples (housed in 16-oz glass containers) were received for this project on February 4, 2011. The samples were transferred to the laboratory in an ice-chest with wet ice, following strict chain-of-custody (COC) procedures. The temperature of the samples upon receipt at the laboratory was 2.6°C. All samples were given laboratory identification numbers, logged into the Laboratory Information Management System (LIMS) and then stored under refrigeration pending sediment chemistry testing.

No sample anomalies were noted.

Tests Performed

Copper by EPA 6020
Mercury by EPA 7471A
PCB Congeners by EPA 8270C SIM
HPAHs by EPA 8270C SIM
Tributyltin by Krone, et. al
Total Solids by SM 2540B

Data Summary

The sample results and reporting limits were dry weight corrected.

All samples were homogenized prior to preparation and analysis.

A laboratory duplicate was reported for sample G30.

Holding times

All holding times were met.

Calibration

Frequency and control criteria for initial and continuing calibration verifications were met.

Reporting Limits

All Method Detection Limits were met. The Tributyltin results were evaluated to the MDL, and where applicable, “J” flags were reported.

Blanks

Concentrations of target analytes in the method blank were found to be below reporting limits for all testing.

Laboratory Control Samples

A Laboratory Control Sample (LCS) analysis was performed at the required frequencies, and unless otherwise noted, all parameters were within the established control limits.

Matrix Spikes

Matrix spike analyses were performed for each applicable analysis on project samples. All parameters were within the established control limits with the following exceptions.

Sample G14 was used for metals matrix spiking, and the MS and MSD recoveries for Copper were out of range. However, since the associated LCS/LCSD recoveries were in control, the data are released with no further action.

Sample G14 was used for Organotins matrix spiking, and the Tributyltin MS and RPD values were outside the acceptable control limits. Yet, the results released with no further action since the corresponding MS, LCS and LCSD recoveries were within the established acceptance ranges.

EPA 8270C SIM PAH matrix spiking was performed on samples G9 and G14, and the MS and MSD recoveries and/or RPDs for several analytes fell outside the established control limits due to matrix interference. The results have been flagged with the appropriate qualifiers and are released with no further clarification since the corresponding LCS/LCSD recoveries and RPDs were in control.

Surrogates

Surrogate recoveries for all applicable tests and samples were within the established control limits.

Acronyms

LCS/LCSD- Laboratory Control Sample/Laboratory Control Sample Duplicate
PDS/PDSD- Post Digestion Spike/Post Digestion Spike Duplicate
MS/MSD- Matrix Spike/Matrix Spike Duplicate
ME-Marginal Exceedance
RPD- Relative Percent Difference

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: N/A
Method: SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G3	**11-02-0364-1-A**	**02/03/11 15:29**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	34.6	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G5	**11-02-0364-2-A**	**02/03/11 16:03**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	31.3	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G6	**11-02-0364-3-A**	**02/03/11 15:49**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	39.2	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G8	**11-02-0364-4-A**	**02/03/11 14:53**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	58.2	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G9	**11-02-0364-5-A**	**02/03/11 15:12**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	45.2	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17	**11-02-0364-6-A**	**02/03/11 11:27**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	51.0	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: N/A
Method: SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17D	**11-02-0364-7-A**	**02/03/11 11:27**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	50.5	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G18	**11-02-0364-8-A**	**02/03/11 14:35**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	52.1	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G19	**11-02-0364-9-A**	**02/03/11 11:10**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	49.9	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G20	**11-02-0364-10-A**	**02/03/11 10:31**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	47.5	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G22	**11-02-0364-11-A**	**02/03/11 11:52**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	51.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G23	**11-02-0364-12-A**	**02/03/11 14:11**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	54.3	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: N/A
Method: SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G24	**11-02-0364-13-A**	**02/03/11 13:52**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	37.2	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G25	**11-02-0364-14-A**	**02/03/11 09:33**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	34.9	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G26	**11-02-0364-15-A**	**02/03/11 10:03**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	48.8	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G27	**11-02-0364-16-A**	**02/03/11 10:51**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	44.3	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G1	**11-02-0364-17-A**	**02/04/11 11:54**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	37.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G2	**11-02-0364-18-A**	**02/04/11 10:24**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	39.3	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: N/A
Method: SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G4	**11-02-0364-19-A**	**02/04/11 11:35**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	46.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G7	**11-02-0364-20-A**	**02/04/11 11:10**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	55.8	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G14	**11-02-0364-21-A**	**02/04/11 09:26**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	43.7	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G15	**11-02-0364-22-A**	**02/04/11 09:04**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	40.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G16	**11-02-0364-23-A**	**02/04/11 08:36**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	53.9	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G28	**11-02-0364-24-A**	**02/04/11 10:47**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	59.4	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	N/A
		Method:	SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey — Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G29	**11-02-0364-25-A**	**02/04/11 09:48**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	35.2	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30	**11-02-0364-26-A**	**02/04/11 10:05**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	33.8	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30 Lab Duplicate	**11-02-0364-27-A**	**02/04/11 10:05**	**Sediment**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	34.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-019-1,606**	**N/A**	**Solid**	**N/A**	**02/07/11**	**02/07/11 17:00**	**B0207TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	ND	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-019-1,607**	**N/A**	**Solid**	**N/A**	**02/07/11**	**02/07/11 17:20**	**B0207TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	ND	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G3	**11-02-0364-1-A**	**02/03/11 15:29**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 13:01**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	7.9	8.7	0.97	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	91	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G5	**11-02-0364-2-A**	**02/03/11 16:03**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 13:34**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	9.6	1.1	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	82	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G6	**11-02-0364-3-A**	**02/03/11 15:49**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 14:07**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	7.7	0.85	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	74	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G8	**11-02-0364-4-A**	**02/03/11 14:53**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 14:39**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	11	5.2	0.57	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	79	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G9	**11-02-0364-5-A**	**02/03/11 15:12**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 15:12**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	3.4	6.6	0.74	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	71	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17	**11-02-0364-6-A**	**02/03/11 11:27**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 15:44**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	5.9	0.66	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	63	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17D	**11-02-0364-7-A**	**02/03/11 11:27**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 16:16**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	2.0	5.9	0.66	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	61	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G18	**11-02-0364-8-A**	**02/03/11 14:35**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 16:49**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	5.8	0.64	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	51	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G19	**11-02-0364-9-A**	**02/03/11 11:10**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 17:22**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	5.1	6.0	0.67	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	98	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G20	**11-02-0364-10-A**	**02/03/11 10:31**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 17:54**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	6.8	6.3	0.70	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	89	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G22	**11-02-0364-11-A**	**02/03/11 11:52**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 18:27**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	7.6	5.9	0.66	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	87	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G23	**11-02-0364-12-A**	**02/03/11 14:11**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 18:59**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	7.7	5.5	0.62	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	91	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G24	**11-02-0364-13-A**	**02/03/11 13:52**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 19:33**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	31	8.1	0.90	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	95	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G25	**11-02-0364-14-A**	**02/03/11 09:33**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 20:06**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	24	8.6	0.96	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	96	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G26	**11-02-0364-15-A**	**02/03/11 10:03**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 20:39**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	11	6.1	0.69	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	102	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G27	**11-02-0364-16-A**	**02/03/11 10:51**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 21:11**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	6.2	6.8	0.75	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	87	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G1	**11-02-0364-17-A**	**02/04/11 11:54**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 23:21**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	11	8.1	0.90	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	91	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G2	**11-02-0364-18-A**	**02/04/11 10:24**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11 23:54**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	9.8	7.6	0.85	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	95	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G4	**11-02-0364-19-A**	**02/04/11 11:35**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 00:27**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	6.4	6.5	0.73	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	93	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G7	**11-02-0364-20-A**	**02/04/11 11:10**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 01:00**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	3.8	5.4	0.60	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	95	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G14	**11-02-0364-21-A**	**02/04/11 09:26**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 01:33**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	22	6.9	0.77	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	86	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G15	**11-02-0364-22-A**	**02/04/11 09:04**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 02:06**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	48	7.5	0.84	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	92	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G16	**11-02-0364-23-A**	**02/04/11 08:36**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 02:38**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	4.7	5.6	0.62	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	86	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G28	**11-02-0364-24-A**	**02/04/11 10:47**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 03:11**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	4.2	5.1	0.56	1	J	ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	82	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G29	**11-02-0364-25-A**	**02/04/11 09:48**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 03:44**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	8.5	0.95	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	91	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30	**11-02-0364-26-A**	**02/04/11 10:05**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 04:16**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	18	8.9	0.99	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	90	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30 Lab Duplicate	**11-02-0364-27-A**	**02/04/11 10:05**	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11 04:49**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	17	8.8	0.98	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	94	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-016-816**	**N/A**	**Solid**	**GC/MS Y**	**02/08/11**	**02/10/11 12:28**	**110208L08**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	3.0	0.33	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	107	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-016-817**	**N/A**	**Solid**	**GC/MS Y**	**02/08/11**	**02/11/11 06:27**	**110208L09**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	3.0	0.33	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	97	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G3	**11-02-0364-1-A**	**02/03/11 15:29**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 20:18**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	14	1		PCB153	ND	14	1	
PCB028	ND	14	1		PCB168	ND	14	1	
PCB052	ND	14	1		PCB105	ND	14	1	
PCB049	ND	14	1		PCB138/158	ND	14	1	
PCB044	ND	14	1		PCB187	ND	14	1	
PCB037	ND	14	1		PCB183	ND	14	1	
PCB074	ND	14	1		PCB126	ND	14	1	
PCB070	ND	14	1		PCB128	ND	14	1	
PCB066	ND	14	1		PCB167	ND	14	1	
PCB101	ND	14	1		PCB177	ND	14	1	
PCB099	ND	14	1		PCB156	ND	14	1	
PCB119	ND	14	1		PCB157	ND	14	1	
PCB087	ND	14	1		PCB180	ND	14	1	
PCB081	ND	14	1		PCB170	ND	14	1	
PCB110	ND	14	1		PCB201	ND	14	1	
PCB151	ND	14	1		PCB169	ND	14	1	
PCB077	ND	14	1		PCB189	ND	14	1	
PCB149	ND	14	1		PCB194	ND	14	1	
PCB123	ND	14	1		PCB206	ND	14	1	
PCB118	ND	14	1		Total PCB Congeners	ND	14	1	
PCB114	ND	14	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	95	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G5	**11-02-0364-2-A**	**02/03/11 16:03**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 20:48**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	16	1		PCB153	22	16	1	
PCB028	ND	16	1		PCB168	ND	16	1	
PCB052	ND	16	1		PCB105	ND	16	1	
PCB049	ND	16	1		PCB138/158	22	16	1	
PCB044	ND	16	1		PCB187	ND	16	1	
PCB037	ND	16	1		PCB183	ND	16	1	
PCB074	ND	16	1		PCB126	ND	16	1	
PCB070	ND	16	1		PCB128	ND	16	1	
PCB066	ND	16	1		PCB167	ND	16	1	
PCB101	22	16	1		PCB177	ND	16	1	
PCB099	ND	16	1		PCB156	ND	16	1	
PCB119	ND	16	1		PCB157	ND	16	1	
PCB087	ND	16	1		PCB180	ND	16	1	
PCB081	ND	16	1		PCB170	ND	16	1	
PCB110	20	16	1		PCB201	ND	16	1	
PCB151	ND	16	1		PCB169	ND	16	1	
PCB077	ND	16	1		PCB189	ND	16	1	
PCB149	ND	16	1		PCB194	ND	16	1	
PCB123	ND	16	1		PCB206	ND	16	1	
PCB118	18	16	1		Total PCB Congeners	100	16	1	
PCB114	ND	16	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	81	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G6	**11-02-0364-3-A**	**02/03/11 15:49**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 21:18**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	13	1		PCB153	16	13	1	
PCB028	ND	13	1		PCB168	ND	13	1	
PCB052	ND	13	1		PCB105	ND	13	1	
PCB049	ND	13	1		PCB138/158	16	13	1	
PCB044	ND	13	1		PCB187	ND	13	1	
PCB037	ND	13	1		PCB183	ND	13	1	
PCB074	ND	13	1		PCB126	ND	13	1	
PCB070	ND	13	1		PCB128	ND	13	1	
PCB066	ND	13	1		PCB167	ND	13	1	
PCB101	17	13	1		PCB177	ND	13	1	
PCB099	ND	13	1		PCB156	ND	13	1	
PCB119	ND	13	1		PCB157	ND	13	1	
PCB087	ND	13	1		PCB180	ND	13	1	
PCB081	ND	13	1		PCB170	ND	13	1	
PCB110	15	13	1		PCB201	ND	13	1	
PCB151	ND	13	1		PCB169	ND	13	1	
PCB077	ND	13	1		PCB189	ND	13	1	
PCB149	ND	13	1		PCB194	ND	13	1	
PCB123	ND	13	1		PCB206	ND	13	1	
PCB118	13	13	1		Total PCB Congeners	78	13	1	
PCB114	ND	13	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	80	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G8	**11-02-0364-4-A**	**02/03/11 14:53**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 21:50**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	8.6	1		PCB153	33	8.6	1	
PCB028	ND	8.6	1		PCB168	ND	8.6	1	
PCB052	25	8.6	1		PCB105	15	8.6	1	
PCB049	ND	8.6	1		PCB138/158	35	8.6	1	
PCB044	13	8.6	1		PCB187	ND	8.6	1	
PCB037	ND	8.6	1		PCB183	ND	8.6	1	
PCB074	ND	8.6	1		PCB126	ND	8.6	1	
PCB070	15	8.6	1		PCB128	ND	8.6	1	
PCB066	ND	8.6	1		PCB167	ND	8.6	1	
PCB101	38	8.6	1		PCB177	ND	8.6	1	
PCB099	17	8.6	1		PCB156	ND	8.6	1	
PCB119	ND	8.6	1		PCB157	ND	8.6	1	
PCB087	15	8.6	1		PCB180	8.9	8.6	1	
PCB081	ND	8.6	1		PCB170	ND	8.6	1	
PCB110	35	8.6	1		PCB201	ND	8.6	1	
PCB151	ND	8.6	1		PCB169	ND	8.6	1	
PCB077	ND	8.6	1		PCB189	ND	8.6	1	
PCB149	21	8.6	1		PCB194	ND	8.6	1	
PCB123	ND	8.6	1		PCB206	ND	8.6	1	
PCB118	23	8.6	1		Total PCB Congeners	290	8.6	1	
PCB114	ND	8.6	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	89	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G9	**11-02-0364-5-A**	**02/03/11 15:12**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 22:22**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	11	1		PCB153	14	11	1	
PCB028	ND	11	1		PCB168	ND	11	1	
PCB052	ND	11	1		PCB105	ND	11	1	
PCB049	ND	11	1		PCB138/158	18	11	1	
PCB044	ND	11	1		PCB187	ND	11	1	
PCB037	ND	11	1		PCB183	ND	11	1	
PCB074	ND	11	1		PCB126	ND	11	1	
PCB070	ND	11	1		PCB128	ND	11	1	
PCB066	ND	11	1		PCB167	ND	11	1	
PCB101	12	11	1		PCB177	ND	11	1	
PCB099	ND	11	1		PCB156	ND	11	1	
PCB119	ND	11	1		PCB157	ND	11	1	
PCB087	ND	11	1		PCB180	ND	11	1	
PCB081	ND	11	1		PCB170	ND	11	1	
PCB110	ND	11	1		PCB201	ND	11	1	
PCB151	ND	11	1		PCB169	ND	11	1	
PCB077	ND	11	1		PCB189	ND	11	1	
PCB149	ND	11	1		PCB194	ND	11	1	
PCB123	ND	11	1		PCB206	ND	11	1	
PCB118	ND	11	1		Total PCB Congeners	43	11	1	
PCB114	ND	11	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	98	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17	**11-02-0364-6-A**	**02/03/11 11:27**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 22:52**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.8	1		PCB153	ND	9.8	1	
PCB028	ND	9.8	1		PCB168	ND	9.8	1	
PCB052	ND	9.8	1		PCB105	ND	9.8	1	
PCB049	ND	9.8	1		PCB138/158	ND	9.8	1	
PCB044	ND	9.8	1		PCB187	ND	9.8	1	
PCB037	ND	9.8	1		PCB183	ND	9.8	1	
PCB074	ND	9.8	1		PCB126	ND	9.8	1	
PCB070	ND	9.8	1		PCB128	ND	9.8	1	
PCB066	ND	9.8	1		PCB167	ND	9.8	1	
PCB101	ND	9.8	1		PCB177	ND	9.8	1	
PCB099	ND	9.8	1		PCB156	ND	9.8	1	
PCB119	ND	9.8	1		PCB157	ND	9.8	1	
PCB087	ND	9.8	1		PCB180	ND	9.8	1	
PCB081	ND	9.8	1		PCB170	ND	9.8	1	
PCB110	ND	9.8	1		PCB201	ND	9.8	1	
PCB151	ND	9.8	1		PCB169	ND	9.8	1	
PCB077	ND	9.8	1		PCB189	ND	9.8	1	
PCB149	ND	9.8	1		PCB194	ND	9.8	1	
PCB123	ND	9.8	1		PCB206	ND	9.8	1	
PCB118	ND	9.8	1		Total PCB Congeners	ND	9.8	1	
PCB114	ND	9.8	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	86	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17D	**11-02-0364-7-A**	**02/03/11 11:27**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 23:25**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.9	1		PCB153	ND	9.9	1	
PCB028	ND	9.9	1		PCB168	ND	9.9	1	
PCB052	ND	9.9	1		PCB105	ND	9.9	1	
PCB049	ND	9.9	1		PCB138/158	ND	9.9	1	
PCB044	ND	9.9	1		PCB187	ND	9.9	1	
PCB037	ND	9.9	1		PCB183	ND	9.9	1	
PCB074	ND	9.9	1		PCB126	ND	9.9	1	
PCB070	ND	9.9	1		PCB128	ND	9.9	1	
PCB066	ND	9.9	1		PCB167	ND	9.9	1	
PCB101	ND	9.9	1		PCB177	ND	9.9	1	
PCB099	ND	9.9	1		PCB156	ND	9.9	1	
PCB119	ND	9.9	1		PCB157	ND	9.9	1	
PCB087	ND	9.9	1		PCB180	ND	9.9	1	
PCB081	ND	9.9	1		PCB170	ND	9.9	1	
PCB110	ND	9.9	1		PCB201	ND	9.9	1	
PCB151	ND	9.9	1		PCB169	ND	9.9	1	
PCB077	ND	9.9	1		PCB189	ND	9.9	1	
PCB149	ND	9.9	1		PCB194	ND	9.9	1	
PCB123	ND	9.9	1		PCB206	ND	9.9	1	
PCB118	ND	9.9	1		Total PCB Congeners	ND	9.9	1	
PCB114	ND	9.9	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	94	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G18	**11-02-0364-8-A**	**02/03/11 14:35**	**Sediment**	**GC/MS N**	**02/08/11**	**02/11/11 23:58**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.6	1		PCB153	ND	9.6	1	
PCB028	ND	9.6	1		PCB168	ND	9.6	1	
PCB052	ND	9.6	1		PCB105	ND	9.6	1	
PCB049	ND	9.6	1		PCB138/158	ND	9.6	1	
PCB044	ND	9.6	1		PCB187	ND	9.6	1	
PCB037	ND	9.6	1		PCB183	ND	9.6	1	
PCB074	ND	9.6	1		PCB126	ND	9.6	1	
PCB070	ND	9.6	1		PCB128	ND	9.6	1	
PCB066	ND	9.6	1		PCB167	ND	9.6	1	
PCB101	ND	9.6	1		PCB177	ND	9.6	1	
PCB099	ND	9.6	1		PCB156	ND	9.6	1	
PCB119	ND	9.6	1		PCB157	ND	9.6	1	
PCB087	ND	9.6	1		PCB180	ND	9.6	1	
PCB081	ND	9.6	1		PCB170	ND	9.6	1	
PCB110	ND	9.6	1		PCB201	ND	9.6	1	
PCB151	ND	9.6	1		PCB169	ND	9.6	1	
PCB077	ND	9.6	1		PCB189	ND	9.6	1	
PCB149	ND	9.6	1		PCB194	ND	9.6	1	
PCB123	ND	9.6	1		PCB206	ND	9.6	1	
PCB118	ND	9.6	1		Total PCB Congeners	ND	9.6	1	
PCB114	ND	9.6	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	71	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G19	**11-02-0364-9-A**	**02/03/11 11:10**	**Sediment**	**GC/MS N**	**02/08/11**	**02/12/11 00:29**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	10	1		PCB153	11	10	1	
PCB028	ND	10	1		PCB168	ND	10	1	
PCB052	ND	10	1		PCB105	ND	10	1	
PCB049	ND	10	1		PCB138/158	ND	10	1	
PCB044	ND	10	1		PCB187	ND	10	1	
PCB037	ND	10	1		PCB183	ND	10	1	
PCB074	ND	10	1		PCB126	ND	10	1	
PCB070	ND	10	1		PCB128	ND	10	1	
PCB066	ND	10	1		PCB167	ND	10	1	
PCB101	ND	10	1		PCB177	ND	10	1	
PCB099	ND	10	1		PCB156	ND	10	1	
PCB119	ND	10	1		PCB157	ND	10	1	
PCB087	ND	10	1		PCB180	ND	10	1	
PCB081	ND	10	1		PCB170	ND	10	1	
PCB110	ND	10	1		PCB201	ND	10	1	
PCB151	ND	10	1		PCB169	ND	10	1	
PCB077	ND	10	1		PCB189	ND	10	1	
PCB149	ND	10	1		PCB194	ND	10	1	
PCB123	ND	10	1		PCB206	ND	10	1	
PCB118	ND	10	1		Total PCB Congeners	11	10	1	
PCB114	ND	10	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	86	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G20	**11-02-0364-10-A**	**02/03/11 10:31**	**Sediment**	**GC/MS N**	**02/08/11**	**02/12/11 01:03**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	11	1		PCB153	ND	11	1	
PCB028	ND	11	1		PCB168	ND	11	1	
PCB052	ND	11	1		PCB105	ND	11	1	
PCB049	ND	11	1		PCB138/158	ND	11	1	
PCB044	ND	11	1		PCB187	ND	11	1	
PCB037	ND	11	1		PCB183	ND	11	1	
PCB074	ND	11	1		PCB126	ND	11	1	
PCB070	ND	11	1		PCB128	ND	11	1	
PCB066	ND	11	1		PCB167	ND	11	1	
PCB101	ND	11	1		PCB177	ND	11	1	
PCB099	ND	11	1		PCB156	ND	11	1	
PCB119	ND	11	1		PCB157	ND	11	1	
PCB087	ND	11	1		PCB180	ND	11	1	
PCB081	ND	11	1		PCB170	ND	11	1	
PCB110	ND	11	1		PCB201	ND	11	1	
PCB151	ND	11	1		PCB169	ND	11	1	
PCB077	ND	11	1		PCB189	ND	11	1	
PCB149	ND	11	1		PCB194	ND	11	1	
PCB123	ND	11	1		PCB206	ND	11	1	
PCB118	ND	11	1		Total PCB Congeners	ND	11	1	
PCB114	ND	11	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	83	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G22	**11-02-0364-11-A**	**02/03/11 11:52**	**Sediment**	**GC/MS N**	**02/08/11**	**02/12/11 01:35**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.8	1		PCB153	12	9.8	1	
PCB028	ND	9.8	1		PCB168	ND	9.8	1	
PCB052	ND	9.8	1		PCB105	ND	9.8	1	
PCB049	ND	9.8	1		PCB138/158	10	9.8	1	
PCB044	ND	9.8	1		PCB187	ND	9.8	1	
PCB037	ND	9.8	1		PCB183	ND	9.8	1	
PCB074	ND	9.8	1		PCB126	ND	9.8	1	
PCB070	ND	9.8	1		PCB128	ND	9.8	1	
PCB066	ND	9.8	1		PCB167	ND	9.8	1	
PCB101	ND	9.8	1		PCB177	ND	9.8	1	
PCB099	ND	9.8	1		PCB156	ND	9.8	1	
PCB119	ND	9.8	1		PCB157	ND	9.8	1	
PCB087	ND	9.8	1		PCB180	ND	9.8	1	
PCB081	ND	9.8	1		PCB170	ND	9.8	1	
PCB110	ND	9.8	1		PCB201	ND	9.8	1	
PCB151	ND	9.8	1		PCB169	ND	9.8	1	
PCB077	ND	9.8	1		PCB189	ND	9.8	1	
PCB149	ND	9.8	1		PCB194	ND	9.8	1	
PCB123	ND	9.8	1		PCB206	ND	9.8	1	
PCB118	ND	9.8	1		Total PCB Congeners	22	9.8	1	
PCB114	ND	9.8	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G23	**11-02-0364-12-A**	**02/03/11 14:11**	**Sediment**	**GC/MS N**	**02/08/11**	**02/12/11 02:09**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.2	1		PCB153	16	9.2	1	
PCB028	ND	9.2	1		PCB168	ND	9.2	1	
PCB052	9.4	9.2	1		PCB105	ND	9.2	1	
PCB049	ND	9.2	1		PCB138/158	16	9.2	1	
PCB044	ND	9.2	1		PCB187	ND	9.2	1	
PCB037	ND	9.2	1		PCB183	ND	9.2	1	
PCB074	ND	9.2	1		PCB126	ND	9.2	1	
PCB070	ND	9.2	1		PCB128	ND	9.2	1	
PCB066	ND	9.2	1		PCB167	ND	9.2	1	
PCB101	16	9.2	1		PCB177	ND	9.2	1	
PCB099	ND	9.2	1		PCB156	ND	9.2	1	
PCB119	ND	9.2	1		PCB157	ND	9.2	1	
PCB087	ND	9.2	1		PCB180	ND	9.2	1	
PCB081	ND	9.2	1		PCB170	ND	9.2	1	
PCB110	14	9.2	1		PCB201	ND	9.2	1	
PCB151	ND	9.2	1		PCB169	ND	9.2	1	
PCB077	ND	9.2	1		PCB189	ND	9.2	1	
PCB149	9.9	9.2	1		PCB194	ND	9.2	1	
PCB123	ND	9.2	1		PCB206	ND	9.2	1	
PCB118	12	9.2	1		Total PCB Congeners	94	9.2	1	
PCB114	ND	9.2	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	83	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G24	**11-02-0364-13-A**	**02/03/11 13:52**	**Sediment**	**GC/MS N**	**02/08/11**	**02/12/11 02:41**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	13	1		PCB153	ND	13	1	
PCB028	ND	13	1		PCB168	ND	13	1	
PCB052	ND	13	1		PCB105	ND	13	1	
PCB049	ND	13	1		PCB138/158	ND	13	1	
PCB044	ND	13	1		PCB187	ND	13	1	
PCB037	ND	13	1		PCB183	ND	13	1	
PCB074	ND	13	1		PCB126	ND	13	1	
PCB070	ND	13	1		PCB128	ND	13	1	
PCB066	ND	13	1		PCB167	ND	13	1	
PCB101	ND	13	1		PCB177	ND	13	1	
PCB099	ND	13	1		PCB156	ND	13	1	
PCB119	ND	13	1		PCB157	ND	13	1	
PCB087	ND	13	1		PCB180	ND	13	1	
PCB081	ND	13	1		PCB170	ND	13	1	
PCB110	ND	13	1		PCB201	ND	13	1	
PCB151	ND	13	1		PCB169	ND	13	1	
PCB077	ND	13	1		PCB189	ND	13	1	
PCB149	ND	13	1		PCB194	ND	13	1	
PCB123	ND	13	1		PCB206	ND	13	1	
PCB118	ND	13	1		Total PCB Congeners	ND	13	1	
PCB114	ND	13	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	60	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G25	**11-02-0364-14-A**	**02/03/11 09:33**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 13:01**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	14	1		PCB153	ND	14	1	
PCB028	ND	14	1		PCB168	ND	14	1	
PCB052	ND	14	1		PCB105	ND	14	1	
PCB049	ND	14	1		PCB138/158	ND	14	1	
PCB044	ND	14	1		PCB187	ND	14	1	
PCB037	ND	14	1		PCB183	ND	14	1	
PCB074	ND	14	1		PCB126	ND	14	1	
PCB070	ND	14	1		PCB128	ND	14	1	
PCB066	ND	14	1		PCB167	ND	14	1	
PCB101	ND	14	1		PCB177	ND	14	1	
PCB099	ND	14	1		PCB156	ND	14	1	
PCB119	ND	14	1		PCB157	ND	14	1	
PCB087	ND	14	1		PCB180	ND	14	1	
PCB081	ND	14	1		PCB170	ND	14	1	
PCB110	ND	14	1		PCB201	ND	14	1	
PCB151	ND	14	1		PCB169	ND	14	1	
PCB077	ND	14	1		PCB189	ND	14	1	
PCB149	ND	14	1		PCB194	ND	14	1	
PCB123	ND	14	1		PCB206	ND	14	1	
PCB118	ND	14	1		Total PCB Congeners	ND	14	1	
PCB114	ND	14	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	65	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G26	**11-02-0364-15-A**	**02/03/11 10:03**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 13:32**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	10	1		PCB153	ND	10	1	
PCB028	ND	10	1		PCB168	ND	10	1	
PCB052	ND	10	1		PCB105	ND	10	1	
PCB049	ND	10	1		PCB138/158	ND	10	1	
PCB044	ND	10	1		PCB187	ND	10	1	
PCB037	ND	10	1		PCB183	ND	10	1	
PCB074	ND	10	1		PCB126	ND	10	1	
PCB070	ND	10	1		PCB128	ND	10	1	
PCB066	ND	10	1		PCB167	ND	10	1	
PCB101	ND	10	1		PCB177	ND	10	1	
PCB099	ND	10	1		PCB156	ND	10	1	
PCB119	ND	10	1		PCB157	ND	10	1	
PCB087	ND	10	1		PCB180	ND	10	1	
PCB081	ND	10	1		PCB170	ND	10	1	
PCB110	ND	10	1		PCB201	ND	10	1	
PCB151	ND	10	1		PCB169	ND	10	1	
PCB077	ND	10	1		PCB189	ND	10	1	
PCB149	ND	10	1		PCB194	ND	10	1	
PCB123	ND	10	1		PCB206	ND	10	1	
PCB118	ND	10	1		Total PCB Congeners	ND	10	1	
PCB114	ND	10	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	64	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey — Page 16 of 29

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G27	**11-02-0364-16-A**	**02/03/11 10:51**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 14:03**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	11	1		PCB153	ND	11	1	
PCB028	ND	11	1		PCB168	ND	11	1	
PCB052	ND	11	1		PCB105	ND	11	1	
PCB049	ND	11	1		PCB138/158	ND	11	1	
PCB044	ND	11	1		PCB187	ND	11	1	
PCB037	ND	11	1		PCB183	ND	11	1	
PCB074	ND	11	1		PCB126	ND	11	1	
PCB070	ND	11	1		PCB128	ND	11	1	
PCB066	ND	11	1		PCB167	ND	11	1	
PCB101	ND	11	1		PCB177	ND	11	1	
PCB099	ND	11	1		PCB156	ND	11	1	
PCB119	ND	11	1		PCB157	ND	11	1	
PCB087	ND	11	1		PCB180	ND	11	1	
PCB081	ND	11	1		PCB170	ND	11	1	
PCB110	ND	11	1		PCB201	ND	11	1	
PCB151	ND	11	1		PCB169	ND	11	1	
PCB077	ND	11	1		PCB189	ND	11	1	
PCB149	ND	11	1		PCB194	ND	11	1	
PCB123	ND	11	1		PCB206	ND	11	1	
PCB118	ND	11	1		Total PCB Congeners	ND	11	1	
PCB114	ND	11	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	79	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G1	**11-02-0364-17-A**	**02/04/11 11:54**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 14:34**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	14	1		PCB153	ND	14	1	
PCB028	ND	14	1		PCB168	ND	14	1	
PCB052	ND	14	1		PCB105	ND	14	1	
PCB049	ND	14	1		PCB138/158	ND	14	1	
PCB044	ND	14	1		PCB187	ND	14	1	
PCB037	ND	14	1		PCB183	ND	14	1	
PCB074	ND	14	1		PCB126	ND	14	1	
PCB070	ND	14	1		PCB128	ND	14	1	
PCB066	ND	14	1		PCB167	ND	14	1	
PCB101	ND	14	1		PCB177	ND	14	1	
PCB099	ND	14	1		PCB156	ND	14	1	
PCB119	ND	14	1		PCB157	ND	14	1	
PCB087	ND	14	1		PCB180	ND	14	1	
PCB081	ND	14	1		PCB170	ND	14	1	
PCB110	ND	14	1		PCB201	ND	14	1	
PCB151	ND	14	1		PCB169	ND	14	1	
PCB077	ND	14	1		PCB189	ND	14	1	
PCB149	ND	14	1		PCB194	ND	14	1	
PCB123	ND	14	1		PCB206	ND	14	1	
PCB118	ND	14	1		Total PCB Congeners	ND	14	1	
PCB114	ND	14	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	64	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G2	**11-02-0364-18-A**	**02/04/11 10:24**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 15:05**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	13	1		PCB153	14	13	1	
PCB028	ND	13	1		PCB168	ND	13	1	
PCB052	ND	13	1		PCB105	ND	13	1	
PCB049	ND	13	1		PCB138/158	19	13	1	
PCB044	ND	13	1		PCB187	ND	13	1	
PCB037	ND	13	1		PCB183	ND	13	1	
PCB074	ND	13	1		PCB126	ND	13	1	
PCB070	ND	13	1		PCB128	ND	13	1	
PCB066	ND	13	1		PCB167	ND	13	1	
PCB101	14	13	1		PCB177	ND	13	1	
PCB099	ND	13	1		PCB156	ND	13	1	
PCB119	ND	13	1		PCB157	ND	13	1	
PCB087	ND	13	1		PCB180	ND	13	1	
PCB081	ND	13	1		PCB170	ND	13	1	
PCB110	14	13	1		PCB201	ND	13	1	
PCB151	ND	13	1		PCB169	ND	13	1	
PCB077	ND	13	1		PCB189	ND	13	1	
PCB149	ND	13	1		PCB194	ND	13	1	
PCB123	ND	13	1		PCB206	ND	13	1	
PCB118	ND	13	1		Total PCB Congeners	60	13	1	
PCB114	ND	13	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	63	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G4	**11-02-0364-19-A**	**02/04/11 11:35**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 15:38**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	11	1		PCB153	14	11	1	
PCB028	ND	11	1		PCB168	ND	11	1	
PCB052	ND	11	1		PCB105	ND	11	1	
PCB049	ND	11	1		PCB138/158	12	11	1	
PCB044	ND	11	1		PCB187	ND	11	1	
PCB037	ND	11	1		PCB183	ND	11	1	
PCB074	ND	11	1		PCB126	ND	11	1	
PCB070	ND	11	1		PCB128	ND	11	1	
PCB066	ND	11	1		PCB167	ND	11	1	
PCB101	ND	11	1		PCB177	ND	11	1	
PCB099	ND	11	1		PCB156	ND	11	1	
PCB119	ND	11	1		PCB157	ND	11	1	
PCB087	ND	11	1		PCB180	ND	11	1	
PCB081	ND	11	1		PCB170	ND	11	1	
PCB110	ND	11	1		PCB201	ND	11	1	
PCB151	ND	11	1		PCB169	ND	11	1	
PCB077	ND	11	1		PCB189	ND	11	1	
PCB149	ND	11	1		PCB194	ND	11	1	
PCB123	ND	11	1		PCB206	ND	11	1	
PCB118	ND	11	1		Total PCB Congeners	26	11	1	
PCB114	ND	11	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	89	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G7	**11-02-0364-20-A**	**02/04/11 11:10**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 16:09**	**110208L16**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.0	1		PCB153	ND	9.0	1	
PCB028	ND	9.0	1		PCB168	ND	9.0	1	
PCB052	ND	9.0	1		PCB105	ND	9.0	1	
PCB049	ND	9.0	1		PCB138/158	ND	9.0	1	
PCB044	ND	9.0	1		PCB187	ND	9.0	1	
PCB037	ND	9.0	1		PCB183	ND	9.0	1	
PCB074	ND	9.0	1		PCB126	ND	9.0	1	
PCB070	ND	9.0	1		PCB128	ND	9.0	1	
PCB066	ND	9.0	1		PCB167	ND	9.0	1	
PCB101	ND	9.0	1		PCB177	ND	9.0	1	
PCB099	ND	9.0	1		PCB156	ND	9.0	1	
PCB119	ND	9.0	1		PCB157	ND	9.0	1	
PCB087	ND	9.0	1		PCB180	ND	9.0	1	
PCB081	ND	9.0	1		PCB170	ND	9.0	1	
PCB110	ND	9.0	1		PCB201	ND	9.0	1	
PCB151	ND	9.0	1		PCB169	ND	9.0	1	
PCB077	ND	9.0	1		PCB189	ND	9.0	1	
PCB149	ND	9.0	1		PCB194	ND	9.0	1	
PCB123	ND	9.0	1		PCB206	ND	9.0	1	
PCB118	ND	9.0	1		Total PCB Congeners	ND	9.0	1	
PCB114	ND	9.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	83	50-125					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G14	**11-02-0364-21-A**	**02/04/11 09:26**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 16:39**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	11	1		PCB153	ND	11	1	
PCB028	ND	11	1		PCB168	ND	11	1	
PCB052	ND	11	1		PCB105	ND	11	1	
PCB049	ND	11	1		PCB138/158	ND	11	1	
PCB044	ND	11	1		PCB187	ND	11	1	
PCB037	ND	11	1		PCB183	ND	11	1	
PCB074	ND	11	1		PCB126	ND	11	1	
PCB070	ND	11	1		PCB128	ND	11	1	
PCB066	ND	11	1		PCB167	ND	11	1	
PCB101	ND	11	1		PCB177	ND	11	1	
PCB099	ND	11	1		PCB156	ND	11	1	
PCB119	ND	11	1		PCB157	ND	11	1	
PCB087	ND	11	1		PCB180	ND	11	1	
PCB081	ND	11	1		PCB170	ND	11	1	
PCB110	ND	11	1		PCB201	ND	11	1	
PCB151	ND	11	1		PCB169	ND	11	1	
PCB077	ND	11	1		PCB189	ND	11	1	
PCB149	ND	11	1		PCB194	ND	11	1	
PCB123	ND	11	1		PCB206	ND	11	1	
PCB118	ND	11	1		Total PCB Congeners	ND	11	1	
PCB114	ND	11	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	80	50-125					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G15	**11-02-0364-22-A**	**02/04/11 09:04**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 17:11**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	12	1		PCB153	ND	12	1	
PCB028	ND	12	1		PCB168	ND	12	1	
PCB052	ND	12	1		PCB105	ND	12	1	
PCB049	ND	12	1		PCB138/158	ND	12	1	
PCB044	ND	12	1		PCB187	ND	12	1	
PCB037	ND	12	1		PCB183	ND	12	1	
PCB074	ND	12	1		PCB126	ND	12	1	
PCB070	ND	12	1		PCB128	ND	12	1	
PCB066	ND	12	1		PCB167	ND	12	1	
PCB101	ND	12	1		PCB177	ND	12	1	
PCB099	ND	12	1		PCB156	ND	12	1	
PCB119	ND	12	1		PCB157	ND	12	1	
PCB087	ND	12	1		PCB180	ND	12	1	
PCB081	ND	12	1		PCB170	ND	12	1	
PCB110	ND	12	1		PCB201	ND	12	1	
PCB151	ND	12	1		PCB169	ND	12	1	
PCB077	ND	12	1		PCB189	ND	12	1	
PCB149	ND	12	1		PCB194	ND	12	1	
PCB123	ND	12	1		PCB206	ND	12	1	
PCB118	ND	12	1		Total PCB Congeners	ND	12	1	
PCB114	ND	12	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	64	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G16	**11-02-0364-23-A**	**02/04/11 08:36**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 17:41**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	9.3	1		PCB153	9.6	9.3	1	
PCB028	ND	9.3	1		PCB168	ND	9.3	1	
PCB052	ND	9.3	1		PCB105	ND	9.3	1	
PCB049	ND	9.3	1		PCB138/158	ND	9.3	1	
PCB044	ND	9.3	1		PCB187	ND	9.3	1	
PCB037	ND	9.3	1		PCB183	ND	9.3	1	
PCB074	ND	9.3	1		PCB126	ND	9.3	1	
PCB070	ND	9.3	1		PCB128	ND	9.3	1	
PCB066	ND	9.3	1		PCB167	ND	9.3	1	
PCB101	ND	9.3	1		PCB177	ND	9.3	1	
PCB099	ND	9.3	1		PCB156	ND	9.3	1	
PCB119	ND	9.3	1		PCB157	9.3	9.3	1	
PCB087	ND	9.3	1		PCB180	ND	9.3	1	
PCB081	ND	9.3	1		PCB170	ND	9.3	1	
PCB110	ND	9.3	1		PCB201	ND	9.3	1	
PCB151	ND	9.3	1		PCB169	ND	9.3	1	
PCB077	ND	9.3	1		PCB189	ND	9.3	1	
PCB149	ND	9.3	1		PCB194	ND	9.3	1	
PCB123	ND	9.3	1		PCB206	ND	9.3	1	
PCB118	ND	9.3	1		Total PCB Congeners	19	9.3	1	
PCB114	ND	9.3	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	95	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G28	**11-02-0364-24-A**	**02/04/11 10:47**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 18:12**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	8.4	1		PCB153	11	8.4	1	
PCB028	ND	8.4	1		PCB168	ND	8.4	1	
PCB052	ND	8.4	1		PCB105	ND	8.4	1	
PCB049	ND	8.4	1		PCB138/158	8.7	8.4	1	
PCB044	ND	8.4	1		PCB187	ND	8.4	1	
PCB037	ND	8.4	1		PCB183	ND	8.4	1	
PCB074	ND	8.4	1		PCB126	ND	8.4	1	
PCB070	ND	8.4	1		PCB128	ND	8.4	1	
PCB066	ND	8.4	1		PCB167	ND	8.4	1	
PCB101	ND	8.4	1		PCB177	ND	8.4	1	
PCB099	ND	8.4	1		PCB156	ND	8.4	1	
PCB119	ND	8.4	1		PCB157	10	8.4	1	
PCB087	ND	8.4	1		PCB180	ND	8.4	1	
PCB081	ND	8.4	1		PCB170	ND	8.4	1	
PCB110	ND	8.4	1		PCB201	ND	8.4	1	
PCB151	ND	8.4	1		PCB169	ND	8.4	1	
PCB077	ND	8.4	1		PCB189	ND	8.4	1	
PCB149	ND	8.4	1		PCB194	ND	8.4	1	
PCB123	ND	8.4	1		PCB206	ND	8.4	1	
PCB118	ND	8.4	1		Total PCB Congeners	29	8.4	1	
PCB114	ND	8.4	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	95	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G29	**11-02-0364-25-A**	**02/04/11 09:48**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 18:42**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	14	1		PCB153	28	14	1	
PCB028	19	14	1		PCB168	ND	14	1	
PCB052	25	14	1		PCB105	ND	14	1	
PCB049	26	14	1		PCB138/158	29	14	1	
PCB044	20	14	1		PCB187	ND	14	1	
PCB037	ND	14	1		PCB183	ND	14	1	
PCB074	ND	14	1		PCB126	ND	14	1	
PCB070	19	14	1		PCB128	ND	14	1	
PCB066	ND	14	1		PCB167	ND	14	1	
PCB101	31	14	1		PCB177	ND	14	1	
PCB099	ND	14	1		PCB156	ND	14	1	
PCB119	ND	14	1		PCB157	15	14	1	
PCB087	ND	14	1		PCB180	ND	14	1	
PCB081	ND	14	1		PCB170	ND	14	1	
PCB110	27	14	1		PCB201	ND	14	1	
PCB151	ND	14	1		PCB169	ND	14	1	
PCB077	ND	14	1		PCB189	ND	14	1	
PCB149	20	14	1		PCB194	ND	14	1	
PCB123	ND	14	1		PCB206	ND	14	1	
PCB118	24	14	1		Total PCB Congeners	280	14	1	
PCB114	ND	14	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	59	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30	**11-02-0364-26-A**	**02/04/11 10:05**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 19:13**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	15	1		PCB153	ND	15	1	
PCB028	ND	15	1		PCB168	ND	15	1	
PCB052	ND	15	1		PCB105	ND	15	1	
PCB049	ND	15	1		PCB138/158	ND	15	1	
PCB044	ND	15	1		PCB187	ND	15	1	
PCB037	ND	15	1		PCB183	ND	15	1	
PCB074	ND	15	1		PCB126	ND	15	1	
PCB070	ND	15	1		PCB128	ND	15	1	
PCB066	ND	15	1		PCB167	ND	15	1	
PCB101	ND	15	1		PCB177	ND	15	1	
PCB099	ND	15	1		PCB156	ND	15	1	
PCB119	ND	15	1		PCB157	ND	15	1	
PCB087	ND	15	1		PCB180	ND	15	1	
PCB081	ND	15	1		PCB170	ND	15	1	
PCB110	ND	15	1		PCB201	ND	15	1	
PCB151	ND	15	1		PCB169	ND	15	1	
PCB077	ND	15	1		PCB189	ND	15	1	
PCB149	ND	15	1		PCB194	ND	15	1	
PCB123	ND	15	1		PCB206	ND	15	1	
PCB118	ND	15	1		Total PCB Congeners	ND	15	1	
PCB114	ND	15	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	62	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30 Lab Duplicate	**11-02-0364-27-A**	**02/04/11 10:05**	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11 19:47**	**110208L17**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	15	1		PCB153	ND	15	1	
PCB028	ND	15	1		PCB168	ND	15	1	
PCB052	ND	15	1		PCB105	ND	15	1	
PCB049	ND	15	1		PCB138/158	ND	15	1	
PCB044	ND	15	1		PCB187	ND	15	1	
PCB037	ND	15	1		PCB183	ND	15	1	
PCB074	ND	15	1		PCB126	ND	15	1	
PCB070	ND	15	1		PCB128	ND	15	1	
PCB066	ND	15	1		PCB167	ND	15	1	
PCB101	ND	15	1		PCB177	ND	15	1	
PCB099	ND	15	1		PCB156	ND	15	1	
PCB119	ND	15	1		PCB157	ND	15	1	
PCB087	ND	15	1		PCB180	ND	15	1	
PCB081	ND	15	1		PCB170	ND	15	1	
PCB110	ND	15	1		PCB201	ND	15	1	
PCB151	ND	15	1		PCB169	ND	15	1	
PCB077	ND	15	1		PCB189	ND	15	1	
PCB149	ND	15	1		PCB194	ND	15	1	
PCB123	ND	15	1		PCB206	ND	15	1	
PCB118	ND	15	1		Total PCB Congeners	ND	15	1	
PCB114	ND	15	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	60	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-224-20**	**N/A**	**Solid**	**GC/MS N**	**02/08/11**	**02/11/11 19:46**	**110208L16**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	5.0	1		PCB114	ND	5.0	1	
PCB028	ND	5.0	1		PCB153	ND	5.0	1	
PCB052	ND	5.0	1		PCB168	ND	5.0	1	
PCB049	ND	5.0	1		PCB105	ND	5.0	1	
PCB044	ND	5.0	1		PCB138/158	ND	5.0	1	
PCB037	ND	5.0	1		PCB187	ND	5.0	1	
PCB074	ND	5.0	1		PCB183	ND	5.0	1	
PCB070	ND	5.0	1		PCB126	ND	5.0	1	
PCB066	ND	5.0	1		PCB128	ND	5.0	1	
PCB101	ND	5.0	1		PCB167	ND	5.0	1	
PCB099	ND	5.0	1		PCB177	ND	5.0	1	
PCB119	ND	5.0	1		PCB156	ND	5.0	1	
PCB087	ND	5.0	1		PCB157	ND	5.0	1	
PCB081	ND	5.0	1		PCB180	ND	5.0	1	
PCB110	ND	5.0	1		PCB170	ND	5.0	1	
PCB151	ND	5.0	1		PCB201	ND	5.0	1	
PCB077	ND	5.0	1		PCB169	ND	5.0	1	
PCB149	ND	5.0	1		PCB189	ND	5.0	1	
PCB123	ND	5.0	1		PCB194	ND	5.0	1	
PCB118	ND	5.0	1		PCB206	ND	5.0	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
2,4,5,6-Tetrachloro-m-Xylene	104	50-125							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-224-21**	**N/A**	**Solid**	**GC/MS N**	**02/08/11**	**02/15/11 12:29**	**110208L17**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	5.0	1		PCB114	ND	5.0	1	
PCB028	ND	5.0	1		PCB153	ND	5.0	1	
PCB052	ND	5.0	1		PCB168	ND	5.0	1	
PCB049	ND	5.0	1		PCB105	ND	5.0	1	
PCB044	ND	5.0	1		PCB138/158	ND	5.0	1	
PCB037	ND	5.0	1		PCB187	ND	5.0	1	
PCB074	ND	5.0	1		PCB183	ND	5.0	1	
PCB070	ND	5.0	1		PCB126	ND	5.0	1	
PCB066	ND	5.0	1		PCB128	ND	5.0	1	
PCB101	ND	5.0	1		PCB167	ND	5.0	1	
PCB099	ND	5.0	1		PCB177	ND	5.0	1	
PCB119	ND	5.0	1		PCB156	ND	5.0	1	
PCB087	ND	5.0	1		PCB157	ND	5.0	1	
PCB081	ND	5.0	1		PCB180	ND	5.0	1	
PCB110	ND	5.0	1		PCB170	ND	5.0	1	
PCB151	ND	5.0	1		PCB201	ND	5.0	1	
PCB077	ND	5.0	1		PCB169	ND	5.0	1	
PCB149	ND	5.0	1		PCB189	ND	5.0	1	
PCB123	ND	5.0	1		PCB194	ND	5.0	1	
PCB118	ND	5.0	1		PCB206	ND	5.0	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
2,4,5,6-Tetrachloro-m-Xylene	104	50-125							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey —

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G3	**11-02-0364-1-A**	**02/03/11 15:29**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 17:45**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	73	29	1		Dibenz (a,h) Anthracene	34	29	1	
Benzo (a) Pyrene	190	29	1		Fluoranthene	58	29	1	
Benzo (b) Fluoranthene	200	29	1		Indeno (1,2,3-c,d) Pyrene	110	29	1	
Benzo (g,h,i) Perylene	110	29	1		Perylene	35	29	1	
Benzo (k) Fluoranthene	160	29	1		Pyrene	77	29	1	
Chrysene	130	29	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	60	14-146		Nitrobenzene-d5	71	18-162	
p-Terphenyl-d14	76	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G5	**11-02-0364-2-A**	**02/03/11 16:03**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 18:11**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	120	32	1		Dibenz (a,h) Anthracene	46	32	1	
Benzo (a) Pyrene	270	32	1		Fluoranthene	140	32	1	
Benzo (b) Fluoranthene	250	32	1		Indeno (1,2,3-c,d) Pyrene	150	32	1	
Benzo (g,h,i) Perylene	180	32	1		Perylene	56	32	1	
Benzo (k) Fluoranthene	200	32	1		Pyrene	270	32	1	
Chrysene	200	32	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	126	14-146		Nitrobenzene-d5	134	18-162	
p-Terphenyl-d14	89	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G6	**11-02-0364-3-A**	**02/03/11 15:49**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 18:36**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	110	26	1		Dibenz (a,h) Anthracene	53	26	1	
Benzo (a) Pyrene	290	26	1		Fluoranthene	130	26	1	
Benzo (b) Fluoranthene	270	26	1		Indeno (1,2,3-c,d) Pyrene	170	26	1	
Benzo (g,h,i) Perylene	190	26	1		Perylene	48	26	1	
Benzo (k) Fluoranthene	200	26	1		Pyrene	160	26	1	
Chrysene	160	26	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	85	14-146		Nitrobenzene-d5	95	18-162	
p-Terphenyl-d14	85	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G8	**11-02-0364-4-A**	**02/03/11 14:53**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 19:02**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	3200	340	20		Dibenz (a,h) Anthracene	540	17	1	
Benzo (a) Pyrene	3400	340	20		Fluoranthene	14000	340	20	
Benzo (b) Fluoranthene	2600	340	20		Indeno (1,2,3-c,d) Pyrene	1600	340	20	
Benzo (g,h,i) Perylene	1600	340	20		Perylene	610	17	1	
Benzo (k) Fluoranthene	2500	340	20		Pyrene	13000	340	20	
Chrysene	3300	340	20						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	73	14-146		Nitrobenzene-d5	71	18-162	
p-Terphenyl-d14	86	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G9	**11-02-0364-5-A**	**02/03/11 15:12**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 19:28**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	110	22	1		Dibenz (a,h) Anthracene	80	22	1	
Benzo (a) Pyrene	350	22	1		Fluoranthene	120	22	1	
Benzo (b) Fluoranthene	340	22	1		Indeno (1,2,3-c,d) Pyrene	210	22	1	
Benzo (g,h,i) Perylene	220	22	1		Perylene	62	22	1	
Benzo (k) Fluoranthene	280	22	1		Pyrene	150	22	1	
Chrysene	190	22	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	58	14-146		Nitrobenzene-d5	71	18-162	
p-Terphenyl-d14	62	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17	**11-02-0364-6-A**	**02/03/11 11:27**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 19:53**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	54	20	1		Dibenz (a,h) Anthracene	32	20	1	
Benzo (a) Pyrene	150	20	1		Fluoranthene	64	20	1	
Benzo (b) Fluoranthene	150	20	1		Indeno (1,2,3-c,d) Pyrene	120	20	1	
Benzo (g,h,i) Perylene	130	20	1		Perylene	31	20	1	
Benzo (k) Fluoranthene	130	20	1		Pyrene	84	20	1	
Chrysene	80	20	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	65	14-146		Nitrobenzene-d5	71	18-162	
p-Terphenyl-d14	65	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17D	**11-02-0364-7-A**	**02/03/11 11:27**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/16/11 13:01**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	21	20	1		Dibenz (a,h) Anthracene	ND	20	1	
Benzo (a) Pyrene	41	20	1		Fluoranthene	27	20	1	
Benzo (b) Fluoranthene	38	20	1		Indeno (1,2,3-c,d) Pyrene	26	20	1	
Benzo (g,h,i) Perylene	32	20	1		Perylene	ND	20	1	
Benzo (k) Fluoranthene	33	20	1		Pyrene	35	20	1	
Chrysene	31	20	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	49	14-146		Nitrobenzene-d5	74	18-162	
p-Terphenyl-d14	56	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G18	**11-02-0364-8-A**	**02/03/11 14:35**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 20:45**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	50	19	1		Dibenz (a,h) Anthracene	23	19	1	
Benzo (a) Pyrene	120	19	1		Fluoranthene	53	19	1	
Benzo (b) Fluoranthene	110	19	1		Indeno (1,2,3-c,d) Pyrene	82	19	1	
Benzo (g,h,i) Perylene	96	19	1		Perylene	22	19	1	
Benzo (k) Fluoranthene	85	19	1		Pyrene	78	19	1	
Chrysene	67	19	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	67	14-146		Nitrobenzene-d5	86	18-162	
p-Terphenyl-d14	68	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G19	**11-02-0364-9-A**	**02/03/11 11:10**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 21:10**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	72	20	1		Dibenz (a,h) Anthracene	31	20	1	
Benzo (a) Pyrene	130	20	1		Fluoranthene	78	20	1	
Benzo (b) Fluoranthene	130	20	1		Indeno (1,2,3-c,d) Pyrene	86	20	1	
Benzo (g,h,i) Perylene	97	20	1		Perylene	27	20	1	
Benzo (k) Fluoranthene	100	20	1		Pyrene	89	20	1	
Chrysene	100	20	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	55	14-146		Nitrobenzene-d5	81	18-162	
p-Terphenyl-d14	57	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G20	**11-02-0364-10-A**	**02/03/11 10:31**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 21:36**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	79	21	1		Dibenz (a,h) Anthracene	48	21	1	
Benzo (a) Pyrene	200	21	1		Fluoranthene	95	21	1	
Benzo (b) Fluoranthene	190	21	1		Indeno (1,2,3-c,d) Pyrene	130	21	1	
Benzo (g,h,i) Perylene	140	21	1		Perylene	39	21	1	
Benzo (k) Fluoranthene	160	21	1		Pyrene	110	21	1	
Chrysene	130	21	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	65	14-146		Nitrobenzene-d5	82	18-162	
p-Terphenyl-d14	66	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G22	**11-02-0364-11-A**	**02/03/11 11:52**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 22:02**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	88	20	1		Dibenz (a,h) Anthracene	37	20	1	
Benzo (a) Pyrene	200	20	1		Fluoranthene	110	20	1	
Benzo (b) Fluoranthene	180	20	1		Indeno (1,2,3-c,d) Pyrene	120	20	1	
Benzo (g,h,i) Perylene	130	20	1		Perylene	36	20	1	
Benzo (k) Fluoranthene	140	20	1		Pyrene	140	20	1	
Chrysene	140	20	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	104	14-146		Nitrobenzene-d5	110	18-162	
p-Terphenyl-d14	74	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G23	**11-02-0364-12-A**	**02/03/11 14:11**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 22:28**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	250	18	1		Dibenz (a,h) Anthracene	180	18	1	
Benzo (a) Pyrene	1300	180	10		Fluoranthene	360	18	1	
Benzo (b) Fluoranthene	1200	180	10		Indeno (1,2,3-c,d) Pyrene	440	18	1	
Benzo (g,h,i) Perylene	390	18	1		Perylene	210	18	1	
Benzo (k) Fluoranthene	890	18	1		Pyrene	450	18	1	
Chrysene	480	18	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	72	14-146		Nitrobenzene-d5	82	18-162	
p-Terphenyl-d14	78	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey — Page 5 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G24	**11-02-0364-13-A**	**02/03/11 13:52**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 22:53**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	200	27	1		Dibenz (a,h) Anthracene	170	27	1	
Benzo (a) Pyrene	950	27	1		Fluoranthene	120	27	1	
Benzo (b) Fluoranthene	760	27	1		Indeno (1,2,3-c,d) Pyrene	380	27	1	
Benzo (g,h,i) Perylene	310	27	1		Perylene	180	27	1	
Benzo (k) Fluoranthene	700	27	1		Pyrene	170	27	1	
Chrysene	470	27	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	39	14-146		Nitrobenzene-d5	49	18-162	
p-Terphenyl-d14	57	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G25	**11-02-0364-14-A**	**02/03/11 09:33**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 23:19**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	700	29	1		Dibenz (a,h) Anthracene	240	29	1	
Benzo (a) Pyrene	1200	29	1		Fluoranthene	680	29	1	
Benzo (b) Fluoranthene	1200	29	1		Indeno (1,2,3-c,d) Pyrene	570	29	1	
Benzo (g,h,i) Perylene	610	29	1		Perylene	250	29	1	
Benzo (k) Fluoranthene	1000	29	1		Pyrene	550	29	1	
Chrysene	1300	29	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	55	14-146		Nitrobenzene-d5	55	18-162	
p-Terphenyl-d14	73	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G26	**11-02-0364-15-A**	**02/03/11 10:03**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/11/11 23:44**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	170	20	1		Dibenz (a,h) Anthracene	90	20	1	
Benzo (a) Pyrene	410	20	1		Fluoranthene	230	20	1	
Benzo (b) Fluoranthene	330	20	1		Indeno (1,2,3-c,d) Pyrene	230	20	1	
Benzo (g,h,i) Perylene	220	20	1		Perylene	66	20	1	
Benzo (k) Fluoranthene	310	20	1		Pyrene	220	20	1	
Chrysene	300	20	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	70	14-146		Nitrobenzene-d5	77	18-162	
p-Terphenyl-d14	69	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G27	**11-02-0364-16-A**	**02/03/11 10:51**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 00:10**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	77	23	1		Dibenz (a,h) Anthracene	28	23	1	
Benzo (a) Pyrene	150	23	1		Fluoranthene	87	23	1	
Benzo (b) Fluoranthene	130	23	1		Indeno (1,2,3-c,d) Pyrene	93	23	1	
Benzo (g,h,i) Perylene	100	23	1		Perylene	28	23	1	
Benzo (k) Fluoranthene	98	23	1		Pyrene	130	23	1	
Chrysene	120	23	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	57	14-146		Nitrobenzene-d5	63	18-162	
p-Terphenyl-d14	64	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G1	**11-02-0364-17-A**	**02/04/11 11:54**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 00:36**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	95	27	1		Dibenz (a,h) Anthracene	40	27	1	
Benzo (a) Pyrene	240	27	1		Fluoranthene	100	27	1	
Benzo (b) Fluoranthene	220	27	1		Indeno (1,2,3-c,d) Pyrene	120	27	1	
Benzo (g,h,i) Perylene	120	27	1		Perylene	42	27	1	
Benzo (k) Fluoranthene	200	27	1		Pyrene	110	27	1	
Chrysene	170	27	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	46	14-146		Nitrobenzene-d5	51	18-162	
p-Terphenyl-d14	57	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G2	**11-02-0364-18-A**	**02/04/11 10:24**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 01:01**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	49	25	1		Dibenz (a,h) Anthracene	ND	25	1	
Benzo (a) Pyrene	110	25	1		Fluoranthene	42	25	1	
Benzo (b) Fluoranthene	110	25	1		Indeno (1,2,3-c,d) Pyrene	64	25	1	
Benzo (g,h,i) Perylene	69	25	1		Perylene	ND	25	1	
Benzo (k) Fluoranthene	96	25	1		Pyrene	62	25	1	
Chrysene	130	25	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	48	14-146		Nitrobenzene-d5	63	18-162	
p-Terphenyl-d14	62	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey —

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G4	**11-02-0364-19-A**	**02/04/11 11:35**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/16/11 13:26**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	27	22	1		Dibenz (a,h) Anthracene	ND	22	1	
Benzo (a) Pyrene	62	22	1		Fluoranthene	28	22	1	
Benzo (b) Fluoranthene	51	22	1		Indeno (1,2,3-c,d) Pyrene	45	22	1	
Benzo (g,h,i) Perylene	52	22	1		Perylene	ND	22	1	
Benzo (k) Fluoranthene	42	22	1		Pyrene	38	22	1	
Chrysene	40	22	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	32	14-146		Nitrobenzene-d5	48	18-162	
p-Terphenyl-d14	37	34-148					

G7	**11-02-0364-20-A**	**02/04/11 11:10**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 01:53**	**110209L08**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	54	18	1		Dibenz (a,h) Anthracene	31	18	1	
Benzo (a) Pyrene	160	18	1		Fluoranthene	51	18	1	
Benzo (b) Fluoranthene	150	18	1		Indeno (1,2,3-c,d) Pyrene	98	18	1	
Benzo (g,h,i) Perylene	100	18	1		Perylene	31	18	1	
Benzo (k) Fluoranthene	130	18	1		Pyrene	70	18	1	
Chrysene	85	18	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	109	14-146		Nitrobenzene-d5	108	18-162	
p-Terphenyl-d14	75	34-148					

G14	**11-02-0364-21-A**	**02/04/11 09:26**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 02:18**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	70	23	1		Dibenz (a,h) Anthracene	43	23	1	
Benzo (a) Pyrene	230	23	1		Fluoranthene	89	23	1	
Benzo (b) Fluoranthene	200	23	1		Indeno (1,2,3-c,d) Pyrene	120	23	1	
Benzo (g,h,i) Perylene	120	23	1		Perylene	36	23	1	
Benzo (k) Fluoranthene	190	23	1		Pyrene	160	23	1	
Chrysene	130	23	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	53	14-146		Nitrobenzene-d5	56	18-162	
p-Terphenyl-d14	52	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G15	**11-02-0364-22-A**	**02/04/11 09:04**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 02:44**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	57	25	1		Dibenz (a,h) Anthracene	35	25	1	
Benzo (a) Pyrene	260	25	1		Fluoranthene	26	25	1	
Benzo (b) Fluoranthene	260	25	1		Indeno (1,2,3-c,d) Pyrene	97	25	1	
Benzo (g,h,i) Perylene	86	25	1		Perylene	47	25	1	
Benzo (k) Fluoranthene	210	25	1		Pyrene	37	25	1	
Chrysene	150	25	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	38	14-146		Nitrobenzene-d5	37	18-162	
p-Terphenyl-d14	48	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G16	**11-02-0364-23-A**	**02/04/11 08:36**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 03:10**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	54	19	1		Dibenz (a,h) Anthracene	23	19	1	
Benzo (a) Pyrene	120	19	1		Fluoranthene	85	19	1	
Benzo (b) Fluoranthene	120	19	1		Indeno (1,2,3-c,d) Pyrene	75	19	1	
Benzo (g,h,i) Perylene	78	19	1		Perylene	23	19	1	
Benzo (k) Fluoranthene	95	19	1		Pyrene	87	19	1	
Chrysene	75	19	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	62	14-146		Nitrobenzene-d5	78	18-162	
p-Terphenyl-d14	58	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G28	**11-02-0364-24-A**	**02/04/11 10:47**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 03:36**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	55	17	1		Dibenz (a,h) Anthracene	21	17	1	
Benzo (a) Pyrene	120	17	1		Fluoranthene	63	17	1	
Benzo (b) Fluoranthene	110	17	1		Indeno (1,2,3-c,d) Pyrene	66	17	1	
Benzo (g,h,i) Perylene	68	17	1		Perylene	22	17	1	
Benzo (k) Fluoranthene	96	17	1		Pyrene	79	17	1	
Chrysene	86	17	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	95	14-146		Nitrobenzene-d5	113	18-162	
p-Terphenyl-d14	80	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G29	**11-02-0364-25-A**	**02/04/11 09:48**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 04:02**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	180	28	1		Dibenz (a,h) Anthracene	70	28	1	
Benzo (a) Pyrene	500	28	1		Fluoranthene	160	28	1	
Benzo (b) Fluoranthene	360	28	1		Indeno (1,2,3-c,d) Pyrene	230	28	1	
Benzo (g,h,i) Perylene	260	28	1		Perylene	100	28	1	
Benzo (k) Fluoranthene	340	28	1		Pyrene	630	28	1	
Chrysene	210	28	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	53	14-146		Nitrobenzene-d5	60	18-162	
p-Terphenyl-d14	68	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30	**11-02-0364-26-A**	**02/04/11 10:05**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/12/11 04:27**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	48	30	1		Dibenz (a,h) Anthracene	ND	30	1	
Benzo (a) Pyrene	110	30	1		Fluoranthene	61	30	1	
Benzo (b) Fluoranthene	120	30	1		Indeno (1,2,3-c,d) Pyrene	58	30	1	
Benzo (g,h,i) Perylene	59	30	1		Perylene	ND	30	1	
Benzo (k) Fluoranthene	94	30	1		Pyrene	65	30	1	
Chrysene	75	30	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	44	14-146		Nitrobenzene-d5	45	18-162	
p-Terphenyl-d14	72	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30 Lab Duplicate	**11-02-0364-27-A**	**02/04/11 10:05**	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/14/11 14:02**	**110209L09**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	72	29	1		Dibenz (a,h) Anthracene	ND	29	1	
Benzo (a) Pyrene	140	29	1		Fluoranthene	50	29	1	
Benzo (b) Fluoranthene	120	29	1		Indeno (1,2,3-c,d) Pyrene	83	29	1	
Benzo (g,h,i) Perylene	93	29	1		Perylene	ND	29	1	
Benzo (k) Fluoranthene	110	29	1		Pyrene	75	29	1	
Chrysene	120	29	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	51	14-146		Nitrobenzene-d5	43	18-162	
p-Terphenyl-d14	108	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-097-36**	**N/A**	**Solid**	**GC/MS BBB**	**02/09/11**	**02/11/11 15:51**	**110209L09**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	ND	10	1		Dibenz (a,h) Anthracene	ND	10	1	
Benzo (a) Pyrene	ND	10	1		Fluoranthene	ND	10	1	
Benzo (b) Fluoranthene	ND	10	1		Indeno (1,2,3-c,d) Pyrene	ND	10	1	
Benzo (g,h,i) Perylene	ND	10	1		Perylene	ND	10	1	
Benzo (k) Fluoranthene	ND	10	1		Pyrene	ND	10	1	
Chrysene	ND	10	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	90	14-146		Nitrobenzene-d5	104	18-162	
p-Terphenyl-d14	93	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-097-37**	**N/A**	**Solid**	**GC/MS BBB**	**02/09/11**	**02/11/11 14:34**	**110209L08**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	ND	10	1		Dibenz (a,h) Anthracene	ND	10	1	
Benzo (a) Pyrene	ND	10	1		Fluoranthene	ND	10	1	
Benzo (b) Fluoranthene	ND	10	1		Indeno (1,2,3-c,d) Pyrene	ND	10	1	
Benzo (g,h,i) Perylene	ND	10	1		Perylene	ND	10	1	
Benzo (k) Fluoranthene	ND	10	1		Pyrene	ND	10	1	
Chrysene	ND	10	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	91	14-146		Nitrobenzene-d5	105	18-162	
p-Terphenyl-d14	93	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G3	**11-02-0364-1-A**	**02/03/11 15:29**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 19:59**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	251	0.289	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G5	**11-02-0364-2-A**	**02/03/11 16:03**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:02**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	272	0.319	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G6	**11-02-0364-3-A**	**02/03/11 15:49**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:05**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	177	0.255	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G8	**11-02-0364-4-A**	**02/03/11 14:53**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:08**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	123	0.172	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G9	**11-02-0364-5-A**	**02/03/11 15:12**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:38**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	149	0.221	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17	**11-02-0364-6-A**	**02/03/11 11:27**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:41**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	97.5	0.196	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17D	**11-02-0364-7-A**	**02/03/11 11:27**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:43**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	92.1	0.198	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G18	**11-02-0364-8-A**	**02/03/11 14:35**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:46**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	88.8	0.192	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G19	**11-02-0364-9-A**	**02/03/11 11:10**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:49**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	105	0.200	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G20	**11-02-0364-10-A**	**02/03/11 10:31**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:52**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	109	0.211	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G22	**11-02-0364-11-A**	**02/03/11 11:52**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:54**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	97.6	0.196	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G23	**11-02-0364-12-A**	**02/03/11 14:11**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 20:57**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	165	0.184	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G24	**11-02-0364-13-A**	**02/03/11 13:52**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:00**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	281	0.269	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G25	**11-02-0364-14-A**	**02/03/11 09:33**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:03**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	213	0.287	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G26	**11-02-0364-15-A**	**02/03/11 10:03**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:14**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	125	0.205	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G27	**11-02-0364-16-A**	**02/03/11 10:51**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:17**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	127	0.226	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G1	**11-02-0364-17-A**	**02/04/11 11:54**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:19**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	174	0.270	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G2	**11-02-0364-18-A**	**02/04/11 10:24**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:22**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	223	0.254	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3050B
Method: EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G4	**11-02-0364-19-A**	**02/04/11 11:35**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:25**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	108	0.217	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G7	**11-02-0364-20-A**	**02/04/11 11:10**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:28**	**110207L04**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	77.8	0.179	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G14	**11-02-0364-21-A**	**02/04/11 09:26**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:30**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	144	0.229	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G15	**11-02-0364-22-A**	**02/04/11 09:04**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:33**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	191	0.250	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G16	**11-02-0364-23-A**	**02/04/11 08:36**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:36**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	68.8	0.186	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G28	**11-02-0364-24-A**	**02/04/11 10:47**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 21:39**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	69.0	0.168	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G29	**11-02-0364-25-A**	**02/04/11 09:48**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 22:09**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	232	0.284	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30	**11-02-0364-26-A**	**02/04/11 10:05**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 22:12**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	233	0.296	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30 Lab Duplicate	**11-02-0364-27-A**	**02/04/11 10:05**	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11 22:14**	**110207L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	232	0.294	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-10-002-1,922**	**N/A**	**Solid**	**ICP/MS 04**	**02/07/11**	**02/07/11 19:10**	**110207L04**

Parameter	Result	RL	DF	Qual	Units
Copper	ND	0.100	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-10-002-1,923**	**N/A**	**Solid**	**ICP/MS 04**	**02/07/11**	**02/07/11 19:07**	**110207L01**

Parameter	Result	RL	DF	Qual	Units
Copper	ND	0.100	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 7471A Total
		Method:	EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G3	**11-02-0364-1-A**	**02/03/11 15:29**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 11:54**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.849	0.0579	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G5	**11-02-0364-2-A**	**02/03/11 16:03**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 11:56**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	1.31	0.0640	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G6	**11-02-0364-3-A**	**02/03/11 15:49**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 11:59**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.571	0.0511	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G8	**11-02-0364-4-A**	**02/03/11 14:53**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:01**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.852	0.0344	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G9	**11-02-0364-5-A**	**02/03/11 15:12**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:03**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.421	0.0443	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17	**11-02-0364-6-A**	**02/03/11 11:27**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:05**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.383	0.0393	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G17D	**11-02-0364-7-A**	**02/03/11 11:27**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:08**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.370	0.0397	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G18	**11-02-0364-8-A**	**02/03/11 14:35**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:10**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.359	0.0385	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G19	**11-02-0364-9-A**	**02/03/11 11:10**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:12**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.412	0.0402	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G20	**11-02-0364-10-A**	**02/03/11 10:31**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:14**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.380	0.0422	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G22	**11-02-0364-11-A**	**02/03/11 11:52**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:23**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.383	0.0393	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G23	**11-02-0364-12-A**	**02/03/11 14:11**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:26**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.366	0.0369	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 7471A Total
		Method:	EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G24	**11-02-0364-13-A**	**02/03/11 13:52**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:28**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.593	0.0539	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G25	**11-02-0364-14-A**	**02/03/11 09:33**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:30**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.675	0.0574	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G26	**11-02-0364-15-A**	**02/03/11 10:03**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:32**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.387	0.0411	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G27	**11-02-0364-16-A**	**02/03/11 10:51**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:34**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.490	0.0452	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G1	**11-02-0364-17-A**	**02/04/11 11:54**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:37**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.551	0.0542	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G2	**11-02-0364-18-A**	**02/04/11 10:24**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:39**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	1.40	0.0510	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 7471A Total
		Method:	EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G4	**11-02-0364-19-A**	**02/04/11 11:35**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:41**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.443	0.0436	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G7	**11-02-0364-20-A**	**02/04/11 11:10**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:43**	**110208L02**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.338	0.0359	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G14	**11-02-0364-21-A**	**02/04/11 09:26**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:50**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.558	0.0459	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G15	**11-02-0364-22-A**	**02/04/11 09:04**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:52**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.693	0.0501	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G16	**11-02-0364-23-A**	**02/04/11 08:36**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:55**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.291	0.0372	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G28	**11-02-0364-24-A**	**02/04/11 10:47**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:57**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.272	0.0337	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 7471A Total
		Method:	EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G29	**11-02-0364-25-A**	**02/04/11 09:48**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 12:59**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	2.53	0.0569	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30	**11-02-0364-26-A**	**02/04/11 10:05**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 13:01**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	1.06	0.0593	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G30 Lab Duplicate	**11-02-0364-27-A**	**02/04/11 10:05**	**Sediment**	**Mercury**	**02/08/11**	**02/08/11 13:04**	**110208L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.963	0.0589	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-452-193**	**N/A**	**Solid**	**Mercury**	**02/08/11**	**02/08/11 11:30**	**110208L03**

Parameter	Result	RL	DF	Qual	Units
Mercury	ND	0.0200	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-452-194**	**N/A**	**Solid**	**Mercury**	**02/08/11**	**02/08/11 11:27**	**110208L02**

Parameter	Result	RL	DF	Qual	Units
Mercury	ND	0.0200	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3050B
Method: EPA 6020

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G14	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/08/11**	**110207S01A**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	152	126	80-120	7	0-20	3

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

AMEC Earth & Environmental		Date Received	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
G14	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/08/11**	**110207S01A**

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	112	111	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3050B
Method: EPA 6020

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G3	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11**	**110207S04**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	95	112	80-120	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

AMEC Earth & Environmental		Date Received	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
G3	**Sediment**	**ICP/MS 04**	**02/07/11**	**02/07/11**	**110207S04**

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	74	76	75-125	0	0-20	5

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	N/A
		Method:	SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
G7	**Sediment**	**N/A**	**02/07/11**	**02/07/11**	**B0207TSD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	55.8	55.3	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

AMEC Earth & Environmental		Date Received:	02/04/11
9210 Sky Park Court, Suite 200		Work Order No:	11-02-0364
San Diego, CA 92123-4302		Preparation:	N/A
		Method:	SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
G30	**Sediment**	**N/A**	**02/07/11**	**02/07/11**	**B0207TSD2**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	33.8	33.7	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 7471A Total
Method: EPA 7471A

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G3	**Sediment**	**Mercury**	**02/08/11**	**02/08/11**	**110208S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	95	86	76-136	7	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 7471A Total
Method: EPA 7471A

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G14	**Sediment**	**Mercury**	**02/08/11**	**02/08/11**	**110208S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	105	101	76-136	3	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: Organotins by Krone et al.

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G9	**Sediment**	**GC/MS Y**	**02/08/11**	**02/10/11**	**110208S08**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	98	108	50-130	10	0-20	
Tributyltin	115	121	50-130	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: Organotins by Krone et al.

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G14	**Sediment**	**GC/MS Y**	**02/08/11**	**02/11/11**	**110208S09**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	100	97	50-130	2	0-20	
Tributyltin	214	112	50-130	59	0-20	3,4

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G9	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11**	**110208S16**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	61	74	50-125	20	0-30	
PCB018	64	77	50-125	18	0-30	
PCB028	72	86	50-125	18	0-30	
PCB052	69	83	50-125	19	0-30	
PCB044	70	83	50-125	18	0-30	
PCB066	74	88	50-125	17	0-30	
PCB101	65	79	50-125	17	0-30	
PCB077	71	85	50-125	18	0-30	
PCB118	72	85	50-125	17	0-30	
PCB153	61	75	50-125	18	0-30	
PCB105	68	81	50-125	18	0-30	
PCB187	66	81	50-125	20	0-30	
PCB126	68	82	50-125	19	0-30	
PCB128	65	78	50-125	19	0-30	
PCB180	67	82	50-125	20	0-30	
PCB170	62	73	50-125	17	0-30	
PCB195	65	77	50-125	18	0-30	
PCB206	67	80	50-125	18	0-30	
PCB209	68	82	50-125	18	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G14	**Sediment**	**GC/MS N**	**02/08/11**	**02/15/11**	**110208S17**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	79	65	50-125	20	0-30	
PCB018	84	66	50-125	24	0-30	
PCB028	97	74	50-125	26	0-30	
PCB052	93	71	50-125	27	0-30	
PCB044	94	71	50-125	28	0-30	
PCB066	101	77	50-125	27	0-30	
PCB101	97	74	50-125	27	0-30	
PCB077	96	74	50-125	26	0-30	
PCB118	97	74	50-125	26	0-30	
PCB153	93	71	50-125	26	0-30	
PCB105	92	71	50-125	26	0-30	
PCB187	92	71	50-125	26	0-30	
PCB126	93	71	50-125	27	0-30	
PCB128	89	68	50-125	27	0-30	
PCB180	93	71	50-125	26	0-30	
PCB170	83	64	50-125	27	0-30	
PCB195	88	67	50-125	26	0-30	
PCB206	91	69	50-125	26	0-30	
PCB209	94	71	50-125	28	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G9	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/14/11**	**110209S08**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Acenaphthene	94	89	40-160	5	0-20	
Acenaphthylene	88	92	40-160	4	0-20	
Anthracene	80	83	40-160	3	0-20	
Benzo (a) Anthracene	109	99	40-160	6	0-20	
Benzo (a) Pyrene	129	193	40-160	20	0-20	3
Benzo (b) Fluoranthene	140	234	40-160	28	0-20	3,4
Benzo (g,h,i) Perylene	122	137	40-160	7	0-20	
Benzo (k) Fluoranthene	115	149	40-160	13	0-20	
Chrysene	117	108	40-160	4	0-20	
Dibenz (a,h) Anthracene	112	122	40-160	6	0-20	
Fluoranthene	113	98	40-160	10	0-20	
Fluorene	96	92	40-160	5	0-20	
Indeno (1,2,3-c,d) Pyrene	125	145	40-160	9	0-20	
2-Methylnaphthalene	36	38	40-160	2	0-20	3
1-Methylnaphthalene	66	68	40-160	2	0-20	
Naphthalene	53	50	40-160	3	0-20	
Phenanthrene	105	99	40-160	4	0-20	
Pyrene	130	117	40-160	7	0-46	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 02/04/11
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G14	**Sediment**	**GC/MS BBB**	**02/09/11**	**02/14/11**	**110209S09**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Acenaphthene	86	86	40-160	0	0-20	
Acenaphthylene	87	88	40-160	1	0-20	
Anthracene	76	72	40-160	4	0-20	
Benzo (a) Anthracene	108	110	40-160	1	0-20	
Benzo (a) Pyrene	180	185	40-160	2	0-20	3
Benzo (b) Fluoranthene	200	197	40-160	1	0-20	3
Benzo (g,h,i) Perylene	160	162	40-160	1	0-20	3
Benzo (k) Fluoranthene	133	136	40-160	1	0-20	
Chrysene	146	144	40-160	1	0-20	
Dibenz (a,h) Anthracene	122	128	40-160	4	0-20	
Fluoranthene	91	92	40-160	0	0-20	
Fluorene	89	88	40-160	1	0-20	
Indeno (1,2,3-c,d) Pyrene	158	163	40-160	2	0-20	3
2-Methylnaphthalene	76	77	40-160	1	0-20	
1-Methylnaphthalene	88	88	40-160	0	0-20	
Naphthalene	75	75	40-160	1	0-20	
Phenanthrene	104	109	40-160	4	0-20	
Pyrene	104	78	40-160	16	0-46	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3050B
Method: EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-10-002-1,923	**Solid**	**ICP/MS 04**	**02/07/11**	**02/07/11**	**110207L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	100	100	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3050B
Method: EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-10-002-1,922	**Solid**	**ICP/MS 04**	**02/07/11**	**02/07/11**	**110207L04**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	99	100	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-452-194	**Solid**	**Mercury**	**02/08/11**	**02/08/11**	**110208L02**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	103	102	82-124	1	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-452-193	**Solid**	**Mercury**	**02/08/11**	**02/08/11**	**110208L03**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	101	101	82-124	0	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-016-816	**Solid**	**GC/MS Y**	**02/08/11**	**02/10/11**	**110208L08**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	101	98	50-130	3	0-20	
Tributyltin	110	107	50-130	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-016-817	**Solid**	**GC/MS Y**	**02/08/11**	**02/11/11**	**110208L09**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	101	105	50-130	4	0-20	
Tributyltin	109	116	50-130	6	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-224-20	**Solid**	**GC/MS N**	**02/08/11**	**02/11/11**	**110208L16**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	98	99	50-125	38-138	1	0-30	
PCB018	100	101	50-125	38-138	1	0-30	
PCB028	101	100	50-125	38-138	1	0-30	
PCB052	100	101	50-125	38-138	1	0-30	
PCB044	100	101	50-125	38-138	1	0-30	
PCB066	104	104	50-125	38-138	0	0-30	
PCB101	97	97	50-125	38-138	0	0-30	
PCB077	98	98	50-125	38-138	0	0-30	
PCB118	97	96	50-125	38-138	0	0-30	
PCB153	91	90	50-125	38-138	0	0-30	
PCB105	93	92	50-125	38-138	1	0-30	
PCB187	90	90	50-125	38-138	1	0-30	
PCB126	94	93	50-125	38-138	1	0-30	
PCB128	89	88	50-125	38-138	1	0-30	
PCB180	92	91	50-125	38-138	1	0-30	
PCB170	86	86	50-125	38-138	1	0-30	
PCB195	91	90	50-125	38-138	0	0-30	
PCB206	90	90	50-125	38-138	1	0-30	
PCB209	91	91	50-125	38-138	1	0-30	

Total number of LCS compounds : 19
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-224-21	**Solid**	**GC/MS N**	**02/08/11**	**02/12/11**	**110208L17**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	97	97	50-125	38-138	0	0-30	
PCB018	100	100	50-125	38-138	1	0-30	
PCB028	99	99	50-125	38-138	1	0-30	
PCB052	101	101	50-125	38-138	1	0-30	
PCB044	101	101	50-125	38-138	0	0-30	
PCB066	104	104	50-125	38-138	0	0-30	
PCB101	99	99	50-125	38-138	0	0-30	
PCB077	98	98	50-125	38-138	0	0-30	
PCB118	98	98	50-125	38-138	0	0-30	
PCB153	93	93	50-125	38-138	0	0-30	
PCB105	94	94	50-125	38-138	0	0-30	
PCB187	93	93	50-125	38-138	0	0-30	
PCB126	96	95	50-125	38-138	1	0-30	
PCB128	92	91	50-125	38-138	0	0-30	
PCB180	95	95	50-125	38-138	1	0-30	
PCB170	89	88	50-125	38-138	2	0-30	
PCB195	94	93	50-125	38-138	1	0-30	
PCB206	95	94	50-125	38-138	2	0-30	
PCB209	94	92	50-125	38-138	2	0-30	

Total number of LCS compounds : 19
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-097-37	**Solid**	**GC/MS BBB**	**02/09/11**	**02/11/11**	**110209L08**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Acenaphthene	90	91	48-108	38-118	1	0-11	
Acenaphthylene	87	86	40-160	20-180	0	0-20	
Anthracene	81	80	40-160	20-180	1	0-20	
Benzo (a) Anthracene	88	86	40-160	20-180	2	0-20	
Benzo (a) Pyrene	101	100	40-160	20-180	1	0-20	
Benzo (b) Fluoranthene	94	93	40-160	20-180	1	0-20	
Benzo (g,h,i) Perylene	95	94	40-160	20-180	2	0-20	
Benzo (k) Fluoranthene	93	91	40-160	20-180	2	0-20	
Chrysene	90	89	40-160	20-180	1	0-20	
Dibenz (a,h) Anthracene	103	100	40-160	20-180	3	0-20	
Fluoranthene	87	86	40-160	20-180	2	0-20	
Fluorene	89	90	40-160	20-180	0	0-20	
Indeno (1,2,3-c,d) Pyrene	102	98	40-160	20-180	3	0-20	
2-Methylnaphthalene	94	94	40-160	20-180	0	0-20	
1-Methylnaphthalene	90	88	40-160	20-180	2	0-20	
Naphthalene	91	90	40-160	20-180	1	0-20	
Phenanthrene	84	83	40-160	20-180	1	0-20	
Pyrene	85	84	40-160	20-180	1	0-16	

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

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-02-0364
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-097-36	**Solid**	**GC/MS BBB**	**02/09/11**	**02/11/11**	**110209L09**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Acenaphthene	90	89	48-108	38-118	2	0-11	
Acenaphthylene	87	85	40-160	20-180	2	0-20	
Anthracene	80	80	40-160	20-180	1	0-20	
Benzo (a) Anthracene	86	86	40-160	20-180	0	0-20	
Benzo (a) Pyrene	100	98	40-160	20-180	1	0-20	
Benzo (b) Fluoranthene	92	91	40-160	20-180	1	0-20	
Benzo (g,h,i) Perylene	94	93	40-160	20-180	1	0-20	
Benzo (k) Fluoranthene	93	94	40-160	20-180	0	0-20	
Chrysene	89	88	40-160	20-180	2	0-20	
Dibenz (a,h) Anthracene	100	99	40-160	20-180	1	0-20	
Fluoranthene	86	85	40-160	20-180	2	0-20	
Fluorene	89	88	40-160	20-180	1	0-20	
Indeno (1,2,3-c,d) Pyrene	99	98	40-160	20-180	1	0-20	
2-Methylnaphthalene	94	94	40-160	20-180	0	0-20	
1-Methylnaphthalene	89	89	40-160	20-180	0	0-20	
Naphthalene	91	90	40-160	20-180	0	0-20	
Phenanthrene	83	83	40-160	20-180	1	0-20	
Pyrene	83	83	40-160	20-180	1	0-16	

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

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-02-0364

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 02/04/11

PAGE: 1 OF 3

LABORATORY CLIENT: AMEC Earth & Environmental, Inc.

ADDRESS: 9210 Sky Park Court, Suite 200

CITY: San Diego STATE: CA ZIP: 92123

TEL: 858-300-4320 FAX: 858-300-4301 E-MAIL: barry.snyder@amec.com

CLIENT PROJECT NAME / NUMBER: BAE Systems San Diego Ship Repair Post-Dredge Survey

P.O. NO.:

PROJECT CONTACT: Barry Snyder

LAB CONTACT OR QUOTE NO.: 952790

SAMPLER(S): (SIGNATURE) Brent Mardian/Tyler Huff

LAB USE ONLY 0364

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 2 / 28 / 2011

SPECIAL INSTRUCTIONS:

Please see attached list. Only report the individual HPAHs and PCB congeners requested.
Report a PCB congener summation. No need to report sum of HAPHs
Report 11 HPAHs previously reported for BAE Systems.
Report in dry weight.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Please list tests required	Percent Solids	Copper	Mercury	HPAHS	PCB Congeners	TBT
1	G3	G3	2/3/2011	1529	sed	1		X	X	X	X	X	X
2	G5	G5	2/3/2011	1603	sed	1		X	X	X	X	X	X
3	G6	G6	2/3/2011	1549	sed	1		X	X	X	X	X	X
4	G8	G8	2/3/2011	1453	sed	1		X	X	X	X	X	X
5	G9	G9	2/3/2011	1512	sed	1		X	X	X	X	X	X
6	G17	G17	2/3/2011	1127	sed	1		X	X	X	X	X	X
7	G17D	G17D	2/3/2011	1127	sed	1		X	X	X	X	X	X
8	G18	G18	2/3/2011	1435	sed	1		X	X	X	X	X	X
9	G19	G19	2/3/2011	1110	sed	1		X	X	X	X	X	X
10	G20	G20	2/3/2011	1031	sed	1		X	X	X	X	X	X

		Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	COC 02/04/11	1416
Relinquished by: (Signature)	Received by: (Signature)	COC 02/04/11	1850
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

02/24/10 Revision

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 02/04/11

PAGE: 2 OF 3

LABORATORY CLIENT: AMEC Earth & Environmental, Inc.

ADDRESS: 9210 Sky Park Court, Suite 200

CITY: San Diego STATE: CA ZIP: 92123

TEL: 858-300-4320 FAX: 858-300-4301 E-MAIL: barry.snyder@amec.com

CLIENT PROJECT NAME / NUMBER: BAE Systems San Diego Ship Repair Post-Dredge Survey

P.O. NO.:

PROJECT CONTACT: Barry Snyder

LAB CONTACT OR QUOTE NO.: 952790

SAMPLER(S): (SIGNATURE) Brent Mardian/Tyler Huff

LAB USE ONLY 02-0366A

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 2 / 28 / 2011

SPECIAL INSTRUCTIONS:

Please see attached list. Only report the individual HPAHs and PCB congeners requested.
Report a PCB congener summation. No need to report sum of HAPHs
Report 11 HPAHs previously reported for BAE Systems.
Report in dry weight.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Please list tests required	Percent Solids	Copper	Mercury	HPAHS	PCB Congeners	TBT
11	G22	G22	2/3/2011	1152	sed	1		X	X	X	X	X	X
12	G23	G23	2/3/2011	1411	sed	1		X	X	X	X	X	X
13	G24	G24	2/3/2011	1352	sed	1		X	X	X	X	X	X
14	G25	G25	2/3/2011	933	sed	1		X	X	X	X	X	X
15	G26	G26	2/3/2011	1003	sed	1		X	X	X	X	X	X
16	G27	G27	2/3/2011	1051	sed	1		X	X	X	X	X	X
17													
18													
19													
20													

Relinquished by: (Signature)	Received by: (Signature)	Date: 02/04/11	Time: 1416
Relinquished by: (Signature)	Received by: (Signature)	Date: 02/04/11	Time: 1850
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

02/24/10 Revision

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 02/04/11

PAGE: 3 OF 3

LABORATORY CLIENT: AMEC Earth & Environmental, Inc.

ADDRESS: 9210 Sky Park Court, Suite 200

CITY: San Diego STATE: CA ZIP: 92123

TEL: 858-300-4320 FAX: 858-300-4301 E-MAIL: barry.snyder@amec.com

CLIENT PROJECT NAME / NUMBER: BAE Systems San Diego Ship Repair Post-Dredge Survey

P.O. NO.:

PROJECT CONTACT: Barry Snyder

LAB CONTACT OR QUOTE NO.: 952790

SAMPLER(S): (SIGNATURE) Brent Mardian/Tyler Huff

LAB USE ONLY 02-0364

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 2 / 28 / 2011

SPECIAL INSTRUCTIONS:

Please see attached list. Only report the individual HPAHs and PCB congeners requested.
Report a PCB congener summation. No need to report sum of HAPHs
Report 11 HPAHs previously reported for BAE Systems.
Report in dry weight.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Please list tests required	Percent Solids	Copper	Mercury	HPAHS	PCB Congeners	TBT
17	G1	G1	2/4/2011	1154	sed	1		X	X	X	X	X	X
18	G2	G2	2/4/2011	1024	sed	1		X	X	X	X	X	X
19	G4	G4	2/4/2011	1135	sed	1		X	X	X	X	X	X
20	G7	G7	2/4/2011	1110	sed	1		X	X	X	X	X	X
21	G14	G14	2/4/2011	926	sed	1		X	X	X	X	X	X
22	G15	G15	2/4/2011	904	sed	1		X	X	X	X	X	X
23	G16	G16	2/4/2011	836	sed	1		X	X	X	X	X	X
24	G28	G28	2/4/2011	1047	sed	1		X	X	X	X	X	X
25	G29	G29	2/4/2011	948	sed	1		X	X	X	X	X	X
26	G30	G30	2/4/2011	1005	sed	1		X	X	X	X	X	X

Relinquished by: (Signature) Tyler Huff	Received by: (Signature) CEL	Date: 02/04/11	Time: 1416
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 02/04/11	Time: 1850
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

02/24/10 Revision

Table 3. Sediment Analysis Methods and Detection Limits

Analyte	Analysis Method	Sediment Target Detection Limits
Total Solids	SM 2540 B	0.1 %
Copper	6020	0.1 mg/kg
Mercury	7471A	0.02 mg/kg
PAHs (high molecular weight)[a]	EPA 8270C SIM	20 µg/kg
PCB congeners[b]	EPA 8270C SIM	20 µg/kg
Tributyltin	S Krone et al. (GC/MS)	1.0 µg/kg

Notes:

a HPAHs = sum of 11 PAHs: Fluoranthene, Pyrene, Benz[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[a]pyrene, Indeno[1,2,3-c,d]pyrene, Dibenz[a,h]anthracene, and Benzo[g,h,i]perylene. + perylene

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

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0 3 6 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC DATE: 02/04/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.1 °C + 0.5 °C (CF) = 2.6 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: VG

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: VG

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: FY

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☑16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** FY

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** VL

Preservative: h: HCL n: HNO_3 na_2: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** VL

Calscience
Environmental
Laboratories, Inc.

January 31, 2011

Barry Snyder
AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Subject: **Calscience Work Order No.: 11-01-1079**
Client Reference: BAE Systems San Diego Ship Repair
Post-Dredge Survey

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 1/18/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Danielle Gonsman
Project Manager

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

CASE NARRATIVE

Calscience Work Order No.: 11-01-1079
Project Name: BAE Systems San Diego Ship Repair Post-Dredge Survey

Provided below is a narrative of our analytical effort, including any unique features or anomalies encountered as part of the analysis of the marine sediment samples.

Sample Condition on Receipt

Six sediment samples (housed in 16-oz glass containers) were received for this project on January 18, 2011. The samples were transferred to the laboratory in an ice-chest with wet ice, following strict chain-of-custody (COC) procedures. The temperature of the samples upon receipt at the laboratory was 2.6°C. All samples were given laboratory identification numbers, logged into the Laboratory Information Management System (LIMS) and then stored under refrigeration pending sediment chemistry testing.

The collection dates listed on the labels did not match the collection dates listed in the Chain of Custody documents. The samples were logged in using the sampling date of 1/17/2011, in accordance with the labels.

Tests Performed

Copper by EPA 6020
Mercury by EPA 7471A
PCB Congeners by EPA 8270C SIM
HPAHs by EPA 8270C SIM
Tributyltin by Krone, et. al
Total Solids by SM 2540B

Data Summary

The sample results and reporting limits were dry weight corrected.

All samples were homogenized prior to preparation and analysis.

Holding times

All holding times were met.

Calibration

Frequency and control criteria for initial and continuing calibration verifications were met.

Reporting Limits

All Method Detection Limits were met. The Tributyltin results were evaluated to the MDL, and where applicable, “J” flags were reported.

Blanks

Concentrations of target analytes in the method blank were found to be below reporting limits for all testing.

Laboratory Control Samples

A Laboratory Control Sample (LCS) analysis was performed at the required frequencies, and unless otherwise noted, all parameters were within the established control limits.

Matrix Spikes

Matrix spike analyses were performed for each applicable analysis on project samples. All parameters were within the established control limits with the following exceptions.

Sample G10 was used for metals matrix spiking, and the Copper concentration found in the sample exceeded the matrix spike concentrations by four times or more, causing the MS, MSD and RPD values to be out of range. However, since the associated LCS/LCSD recoveries and RPDs were in control, the data are released with no further action.

EPA 8270C SIM PAH matrix spiking was performed on sample G21, and the MS and MSD recoveries for two analytes fell outside the established control limits due to matrix interference. The results have been flagged with the appropriate qualifiers and are released with no further clarification since the corresponding LCS/LCSD recoveries were in control.

Surrogates

Surrogate recoveries for all applicable tests and samples were within the established control limits.

Acronyms

LCS/LCSD- Laboratory Control Sample/Laboratory Control Sample Duplicate
PDS/PDSD- Post Digestion Spike/Post Digestion Spike Duplicate
MS/MSD- Matrix Spike/Matrix Spike Duplicate
ME-Marginal Exceedance
RPD- Relative Percent Difference

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: N/A
Method: SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G10	**11-01-1079-1-A**	**01/17/11 10:13**	**Sediment**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	41.8	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11	**11-01-1079-2-A**	**01/17/11 11:20**	**Sediment**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	39.1	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11D	**11-01-1079-3-A**	**01/17/11 11:43**	**Sediment**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	36.9	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G12	**11-01-1079-4-A**	**01/17/11 10:28**	**Sediment**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	35.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G13	**11-01-1079-5-A**	**01/17/11 09:13**	**Sediment**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	39.4	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G21	**11-01-1079-6-A**	**01/17/11 10:54**	**Sediment**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	37.2	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental	Date Received:	01/18/11
9210 Sky Park Court, Suite 200	Work Order No:	11-01-1079
San Diego, CA 92123-4302	Preparation:	N/A
	Method:	SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-019-1,593**	**N/A**	**Solid**	**N/A**	**01/21/11**	**01/21/11 20:00**	**B0121TSB1**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	ND	0.100	1		%

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G10	**11-01-1079-1-A**	**01/17/11 10:13**	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11 11:31**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	150	7.2	0.80	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	96	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11	**11-01-1079-2-A**	**01/17/11 11:20**	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11 12:03**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	110	7.7	0.86	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	110	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11D	**11-01-1079-3-A**	**01/17/11 11:43**	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11 12:36**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	63	8.1	0.91	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	87	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G12	**11-01-1079-4-A**	**01/17/11 10:28**	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11 13:11**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	70	8.6	0.96	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	105	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G13	**11-01-1079-5-A**	**01/17/11 09:13**	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11 13:45**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	260	7.6	0.85	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	96	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G21	**11-01-1079-6-A**	**01/17/11 10:54**	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11 14:18**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	54	8.1	0.90	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	95	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-07-016-811**	**N/A**	**Solid**	**GC/MS Y**	**01/24/11**	**01/27/11 10:59**	**110124L05**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Tributyltin	ND	3.0	0.33	1		ug/kg

Surrogates:	REC (%)	Control Limits	Qual
Tripentyltin	123	50-130	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G10	**11-01-1079-1-A**	**01/17/11 10:13**	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11 01:16**	**110124L06**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	12	1		PCB153	48	12	1	
PCB052	20	12	1		PCB168	ND	12	1	
PCB028	13	12	1		PCB105	15	12	1	
PCB049	21	12	1		PCB138/158	53	12	1	
PCB044	12	12	1		PCB187	18	12	1	
PCB037	ND	12	1		PCB183	ND	12	1	
PCB074	ND	12	1		PCB126	ND	12	1	
PCB070	ND	12	1		PCB128	ND	12	1	
PCB066	ND	12	1		PCB167	ND	12	1	
PCB101	33	12	1		PCB177	ND	12	1	
PCB099	14	12	1		PCB156	ND	12	1	
PCB119	ND	12	1		PCB157	35	12	1	
PCB087	ND	12	1		PCB180	25	12	1	
PCB081	ND	12	1		PCB170	15	12	1	
PCB110	26	12	1		PCB201	ND	12	1	
PCB151	ND	12	1		PCB169	ND	12	1	
PCB077	ND	12	1		PCB189	ND	12	1	
PCB149	32	12	1		PCB194	ND	12	1	
PCB123	ND	12	1		PCB206	ND	12	1	
PCB118	20	12	1		Total PCB Congeners	400	12	1	
PCB114	ND	12	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	89	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11	**11-01-1079-2-A**	**01/17/11 11:20**	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11 01:49**	**110124L06**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	13	1		PCB153	28	13	1	
PCB028	ND	13	1		PCB168	ND	13	1	
PCB052	ND	13	1		PCB105	ND	13	1	
PCB049	ND	13	1		PCB138/158	35	13	1	
PCB044	ND	13	1		PCB187	ND	13	1	
PCB037	ND	13	1		PCB183	ND	13	1	
PCB074	ND	13	1		PCB126	ND	13	1	
PCB070	ND	13	1		PCB128	ND	13	1	
PCB066	ND	13	1		PCB167	ND	13	1	
PCB101	17	13	1		PCB177	ND	13	1	
PCB099	ND	13	1		PCB156	ND	13	1	
PCB119	ND	13	1		PCB157	30	13	1	
PCB087	ND	13	1		PCB180	14	13	1	
PCB081	ND	13	1		PCB170	ND	13	1	
PCB110	ND	13	1		PCB201	ND	13	1	
PCB151	ND	13	1		PCB169	ND	13	1	
PCB077	ND	13	1		PCB189	ND	13	1	
PCB149	18	13	1		PCB194	ND	13	1	
PCB123	ND	13	1		PCB206	ND	13	1	
PCB118	ND	13	1		Total PCB Congeners	140	13	1	
PCB114	ND	13	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	89	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey — Page 3 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11D	**11-01-1079-3-A**	**01/17/11 11:43**	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11 02:20**	**110124L06**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	14	1		PCB153	40	14	1	
PCB052	14	14	1		PCB168	ND	14	1	
PCB028	ND	14	1		PCB105	ND	14	1	
PCB049	15	14	1		PCB138/158	38	14	1	
PCB044	ND	14	1		PCB187	14	14	1	
PCB037	ND	14	1		PCB183	ND	14	1	
PCB074	ND	14	1		PCB126	ND	14	1	
PCB070	ND	14	1		PCB128	ND	14	1	
PCB066	ND	14	1		PCB167	ND	14	1	
PCB101	28	14	1		PCB177	ND	14	1	
PCB099	ND	14	1		PCB156	ND	14	1	
PCB119	ND	14	1		PCB157	35	14	1	
PCB087	ND	14	1		PCB180	19	14	1	
PCB081	ND	14	1		PCB170	14	14	1	
PCB110	23	14	1		PCB201	ND	14	1	
PCB151	ND	14	1		PCB169	ND	14	1	
PCB077	ND	14	1		PCB189	ND	14	1	
PCB149	25	14	1		PCB194	ND	14	1	
PCB123	ND	14	1		PCB206	ND	14	1	
PCB118	21	14	1		Total PCB Congeners	290	14	1	
PCB114	ND	14	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	93	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G12	**11-01-1079-4-A**	**01/17/11 10:28**	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11 02:53**	**110124L06**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	14	1		PCB153	55	14	1	
PCB028	ND	14	1		PCB168	ND	14	1	
PCB052	16	14	1		PCB105	ND	14	1	
PCB049	19	14	1		PCB138/158	59	14	1	
PCB044	ND	14	1		PCB187	20	14	1	
PCB037	ND	14	1		PCB183	ND	14	1	
PCB074	ND	14	1		PCB126	ND	14	1	
PCB070	ND	14	1		PCB128	ND	14	1	
PCB066	ND	14	1		PCB167	ND	14	1	
PCB101	31	14	1		PCB177	ND	14	1	
PCB099	ND	14	1		PCB156	ND	14	1	
PCB119	ND	14	1		PCB157	42	14	1	
PCB087	ND	14	1		PCB180	26	14	1	
PCB081	ND	14	1		PCB170	16	14	1	
PCB110	24	14	1		PCB201	ND	14	1	
PCB151	ND	14	1		PCB169	ND	14	1	
PCB077	ND	14	1		PCB189	ND	14	1	
PCB149	32	14	1		PCB194	ND	14	1	
PCB123	ND	14	1		PCB206	ND	14	1	
PCB118	21	14	1		Total PCB Congeners	360	14	1	
PCB114	ND	14	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	93	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G13	**11-01-1079-5-A**	**01/17/11 09:13**	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11 03:23**	**110124L06**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	13	1		PCB153	91	13	1	
PCB028	17	13	1		PCB168	ND	13	1	
PCB052	21	13	1		PCB105	19	13	1	
PCB049	31	13	1		PCB138/158	75	13	1	
PCB044	16	13	1		PCB187	37	13	1	
PCB037	ND	13	1		PCB183	14	13	1	
PCB074	ND	13	1		PCB126	ND	13	1	
PCB070	ND	13	1		PCB128	ND	13	1	
PCB066	ND	13	1		PCB167	ND	13	1	
PCB101	43	13	1		PCB177	ND	13	1	
PCB099	22	13	1		PCB156	ND	13	1	
PCB119	ND	13	1		PCB157	39	13	1	
PCB087	13	13	1		PCB180	62	13	1	
PCB081	ND	13	1		PCB170	36	13	1	
PCB110	32	13	1		PCB201	15	13	1	
PCB151	20	13	1		PCB169	ND	13	1	
PCB077	ND	13	1		PCB189	ND	13	1	
PCB149	59	13	1		PCB194	ND	13	1	
PCB123	ND	13	1		PCB206	ND	13	1	
PCB118	28	13	1		Total PCB Congeners	690	13	1	
PCB114	ND	13	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	93	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G21	**11-01-1079-6-A**	**01/17/11 10:54**	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11 03:53**	**110124L06**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	13	1		PCB153	34	13	1	
PCB028	ND	13	1		PCB168	ND	13	1	
PCB052	ND	13	1		PCB105	ND	13	1	
PCB049	ND	13	1		PCB138/158	34	13	1	
PCB044	ND	13	1		PCB187	ND	13	1	
PCB037	ND	13	1		PCB183	ND	13	1	
PCB074	ND	13	1		PCB126	ND	13	1	
PCB070	ND	13	1		PCB128	ND	13	1	
PCB066	ND	13	1		PCB167	ND	13	1	
PCB101	20	13	1		PCB177	ND	13	1	
PCB099	ND	13	1		PCB156	ND	13	1	
PCB119	ND	13	1		PCB157	32	13	1	
PCB087	ND	13	1		PCB180	17	13	1	
PCB081	ND	13	1		PCB170	ND	13	1	
PCB110	18	13	1		PCB201	ND	13	1	
PCB151	ND	13	1		PCB169	ND	13	1	
PCB077	ND	13	1		PCB189	ND	13	1	
PCB149	21	13	1		PCB194	ND	13	1	
PCB123	ND	13	1		PCB206	ND	13	1	
PCB118	14	13	1		Total PCB Congeners	190	13	1	
PCB114	ND	13	1						

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	94	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-224-18**	**N/A**	**Solid**	**GC/MS N**	**01/24/11**	**01/27/11 00:45**	**110124L06**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
PCB018	ND	5.0	1		PCB114	ND	5.0	1	
PCB028	ND	5.0	1		PCB153	ND	5.0	1	
PCB052	ND	5.0	1		PCB168	ND	5.0	1	
PCB049	ND	5.0	1		PCB105	ND	5.0	1	
PCB044	ND	5.0	1		PCB138/158	ND	5.0	1	
PCB037	ND	5.0	1		PCB187	ND	5.0	1	
PCB074	ND	5.0	1		PCB183	ND	5.0	1	
PCB070	ND	5.0	1		PCB126	ND	5.0	1	
PCB066	ND	5.0	1		PCB128	ND	5.0	1	
PCB101	ND	5.0	1		PCB167	ND	5.0	1	
PCB099	ND	5.0	1		PCB177	ND	5.0	1	
PCB119	ND	5.0	1		PCB156	ND	5.0	1	
PCB087	ND	5.0	1		PCB157	ND	5.0	1	
PCB081	ND	5.0	1		PCB180	ND	5.0	1	
PCB110	ND	5.0	1		PCB170	ND	5.0	1	
PCB151	ND	5.0	1		PCB201	ND	5.0	1	
PCB077	ND	5.0	1		PCB169	ND	5.0	1	
PCB149	ND	5.0	1		PCB189	ND	5.0	1	
PCB123	ND	5.0	1		PCB194	ND	5.0	1	
PCB118	ND	5.0	1		PCB206	ND	5.0	1	

Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	85	50-125	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G10	**11-01-1079-1-A**	**01/17/11 10:13**	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/26/11 22:24**	**110124L07**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	240	24	1		Dibenz (a,h) Anthracene	260	24	1	
Benzo (a) Pyrene	2100	240	10		Fluoranthene	240	24	1	
Benzo (b) Fluoranthene	2100	240	10		Indeno (1,2,3-c,d) Pyrene	820	24	1	
Benzo (g,h,i) Perylene	830	24	1		Perylene	140	24	1	
Benzo (k) Fluoranthene	1600	240	10		Pyrene	370	24	1	
Chrysene	410	24	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	86	14-146		Nitrobenzene-d5	83	18-162	
p-Terphenyl-d14	97	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11	**11-01-1079-2-A**	**01/17/11 11:20**	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/26/11 22:49**	**110124L07**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	170	26	1		Dibenz (a,h) Anthracene	120	26	1	
Benzo (a) Pyrene	630	26	1		Fluoranthene	190	26	1	
Benzo (b) Fluoranthene	670	26	1		Indeno (1,2,3-c,d) Pyrene	430	26	1	
Benzo (g,h,i) Perylene	450	26	1		Perylene	120	26	1	
Benzo (k) Fluoranthene	500	26	1		Pyrene	290	26	1	
Chrysene	290	26	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	82	14-146		Nitrobenzene-d5	80	18-162	
p-Terphenyl-d14	91	34-148					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11D	**11-01-1079-3-A**	**01/17/11 11:43**	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/26/11 23:14**	**110124L07**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	220	27	1		Dibenz (a,h) Anthracene	180	27	1	
Benzo (a) Pyrene	1000	27	1		Fluoranthene	220	27	1	
Benzo (b) Fluoranthene	980	27	1		Indeno (1,2,3-c,d) Pyrene	590	27	1	
Benzo (g,h,i) Perylene	600	27	1		Perylene	160	27	1	
Benzo (k) Fluoranthene	890	27	1		Pyrene	300	27	1	
Chrysene	380	27	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	78	14-146		Nitrobenzene-d5	74	18-162	
p-Terphenyl-d14	82	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PAHs
		Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G12	**11-01-1079-4-A**	**01/17/11 10:28**	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/26/11 23:40**	**110124L07**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	370	29	1		Dibenz (a,h) Anthracene	430	29	1	
Benzo (a) Pyrene	2700	290	10		Fluoranthene	280	29	1	
Benzo (b) Fluoranthene	2700	290	10		Indeno (1,2,3-c,d) Pyrene	1100	29	1	
Benzo (g,h,i) Perylene	1000	29	1		Perylene	240	29	1	
Benzo (k) Fluoranthene	2100	290	10		Pyrene	410	29	1	
Chrysene	790	29	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	93	14-146		Nitrobenzene-d5	89	18-162	
p-Terphenyl-d14	82	34-148					

G13	**11-01-1079-5-A**	**01/17/11 09:13**	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/27/11 00:05**	**110124L07**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	270	25	1		Dibenz (a,h) Anthracene	230	25	1	
Benzo (a) Pyrene	1600	250	10		Fluoranthene	340	25	1	
Benzo (b) Fluoranthene	1700	250	10		Indeno (1,2,3-c,d) Pyrene	740	25	1	
Benzo (g,h,i) Perylene	710	25	1		Perylene	190	25	1	
Benzo (k) Fluoranthene	1100	25	1		Pyrene	450	25	1	
Chrysene	480	25	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	82	14-146		Nitrobenzene-d5	82	18-162	
p-Terphenyl-d14	87	34-148					

G21	**11-01-1079-6-A**	**01/17/11 10:54**	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/27/11 00:31**	**110124L07**

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

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	240	27	1		Dibenz (a,h) Anthracene	250	27	1	
Benzo (a) Pyrene	1300	27	1		Fluoranthene	230	27	1	
Benzo (b) Fluoranthene	1500	270	10		Indeno (1,2,3-c,d) Pyrene	680	27	1	
Benzo (g,h,i) Perylene	650	27	1		Perylene	190	27	1	
Benzo (k) Fluoranthene	1100	27	1		Pyrene	340	27	1	
Chrysene	440	27	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	79	14-146		Nitrobenzene-d5	79	18-162	
p-Terphenyl-d14	88	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental	Date Received:	01/18/11
9210 Sky Park Court, Suite 200	Work Order No:	11-01-1079
San Diego, CA 92123-4302	Preparation:	EPA 3545
	Method:	EPA 8270C SIM PAHs
	Units:	ug/kg

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-097-29**	**N/A**	**Solid**	**GC/MS BBB**	**01/24/11**	**01/27/11 11:16**	**110124L07**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzo (a) Anthracene	ND	10	1		Dibenz (a,h) Anthracene	ND	10	1	
Benzo (a) Pyrene	ND	10	1		Fluoranthene	ND	10	1	
Benzo (b) Fluoranthene	ND	10	1		Indeno (1,2,3-c,d) Pyrene	ND	10	1	
Benzo (g,h,i) Perylene	ND	10	1		Perylene	ND	10	1	
Benzo (k) Fluoranthene	ND	10	1		Pyrene	ND	10	1	
Chrysene	ND	10	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	89	14-146		Nitrobenzene-d5	102	18-162	
p-Terphenyl-d14	92	34-148					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G10	**11-01-1079-1-A**	**01/17/11 10:13**	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11 02:51**	**110121L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	283	0.239	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11	**11-01-1079-2-A**	**01/17/11 11:20**	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11 02:56**	**110121L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	260	0.256	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11D	**11-01-1079-3-A**	**01/17/11 11:43**	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11 03:00**	**110121L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	226	0.271	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G12	**11-01-1079-4-A**	**01/17/11 10:28**	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11 03:05**	**110121L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	290	0.286	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G13	**11-01-1079-5-A**	**01/17/11 09:13**	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11 03:09**	**110121L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	359	0.254	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G21	**11-01-1079-6-A**	**01/17/11 10:54**	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11 03:13**	**110121L03**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Copper	245	0.269	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental	Date Received:	01/18/11
9210 Sky Park Court, Suite 200	Work Order No:	11-01-1079
San Diego, CA 92123-4302	Preparation:	EPA 3050B
	Method:	EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-10-002-1,912**	**N/A**	**Solid**	**ICP/MS 04**	**01/21/11**	**01/22/11 01:32**	**110121L03**

Parameter	Result	RL	DF	Qual	Units
Copper	ND	0.100	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental		Date Received:	01/18/11
9210 Sky Park Court, Suite 200		Work Order No:	11-01-1079
San Diego, CA 92123-4302		Preparation:	EPA 7471A Total
		Method:	EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G10	**11-01-1079-1-A**	**01/17/11 10:13**	**Sediment**	**Mercury**	**01/24/11**	**01/24/11 12:46**	**110124L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.747	0.0479	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11	**11-01-1079-2-A**	**01/17/11 11:20**	**Sediment**	**Mercury**	**01/24/11**	**01/24/11 12:48**	**110124L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.555	0.0513	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G11D	**11-01-1079-3-A**	**01/17/11 11:43**	**Sediment**	**Mercury**	**01/24/11**	**01/24/11 12:51**	**110124L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.674	0.0543	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G12	**11-01-1079-4-A**	**01/17/11 10:28**	**Sediment**	**Mercury**	**01/24/11**	**01/24/11 12:53**	**110124L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.749	0.0573	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G13	**11-01-1079-5-A**	**01/17/11 09:13**	**Sediment**	**Mercury**	**01/24/11**	**01/24/11 12:55**	**110124L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.649	0.0509	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G21	**11-01-1079-6-A**	**01/17/11 10:54**	**Sediment**	**Mercury**	**01/24/11**	**01/24/11 12:57**	**110124L01**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Mercury	0.678	0.0539	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-452-188**	**N/A**	**Solid**	**Mercury**	**01/24/11**	**01/24/11 12:15**	**110124L01**

Parameter	Result	RL	DF	Qual	Units
Mercury	ND	0.0200	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: EPA 3050B
Method: EPA 6020

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G10	**Sediment**	**ICP/MS 04**	**01/21/11**	**01/22/11**	**110121S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	4X	4X	80-120	4X	0-20	Q

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AMEC Earth & Environmental	Date Received:	01/18/11
9210 Sky Park Court, Suite 200	Work Order No:	11-01-1079
San Diego, CA 92123-4302	Preparation:	N/A
	Method:	SM 2540 B

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
G21	**Sediment**	**N/A**	**01/21/11**	**01/21/11**	**B0121TSD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	37.2	37.4	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: EPA 7471A Total
Method: EPA 7471A

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G10	**Sediment**	**Mercury**	**01/24/11**	**01/25/11**	**110124L01A**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	110	113	76-136	2	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: EPA 3545
Method: Organotins by Krone et al.

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G21	**Sediment**	**GC/MS Y**	**01/24/11**	**01/27/11**	**110124S05**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	94	92	50-130	2	0-20	
Tributyltin	100	98	50-130	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G21	**Sediment**	**GC/MS N**	**01/24/11**	**01/27/11**	**110124S06**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	105	96	50-125	9	0-30	
PCB018	109	100	50-125	9	0-30	
PCB028	113	104	50-125	8	0-30	
PCB052	113	104	50-125	9	0-30	
PCB044	108	100	50-125	9	0-30	
PCB066	117	107	50-125	9	0-30	
PCB101	107	97	50-125	9	0-30	
PCB077	114	105	50-125	8	0-30	
PCB118	111	101	50-125	9	0-30	
PCB153	107	97	50-125	9	0-30	
PCB105	111	103	50-125	8	0-30	
PCB187	110	101	50-125	8	0-30	
PCB126	109	100	50-125	8	0-30	
PCB128	106	97	50-125	9	0-30	
PCB180	111	101	50-125	9	0-30	
PCB170	102	92	50-125	10	0-30	
PCB195	102	94	50-125	9	0-30	
PCB206	103	95	50-125	8	0-30	
PCB209	98	90	50-125	8	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: 01/18/11
Work Order No: 11-01-1079
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G21	**Sediment**	**GC/MS BBB**	**01/24/11**	**01/27/11**	**110124S07**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Acenaphthene	107	106	40-160	1	0-20	
Acenaphthylene	103	102	40-160	1	0-20	
Anthracene	100	98	40-160	2	0-20	
Benzo (a) Anthracene	114	114	40-160	0	0-20	
Benzo (a) Pyrene	161	169	40-160	1	0-20	3
Benzo (b) Fluoranthene	125	161	40-160	5	0-20	
Benzo (g,h,i) Perylene	125	122	40-160	1	0-20	
Benzo (k) Fluoranthene	100	146	40-160	9	0-20	
Chrysene	124	124	40-160	0	0-20	
Dibenz (a,h) Anthracene	155	156	40-160	0	0-20	
Fluoranthene	77	77	40-160	0	0-20	
Fluorene	114	114	40-160	0	0-20	
Indeno (1,2,3-c,d) Pyrene	142	139	40-160	1	0-20	
2-Methylnaphthalene	180	180	40-160	0	0-20	3
1-Methylnaphthalene	135	135	40-160	0	0-20	
Naphthalene	130	129	40-160	0	0-20	
Phenanthrene	101	103	40-160	1	0-20	
Pyrene	96	89	40-160	3	0-46	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-01-1079
Preparation: EPA 3050B
Method: EPA 6020

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-10-002-1,912	**Solid**	**ICP/MS 04**	**01/21/11**	**01/22/11**	**110121L03**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	100	98	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-01-1079
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-452-188	**Solid**	**Mercury**	**01/24/11**	**01/24/11**	**110124L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	97	97	82-124	0	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-01-1079
Preparation: EPA 3545
Method: Organotins by Krone et al.

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-016-811	**Solid**	**GC/MS Y**	**01/24/11**	**01/27/11**	**110124L05**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	90	86	50-130	4	0-20	
Tributyltin	101	98	50-130	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-01-1079
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-224-18	**Solid**	**GC/MS N**	**01/24/11**	**01/26/11**	**110124L06**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	101	102	50-125	38-138	1	0-30	
PCB018	102	103	50-125	38-138	1	0-30	
PCB028	108	111	50-125	38-138	3	0-30	
PCB052	102	105	50-125	38-138	2	0-30	
PCB044	103	106	50-125	38-138	2	0-30	
PCB066	109	112	50-125	38-138	3	0-30	
PCB101	102	104	50-125	38-138	2	0-30	
PCB077	106	108	50-125	38-138	2	0-30	
PCB118	105	107	50-125	38-138	2	0-30	
PCB153	97	99	50-125	38-138	2	0-30	
PCB105	100	102	50-125	38-138	2	0-30	
PCB187	98	99	50-125	38-138	1	0-30	
PCB126	101	101	50-125	38-138	1	0-30	
PCB128	96	98	50-125	38-138	2	0-30	
PCB180	101	102	50-125	38-138	1	0-30	
PCB170	94	96	50-125	38-138	2	0-30	
PCB195	100	101	50-125	38-138	1	0-30	
PCB206	99	100	50-125	38-138	2	0-30	
PCB209	94	96	50-125	38-138	2	0-30	

Total number of LCS compounds : 19
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AMEC Earth & Environmental
9210 Sky Park Court, Suite 200
San Diego, CA 92123-4302

Date Received: N/A
Work Order No: 11-01-1079
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Project: BAE Systems San Diego Ship Repair Post-Dredge Survey

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-097-29	**Solid**	**GC/MS BBB**	**01/24/11**	**01/27/11**	**110124L07**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Acenaphthene	94	94	48-108	38-118	0	0-11	
Acenaphthylene	93	93	40-160	20-180	1	0-20	
Anthracene	67	66	40-160	20-180	1	0-20	
Benzo (a) Anthracene	96	96	40-160	20-180	0	0-20	
Benzo (a) Pyrene	112	111	40-160	20-180	0	0-20	
Benzo (b) Fluoranthene	107	100	40-160	20-180	6	0-20	
Benzo (g,h,i) Perylene	102	101	40-160	20-180	1	0-20	
Benzo (k) Fluoranthene	101	106	40-160	20-180	5	0-20	
Chrysene	98	98	40-160	20-180	0	0-20	
Dibenz (a,h) Anthracene	121	120	40-160	20-180	1	0-20	
Fluoranthene	98	97	40-160	20-180	1	0-20	
Fluorene	98	99	40-160	20-180	1	0-20	
Indeno (1,2,3-c,d) Pyrene	115	114	40-160	20-180	1	0-20	
2-Methylnaphthalene	102	103	40-160	20-180	1	0-20	
1-Methylnaphthalene	98	97	40-160	20-180	1	0-20	
Naphthalene	95	95	40-160	20-180	0	0-20	
Phenanthrene	95	93	40-160	20-180	2	0-20	
Pyrene	91	90	40-160	20-180	1	0-16	

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

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-01-1079

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 01/18/10

PAGE: 1 OF 1

LABORATORY CLIENT: AMEC Earth & Environmental, Inc.

ADDRESS: 9210 Sky Park Court, Suite 200

CITY: San Diego STATE: CA ZIP: 92123

TEL: 858-300-4320 FAX: 858-300-4301 E-MAIL: barry.snyder@amec.com

CLIENT PROJECT NAME / NUMBER: BAE Systems San Diego Ship Repair Post-Dredge Survey

P.O. NO.:

PROJECT CONTACT: Barry Snyder

LAB CONTACT OR QUOTE NO.: 952790

SAMPLER(S): (SIGNATURE) Brent Mardian/Tyler Huff

LAB USE ONLY 01-1079

TURNAROUND TIME:

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☒ ARCHIVE SAMPLES UNTIL 2 / 28 / 2011

SPECIAL INSTRUCTIONS:

Please see attached list. Only report the individual HPAHs and PCB congeners requested.
Also provide a total HPAH and PCB congener summation.
Report in dry weight.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Please list tests required	Percent Solids	Copper	Mercury	HPAHS	PCB Congeners	TBT
1	G10	G10	1/17/2010	1013	sed	1		X	X	X	X	X	X
2	G11	G11	1/17/2010	1120	sed	1		X	X	X	X	X	X
3	G11D	G11D	1/17/2010	1143	sed	1		X	X	X	X	X	X
4	G12	G12	1/17/2010	1028	sed	1		X	X	X	X	X	X
5	G13	G13	1/17/2010	913	sed	1		X	X	X	X	X	X
6	G21	G21	1/17/2010	1054	sed	1		X	X	X	X	X	X

Relinquished by: (Signature) Barry J. Snyder	Received by: (Signature) CEL	Date: 01/18/11	Time: 15:00
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 01/18/11	Time: 1930
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

02/24/10 Revision

1079

COCs in subsurface sediments are below 120 percent of post-remedial dredge area concentrations, then the dredging is sufficient and may stop.

b. ***Under-Pier Remedial Areas.*** The sediments in the under pier areas shown on Attachments 3 and 4 and other locations where significant impacts to infrastructure may occur shall be remediated by dredging, sand covering or other means.

c. ***Post Remedial Surface-Area Weighted Average Concentrations.*** The Shipyard Sediment Site as shown in Attachment 2 shall be remediated to attain the following post remedial surface-area weighted average concentrations ("SWACs"):

Primary COCs	**Predicted Post-Remedial SWACs**
Copper	159 mg/kg
Mercury	0.68 mg/kg
HPAHs[1]	2,451 µg/kg
PCBs[2]	194 µg/kg
Tributyltin	110 µg/kg

1. HPAHs = sum of 10 PAHs: Fluoranthene, Pyrene, Benz[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[a]pyrene, indeno[1,2,3-c,d]pyrene, Dibenz[a,h]anthracene, and Benzo[g,h,i]perylene.

HPAHs to report

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

congeners to report

3. **MS4 Interim Mitigation Measures**. Immediately after adoption of the CAO, the City of San Diego and the San Diego Unified Port District within the tideland area shall take interim remedial actions, as necessary, to abate or correct the actual or potential effects of releases from the MS4 system that drains to outfall SW4. Interim remedial actions can occur concurrently with any phase of corrective action. Before taking interim remedial actions, the City and the Port District shall notify the San Diego Water Board of the proposed action and shall comply with any requirements that the San Diego Water Board sets.

4. **MS4 Investigation and Mitigation Plan**. The City of San Diego and the San Diego Unified Port District within the tideland area shall prepare and submit a municipal separate storm sewer system (MS4) Investigation and Mitigation Plan (Plan) within 90 days after adoption of the CAO. The Plan shall be designed to identify, characterize, and

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-01-1057

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AMEC DATE: 01/18/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.1 °C + 0.5 °C (CF) = 2.6 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: VG

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: VG

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: JY

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑ VG 1/18/11	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☑16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JY

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** VG

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:**

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-01-1Ø07 9

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

- ☐ **Sample(s)/Container(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☑ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(-1) thru (-6) Collection date per label is 11/7/2011

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: 01/18/11