ANCHOR QEA

27201 Puerta Real, Suite 350
Mission Viejo, California 92691
Phone 949.347.2780
www.anchorqea.com

TECHNICAL MEMORANDUM

To:	Chris Miller, City of Newport Beach	**Date:**	December 17, 2013
From:	Steve Cappellino and Shelly Anghera, Ph.D., Anchor QEA, LLC	**Project:**	130243-00.03
CC:	Wanda Cross and Terri Reeder, Santa Ana Regional Water Quality Control Board		
Re:	Post-Dredge Confirmatory Sampling Results and Environmental Benefits of Dredging for the Rhine Channel Contaminated Sediment Cleanup Project		

INTRODUCTION

Dredging was performed by the City of Newport Beach (City) to restore impaired beneficial uses of the Rhine Channel and improve navigation. Material was handled in an environmentally responsible and cost-effective manner by beneficially reusing the sediment in the Port of Long Beach's (POLB's) Middle Harbor Fill Site. In compliance with Santa Ana Regional Water Quality Control Board (RWQCB) requirements, post-dredge sediment sampling and analysis was performed to verify removal of chemically impacted sediment and to determine final surface sediment chemical concentrations. Monitoring was performed in accordance with the Sampling and Analysis Plan (SAP; Anchor QEA 2012a) and SAP Addendum (Anchor QEA 2012b). This technical memorandum presents a summary of post-dredge sediment sampling results and quantifies the environmental benefits of dredging within the Rhine Channel.

PRE-DREDGE CHEMISTRY

In November 2004, core samples were collected by Anchor Environmental CA, L.P. (now Anchor QEA) and Orange County Coastkeeper at 16 stations as part of the Rhine Channel Feasibility Study (Anchor 2006). Cores were collected to establish the depth to clean native material. Station locations coincided with Southern California Coastal Water Research Project's (SCCWRP's) previous sediment investigation conducted in 2002 (Bay and Brown 2003). A total of 49 sediment samples were analyzed for chemical constituents. Table A-1 in Attachment A presents the sediment chemistry results for each sample interval. Chemical concentrations were compared to effects range low (ERL) and effects range median (ERM) thresholds (Long et al. 1995) and total maximum daily load (TMDL) numeric targets, where

applicable. These values and the SCCWRP surface sediment data were provided for comparison purposes.

DREDGING SUMMARY

Based on results of sediment core sampling in 2004, approximately 96,000 cubic yards (cy) of contaminated sediments were identified for removal. Dredging was performed between August 1 and November 1, 2011, using a barge-mounted excavator. Routine bathymetric surveys and sediment core and grab samples were collected during construction to verify successful removal of impacted sediments. If high spots were identified or concentrations were elevated, additional dredging was performed. Approximately 79,897 cy of contaminated sediments were removed from the Rhine Channel and placed in the POLB's Middle Harbor Fill Site. A summary of dredge depths and final elevations are presented on Figure 1. Dredging was not performed along bulkhead structures in order to maintain geotechnical stability; therefore, approximately 25,800 cy of contaminated sediments were left in place along the perimeter of Rhine Channel. With this material left in place, approximately 76 percent of contaminated sediments was removed.

POST-DREDGE CONFIRMATORY SAMPLING RESULTS

Sediment Collection and Handling

Sampling was conducted after dredging was completed with sufficient time to allow dredge residuals (sediments suspended during dredging) to settle. Sediment cores were collected at 11 stations within the dredge footprint of Rhine Channel to verify successful removal of chemically impacted sediments. Sediment grab samples were collected at 12 stations (six co-located with core stations), as requested by the RWQCB, to evaluate the new surface layer from a TMDL perspective. Grab samples were collected from the entire Rhine Channel, including areas not dredged (i.e., perimeter of the channel and outside the mouth). Sediment core and grab sampling locations are shown on Figure 2.

Sampling was conducted in accordance with the SAP (Anchor QEA 2012a) and SAP Addendum (Anchor QEA 2012b). Cores were collected to a target depth of 2 feet using a piston core. Core segments containing surface sediments from the 0 to 0.5 foot were analyzed for physical parameters and contaminants of concern. Subsurface core segments were archived for potential analysis if the upper residual layer indicated elevated levels of

contaminants greater than TMDL numeric targets. Coordinates, mudline elevations, penetration, and total core lengths are presented in Table 1. Surface sediment was collected using a Petite Ponar or Ekman grab sampler. Sediment from the top 2 centimeters (cm) was analyzed for physical parameters and contaminants of concern. Coordinates, mudline elevations, and grab recovery depths are presented in Table 2. Field logs and photographs are presented in Attachment B.

Table 1
Coordinates, Mudeline Elevation, Penetration, and Total Core Length for Each Sediment Core Sampling Location

Station ID	Latitude (decimal degrees)	Longitude (decimal degrees)	Mudline Elevation (feet MLLW)	Estimated Penetration (feet)	Total Core Length (feet)
RC-01	33.61443	-117.92698	-12.3	4.4	2.5
RC-02	33.61384	-117.92726	-16.0	3.9	2.3
RC-03	33.61310	-117.92756	-13.9	2.6	2.6
RC-04	33.61262	-117.92776	-15.5	3.0	2.1
RC-05	33.61215	-117.92793	-18.3	2.8	2.0
RC-06	33.61172	-117.92771	-16.5	3.5	2.0
RC-07	33.61118	-117.92747	-19.8	2.9	1.6
RC-08	33.61097	-117.92695	-14.4	2.5	2.1
RC-09	33.61053	-117.92659	-17.3	2.8	1.8
RC-10	33.61026	-117.92605	-15.7	2.8	1.5
RC-11	33.60979	-117.92569	-18.6	3.5	1.7

Note:
MLLW = mean lower low water

Table 2
Coordinates, Mudline Elevation, and Grab Recovery Depth for Each Surface Sediment Sampling Location

Station ID	Latitude (decimal degrees)	Longitude (decimal degrees)	Mudline Elevation (feet MLLW)	Grab Recovery Depth (cm)
RC-02	33.61386	-117.92726	-16.5	11.5
RC-04	33.61263	-117.92776	-15.5	11.0
RC-06[1]	33.61173	-117.92770	-16.8	7.0
	33.61173	-117.92771	-16.8	7.0
RC-08[1]	33.61097	-117.92694	-14.5	7.5
	33.61097	-117.92695	-14.5	8.0
RC-10[1]	33.61028	-117.92603	-15.3	8.5
	33.61028	-117.92603	-15.3	8.0
RC-11[1]	33.60980	-117.92571	-18.6	7.5
	33.60979	-117.92571	-18.6	5.5
RC-12	33.61497	-117.92680	-16.5	11.5
RC-13[1]	33.61094	-117.92772	-14.1	12.3
	33.61095	-117.92771	-14.1	11.5
RC-14[1]	33.61133	-117.92667	-19.7	8.1
	33.61133	-117.92667	-19.7	9.6
RC-15	33.61024	-117.92680	-11.7	12.6
RC-16[1]	33.61013	-117.92519	-15.9	8.5
	33.61012	-117.92518	-15.9	8.6
RC-17[1]	33.60954	-117.92510	-12.6	9.6
	33.60954	-117.92510	-12.6	9.3

Notes:
MLLW = mean lower low water
1 Two grab samples were required to obtain sufficient volume for analysis. Top 2 cm of each grab sample were composited together.

Chemical and Physical Analyses

All samples were analyzed by Calscience Environmental Laboratories, Inc., located in Garden Grove, California. Chemical analyses of sediment in this testing program included constituents listed for the Rhine Channel waterbody in the San Diego Creek and Newport Bay TMDL (USEPA 2002), including chromium, copper, lead, mercury, selenium,[1] zinc, chlordane, dieldrin, DDTs, and polychlorinated biphenyls (PCBs). In addition, arsenic,

1 For selenium, no numeric target for sediment has been established.

cadmium, nickel, and pyrethroids were measured as requested by the RWQCB. Physical analyses included grain size, total organic carbon, and total solids. Analytical methods and target method detection limits (MDLs) and reporting limits (RLs) are presented in the SAP Addendum (Anchor QEA 2012b). Results of chemical analyses were compared to TMDL numeric targets (USEPA 2002), and ERL and ERM values developed by Long et al. (1995). A USEPA Stage 2A data validation was performed on all samples to evaluate analytical data for method quality control (QC) and laboratory QC compliance and to determine validity and applicability of data (Attachment C). Results of physical and chemical analyses of core samples are presented in Table 3. Results of physical and chemical analyses of surface sediment grab samples are presented in Table 4. All results are expressed in dry weight unless otherwise indicated. Laboratory reports are provided in Attachment D.

SURFACE-WEIGHTED AVERAGE CONCENTRATIONS

Results of post-dredge sampling were evaluated on an area-wide basis. GIS was used to calculate the surface-weighted average concentration (SWAC) for each contaminant of concern[2] based on Thiessen polygons. Thiessen polygons were applied to each sampling location to estimate relative impact of each core within the total area. Thiessen polygons for core and surface grab sampling locations are shown on Figures 3 and 4, respectively.[3] SWACs were calculated using final surface concentrations following methods described in Section 6.1 of the SAP (Anchor QEA 2012a). Concentrations were compared to TMDL numeric targets and to the average concentration for the unimpacted areas of Lower Newport Bay. SWACs for each contaminant of concern are presented in Table 5.

2 SWACs were only calculated for contaminants with TMDL numeric targets.

3 Station RC-17 was located outside the mouth of the Rhine Channel and therefore not included in SWAC calculations for grab samples.

Table 3
Results of Physical and Chemical Analyses of Core Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-01	RC-01	RC-01	RC-02	RC-02	RC-02	RC-03	RC-03	RC-03	RC-04	RC-04	RC-04	RC-05	RC-05	RC-05	RC-06	RC-06	RC-06	RC-07
Sample ID				RC-01-SC_0.0-0.5	RC-01-SC_0.5-1.0	RC-01-SC_1.0-1.5	RC-02-SC_0.0-0.5	RC-02-SC_0.5-1.0	RC-02-SC_1.0-1.5	RC-03-SC_0.0-0.5	RC-03-SC_0.5-1.0	RC-03-SC_1.0-1.5	RC-04-SC_0.0-0.5	RC-04-SC_0.5-1.0	RC-04-SC_1.0-1.5	RC-05-SC_0.0-0.5	RC-05-SC_0.5-1.0	RC-05-SC_1.0-1.5	RC-06-SC_0.0-0.5	RC-06-SC_0.5-1.0	RC-06-SC_1.0-1.5	RC-07-SC_0.0-0.5
Sample Date				12/12/2012	12/12/2012	12/12/2012	12/11/2012	12/11/2012	12/11/2012	12/12/2012	12/12/2012	12/12/2012	12/11/2012	12/11/2012	12/11/2012	12/19/2012	12/19/2012	12/19/2012	12/11/2012	12/11/2012	12/11/2012	12/19/2012
Depth				0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft
Conventional Parameters (percent)																						
Total organic carbon	--	--	--	1.5	--	--	0.32	--	--	0.81	--	--	0.82	--	--	0.3	--	--	0.19	--	--	0.17
Total solids	--	--	--	51.9	77.8	82.2	75.2	67.5	58.5	52	78.4	77.9	59.8	73.7	69.9	73.9	77.6	81.3	77.9	78.9	80.1	77.5
Grain Size (percent)																						
Gravel (>2mm)	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U
Sand (2.00mm - 1.00mm)	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	2.48	--	--	0 U
Sand, Coarse	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	22	--	--	0 U
Sand, Medium	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--	33.8	--	--	0 U
Sand, Fine	--	--	--	0 U	--	--	0.9	--	--	0.16	--	--	0 U	--	--	0 U	--	--	12.6	--	--	0 U
Sand, Very Fine	--	--	--	3.58	--	--	5.65	--	--	4.53	--	--	0.48	--	--	0 U	--	--	4.95	--	--	2.77
Silt	--	--	--	54.53	--	--	55.41	--	--	54.2	--	--	56.05	--	--	54.67	--	--	14.8	--	--	58.57
Fines (silt + clay)	--	--	--	96.42	--	--	93.45	--	--	95.31	--	--	99.52	--	--	100	--	--	24.17	--	--	97.23
Clay, <5 micron	--	--	--	41.89	--	--	38.04	--	--	41.11	--	--	43.47	--	--	45.33	--	--	9.37	--	--	38.66
Metals (mg/kg)																						
Arsenic	--	8.2	70	10.8	3.05	1.99	4.17	6.6	15.7	7.79	2.55	2.96	6.08	4.53	5.64	3.39	3.13	2.98	2.56	2.77	2.96	2.11
Cadmium	--	1.2	9.6	0.93	0.171	0.0768 J	0.18	0.596	1.26	0.671	0.133	0.162	0.538	0.298	0.296	0.181	0.185	0.155	0.121	0.132	0.127	0.0925
Chromium	52	81	370	26.8	5.35	3.16	5.57	14.4	31.8	20.4	5.01	6.68	14.8	9.52	12.5	7.44	6.51	7.49	3.95	4.39	4.97	4.57
Copper	18.7	34	270	386	49	21.1	75.8	149	439	249	39.4	61.7	200	118	183	68.6	64.3	51.6	45.1	29.6	33.3	35.8
Lead	30.2	46.7	218	95	11.8	4.7	17.3 J	49.3	132	66.8	9.82	14.1	47.5 J	26.8	36.2	13.8	13.1	12.2	10.6 J	12.8	12.1	7.46
Mercury	0.13	0.15	0.71	8.6	0.686	0.202	1.2	3.52	12.4	3.2	0.53	0.997	3.6	1.87	1.96	1.3	0.738	0.813	0.68	0.49	0.557	0.49
Nickel	--	20.9	51.6	15.5	3.18	1.78	2.84	8.81	18.1	12	3.07	3.67	8.74	5.83	6.97	4.27	3.53	4.25	2.44	2.5	2.98	2.47
Selenium	--	--	--	0.836	0.122	0.0501 J	0.0486 U	0.161	0.792	0.585	0.0864	0.2	0.177	0.18	0.308	0.0494 U	0.147	0.142	0.0469 U	0.075	0.067	0.103
Zinc	124	150	410	285	56.9 J	24.6 J	54.8 J	139 J	312 J	212	43.5 J	55.8 J	148 J	95.6 J	128 J	64.4 J	61.3 J	278 J	43.4 J	35.2 J	39.8 J	40 J
Pyrethroids (µg/kg)																						
Bifenthrin	--	--	--	0.68 J	--	--	0.12 UJ	--	--	0.34 J	--	--	0.16 UJ	--	--	0.28 J	--	--	0.12 UJ	--	--	0.12 U
Cyfluthrin	--	--	--	0.16 UJ	--	--	0.11 U	--	--	0.19 J	--	--	0.14 U	--	--	0.11 UJ	--	--	0.11 U	--	--	0.11 UJ
Cypermethrin	--	--	--	0.13 UJ	--	--	0.091 UJ	--	--	0.13 UJ	--	--	0.11 UJ	--	--	0.093 UJ	--	--	0.088 UJ	--	--	0.089 UJ
Deltamethrin/Tralomethrin	--	--	--	0.4 UJ	--	--	0.28 UJ	--	--	0.4 UJ	--	--	0.35 UJ	--	--	0.28 UJ	--	--	0.27 UJ	--	--	0.27 UJ
Fenpropathrin	--	--	--	0.07 UJ	--	--	0.048 U	--	--	0.07 UJ	--	--	0.061 U	--	--	0.049 U	--	--	0.047 U	--	--	0.047 U
Fenvalerate	--	--	--	0.069 UJ	--	--	0.047 U	--	--	0.069 UJ	--	--	0.06 U	--	--	0.048 U	--	--	0.046 U	--	--	0.046 U
Lambda-Cyhalothrin	--	--	--	0.084 UJ	--	--	0.058 UJ	--	--	0.084 UJ	--	--	0.073 UJ	--	--	0.059 UJ	--	--	0.056 UJ	--	--	0.056 UJ
Permethrin	--	--	--	4.2	--	--	0.83 J	--	--	3.9	--	--	1 J	--	--	1.7	--	--	0.5 J	--	--	0.89 J
Pesticides (µg/kg)																						
2,4'-DDD (o,p'-DDD)	--	--	--	0.65 U	0.44 U	0.41 U	0.45 U	0.5 U	0.58 U	0.65 U	0.43 U	0.43 U	0.57 U	0.46 U	0.48 U	0.46 U	0.44 U	0.42 U	0.43 U	0.44 J	0.42 U	0.44 U
2,4'-DDE (o,p'-DDE)	--	--	--	0.59 U	0.39 U	0.37 U	0.41 U	1.5	0.52 U	0.59 U	0.39 U	0.48 J	0.51 U	1.1 J	1.3 J	0.79 J	0.42 J	0.38 U	0.39 U	0.56 J	0.38 U	0.39 U
2,4'-DDT (o,p'-DDT)	--	--	--	0.58 U	0.39 U	0.37 U	0.4 U	0.45 U	0.51 U	0.58 U	0.38 U	0.39 U	0.5 U	0.41 U	0.43 U	0.41 U	0.39 U	0.37 U	0.39 U	0.38 U	0.38 U	0.39 U
4,4'-DDD (p,p'-DDD)	--	2	20	0.61 U	0.41 U	0.38 U	0.42 U	0.47 U	0.54 U	0.61 U	0.4 U	0.41 U	11	0.43 U	0.45 U	0.43 U	0.41 U	0.39 U	0.41 U	1.8	0.39 U	0.41 U
4,4'-DDE (p,p'-DDE)	--	2.2	27	9.8	2.5	0.89 J	2.1	11	27	9.9	2.3	4	3.5	9	12	4.7	4	2.5	1.3	1.9	1.2 J	2.4
4,4'-DDT (p,p'-DDT)	--	1	7	0.64 U	0.43 U	0.41 U	0.44 U	0.5 U	0.57 U	0.64 U	0.43 U	0.43 U	3.6	0.45 U	0.48 U	0.45 U	0.43 U	0.41 U	0.43 U	0.42 U	0.42 U	0.43 U
Chlordane, alpha- (cis-Chlordane)	--	--	--	0.62 U	0.41 U	0.39 U	0.43 U	0.48 U	0.55 U	0.62 U	0.41 U	0.41 U	0.54 U	0.44 U	0.46 U	0.43 U	0.41 U	0.39 U	0.41 U	0.41 U	0.4 U	0.41 U
Chlordane, gamma-	--	--	--	0.61 U	0.41 U	0.39 U	0.42 U	0.47 U	0.54 U	0.61 U	0.41 U	0.41 U	0.53 U	0.43 U	0.45 U	0.43 U	0.41 U	0.39 U	0.41 U	0.4 U	0.4 U	0.41 U
Dieldrin	0.72	0.02	8	*0.64 U*	0.59 J	*0.4 U*	0.49 J	2.6	8.1	*0.63 U*	0.54 J	0.92 J	0.72 J	2.3	2.1	*0.45 U*	0.74 J	0.67 J	*0.42 U*	0.47 J	*0.41 U*	*0.43 U*
Total Chlordane (alpha and gamma) (U = 0)	2.26	--	--	0.62 U	0.41 U	0.39 U	0.43 U	0.48 U	0.55 U	0.62 U	0.41 U	0.41 U	0.54 U	0.44 U	0.46 U	0.43 U	0.41 U	0.39 U	0.41 U	0.41 U	0.4 U	0.41 U
Total DDx (U = 0)	3.89	1.58	46.1	9.8	2.5	0.89 J	2.1	12.5	27	9.9	2.3	4.48 J	18.1	10.1 J	13.3 J	5.49 J	4.42 J	2.5	1.3	4.7 J	1.2 J	2.4
PCB Congeners (µg/kg)																						
PCB-018	--	--	--	3	1.3	0.36 J	0.47 J	5.6	19	5.6	0.46 J	0.97	0.71 J	1.9	2.3	1.3	1.1	1.1	0.89	0.76 J	1.2 J	1.1
PCB-028	--	--	--	2.5	0.38 J	0.24 J	0.28 J	3.9	16	4.4	0.52 J	0.89	0.49 J	1.5	2.3	0.89	0.75	0.77	0.57 J	0.6 J	0.7 J	0.92
PCB-037	--	--	--	0.95 J	0.17 U	0.16 U	0.23 J	0.19 U	8.7	6.6	0.17 U	0.37 J	0.41 J	0.79	1.1	0.25 J	0.17 U	0.16 U	0.21 J	0.2 J	0.16 U	0.49 J
PCB-044	--	--	--	3.7	0.76	0.38 J	0.59 J	7.5	27	6.5	0.81	1.3	1.5	2.5	3.2	1.1	0.97	1.1	0.63 J	0.66 J	0.79 J	1.7
PCB-049	--	--	--	4.6	0.71	0.4 J	0.9	8.7	34	8.7	1.2	1.5	1.2	2.8	3.8	1.5	1.3	1.3	0.71	0.92 J	1.1 J	1.5
PCB-052	--	--	--	6.1	1.1	0.71	0.82	11	30	11	1.2	2.1	2.6	4.5	5.7	2.6	2.1	1.9	1.2	1.5 J	1.6 J	2.6
PCB-066	--	--	--	7	1.1	0.7	1.1	13	46	15	1.8	2.8	1.9	5.5	7.8	2.6	2.3	2.3	1.3	1.6 J	1.5 J	2.9
PCB-070	--	--	--	5	1	0.59 J	0.93	9	30	9.1	1.3	1.9	1.9	3.7	5.1	1.8	1.7	1.7	1.2	1.2 J	1.1 J	2.4
PCB-074	--	--	--	2.6	0.45 J	0.31 J	0.48 J	5	17	5	0.68	1	0.84	1.9	2.6	0.89	0.87	0.92	0.57 J	0.57 J	0.66 J	1.1
PCB-077	--	--	--	0.69 J	0.13 U	0.12 U	0.15 J	1.6	3.5	1.1	0.22 J	0.27 J	0.23 J	0.58 J	0.74	0.27 J	0.28 J	0.21 J	0.13 U	0.12 U	0.12 U	0.3 J
PCB-081	--	--	--	0.24 U	0.16 U	0.15 U	0.16 U	0.18 U	0.21 U	0.24 U	0.16 U	0.16 U	0.2 U	0.17 U	0.17 U	0.17 U	0.16 U	0.15 U	0.16 U	0.15 U	0.15 U	0.16 U
PCB-087	--	--	--	1.7	0.25 J	0.19 J	0.28 J	3.4	12	2.9	0.44 J	0.72	1.3	1.3	1.5	0.61 J	0.51 J	0.52 J	0.32 J	0.26 J	0.39 J	0.65
PCB-099	--	--	--	4.4	0.68	0.45 J	0.57 J	7.8	24	10	1.3	2.1	1.6	3.8	5.8	1.9	1.6	1.5	0.88	0.97 J	0.92 J	1.6
PCB-101	--	--	--	6.6	1.2	0.74	1.2	14	46	15	2.1	3.2	3.7	6.1	8.9	2.7	2.8	2.4	1.5	1.6 J	1.7 J	2.6
PCB-105	--	--	--	2.9	0.41 J	0.26 J	0.45 J	5.6	17	5.3	0.67	0.93	1.2	1.8	2.4	0.77	0.83	0.89	0.45 J	0.56 J	0.54 J	0.81
PCB-110	--	--	--	6.1	0.99	0.6 J	0.99	11	37	12	1.8	2.4	3.4	4.8	6.8	2.3	2	2.1	1.1	1.3 J	1.2 J	2.2
PCB-114	--	--	--	0.62 J	0.13 J	0.12 U	0.2 J	0.99	4.1	1.8	0.32 J	0.51 J	0.17 U	0.53 J	0.86	0.25 J	0.41 J	0.37 J	0.13 U	0.19 J	0.27 J	0.13 U
PCB-118	--	--	--	6.7	1	0.67	1.2	12	46	14	2	3	3.3	5.6	8.3	2.6	2.4	2.3	1.3	1.5 J	1.4 J	2.5
PCB-119	--	--	--	0.45 J	0.11 U	0.11 U	0.12 U	0.47 J	3.1	1.2	0.11 U	0.21 J	0.15 U	0.34 J	0.55 J	0.12 U	0.22 J	0.13 J	0.11 U	0.11 U	0.12 J	0.11 U
PCB-123	--	--	--	0.17 U	0.11 U	0.11 U	0.12 U	0.13 U	0.15 U	0.17 U	0.11 U	0.11 U	0.15 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
PCB-126	--	--	--	0.27 U	0.18 U	0.17 U	0.18 U	1.2	0.24 U	0.27 U	0.27 J	0.18 U	0.23 U	0.19 U	0.2 U	0.19 U	0.18 U	0.17 U	0.18 U	0.18 U	0.2 J	0.18 U
PCB-128	--	--	--	0.99	0.19 J	0.13 J	0.14 U	1.8	5.7	2.4	0.29 J	0.47 J	0.63 J	0.74	1.4	0.14 U	0.42 J	0.29 J	0.13 U	0.25 J	0.14 J	0.37 J
PCB-138/158	--	--	--	5.6	0.77 J	0.6 J	0.83 J	9.5	33	11	1.7	2.6	3.1	4.7	6.5	2	2.1	1.8	0.77 J	1.1 J	1.1 J	2.2
PCB-149	--	--	--	3.8	0.51 J	0.36 J	0.6 J	6.4	22	8.6	1.1	1.9	1.9	3.4	5	1.5	1.5	1.2	0.57 J	0.83 J	0.76 J	1.6
PCB-151	--	--	--	1	0.15 J	0.13 U	0.21 J	2	6	2.3	0.42 J	0.51 J	0.38 J	0.82	1.3	0.41 J	0.44 J	0.37 J	0.17 J	0.27 J	0.25 J	0.4 J
PCB-153	--	--	--	5.9	0.83	0.59 J	0.91	10	37	13	2	3	2.9	5.5	8.4	2.4	2.4	1.9	0.84	1.3 J	1.2 J	2.5
PCB-156	--	--	--	0.78 J	0.13 U	0.12 U	0.13 U	1.4	4.7	1.3	0.12 U	0.41 J	0.4 J	0.55 J	0.79	0.13 U	0.32 J	0.12 U	0.13 U	0.12 U	0.12 U	0.3 J
PCB-157	--	--	--	0.18 U	0.17 J	0.12 U	0.13 U	2.5	6.8	2.1	0.41 J	0.64 J	0.16 U	0.83	1.4	0.13 U	0.35 J	0.36 J	0.12 U	0.12 U	0.12 U	0.12 U
PCB-167	--	--	--	0.19 U	0.13 U	0.12 U	0.13 U	0.15 U	0.17 U	0.19 U	0.13 U	0.14 J	0.17 U	0.14 U	0.14 U	0.14 U	0.13 U	0.12 U	0.13 U	0.13 U	0.12 U	0.13 U

Table 3
Results of Physical and Chemical Analyses of Core Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-01	RC-01	RC-01	RC-02	RC-02	RC-02	RC-03	RC-03	RC-03	RC-04	RC-04	RC-04	RC-05	RC-05	RC-05	RC-06	RC-06	RC-06	RC-07
Sample ID				RC-01-SC_0.0-0.5	RC-01-SC_0.5-1.0	RC-01-SC_1.0-1.5	RC-02-SC_0.0-0.5	RC-02-SC_0.5-1.0	RC-02-SC_1.0-1.5	RC-03-SC_0.0-0.5	RC-03-SC_0.5-1.0	RC-03-SC_1.0-1.5	RC-04-SC_0.0-0.5	RC-04-SC_0.5-1.0	RC-04-SC_1.0-1.5	RC-05-SC_0.0-0.5	RC-05-SC_0.5-1.0	RC-05-SC_1.0-1.5	RC-06-SC_0.0-0.5	RC-06-SC_0.5-1.0	RC-06-SC_1.0-1.5	RC-07-SC_0.0-0.5
Sample Date				12/12/2012	12/12/2012	12/12/2012	12/11/2012	12/11/2012	12/11/2012	12/12/2012	12/12/2012	12/12/2012	12/11/2012	12/11/2012	12/11/2012	12/19/2012	12/19/2012	12/19/2012	12/11/2012	12/11/2012	12/11/2012	12/19/2012
Depth				0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft
PCB-168	--	--	--	0.17 U	0.11 U	0.1 U	0.11 U	0.13 U	0.15 U	0.17 U	0.11 U	0.11 U	0.14 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
PCB-169	--	--	--	0.16 U	0.1 U	0.099 U	0.11 U	**0.81**	**2.8**	0.16 U	**0.15 J**	0.1 U	0.14 U	**0.37 J**	0.12 U	0.11 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U
PCB-170	--	--	--	**1.7**	**0.22 J**	**0.13 J**	**0.39 J**	**2.6**	**11**	**3.7**	**0.42 J**	**0.89**	**0.5 J**	**1.7**	**2.1**	**0.71**	**0.49 J**	**0.6 J**	**0.31 J**	**0.42 J**	**0.3 J**	**0.64 J**
PCB-177	--	--	--	**0.71 J**	0.16 U	0.15 U	0.16 U	**1.5**	**4.6**	**1.9**	0.16 U	**0.33 J**	0.21 U	**0.6 J**	**0.99**	**0.31 J**	**0.32 J**	**0.29 J**	0.16 U	**0.18 J**	**0.2 J**	**0.29 J**
PCB-180	--	--	--	**2.9**	**0.5 J**	**0.3 J**	**0.54 J**	**7.2**	**23**	**7**	**1.1**	**1.8**	**0.77 J**	**2.7**	**3.6**	**1.2**	**1.3**	**1**	**0.34 J**	**0.72 J**	**0.73 J**	**1.2**
PCB-183	--	--	--	**0.73 J**	0.14 U	0.14 U	0.15 U	**1.6**	**5.3**	**1.8**	**0.24 J**	**0.39 J**	**0.23 J**	**0.69**	**1**	**0.27 J**	**0.35 J**	**0.25 J**	0.14 U	**0.19 J**	**0.21 J**	**0.31 J**
PCB-187	--	--	--	**2.4**	**0.29 J**	**0.24 J**	**0.35 J**	**5.2**	**14**	**5.9**	**0.88**	**1.2**	**0.5 J**	**2**	**3.2**	**1**	**0.95**	**0.74**	**0.27 J**	**0.55 J**	**0.58 J**	**0.9**
PCB-189	--	--	--	0.16 U	0.11 U	0.1 U	0.11 U	0.13 U	0.15 U	0.16 U	0.11 U	0.11 U	0.14 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
PCB-194	--	--	--	**1.1**	**0.22 J**	0.12 U	**0.2 J**	**3.1**	**6.9**	**2.7**	**0.26 J**	**0.52 J**	**0.36 J**	**0.94**	**1.4**	**0.48 J**	**0.58 J**	**0.52 J**	**0.22 J**	**0.22 J**	**0.4 J**	**0.42 J**
PCB-201	--	--	--	0.11 U	0.073 U	0.069 U	0.076 U	**0.47 J**	**1.2**	0.11 U	0.073 U	0.073 U	0.095 U	0.077 U	0.081 U	0.077 U	**0.13 J**	0.07 U	0.073 U	0.072 U	0.071 U	**0.093 J**
PCB-206	--	--	--	**1**	**0.15 J**	0.1 U	**0.91**	0.12 U	0.14 U	**4.1**	0.11 U	0.11 U	0.14 U	0.11 U	**1.4**	**0.57 J**	**0.55 J**	0.1 U	**0.21 J**	0.11 U	0.1 U	**0.63 J**
Total PCB Congener (U = 0)	21.5	--	--	**94.22 J**	**15.46 J**	**8.95 J**	**15.78 J**	**177.84 J**	**604.4**	**203**	**26.06 J**	**40.97 J**	**37.95 J**	**75.48 J**	**108.23 J**	**35.18 J**	**34.34 J**	**30.83 J**	**16.53 J**	**20.42 J**	**21.26 J**	**37.223 J**

Notes:

Detected concentration is greater than TMDL numeric targets

Detected concentration is greater than ERL screening level

Detected concentration is greater than ERM screening level

Italicized = non-detected concentration is greater than one or more identified screening levels

Bold = detected result

-- = not reported or not applicable

µg/kg = micrograms per kilogram

ERL = effects range low

ERM = effects range median

ft = feet

J = estimated value

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

U = compound analyzed, but not detected at greater than the detection limit

UJ = compound analyzed, but not detected above estimated detection limit

TMDL = total maximum daily load

All non-detect results are reported at the method detection limit.

USEPA Stage 2A data validation was completed by Anchor QEA.

Results are reported in dry weight basis.

Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest detection limit value is reported as the sum.

Total chlordane is the sum of alpha-chlordane and gamma-chlordane only.

Total DDx is the sum of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT 2,4'-DDD, 2,4'-DDE, and 2,4'-DDT if measured.

Total PCB congeners is the total of all PCB congeners listed in this table.

Table 3
Results of Physical and Chemical Analyses of Core Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-07	RC-07	RC-08	RC-08	RC-08	RC-09	RC-09	RC-09	RC-10	RC-10	RC-10	RC-11	RC-11	RC-11
Sample ID				RC-07-SC_0.5-1.0	RC-07-SC_1.0-1.5	RC-08-SC_0.0-0.5	RC-08-SC_0.5-1.0	RC-08-SC_1.0-1.5	RC-09-SC_0.0-0.5	RC-09-SC_0.5-1.0	RC-09-SC_1.0-1.5	RC-10-SC_0.0-0.5	RC-10-SC_0.5-1.0	RC-10-SC_1.0-1.5	RC-11-SC_0.0-0.5	RC-11-SC_0.5-1.0	RC-11-SC_1.0-1.5
Sample Date				12/19/2012	12/19/2012	12/11/2012	12/11/2012	12/11/2012	12/19/2012	12/19/2012	12/19/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012
Depth				0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft
Conventional Parameters (percent)																	
Total organic carbon	--	--	--	--	--	0.34	--	--	0.36	--	--	0.51	--	--	0.37	--	--
Total solids	--	--	--	82	79.3	70.7	84.5	83.5	73	78.2	78.5	66.3	81.9	81	67.4	81.5	83.4
Grain Size (percent)																	
Gravel (>2mm)	--	--	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0 U	--	--
Sand (2.00mm - 1.00mm)	--	--	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	0.83	--	--
Sand, Coarse	--	--	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	12.9	--	--
Sand, Medium	--	--	--	--	--	0 U	--	--	0 U	--	--	0 U	--	--	31.9	--	--
Sand, Fine	--	--	--	--	--	0.52	--	--	0 U	--	--	3.24	--	--	23	--	--
Sand, Very Fine	--	--	--	--	--	3.39	--	--	1.83	--	--	4.76	--	--	4.26	--	--
Silt	--	--	--	--	--	57.55	--	--	56.75	--	--	57.07	--	--	16.1	--	--
Fines (silt + clay)	--	--	--	--	--	96.09	--	--	98.17	--	--	92	--	--	27.1	--	--
Clay, <5 micron	--	--	--	--	--	38.54	--	--	41.42	--	--	34.93	--	--	11	--	--
Metals (mg/kg)																	
Arsenic	--	8.2	70	1.62	3.29	4.07	2.79	2.43	4.02	4.52	3.56	4.75	2.42	4.25	3.82	2.56	4.08
Cadmium	--	1.2	9.6	0.0698 U	0.149	0.175	0.0999 J	0.0685 U	0.199	0.233	0.175	0.213	0.0699 U	0.192	0.118	0.0702 U	0.0686 U
Chromium	52	81	370	2.42	5.38	6.02	3.45	2.12	8.75	11.1	6.83	10	2.8	6.57	4.22	2.13	2.61
Copper	18.7	34	270	11.7	65.2	82.5	24.4	9.5	66.1	73.5	58.3	79.8	12.2	45.5	61.6	2.54	2.83
Lead	30.2	46.7	218	3.26	13.8	20.1 J	6.88	2.99	15.7	22.3	15.2	18 J	3.65	12.5	9.51 J	0.946	1.13
Mercury	0.13	0.15	0.71	0.258	1.29	3	0.372	0.204	1.8	1.39	1.09	1.3	0.101	0.827	0.37	0.0202	0.0307
Nickel	--	20.9	51.6	1.37	3.41	3.77	2.11	1.38	4.78	5.14	4.29	5.59	1.71	4.17	2.44	1.31	1.8
Selenium	--	--	--	0.0446 U	0.131	0.0517 U	0.0776	0.052 J	0.147	0.142	0.246	0.0551 U	0.0446 U	0.129	0.0542 U	0.0448 U	0.0438 U
Zinc	124	150	410	17.8 J	48.8 J	80.6 J	24.1 J	14.8 J	87.7 J	74 J	56.5 J	85.9 J	20.4 J	67.7	59.9 J	9.33 J	13.9
Pyrethroids (µg/kg)																	
Bifenthrin	--	--	--	--	--	0.13 UJ	--	--	0.25 J	--	--	0.14 UJ	--	--	0.14 UJ	--	--
Cyfluthrin	--	--	--	--	--	0.12 U	--	--	0.12 UJ	--	--	0.13 U	--	--	0.13 U	--	--
Cypermethrin	--	--	--	--	--	0.097 UJ	--	--	0.094 UJ	--	--	0.1 UJ	--	--	0.1 UJ	--	--
Deltamethrin/Tralomethrin	--	--	--	--	--	0.3 UJ	--	--	0.29 UJ	--	--	0.32 UJ	--	--	0.31 UJ	--	--
Fenpropathrin	--	--	--	--	--	0.051 U	--	--	0.05 U	--	--	0.055 U	--	--	0.054 U	--	--
Fenvalerate	--	--	--	--	--	0.05 U	--	--	0.049 U	--	--	0.054 U	--	--	0.053 U	--	--
Lambda-Cyhalothrin	--	--	--	--	--	0.062 UJ	--	--	0.06 UJ	--	--	0.066 UJ	--	--	0.065 UJ	--	--
Permethrin	--	--	--	--	--	1.1 J	--	--	2.1	--	--	0.48 J	--	--	0.25 J	--	--
Pesticides (µg/kg)																	
2,4'-DDD (o,p'-DDD)	--	--	--	0.41 U	0.43 U	0.48 U	0.4 U	0.41 U	0.46 U	0.43 U	0.43 U	0.51 U	0.41 U	0.42 U	0.5 U	0.42 U	0.41 U
2,4'-DDE (o,p'-DDE)	--	--	--	0.37 U	0.64 J	0.43 U	0.36 U	0.37 U	0.94 J	1.1 J	0.39 U	0.46 U	0.41 J	0.59 J	0.45 U	0.37 U	0.37 U
2,4'-DDT (o,p'-DDT)	--	--	--	0.37 U	0.38 U	0.43 U	0.36 U	0.36 U	0.41 U	0.38 U	0.38 U	0.45 U	0.37 U	0.37 U	0.45 U	0.37 U	0.36 U
4,4'-DDD (p,p'-DDD)	--	2	20	0.39 U	0.4 U	0.45 U	0.37 U	0.38 U	0.43 U	0.4 U	0.4 U	0.48 U	0.39 U	0.39 U	0.47 U	0.39 U	0.38 U
4,4'-DDE (p,p'-DDE)	--	2.2	27	0.67 J	2.8	2.2	1 J	0.55 J	5.4	9.4	8 J	1.8	1.1 J	4.2 J	1.4 J	0.37 U	0.36 U
4,4'-DDT (p,p'-DDT)	--	1	7	0.41 U	0.42 U	0.47 U	0.4 U	0.4 U	0.46 U	0.43 U	6.3 J	0.5 U	0.41 U	0.41 U	0.5 U	0.41 U	0.4 U
Chlordane, alpha- (cis-Chlordane)	--	--	--	0.39 U	0.4 U	0.45 U	0.38 U	0.38 U	0.44 U	0.41 U	0.41 U	0.48 U	0.39 U	0.4 U	0.48 U	0.39 U	0.38 U
Chlordane, gamma-	--	--	--	0.39 U	0.4 U	0.45 U	0.38 U	0.38 U	0.44 U	0.41 U	0.4 U	0.48 U	0.39 U	0.39 U	0.47 U	0.39 U	0.38 U
Dieldrin	0.72	0.02	8	*0.4 U*	0.65 J	*0.47 U*	*0.39 U*	*0.39 U*	*0.45 U*	2.5	*0.42 U*	*0.5 U*	*0.4 U*	*0.41 U*	*0.49 U*	*0.4 U*	*0.4 U*
Total Chlordane (alpha and gamma) (U = 0)	2.26	--	--	0.39 U	0.4 U	0.45 U	0.38 U	0.38 U	0.44 U	0.41 U	0.41 U	0.48 U	0.39 U	0.4 U	0.48 U	0.39 U	0.38 U
Total DDx (U = 0)	3.89	1.58	46.1	0.67 J	3.44 J	2.2	1 J	0.55 J	6.34 J	10.5 J	14.3 J	1.8	1.51 J	4.79 J	1.4 J	0.42 U	0.41 U
PCB Congeners (µg/kg)																	
PCB-018	--	--	--	0.45 J	2.2 J	1.3	0.19 U	0.7	1.9	4.1	2.6	0.67 J	0.3 J	2.4 J	0.23 U	0.19 U	0.19 U
PCB-028	--	--	--	0.35 J	1.3 J	1.1	0.41 J	0.27 J	1.2	2.4	1.5	0.26 J	0.14 J	1.5 J	0.15 U	0.12 U	0.12 U
PCB-037	--	--	--	0.16 U	0.17 U	0.83	0.15 U	0.16 U	0.22 J	0.63 J	0.59 J	0.2 U	0.16 U	0.34 J	0.19 U	0.16 U	0.16 U
PCB-044	--	--	--	0.38 J	1.5 J	1.6	0.57 J	0.47 J	1.2	2.6	1.5	0.43 J	0.21 J	1.7 J	0.21 J	0.16 U	0.16 U
PCB-049	--	--	--	0.49 J	2.2 J	1.3	0.64	0.66	1.8	3.5	2.1	0.48 J	0.22 J	1.9 J	0.18 U	0.14 U	0.14 U
PCB-052	--	--	--	0.73	3.2 J	1.8	1.2	0.9	2.8	4.5	2.6	0.59 J	0.39 J	2.6 J	0.25 J	0.12 U	0.12 U
PCB-066	--	--	--	0.89	3.5 J	2.4	1.2	1	3	5.9	3.6	0.8	0.43 J	3.6 J	0.28 J	0.11 U	0.11 U
PCB-070	--	--	--	0.58 J	2.5 J	2	1.1	0.83	2.2	4.3	2.7	0.6 J	0.3 J	1.8 J	0.23 J	0.1 U	0.098 U
PCB-074	--	--	--	0.29 J	1.3 J	1	0.55 J	0.42 J	1.1	2.2	1.3	0.31 J	0.2 J	1.2 J	0.14 U	0.12 U	0.11 U
PCB-077	--	--	--	0.12 U	0.28 J	0.31 J	0.12 U	0.12 U	0.26 J	0.49 J	0.27 J	0.15 U	0.12 U	0.26 J	0.14 U	0.12 U	0.12 U
PCB-081	--	--	--	0.15 U	0.15 U	0.17 U	0.14 U	0.15 U	0.17 U	0.16 U	0.16 U	0.18 U	0.15 U	0.15 U	0.18 U	0.15 U	0.15 U
PCB-087	--	--	--	0.12 U	0.49 J	0.38 J	0.64	0.28 J	0.6 J	1	0.58 J	0.15 U	0.12 U	0.46 J	0.15 U	0.12 U	0.12 U
PCB-099	--	--	--	0.46 J	2 J	0.9	1.1	0.64	1.9	3.7	2.3	0.47 J	0.28 J	1.9 J	0.18 J	0.1 U	0.1 U
PCB-101	--	--	--	0.75	3.1 J	1.5	2.3	1.1	2.7	5.8	3.4	0.77	0.4 J	2.9 J	0.3 J	0.1 U	0.097 U
PCB-105	--	--	--	0.22 J	0.82 J	0.61 J	1.3	0.36 J	0.84	1.6	0.84	0.32 J	0.13 U	0.66 J	0.16 U	0.13 U	0.13 U
PCB-110	--	--	--	0.61 J	2.5 J	1.1	1.7	0.95	2.1	4.3	2.5	0.58 J	0.32 J	2.1 J	0.22 J	0.13 U	0.12 U
PCB-114	--	--	--	0.12 U	0.18 J	0.14 U	2.2	0.12 U	0.34 J	0.83	0.4 J	0.15 U	0.13 J	0.32 J	0.15 U	0.12 U	0.12 U
PCB-118	--	--	--	0.56 J	2.9 J	1.2	2.3	1	2.6	4.8	3.1	0.66 J	0.4 J	2.4 J	0.21 J	0.16 U	0.16 U
PCB-119	--	--	--	0.11 U	0.24 J	0.12 U	0.12 J	0.1 U	0.19 J	0.33 J	0.27 J	0.13 U	0.11 U	0.13 J	0.13 U	0.11 U	0.1 U
PCB-123	--	--	--	0.11 U	0.11 U	0.12 U	0.1 U	0.1 U	0.12 U	0.11 U	0.11 U	0.13 U	0.11 U	0.11 U	0.13 U	0.11 U	0.1 U
PCB-126	--	--	--	0.17 U	0.17 U	0.2 U	0.16 U	0.17 U	0.2 J	0.18 U	0.18 U	0.21 U	0.17 U	0.24 J	0.2 U	0.17 U	0.17 U
PCB-128	--	--	--	0.13 U	0.34 J	0.19 J	0.57 J	0.12 U	0.46 J	0.74	0.46 J	0.15 U	0.13 U	0.31 J	0.15 U	0.13 U	0.12 U
PCB-138/158	--	--	--	0.46 J	2 J	0.93 J	3.4	0.86 J	2	4.8	2.4	0.56 J	0.35 J	1.8 J	0.3 U	0.25 U	0.24 U
PCB-149	--	--	--	0.36 J	1.5 J	0.58 J	1.7	0.43 J	1.5	3.8	1.6	0.47 J	0.25 J	1.4 J	0.16 J	0.11 U	0.11 U
PCB-151	--	--	--	0.13 U	0.42 J	0.15 U	0.41 J	0.15 J	0.39 J	1.2	0.55 J	0.16 U	0.13 U	0.41 J	0.15 U	0.13 U	0.12 U
PCB-153	--	--	--	0.51 J	2.4 J	1	3	0.94	2.5	6.2	2.9	0.64 J	0.36 J	2.4 J	0.22 J	0.13 U	0.12 U
PCB-156	--	--	--	0.12 U	0.23 J	0.14 U	0.34 J	0.12 J	0.34 J	0.41 J	0.25 J	0.15 U	0.12 U	0.12 U	0.15 U	0.12 U	0.12 U
PCB-157	--	--	--	0.12 U	0.12 U	0.14 U	0.93	0.17 J	0.13 U	0.58 J	0.12 U	0.14 U	0.12 U	0.4 J	0.14 U	0.12 U	0.11 U
PCB-167	--	--	--	0.12 U	0.13 U	0.14 U	0.12 U	0.12 U	0.14 U	0.13 U	0.13 U	0.15 U	0.12 U	0.12 U	0.15 U	0.12 U	0.12 U

Table 3
Results of Physical and Chemical Analyses of Core Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-07	RC-07	RC-08	RC-08	RC-08	RC-09	RC-09	RC-09	RC-10	RC-10	RC-10	RC-11	RC-11	RC-11
Sample ID				RC-07-SC_0.5-1.0	RC-07-SC_1.0-1.5	RC-08-SC_0.0-0.5	RC-08-SC_0.5-1.0	RC-08-SC_1.0-1.5	RC-09-SC_0.0-0.5	RC-09-SC_0.5-1.0	RC-09-SC_1.0-1.5	RC-10-SC_0.0-0.5	RC-10-SC_0.5-1.0	RC-10-SC_1.0-1.5	RC-11-SC_0.0-0.5	RC-11-SC_0.5-1.0	RC-11-SC_1.0-1.5
Sample Date				12/19/2012	12/19/2012	12/11/2012	12/11/2012	12/11/2012	12/19/2012	12/19/2012	12/19/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012
Depth				0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft	0 - 0.5 ft	0.5 - 1 ft	1 - 1.5 ft
PCB-168	--	--	--	0.1 U	0.11 U	0.12 U	0.1 U	0.1 U	0.12 U	0.11 U	0.11 U	0.13 U	0.11 U	0.11 U	0.13 U	0.11 U	0.1 U
PCB-169	--	--	--	0.1 U	0.1 U	0.12 U	0.097 U	0.098 U	0.11 U	**0.4 J**	**0.17 J**	0.12 U	0.1 U	0.1 U	0.12 U	0.1 U	0.098 U
PCB-170	--	--	--	**0.16 J**	**0.93 J**	**0.34 J**	**0.72**	**0.23 J**	**0.79**	**1.7**	**0.88**	**0.26 J**	0.11 U	**0.57 J**	0.14 U	0.11 U	0.11 U
PCB-177	--	--	--	0.15 U	**0.3 J**	0.17 U	**0.39 J**	0.15 U	**0.29 J**	**0.95**	**0.41 J**	0.19 U	0.15 U	**0.31 J**	0.18 U	0.15 U	0.15 U
PCB-180	--	--	--	**0.31 J**	**1.2 J**	**0.44 J**	**1.4**	**0.4 J**	**1.2**	**4.1**	**1.5**	**0.34 J**	**0.19 J**	**1.3 J**	**0.11 J**	0.075 U	0.073 U
PCB-183	--	--	--	0.14 U	**0.29 J**	0.16 U	**0.32 J**	0.13 U	**0.36 J**	**0.9**	**0.36 J**	0.17 U	0.14 U	**0.28 J**	0.17 U	0.14 U	0.13 U
PCB-187	--	--	--	**0.29 J**	**0.92 J**	**0.32 J**	**1.1**	**0.31 J**	**1.1**	**2.7**	**1.1**	**0.32 J**	**0.17 J**	**1.1 J**	0.16 U	0.13 U	0.13 U
PCB-189	--	--	--	0.1 U	0.11 U	0.12 U	0.1 U	0.1 U	0.12 U	0.11 U	0.11 U	0.13 U	0.1 U	0.11 U	0.13 U	0.11 U	0.1 U
PCB-194	--	--	--	0.12 U	**0.5 J**	**0.18 J**	0.11 U	**0.22 J**	**0.47 J**	**1.2**	**0.54 J**	0.14 U	0.12 U	**0.49 J**	0.14 U	0.12 U	0.11 U
PCB-201	--	--	--	0.069 U	0.072 U	0.081 U	0.067 U	0.068 U	**0.14 J**	**0.19 J**	0.073 U	0.086 U	0.07 U	0.07 U	0.085 U	0.07 U	0.068 U
PCB-206	--	--	--	0.1 U	**0.7 J**	0.12 U	0.098 U	0.099 U	**1**	**1**	**0.59 J**	0.12 U	0.1 U	0.1 U	0.12 U	0.1 U	0.099 U
Total PCB Congener (U = 0)	21.5	--	--	**8.85 J**	**41.94 J**	**23.31 J**	**31.61 J**	**13.41 J**	**39.69 J**	**83.85 J**	**45.86 J**	**9.53 J**	**5.04 J**	**39.18 J**	**2.37 J**	0.25 U	0.24 U

Notes:

Detected concentration is greater than TMDL numeric targets

Detected concentration is greater than ERL screening level

Detected concentration is greater than ERM screening level

Italicized = non-detected concentration is greater than one or more identified screening levels

Bold = detected result

-- = not reported or not applicable

µg/kg = micrograms per kilogram

ERL = effects range low

ERM = effects range median

ft = feet

J = estimated value

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

U = compound analyzed, but not detected at greater than the detection limit

UJ = compound analyzed, but not detected above estimated detection limit

TMDL = total maximum daily load

All non-detect results are reported at the method detection limit.

USEPA Stage 2A data validation was completed by Anchor QEA.

Results are reported in dry weight basis.

Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest detection limit value is reported as the sum.

Total chlordane is the sum of alpha-chlordane and gamma-chlordane only.

Total DDx is the sum of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT 2,4'-DDD, 2,4'-DDE, and 2,4'-DDT if measured.

Total PCB congeners is the total of all PCB congeners listed in this table.

Table 4

Results of Physical and Chemical Analyses of Surface Sediment Grab Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-02	RC-04	RC-06	RC-08	RC-10	RC-11	RC-12	RC-13	RC-14	RC-15	RC-16	RC-17
Sample ID				RC-02-SG	RC-04-SG	RC-06-SG	RC-08-SG	RC-10-SG	RC-11-SG	RC-12-SG	RC-13-SG	RC-14-SG	RC-15-SG	RC-16-SG	RC-17-SG
Sample Date				12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012
Depth				0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm
Conventional Parameters (percent)															
Total organic carbon	--	--	--	1.6	2	1.6	1	0.92	1.2	2.3	2.4	2	2.4	1.6	1.4
Total solids	--	--	--	37	30.6	35.4	47.2	51	40.5	29.1	25.8	29.4	27.3	34.7	37.6
Grain Size (percent)															
Gravel (>2mm)	--	--	--	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Sand (2.00mm - 1.00mm)	--	--	--	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Sand, Coarse	--	--	--	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Sand, Medium	--	--	--	0 U	0 U	0 U	0 U	0.33	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Sand, Fine	--	--	--	0 U	0.7	0 U	0 U	10.6	0 U	0.05	0 U	0.42	0.88	0 U	0 U
Sand, Very Fine	--	--	--	2.64	7.36	1.54	0.3	8.96	0.81	4.55	2.49	5.41	2.8	1.11	0.42
Silt	--	--	--	59.3	53.44	53.31	58.05	51.39	58.73	52.18	54.65	50.17	55.5	57.81	57.44
Fines (silt + clay)	--	--	--	97.36	91.94	98.46	99.7	80.11	99.19	95.41	97.51	94.17	96.32	98.89	99.58
Clay, <5 micron	--	--	--	38.06	38.5	45.15	41.65	28.72	40.46	43.22	42.85	44	40.82	41.08	42.14
Metals (mg/kg)															
Arsenic	--	8.2	70	8.36	11.5	8.93	7.27	6.54	6.89	16.5	19.1	15.9	14.4	10.9	8.22
Cadmium	--	1.2	9.6	0.496	0.541	0.617	0.388	0.403	0.314	0.912	0.877	0.833	0.841	0.778	0.736
Chromium	52	81	370	16.7	33	17.4	14.3	15.7	18.7	35.3	41.6	35.8	42.2	29.8	28.3
Copper	18.7	34	270	400	428	399	220	166	178	673	862	605	624	318	249
Lead	30.2	46.7	218	80.4 J	84.5 J	71.3 J	44.2 J	34.8 J	28.5 J	118	127	96.4	101	63.1	41.3
Mercury	0.13	0.15	0.71	5.2	3.9	2.8	2.3	1.6	1.1	5.6	6.3	4.9	4.3	3	1.3
Nickel	--	20.9	51.6	7.82	17.3	8.63	8.5	7.82	10.9	20.1	23.2	20.6	23.1	19.6	16.5
Selenium	--	--	--	0.0987 U	0.119 U	0.321	0.0774 U	0.0716 U	0.0902 U	1.26	0.991	0.933	1.64	0.604	0.844
Zinc	124	150	410	257 J	285 J	280 J	165 J	160 J	155 J	430	486	370	425	283	280
Pyrethroids (µg/kg)															
Bifenthrin	--	--	--	0.26 J	0.43 J	0.44 J	0.23 J	0.23 J	0.56 J	1.5 J	1.1 J	1 J	1.1 J	0.53 J	0.72 J
Cyfluthrin	--	--	--	0.23 U	0.58 J	0.65 J	0.21 J	0.17 U	0.21 U	0.29 UJ	0.75 J	0.29 UJ	0.76 J	0.24 UJ	0.23 UJ
Cypermethrin	--	--	--	0.19 UJ	0.22 UJ	0.19 UJ	0.15 UJ	0.13 UJ	0.17 UJ	0.24 UJ	0.27 UJ	0.23 UJ	0.25 UJ	0.2 UJ	0.18 UJ
Deltamethrin/Tralomethrin	--	--	--	0.57 UJ	0.68 UJ	0.59 UJ	0.44 UJ	0.41 UJ	0.52 UJ	0.72 UJ	0.81 UJ	0.71 UJ	0.77 UJ	0.6 UJ	0.56 UJ
Fenpropathrin	--	--	--	0.098 U	0.12 U	0.1 U	0.077 U	0.071 U	0.09 U	0.12 UJ	0.14 UJ	0.12 UJ	0.13 UJ	0.1 UJ	0.097 UJ
Fenvalerate	--	--	--	0.096 U	0.12 U	0.1 U	0.076 U	0.07 U	0.088 U	0.12 UJ	0.14 UJ	0.12 UJ	0.13 UJ	0.1 UJ	0.095 UJ
Lambda-Cyhalothrin	--	--	--	0.12 UJ	0.14 UJ	0.12 UJ	0.092 UJ	0.086 UJ	0.11 UJ	0.15 UJ	0.17 UJ	0.15 UJ	0.16 UJ	0.13 UJ	0.12 UJ
Permethrin	--	--	--	1.6 J	1.7 J	2 J	2.9	1 J	1 J	8	4.5	3.6	5.8	0.84 J	1.5 J
Pesticides (µg/kg)															
2,4'-DDD (o,p'-DDD)	--	--	--	0.92 U	1.1 U	0.96 U	0.72 U	0.66 U	0.84 U	1.2 U	1.3 U	1.2 U	1.2 U	0.98 U	0.9 U
2,4'-DDE (o,p'-DDE)	--	--	--	0.83 U	1 U	0.86 U	0.65 U	0.6 U	0.75 U	1 U	1.2 U	1 U	1.1 U	0.88 U	0.81 U
2,4'-DDT (o,p'-DDT)	--	--	--	0.81 U	0.98 U	0.85 U	0.64 U	0.59 U	0.74 U	1 U	1.2 U	1 U	1.1 U	0.87 U	0.8 U
4,4'-DDD (p,p'-DDD)	--	2	20	0.85 U	1 U	0.89 U	0.67 U	0.62 U	2.5	1.1 U	1.2 U	1.1 U	1.2 U	0.91 U	0.84 U
4,4'-DDE (p,p'-DDE)	--	2.2	27	11	0.98 U	0.84 U	4.3	4.1	7.1	10	13	12	13	6.5	5.5
4,4'-DDT (p,p'-DDT)	--	1	7	0.9 U	*1.1 U*	0.95 U	0.71 U	0.66 U	0.83 U	*1.1 U*	*1.3 U*	*1.1 U*	*1.2 U*	0.96 U	0.89 U
Chlordane, alpha- (cis-Chlordane)	--	--	--	0.87 U	1 U	0.91 U	0.68 U	0.63 U	0.79 U	1.1 U	1.2 U	1.1 U	1.2 U	0.92 U	0.85 U

Table 4

Results of Physical and Chemical Analyses of Surface Sediment Grab Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-02	RC-04	RC-06	RC-08	RC-10	RC-11	RC-12	RC-13	RC-14	RC-15	RC-16	RC-17
Sample ID				RC-02-SG	RC-04-SG	RC-06-SG	RC-08-SG	RC-10-SG	RC-11-SG	RC-12-SG	RC-13-SG	RC-14-SG	RC-15-SG	RC-16-SG	RC-17-SG
Sample Date				12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012
Depth				0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm
Chlordane, gamma-	--	--	--	0.86 U	1 U	0.9 U	0.67 U	0.62 U	0.78 U	1.1 U	1.2 U	1.1 U	1.2 U	0.92 U	0.84 U
Dieldrin	0.72	0.02	8	**2 J**	*1.1 U*	*0.93 U*	*0.7 U*	*0.65 U*	*0.81 U*	*1.1 U*	*1.3 U*	*1.1 U*	*1.2 U*	*0.95 U*	*0.88 U*
Total Chlordane (alpha and gamma) (U = 0)	2.26	--	--	0.87 U	1 U	0.91 U	0.68 U	0.63 U	0.79 U	1.1 U	1.2 U	1.1 U	1.2 U	0.92 U	0.85 U
Total DDx (U = 0)	3.89	1.58	46.1	**11**	1.1 U	0.96 U	**4.3**	**4.1**	**9.6**	**10**	**13**	**12**	**13**	**6.5**	**5.5**
PCB Congeners (µg/kg)															
PCB-018	--	--	--	**1.1 J**	**1.1 J**	**0.64 J**	**0.77 J**	**0.78 J**	0.39 U	**2**	**7.8**	**2.2**	**1.6 J**	0.45 U	0.42 U
PCB-028	--	--	--	**0.55 J**	**1.2 J**	**0.49 J**	**0.53 J**	**0.48 J**	**0.62 J**	**1.1 J**	**6.5**	**1.7 J**	**1.3 J**	**0.49 J**	0.26 U
PCB-037	--	--	--	**0.59 J**	**1.2 J**	**0.79 J**	**0.5 J**	0.26 U	**0.67 J**	**1.3 J**	**1.7 J**	**0.99 J**	**0.69 J**	**0.38 J**	0.35 U
PCB-044	--	--	--	**1.2 J**	**2.2**	**0.91 J**	**0.9 J**	**0.6 J**	**0.98 J**	**2.9**	**4.9**	**2.4**	**1.6 J**	**0.94 J**	**0.38 J**
PCB-049	--	--	--	**1.5**	**1.7**	**0.95 J**	**0.8 J**	**0.75 J**	**0.52 J**	**2.9**	**4.1**	**2.8**	**2.1**	**0.66 J**	0.31 U
PCB-052	--	--	--	**1.6**	**2.2**	**1.1 J**	**1.2**	**0.96 J**	**0.8 J**	**3.9**	**5.8**	**5**	**2.8**	**0.87 J**	**0.33 J**
PCB-066	--	--	--	**2.4**	**4.2**	**2**	**1.5**	**1.2**	**1.1 J**	**5.3**	**7.4**	**5.1**	**3.5**	**1.4 J**	**0.35 J**
PCB-070	--	--	--	**1.5**	**2.9**	**1.8**	**1.2**	**0.84 J**	**0.75 J**	**3.8**	**5.9**	**4.3**	**2.6**	**0.91 J**	**0.27 J**
PCB-074	--	--	--	**0.92 J**	**1.7**	**0.75 J**	**0.59 J**	**0.47 J**	**0.46 J**	**2.2**	**3.1**	**2**	**1.4 J**	**0.6 J**	0.25 U
PCB-077	--	--	--	0.26 U	**0.44 J**	**0.48 J**	**0.22 J**	0.19 U	0.24 U	**0.63 J**	**0.64 J**	**0.63 J**	**0.37 J**	0.28 U	0.26 U
PCB-081	--	--	--	0.33 U	0.4 U	0.35 U	0.26 U	0.24 U	0.3 U	0.42 U	0.47 U	0.42 U	0.45 U	0.35 U	0.33 U
PCB-087	--	--	--	**0.57 J**	**0.51 J**	0.29 U	**0.51 J**	**0.23 J**	0.25 U	**1.3 J**	**1.1 J**	**1.6 J**	**0.87 J**	0.29 U	0.27 U
PCB-099	--	--	--	**1.6**	**2**	**0.97 J**	**1 J**	**0.71 J**	**0.31 J**	**3.3**	**3.3**	**3.7**	**2.9**	**0.68 J**	**0.29 J**
PCB-101	--	--	--	**2.4**	**3.4**	**1.4**	**1.7**	**1**	**0.63 J**	**5.2**	**4.8**	**6.1**	**4.4**	**1.1 J**	**0.42 J**
PCB-105	--	--	--	**0.95 J**	**1 J**	**0.74 J**	**0.68 J**	**0.38 J**	0.26 U	**2.3**	**1.6 J**	**2.1**	**1.3 J**	**0.39 J**	0.28 U
PCB-110	--	--	--	**2**	**2.5**	**1.3 J**	**1.5**	**0.8 J**	**0.46 J**	**4.6**	**3.9**	**5.3**	**3.2**	**0.75 J**	**0.32 J**
PCB-114	--	--	--	0.27 U	0.33 U	0.28 U	0.21 U	0.2 U	0.25 U	**0.58 J**	**0.4 J**	**0.54 J**	**0.47 J**	0.29 U	0.27 U
PCB-118	--	--	--	**2.4**	**3**	**1.5**	**1.8**	**0.87 J**	**0.49 J**	**5.2**	**4.7**	**5.9**	**3.7**	**0.8 J**	**0.41 J**
PCB-119	--	--	--	0.23 U	0.28 U	0.25 U	0.18 U	0.17 U	0.21 U	0.3 U	0.34 U	0.3 U	0.32 U	0.25 U	0.23 U
PCB-123	--	--	--	0.24 U	0.29 U	0.25 U	0.18 U	0.17 U	0.22 U	0.3 U	0.34 U	0.3 U	0.32 U	0.25 U	0.23 U
PCB-126	--	--	--	0.37 U	0.45 U	0.39 U	0.29 U	0.27 U	0.34 U	0.47 U	0.54 U	0.47 U	0.51 U	0.4 U	0.37 U
PCB-128	--	--	--	**0.46 J**	**0.57 J**	0.29 U	**0.36 J**	0.2 U	0.25 U	**0.96 J**	**0.85 J**	**0.87 J**	**0.66 J**	0.3 U	0.27 U
PCB-138/158	--	--	--	**1.9 J**	**2.4 J**	**1.3 J**	**1.7 J**	**0.94 J**	**0.68 J**	**4.3**	**3.4 J**	**5.4**	**3.6 J**	**0.95 J**	0.54 U
PCB-149	--	--	--	**1.6**	**1.7**	**0.86 J**	**0.93 J**	**0.63 J**	**0.45 J**	**2.7**	**2.5**	**3.6**	**2.4**	**0.72 J**	**0.24 J**
PCB-151	--	--	--	**0.42 J**	**0.47 J**	0.29 U	**0.23 J**	0.2 U	0.26 U	**0.82 J**	**0.68 J**	**0.92 J**	**0.75 J**	0.3 U	0.28 U
PCB-153	--	--	--	**2.4**	**2.8**	**1.4 J**	**1.5**	**1.1**	**0.6 J**	**4.5**	**3.8**	**5.6**	**4.2**	**1.1 J**	**0.52 J**
PCB-156	--	--	--	0.26 U	0.32 U	0.28 U	0.21 U	0.19 U	0.24 U	0.34 U	**0.53 J**	**0.64 J**	0.36 U	0.28 U	0.26 U
PCB-157	--	--	--	0.26 U	0.31 U	0.27 U	0.2 U	0.19 U	0.24 U	0.33 U	**0.48 J**	**0.39 J**	0.35 U	0.28 U	0.25 U
PCB-167	--	--	--	0.27 U	0.33 U	0.28 U	0.21 U	0.2 U	0.25 U	0.34 U	0.39 U	0.34 U	0.37 U	0.29 U	0.27 U
PCB-168	--	--	--	0.23 U	0.28 U	0.24 U	0.18 U	0.17 U	0.21 U	0.3 U	0.33 U	0.29 U	0.32 U	0.25 U	0.23 U
PCB-169	--	--	--	0.22 U	0.27 U	0.23 U	0.17 U	0.16 U	0.2 U	0.28 U	0.32 U	0.28 U	0.3 U	0.24 U	0.22 U
PCB-170	--	--	--	**0.81 J**	**0.76 J**	**0.54 J**	**0.6 J**	**0.3 J**	**0.26 J**	**1.3 J**	**1.5 J**	**1.6 J**	**1.3 J**	**0.37 J**	0.25 U
PCB-177	--	--	--	0.33 U	0.4 U	0.35 U	0.26 U	0.24 U	0.3 U	**0.58 J**	0.48 U	**0.65 J**	**0.55 J**	0.36 U	0.33 U
PCB-180	--	--	--	**1.2 J**	**1.4 J**	**0.72 J**	**0.59 J**	**0.55 J**	**0.29 J**	**2.3**	**2**	**2.9**	**1.7 J**	**0.5 J**	**0.23 J**
PCB-183	--	--	--	**0.31 J**	**0.46 J**	0.31 U	0.24 U	0.22 U	0.28 U	**0.52 J**	0.43 U	**0.7 J**	**0.42 J**	0.32 U	0.3 U

Table 4

Results of Physical and Chemical Analyses of Surface Sediment Grab Samples

Location Name	TMDL Numeric Targets	ERL	ERM	RC-02	RC-04	RC-06	RC-08	RC-10	RC-11	RC-12	RC-13	RC-14	RC-15	RC-16	RC-17
Sample ID				RC-02-SG	RC-04-SG	RC-06-SG	RC-08-SG	RC-10-SG	RC-11-SG	RC-12-SG	RC-13-SG	RC-14-SG	RC-15-SG	RC-16-SG	RC-17-SG
Sample Date				12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/11/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012	12/12/2012
Depth				0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm	0 - 2 cm
PCB-187	--	--	--	**0.98 J**	**1 J**	**0.54 J**	**0.51 J**	**0.43 J**	**0.28 J**	**1.8**	**1.5 J**	**2.1**	**1.5 J**	**0.47 J**	0.28 U
PCB-189	--	--	--	0.23 U	0.28 U	0.24 U	0.18 U	0.17 U	0.21 U	0.29 U	0.33 U	0.29 U	0.31 U	0.25 U	0.23 U
PCB-194	--	--	--	0.26 U	**0.69 J**	0.27 U	**0.32 J**	**0.29 J**	0.24 U	**0.81 J**	**0.71 J**	**0.88 J**	**0.8 J**	0.28 U	0.25 U
PCB-201	--	--	--	0.15 U	0.19 U	0.16 U	0.12 U	0.11 U	0.14 U	0.2 U	0.22 U	0.19 U	0.21 U	0.16 U	0.15 U
PCB-206	--	--	--	0.22 U	0.27 U	0.23 U	**0.35 J**	**0.26 J**	0.2 U	**0.83 J**	**1.2 J**	**0.72 J**	**0.72 J**	0.24 U	0.22 U
Total PCB Congener (U = 0)	21.5	--	--	**31.36 J**	**43.5 J**	**21.18 J**	**22.49 J**	**14.57 J**	**10.35 J**	**69.93 J**	**86.79 J**	**79.33 J**	**53.4 J**	**14.08 J**	**3.76 J**

Notes:

Detected concentration is greater than TMDL numeric targets

Detected concentration is greater than ERL screening level

Detected concentration is greater than ERM screening level

Italicized = non-detected concentration is greater than one or more identified screening levels

Bold = detected result

-- = not reported or not applicable

µg/kg = micrograms per kilogram

cm = centimeters

ERL = effects range low

ERM = effects range median

J = estimated value

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

U = compound analyzed, but not detected at greater than the detection limit

UJ = compound analyzed, but not detected above estimated detection limit

TMDL = total maximum daily load

All non-detect results are reported at the method detection limit.

USEPA Stage 2A data validation was completed by Anchor QEA.

Results are reported in dry weight basis.

Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest detection limit value is reported as the sum.

Total chlordane is the sum of alpha-chlordane and gamma-chlordane only.

Total DDx is the sum of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT 2,4'-DDD, 2,4'-DDE, and 2,4'-DDT if measured.

Total PCB congeners is the total of all PCB congeners listed in this table.

Table 5
Surface-Weighted Average Concentrations

Parameter	Units	TMDL Numeric Targets	Average Concentrations for Ocean Suitable Areas from RGP 54 for Lower Newport Bay	Cores Samples (0 to 0.5 foot)	Surface Grab Samples (0 to 2 cm)
Chromium	mg/kg	52	15.4	8.31	26.05
Copper	mg/kg	18.7	36.8	92.4	436
Lead	mg/kg	30.2	18.9	21.01	76.9
Mercury	mg/kg	0.13	0.525	1.77	3.74
Zinc	mg/kg	124	78.2	86.8	293
Dieldrin	µg/kg	0.72	0	0.05	0.26
Total Chlordane (alpha and gamma) (U = 0)	µg/kg	2.26	0.9	0	0
Total DDx (U = 0)	µg/kg	3.89	18.7	3.81	6.95
Total PCB Congener (U = 0)	µg/kg	21.5	18.8	29.4	39.6

Notes:
SWAC is greater than TMDL numeric targets
Non-detects set to zero for calculation of SWAC
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
RGP = Regional General Permit

Within the cleanup area, three analytes (copper, mercury, and PCB congeners) exceeded the TMDL numeric target from 0 to 0.5 foot. Within the entire Rhine Channel (including perimeter), six of the eight analytes exceeded the TMDL numeric target from 0 to 2 cm. Elevated concentrations in the surface are more indicative of residuals and not reflective of long-term conditions, as these concentrations will dilute over time.

ENVIRONMENTAL BENEFITS OF DREDGING

Surface-Weighted Average Concentrations Compared to Pre-Dredge Average Concentrations

SWACs within the cleanup area from 0 to 0.5 foot were compared to pre-dredge weighted average concentrations calculated using data from the Feasibility Study (Anchor 2006) to assess the environmental benefits of dredging to surface concentrations. Pre-dredge weighted average concentrations were determined using results from each core interval up to the depth of clean material. Results from each core interval were averaged to determine one concentration for each station and the weighted average concentration was calculated based

on Thiessen polygons. Thiessen polygons for the Feasibility Study sampling locations are presented on Figure 5. A comparison of post-dredge SWACs from within the cleanup area to pre-dredge weighted average concentrations is presented in Table 6. Following cleanup, an 8 to 84 percent reduction of contaminants was observed. Of the contaminants of concern, metals (except mercury) showed the greatest benefit.

Table 6
Comparison of Post-Dredge Surface-Weighted Average Concentrations to Pre-Dredge Weighted Average Concentrations

Parameter	Units	TMDL Numeric Targets	Pre-Dredge Core Samples (Depth to Clean)	Post-Dredge Cores Samples (0 to 0.5 foot)	Percent Reduction
Chromium	mg/kg	52	36.5	8.31	77
Copper	mg/kg	18.7	202	92.4	54
Lead	mg/kg	30.2	127	21.01	84
Mercury	mg/kg	0.13	2.14	1.77	17
Zinc	mg/kg	124	174	86.8	50
Dieldrin	µg/kg	0.72	NA	0.05	--
Total Chlordane (alpha and gamma) (U = 0)	µg/kg	2.26	NA	0	--
Total DDx (U = 0)	µg/kg	3.89	4.15	3.81	8
Total PCB Congener (U = 0)	µg/kg	21.5	32.1	29.4	9

Notes:
SWAC is greater than TMDL numeric targets
Non-detects set to zero for calculation of SWAC.
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
NA = not analyzed

Mass of Contaminants Removed

The chemical mass removed from the Rhine Channel was determined using the pre-dredge weighted average concentrations from 2004. The mass of contaminants removed from the Rhine Channel ranged from 257 pounds of mercury to 24,213 pounds of copper (Table 7). Chemical mass remaining along the perimeter of Rhine Channel (area not dredged) ranged from 83 to 7,819 pounds. Estimated overall percent removed was 76 percent.

Table 7
Summary of Chemical Mass Removal

Parameter	Estimated Mass in Rhine Channel (pounds)	Chemical Mass Removed (pounds)	Chemical Mass Remaining (pounds)
Chromium	5,786	4,374	1,412
Copper	32,031	24,213	7,819
Lead	20,175	15,251	4,925
Mercury	339	257	83
Zinc	27,612	20,872	6,740
Total DDT	656	496	160
Total PCB Congener	5,084	3,843	1,241

DISCUSSION

Approximately 79,897 cy of contaminated sediments were removed from the Rhine Channel. Accounting for sediment left in place to maintain geotechnical stability, approximately 76 percent of contaminated sediments was removed. Within the dredge area (excluding the perimeter of Rhine Channel), a comparison of SWACs to pre-dredge weighted average concentrations indicated an 8 to 84 percent reduction in concentrations for all contaminants of concern. Although the SWAC of copper, mercury, and PCB congeners exceeded the TMDL numeric target from 0 to 0.5 foot, concentrations were all reduced when compared to pre-dredge concentrations.

Approximately 76 percent of the chemical mass was removed from the environment, ranging from 257 pounds of mercury to 24,213 pounds of copper.

Some contaminated dredge residuals remain in limited areas of the Rhine Channel. These residuals are found as thin layers of fine-grained material that were suspended in the water column during dredging and re-settled on the top of the ocean floor. In some areas, it appears that undredged material from the perimeter has sloughed into the previously dredged areas and created thickened residual layers. Residuals are common in dredging projects where sediments are very fine grained. These unconsolidated materials will continue to shift and mix in place and are not reflective of long-term contamination.

Overall, the Rhine Channel dredging project was successful at removing a tremendous mass of contaminants from Lower Newport Bay. In general, surface sediment concentrations have improved, but a thin veneer of contaminated residuals remains. This material will dilute with the underlying clean sand over time and will eventually meet TMDL numeric targets.

REFERENCES

Anchor Environmental CA, L.P. (Anchor), 2006. *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation, Newport Bay, California.* Prepared for Orange County Coastkeeper, Regional Water Quality Control Board, and City of Newport Beach. January 2006.

Anchor QEA, LLC (Anchor QEA), 2012a. *Sampling and Analysis Plan: Post-Dredge Sediment Characterization*. Rhine Channel Contaminated Sediment Cleanup. March 2012.

Anchor QEA, 2012b. *Sampling and Analysis Plan Addendum: Post-Dredge Sediment Characterization*. Rhine Channel Contaminated Sediment Cleanup. December 2012.

Bay, S. and J. Brown, 2003. *Chemistry and Toxicity in Rhine Channel Sediments – Final Report (No. 391)*. Southern California Coastal Water Research Project. Westminster, California.

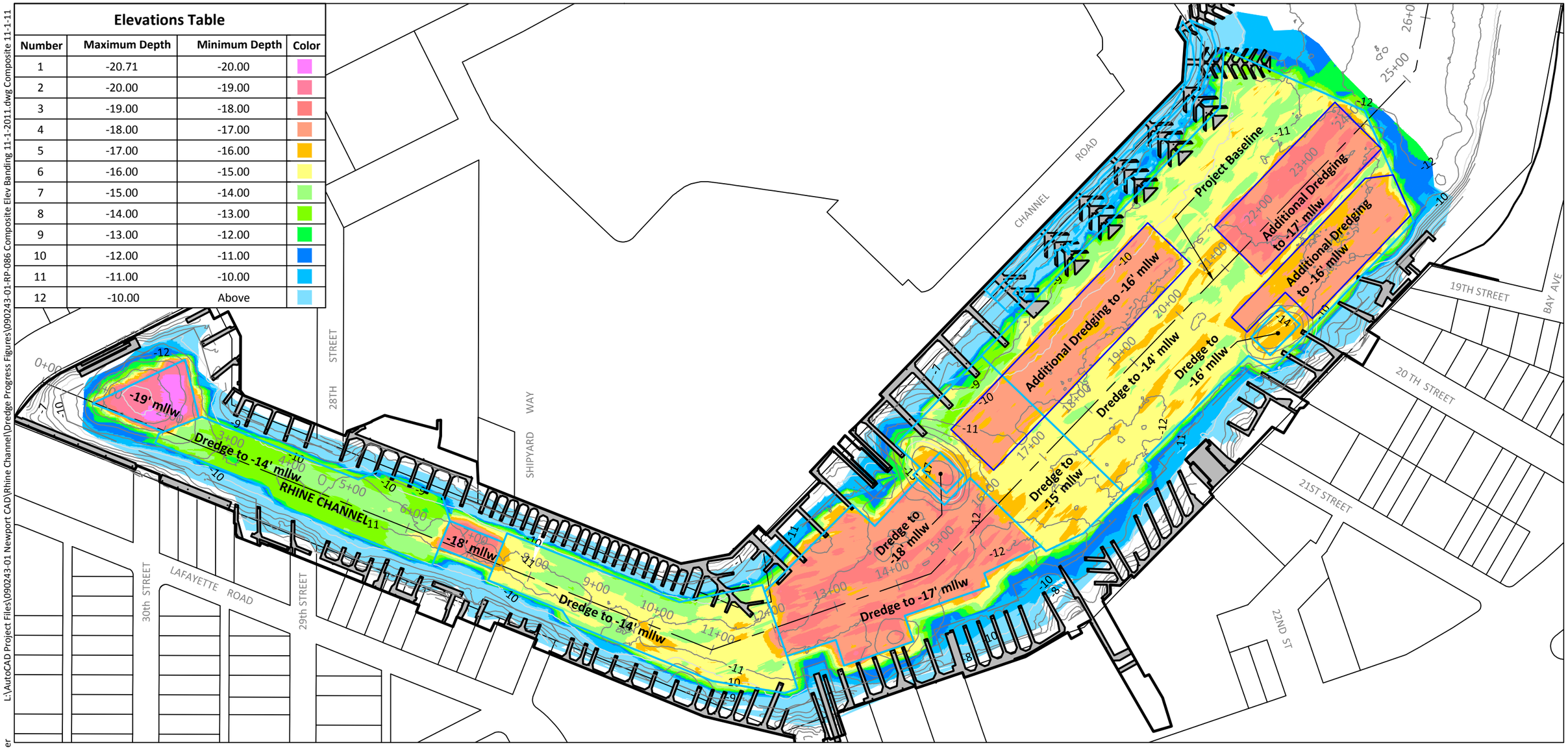
Long et al. (Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder), 1995. Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments. *Environmental Management* 19:81-97.

USEPA (U.S. Environmental Protection Agency), 2002. Total Maximum Daily Loads for Toxic Pollutants, San Diego Creek and Newport Bay, California. June 14, 2002.

FIGURES

Elevations Table

Number	Maximum Depth	Minimum Depth	Color
1	-20.71	-20.00	
2	-20.00	-19.00	
3	-19.00	-18.00	
4	-18.00	-17.00	
5	-17.00	-16.00	
6	-16.00	-15.00	
7	-15.00	-14.00	
8	-14.00	-13.00	
9	-13.00	-12.00	
10	-12.00	-11.00	
11	-11.00	-10.00	
12	-10.00	Above	



SOURCE: Drawing prepared from City of Newport Beach and ESRI basemaps, and all Dutra surveys performed as of November 1, 2011.
HORIZONTAL DATUM: California State Plane, Zone 6, NAD83, feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
Contours shown are from pre-dredge bathymetric survey conducted by Gahagan & Bryant Associates, Inc., on July 1, 2011.

LEGEND:

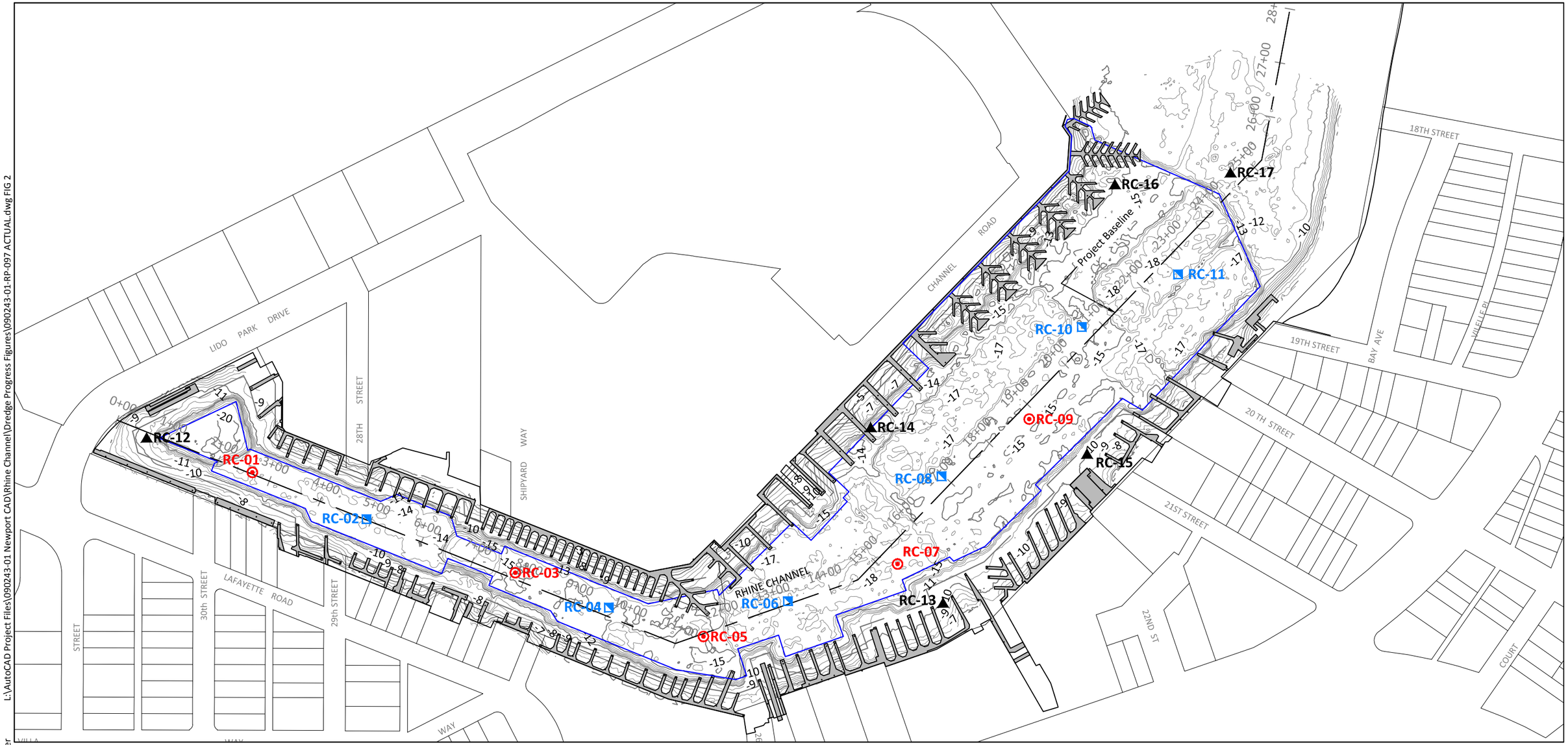
- Dredge Footprint
- Additional Dredging
- Limits of Work (Top of Slope)
- Existing Docks

0 150
Scale in Feet

L:\AutoCAD Project Files\090243-01 Newport CAD\Rhine Channel\Dredge Progress Figures\090243-01-RP-086 Composite Elev Banding 11-1-2011.dwg Composite 11-1-11
Nov 15, 2013 9:00am mpratschner

ANCHOR QEA

Figure 1
Dredge Depths and Final Elevations within Rhine Channel
Rhine Channel Contaminated Sediment Cleanup



SOURCE: Drawing prepared from City of Newport Beach and ESRI basemaps, and all Dutra Surveys performed as of November 1, 2011.
HORIZONTAL DATUM: California State Plane, Zone 6, NAD83, feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).

NOTES:
Contours shown are from post-dredge bathymetric survey conducted by Gahagan & Bryant Associates, Inc., on November 2, 2011.

LEGEND:

- RC-# Actual Sampling Locations for Sediment Coring
- RC-# Actual Sampling Locations for Surface Sediment
- RC-# Actual Sampling Locations for Sediment Coring and Surface Sediment
- -10 Post-Dredge Bathymetry
- Dredge Boundary

0 180
Scale in Feet

L:\AutoCAD Project Files\090243-01 Newport CAD\Rhine Channel\Dredge Progress Figures\090243-01-RP-097 ACTUAL.dwg FIG 2
Nov 15, 2013 9:03am mpratschner

ANCHOR QEA

Figure 2
Post-Dredge Bathymetric Data and Actual Sampling Locations
Rhine Channel Contaminated Sediment Cleanup

LEGEND:

- Core Samples
- Core Sample Thiessen Polygons
- Dredge Footprint

Feet
0 100 200

C:\D_Drive\WORK\Rhine_Channel\GIS\Rhine_Channel2.mxd bgong 11/15/2013 10:27:27 AM

ANCHOR QEA

Figure 3
Thiessen Polygons for Core Sampling Locations
Rhine Channel Contaminated Sediment Cleanup

LEGEND:

- Grab Samples
- Grab Sample Thiessen Polygons
- Bulkhead Boundary

Feet
0 100 200

C:\D_Drive\WORK\Rhine_Channel\GIS\Rhine_Channel2.mxd bgong 11/15/2013 10:27:01 AM

ANCHOR QEA

Figure 4
Thiessen Polygons for Grab Sampling Locations
Rhine Channel Contaminated Sediment Cleanup

LEGEND:

- 2004 Samples
- 2004 Sample Thiessen Polygons
- Bulkhead Boundary

Feet
0 100 200

C:\D_Drive\WORK\Rhine_Channel\GIS\Rhine_Channel2.mxd bgong 11/15/2013 10:23:06 AM

ANCHOR QEA

Figure 5
Thiessen Polygons for 2004 Sampling Locations
Rhine Channel Contaminated Sediment Cleanup

ATTACHMENT A
HISTORICAL SEDIMENT CHARACTERIZATION DATA

Table A-1
Rhine Channel Analytical Testing Results:
November 2004 and February 2005

Location ID			Rhine Channel	RC-1	RS04-01					RC-2	RS04-02				RC-3	RS0	
Sample Date (Study)			TMDL Numeric	2002 (SCCWRP)	November 2004					2002 (SCCWRP)	November 2004				2002 (SCCWRP)	Novem	
Depth Interval	ERL	ERM	Target	0-10 cm	0-60 cm	60-120 cm	120-140 cm	140-150 cm	150-200 cm	0-10 cm	0-30 cm	30-45 cm	45-59 cm	65-72 cm	0-10 cm	0-30 cm	30-38 cm
Conventionals (%)																	
Total Solids					39.60	47.70	57.30	66.20	75.50		59	59.10	54.30	78.10		79.90	55.20
Total Organic Carbon				1.49	2.64	2.44	1.46	0.45	0.23	2.53	1.85	2.21	2.99	0.04	1.76	1.29	1.63
Grain Size (%)																	
Gravel					0	0	0	0	0		0	0	0	0		0	0
Sand					5.77	15.56	8.18	63.65	60.40		30.57	25.33	3.72	95.98		26.25	17.79
Silt					72.87	65.52	66.53	26.90	29.51		53.41	56.55	69.31	4.02		54.84	63.91
Clay					21.37	18.92	25.30	9.46	10.09		16.02	18.12	26.97	0		18.91	18.30
Fines				81.6	94.23	84.44	91.82	36.35	39.60	71	69.43	74.67	96.28	4.02	71.8	73.75	82.21
Metals (mg/kg)																	
Aluminum					E	E	E	E	5330		E	E	E	6290		E	E
Arsenic	8.2	70		12	20.30	24.90	11.90	5.49	2.74	12.7	13.20	12.20	17.10	2.62	18.5	12.40	16.10
Cadmium	1.2	9.6		0.61	2.07	2.53	1.36	0.37	0.11	0.84	1.04	1.64	1.37	0.08	1	0.90	1.64
Chromium	81	371	52	30	68.60	58.30	41.70	14.30	7.19	41	37.30	45.30	59.30	9.25	53.4	27.90	49
Copper	34	270	18.7	397	626	550	161	70.30	10.10	844	339	184	175	6.25	957	274	292
Iron					50800	54500	38900	13700	7770		29000	39600	64700	9870		22800	62200
Lead	46.7	218	30.2	72	186	185	99.70	25.50	7.88	105	122	117	5000	17.10	136	77.70	121
Mercury	0.15	0.71	0.13	8.2	3.66	5.29	2.30	1.39	0.23	8.9	2.43	2.38	1.31	0.23	12.8	2.29	2.02
Nickel	20.9	51.6		11.8	27.40	25.40	19.60	6.40	3.34	16.4	15.20	19.50	29.20	4.22	21.3	11.90	23
Selenium					2.01	1.43	1.09	0.36	0.29		1.35	0.99	1.18	0.24		0.74	0.90
Silver	1	3.7		0.43	0.45	0.44	0.16	0.04	0.02	0.24	0.18	0.20	0.43	0.05	0.23	0.13	0.20
Zinc	150	410	124	237	374	533	225	73.90	22.50	290	297	285	394	21.20	403	231	255
Organotins (µg/kg)																	
Monobutyltin					3 U	3 U	3 U	3 U	3 U		3 U	3 U	3 U	3 U		3 U	3 U
Dibutyltin					75	3 U	3 U	3 U	3 U		76	30.70	3 U	3 U		19	3 U
Tributyltin					162	193	3 U	3 U	3 U		231	90.10	3 U	3 U		92.30	10.20
Tetrabutyltin					3 U	3 U	3 U	3 U	3 U		17	3 U	3 U	3 U		3 U	3 U
SVOCs (µg/kg)																	
Total PAHs (MTCA)	4022	44792		1340	880.50	7143.50	999.80	461.40	56.30	2200	5117.10	4162	1724.20	0	1530	18597.20	61954.40
Pesticides (µg/kg)																	
Total DDT (U=0)	1.58	46.1	3.89	30	0	193	0	0	0	56.5	36.80	0	0	0	46.1	0	0
PCBs (µg/kg)																	
Aroclor 1016					20 U	20 U	20 U	20 U	20 U		20 U	20 U	20 U	20 U		20 U	20 U
Aroclor 1221					20 U	20 U	20 U	20 U	20 U		20 U	20 U	20 U	20 U		20 U	20 U
Aroclor 1232					20 U	20 U	20 U	20 U	20 U		20 U	20 U	20 U	20 U		20 U	20 U
Aroclor 1242					20 U	349	20 U	20 U	20 U		20 U	20 U	20 U	20 U		20 U	20 U
Aroclor 1248					20 U	20 U	20 U	20 U	20 U		20 U	20 U	20 U	20 U		20 U	20 U
Aroclor 1254					64.50	252	20 U	20 U	20 U		88.80	20 U	20 U	20 U		76.70	20 U
Aroclor 1260					20 U	20 U	20 U	20 U	20 U		20 U	20 U	20 U	20 U		20 U	20 U
PCB Congeners (µg/kg)																	
Total PCBs (Congeners)	22.7	180	21.5	116	51.60	364	0	0	0	376	75.20	0	0	0	364	122	0

Data from *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation* (Anchor 2006)

SCCWRP data from *Chemistry and Toxicity in Rhine Channel Sediments - Final Report (No. 391)* (Bay and Brown, 2003)

= Exceeds the Newport Bay TMDL, but not the ER-L or ER-M

= Exceeds the TMDL (when applicable) and ER-L, but not the ER-M

= Exceeds the TMDL (when applicable), ER-L and the ER-M

Table A-1
Rhine Channel Analytical Testing Results:
November 2004 and February 2005

Location ID Sample Date (Study) Depth Interval	ERL	ERM	Rhine Channel TMDL Numeric Target	04-03 ber 2004 38-68 cm	 68-86 cm	RC-4 2002 (SCCWRP) 0-10 cm	RS04-04 November 2004 0-25 cm	 25-50 cm	 50-99 cm	RC-5 2002 (SCCWRP) 0-10 cm	RS04-05 November 2004 0-60 cm	 60-134 cm	RC-6 2002 (SCCWRP) 0-10 cm	RS04-06 November 2004 0-40 cm	 40-120 cm	 120-200 cm	RC-7 2002 (SCCWRP) 0-10 cm
Conventionals (%)																	
Total Solids				64.10	73.30		52.70	62.60	68.40		57.30	71.70		51.60	66.80	55.90	
Total Organic Carbon				1.19	0.43	3.23	1.8	1.19	0.44	1.41	1.86	0.44	1.14	1.4	0.59	0.19	1.7
Grain Size (%)																	
Gravel				0	0		0	0	0		0	0		0	--	0	
Sand				16.67	58.39		24.07	19.97	56.05		29.23	50.91		17.52	--	59.55	
Silt				58.98	31.27		58.61	59.05	31.97		51.78	35.92		61.17	--	31.29	
Clay				24.35	10.33		17.32	20.98	11.97		19.01	13.17		21.31	--	9.16	
Fines				83.33	41.61	78.1	75.93	80.03	43.95	87.3	70.80	49.09	75.1	82.48	--	40.45	90.6
Metals (mg/kg)																	
Aluminum				E	E		E	E	E		E	E		E	E	9220	
Arsenic	8.2	70		9.47	5.52	19.6	16.60	13.90	5.19	17	13.80	4.18	13.7	15.70	6.60	3.46	16.6
Cadmium	1.2	9.6		1.01	0.34	2.13	1.02	1.21	0.46	0.94	1.59	0.20	0.88	1.08	0.50	0.16	0.95
Chromium	81	371	52	43.20	26.50	75.9	50.60	37.60	20.50	64.4	49.10	21.60	55.3	49.10	21.40	11.40	73.4
Copper	34	270	18.7	89.90	32	899	635	221	47.60	654	211	22.10	605	392	66.20	14.20	726
Iron				39500	24800		36200	31200	19000		39500	18100		36700	19700	10800	
Lead	46.7	218	30.2	67.10	28.10	168	108	92	31.70	128	122	12.10	117	101	34.50	12.50	126
Mercury	0.15	0.71	0.13	1.10	0.29	14.3	3.68	2.82	0.94	11.1	2.98	0.25	8	3.18	1.20	0.45	9.2
Nickel	20.9	51.6		19.90	12.10	28.9	19.90	16	9.40	25.7	21	9.94	22.6	20.50	10.30	4.99	29.1
Selenium				0.93	0.46		1.33	0.85	0.39		1.05	0.40		1.47	0.64	0.33	
Silver	1	3.7		0.17	0.06	0.25	0.37	0.61	0.08	0.21	0.20	0.05	0.18	0.31	0.08	0.04	0.21
Zinc	150	410	124	165	70.90	534	294	223	83.20	397	280	44.50	397	286	107	34.20	454
Organotins (µg/kg)																	
Monobutyltin				3 U	3 U		3 U	3 U	3 U		3 U	3 U		3 U	3 U	3 U	
Dibutyltin				3 U	3 U		466	3 U	3 U		3 U	3 U		25.50	3 U	3 U	
Tributyltin				3 U	3 U		2770	19.40	3 U		51.20	3 U		82.30	3 U	4	
Tetrabutyltin				3 U	3 U		48.70	3 U	3 U		3 U	3 U		21.80	3 U	3 U	
SVOCs (µg/kg)																	
Total PAHs (MTCA)	4022	44792		466.80	128.50	2831	5312.10	1796.70	253.70	1200	3300.80	285.30	2410	743.90	780.10	166.40	864
Pesticides (µg/kg)																	
Total DDT (U=0)	1.58	46.1	3.89	0	0	53.1	32.40	0	0	47.4	0	0	45.1	0	0	0	77.7
PCBs (µg/kg)																	
Aroclor 1016				20 U	20 U		20 U	20 U	20 U		20 U	20 U		20 U	20 U	20 U	
Aroclor 1221				20 U	20 U		20 U	20 U	20 U		20 U	20 U		20 U	20 U	20 U	
Aroclor 1232				20 U	20 U		20 U	20 U	20 U		20 U	20 U		20 U	20 U	20 U	
Aroclor 1242				20 U	20 U		20 U	20 U	20 U		20 U	20 U		20 U	20 U	20 U	
Aroclor 1248				20 U	20 U		20 U	20 U	20 U		20 U	20 U		20 U	20 U	20 U	
Aroclor 1254				20 U	20 U		96	20 U	20 U		20 U	20 U		77.10	20 U	20 U	
Aroclor 1260				20 U	20 U		20 U	20 U	20 U		20 U	20 U		20 U	20 U	20 U	
PCB Congeners (µg/kg)																	
Total PCBs (Congeners)	22.7	180	21.5	0	0	401	151.80	0	0	248	0	0	191	75.10	0	0	179

Data from *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation* (Anchor 2006)

SCCWRP data from *Chemistry and Toxicity in Rhine Channel Sediments - Final Report (No. 391)* (Bay and Brown, 2003)

= Exceeds the Newport Bay TMDL, but not the ER-L or ER-M

= Exceeds the TMDL (when applicable) and ER-L, but not the ER-M

= Exceeds the TMDL (when applicable), ER-L and the ER-M

Table A-1
Rhine Channel Analytical Testing Results:
November 2004 and February 2005

Location ID / Sample Date (Study) / Depth Interval	ERL	ERM	Rhine Channel TMDL Numeric Target	RS04-07 November 2004 0-60 cm	RS04-07 November 2004 60-171 cm	RC-8 2002 (SCCWRP) 0-10 cm	RS04-08 November 2004 0-30 cm	RS04-08 November 2004 30-90 cm	RC-9 2002 (SCCWRP) 0-10 cm	RS04-09 November 2004 0-35 cm	RS04-09 November 2004 35-110 cm	RC-10 2002 (SCCWRP) 0-10 cm	RS04-10 November 2004 0-55 cm	RS04-10 November 2004 55-83 cm	RC-11 2002 (SCCWRP) 0-10 cm	RS04-11 November 2004 0-43 cm	RS04-11 November 2004 50-63 cm
Conventionals (%)																	
Total Solids				51.60	77.60		53.80	71.80		60.10	83.20		69.10	71.90		54.80	76.50
Total Organic Carbon				1.26	0.34	1.36	1.02	0.48	1.33	0.74	0.09	1.74	0.34	0.13	0.98	0.6	0.06
Grain Size (%)																	
Gravel				0	0		0	0		0	0		0	0		--	0
Sand				10.97	43.54		14.31	41.38		13.19	70.36		11.20	77.86		--	74.70
Silt				65.92	42.65		64.62	45.05		62.08	22.56		65.69	16.92		--	18.36
Clay				23.11	13.81		21.07	13.57		24.73	7.08		23.10	5.22		--	6.95
Fines				89.03	56.46	93	85.69	58.62	95	86.81	29.64	91.8	88.80	22.14	93	--	25.30
Metals (mg/kg)																	
Aluminum				E	E		E	E		E	2690		E	6560		E	3660
Arsenic	8.2	70		15.40	3.40	14.2	12.20	5.31	17.7	10.40	2.28	16.6	4.56	3.45	12.5	10.50	2.90
Cadmium	1.2	9.6		1.06	0.13	0.73	0.70	0.24	0.98	0.62	0.04	0.88	0.21	0.09	0.71	0.60	0.06
Chromium	81	371	52	48.60	14.30	68.7	35.50	23.30	86.2	35	3.61	68.9	10.90	9.73	63.4	32.90	4.67
Copper	34	270	18.7	366	9.91	677	188	19.70	847	191	3.18	761	88.90	5.95	495	209	5.29
Iron				37300	13900		30100	22000		26200	4560		9230	10600		24600	5380
Lead	46.7	218	30.2	117	5.05	127	82.80	12.70	138	57.20	1.88	127	20.50	2.58	98	64.50	3.79
Mercury	0.15	0.71	0.13	3.63	0.15	8.7	2.87	0.19	10.2	1.74	0.11	11.7	1.12	0.12	6.9	1.75	0.35
Nickel	20.9	51.6		20.20	7.22	27.4	15.80	10.90	34.1	14.20	2.01	27.3	4.87	5.18	25.2	13.60	2.49
Selenium				1.70	0.34		1.07	0.36		0.79	0.18		0.29	0.22		0.86	0.25
Silver	1	3.7		0.35	0.02	0.19	0.15	0.05	0.17	0.12	0.05 U	0.2	0.05	0.02	0.14	0.14	0.03
Zinc	150	410	124	267	29.30	372	188	50.40	440	149	9.49	378	58.80	21.70	301	163	12.70
Organotins (µg/kg)																	
Monobutyltin				3 U	3 U		3 U	3 U		3 U	3 U		3 U	3 U		3 U	3 U
Dibutyltin				20	3 U		10.90	3 U		156	3 U		23.60	3 U		42	3 U
Tributyltin				37.50	3 U		30.30	3 U		847	3 U		87.70	2.21		93.60	3 U
Tetrabutyltin				3 U	3 U		3 U	3 U		34.30	3 U		12.20	3 U		3 U	3 U
SVOCs (µg/kg)																	
Total PAHs (MTCA)	4022	44792		787.20	0	1180	460.80	271.10	1160	587.10	13.70	969	1341	24.70	829	1526.20	33.60
Pesticides (µg/kg)																	
Total DDT (U=0)	1.58	46.1	3.89	0	0	61	0	0	59.9	5.10	0	49.7	0	0	58.8	0	0
PCBs (µg/kg)																	
Aroclor 1016				20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U
Aroclor 1221				20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U
Aroclor 1232				20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U
Aroclor 1242				20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U		45.10	20 U
Aroclor 1248				20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U
Aroclor 1254				43	20 U		20 U	20 U		30.40	20 U		42.80	20 U		71.30	20 U
Aroclor 1260				20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U		20 U	20 U
PCB Congeners (µg/kg)																	
Total PCBs (Congeners)	22.7	180	21.5	35.20	0	230	0	0	237	37	0	146	49.40	0	207	116	0

Data from *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation* (Anchor 2006)

SCCWRP data from *Chemistry and Toxicity in Rhine Channel Sediments - Final Report (No. 391)* (Bay and Brown, 2003)

= Exceeds the Newport Bay TMDL, but not the ER-L or ER-M

= Exceeds the TMDL (when applicable) and ER-L, but not the ER-M

= Exceeds the TMDL (when applicable), ER-L and the ER-M

Table A-1
Rhine Channel Analytical Testing Results:
November 2004 and February 2005

Location ID / Sample Date (Study) / Depth Interval	ERL	ERM	Rhine Channel TMDL Numeric Target	RC-12 2002 (SCCWRP) 0-10 cm	RS04-12 November 2004 0-45 cm	RS04-12 November 2004 66-99 cm	RC-13 2002 (SCCWRP) 0-10 cm	RS04-13 November 2004 0-50 cm	RS04-13 November 2004 50-83 cm	RC-14 2002 (SCCWRP) 0-10 cm	RS04-14 November 2004 0-40 cm	RS04-14 November 2004 40-59 cm	RS2-14 February 2005 0-47 cm	RS2-14 February 2005 70-86 cm	RS2-14 February 2005 104-118 cm	RC-15 2002 (SCCWRP) 0-10 cm	0-40 cm
Conventionals (%)																	
Total Solids					68.90	86.30		49.70	71.30		61.10	69.40					58.20
Total Organic Carbon				1.02	0.5	0.02	1.5	1.11	0.48	1.68	0.66	0.05				1.6	0.96
Grain Size (%)																	
Gravel					0	0		0	0		0	0					0
Sand					38.27	100		3.92	22.83		16.82	92.75					6.32
Silt					44.76	0		72.82	55.13		61.51	6.35					69.65
Clay					16.97	0		23.26	22.04		21.67	0.89					24.03
Fines				91.5	61.73	0	94.3	96.08	77.17	93.1	83.18	7.25				92.2	93.68
Metals (mg/kg)																	
Aluminum					E	2330		E	E		E	E	36400	2790	1750		E
Arsenic	8.2	70		12.9	8.69	1.95	15.5	12.10	6.45	11.9	13.40	8.70	16.5	1.76	1.91	8.8	12.80
Cadmium	1.2	9.6		0.66	0.39	0.03	1.03	0.82	0.26	0.71	0.56	0.41	0.63	0.05 U	0.05 U	0.63	0.57
Chromium	81	371	52	63.1	23.80	3.14	74.5	50.20	27.30	64.3	39.50	24.50	34.7	0.94	0.49	46.9	40.80
Copper	34	270	18.7	691	145	1.33	651	184	32.10	382	135	147	235	0.853	0.671	225	354
Iron					18700	3420		36600	23300		32500	18800	34200	3810	2890		29700
Lead	46.7	218	30.2	94	50	1.08	122	67.20	22.40	81	46.90	42.50	70.4	0.853	0.521	44	156
Mercury	0.15	0.71	0.13	7.2	1.77	0.07	9.1	2.76	0.44	6.7	1.95	2.14	10	0.007 E	0.064	2.4	2.07
Nickel	20.9	51.6		24.5	10.20	1.34	29.2	20.70	12.30	25.9	17.20	10.20	15.1	1.1	1.31	19.5	17.60
Selenium					0.58	0.15		1.07	0.34		0.71	0.48	0.09	0.318	0.82		0.86
Silver	1	3.7			0.06	0.05 U	0.18	0.28	0.14	0.22	0.12	0.10	0.105	0.05 U	0.05 U	0.35	0.19
Zinc	150	410	124	337	111	4.84	386	189	68.90	303	120	108	172	4.21	2.65	228	163
Organotins (µg/kg)																	
Monobutyltin					3 U	3 U		3 U	3 U		3 U	3 U					3 U
Dibutyltin					3 U	3 U		3 U	3 U		3 U	3 U					13.50
Tributyltin					71.10	3 U		57.80	3 U		1.90	3.70					29.90
Tetrabutyltin					3 U	3 U		3 U	3 U		3 U	3 U					3 U
SVOCs (µg/kg)																	
Total PAHs (MTCA)	4022	44792		778	582	0	1171	581.30	274.40	1320	151.70	105.70				1380	199.60
Pesticides (µg/kg)																	
Total DDT (U=0)	1.58	46.1	3.89	46.7	0	0	51.4	0	0	97.9	0	0				42.3	10.80
PCBs (µg/kg)																	
Aroclor 1016					20 U	20 U		20 U	20 U		20 U	20 U					20 U
Aroclor 1221					20 U	20 U		20 U	20 U		20 U	20 U					20 U
Aroclor 1232					20 U	20 U		20 U	20 U		20 U	20 U					20 U
Aroclor 1242					20 U	20 U		20 U	20 U		20 U	20 U					20 U
Aroclor 1248					20 U	20 U		20 U	20 U		20 U	20 U					20 U
Aroclor 1254					22.80	20 U		20 U	20 U		20 U	20 U					20 U
Aroclor 1260					20 U	20 U		20 U	20 U		20 U	20 U					20 U
PCB Congeners (µg/kg)																	
Total PCBs (Congeners)	22.7	180	21.5	184	47.60	0	199	0	0	259	0	0				51	0

Data from *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation* (Anchor 2006)

SCCWRP data from *Chemistry and Toxicity in Rhine Channel Sediments - Final Report (No. 391)* (Bay and Brown, 2003)

= Exceeds the Newport Bay TMDL, but not the ER-L or ER-M

= Exceeds the TMDL (when applicable) and ER-L, but not the ER-M

= Exceeds the TMDL (when applicable), ER-L and the ER-M

Table A-1
Rhine Channel Analytical Testing Results:
November 2004 and February 2005

Location ID			Rhine Channel	RS04-15		RS04-16			RS2-16		
Sample Date (Study)			TMDL Numeric	November 2004		November 2004			February 2005		
Depth Interval	ERL	ERM	Target	40-80 cm	80-95 cm	0-50 cm	50-100 cm	100-150 cm	0-53 cm	70-90 cm	130-140 cm
Conventionals (%)											
Total Solids				62.10	79.10	57.90	51.90	69.70			
Total Organic Carbon				0.66	0.04	1.8	1.32	0.58			
Grain Size (%)											
Gravel				0	0	0	0	0			
Sand				16.72	51.39	25.21	14.69	34.55			
Silt				60.57	36.30	58.75	61.63	46.79			
Clay				22.71	12.31	16.03	23.67	18.66			
Fines				83.28	48.61	74.79	85.31	65.45			
Metals (mg/kg)											
Aluminum				E	2330	E	E	E	36000	11000	4240
Arsenic	8.2	70		8.38	2.44	12.80	13.30	8.31	11.4	3.11	1.82
Cadmium	1.2	9.6		0.44	0.03	0.93	1.75	0.72	1.11	0.076	0.05 U
Chromium	81	371	52	31.30	4.11	39.20	46.20	38.20	3.08	9.5	3.08
Copper	34	270	18.7	69.50	1.57	521	173	69.40	229	8.12	3.02
Iron				26700	3820	28000	37400	34600	36400	14000	6200
Lead	46.7	218	30.2	81.70	1.93	159	139	69.50	93	9.5	1.91
Mercury	0.15	0.71	0.13	0.70	0.08	2.42	2.80	0.73	4.81	0.132	0.063
Nickel	20.9	51.6		14.30	1.69	15.40	20.30	17.60	15	5.1	1.88
Selenium				0.59	0.25	0.95	0.85	0.65	1.1	0.521	0.433
Silver	1	3.7		0.07	0.05	0.22	0.26	0.19	0.104	0.05 U	0.05 U
Zinc	150	410	124	80.60	5.58	277	279	148	189	27	8.59
Organotins (µg/kg)											
Monobutyltin				3 U	3 U	3 U	3 U	3 U			
Dibutyltin				3 U	3 U	429	18.40	3 U			
Tributyltin				3 U	3 U	2870	40.90	3 U			
Tetrabutyltin				3 U	3 U	52.60	3 U	3 U			
SVOCs (µg/kg)											
Total PAHs (MTCA)	4022	44792		118.10	0	5815.3	711.30	134.50			
Pesticides (µg/kg)											
Total DDT (U=0)	1.58	46.1	3.89	0	0	68.10	0	0			
PCBs (µg/kg)											
Aroclor 1016				20 U	20 U	20 U	20 U	20 U			
Aroclor 1221				20 U	20 U	20 U	20 U	20 U			
Aroclor 1232				20 U	20 U	20 U	20 U	20 U			
Aroclor 1242				20 U	20 U	20 U	20 U	20 U			
Aroclor 1248				20 U	20 U	20 U	20 U	20 U			
Aroclor 1254				20 U	20 U	244	20 U	20 U			
Aroclor 1260				20 U	20 U	20 U	20 U	20 U			
PCB Congeners (µg/kg)											
Total PCBs (Congeners)	22.7	180	21.5	0	0	382	0	0			

Data from *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation* (Anchor 2006)

SCCWRP data from *Chemistry and Toxicity in Rhine Channel Sediments - Final Report (No. 391)* (Bay and Brown, 2003)

= Exceeds the Newport Bay TMDL, but not the ER-L or ER-M

= Exceeds the TMDL (when applicable) and ER-L, but not the ER-M

= Exceeds the TMDL (when applicable), ER-L and the ER-M

ATTACHMENT B
FIELD LOGS AND PHOTOGRAPHS

Sediment Core Collection Form

ANCHOR QEA

Project: Rhine Channel
Project No.: 090243-01.12
Station ID: RC-01
Type of Core: Piston
Tide (ft): -1.6
Project Depth + Overdepth (ft MLLW): N/A
Penetration Length (ft): 2.5

Date: 12/12/12 Time: 1449
Latitude: 33°36'51.930" Longitude: 117°55'37.164"
Core Logged By: C. Osuch
Water Depth (ft): 12.3
Mudline Elevation (ft MLLW): -13.9
Target Core Length (ft): 2 ft + native material
Core Recovery (ft): 1.1

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
1			Low recovery. Sample discarded
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 2

Sediment Core Collection Form

ANCHOR QEA

Project: Rhine Channel
Project No.: 090243-01.12
Station ID: RC-01
Type of Core: Piston
Tide (ft): -1.6
Project Depth + Overdepth (ft MLLW): N/A
Penetration Length (ft): 4.4

Date: 12/12/12 Time: 1512
Latitude: 33°36'51.960" Longitude: 117°55'37.146"
Core Logged By: C. Osuch
Water Depth (ft): 12.3
Mudline Elevation (ft MLLW): -13.9
Target Core Length (ft): 2 ft + native material
Core Recovery (ft): ~~2 ft~~ 2.5
12/12/12

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
	0-0.5	chemistry	Dark olive gray, medium stiff, moist, SILT w/ few f-sand, No sheen, No odor 0.4'
	0.5-1.0	Archive ~~Ark~~ to Water	dense, moist, f-SAND,
1	1.0-1.5		
	1.5-2.0		
2	2.0-2.5		2.5
3			
4			
5			
6			
7			
8			
9			

Attempt No. 2 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/11/12 Time 1052
Project No.	090243-01.12	Latitude	33°36'49.830" Longitude 117°55'38.118"
Station ID	RC-02 ~~SC~~ 12/11/12	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	16.0
Tide (ft)	1.9	Mudline Elevation (ft MLLW)	-14.1
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	min 2 ft + to native
Penetration Length (ft)	3.9	Core Recovery (ft)	2.3

Depth in (ft.) Core Sections	Actual	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)	
		0-0.5	chemistry	Dark gray, soft, moist, SILT, No odor, NO sheen	0.1'
	0.5	0.5-1.0	Archive	Dark gray, dense, fine sand,	0.75'
1	1.0	1.0-1.5		medium ~~dense~~ stiff silt w/ trace f sand	
	1.5	1.5-2.0		medium dense fine SAND	1.8'
2	2.0	2.0-2.3			
	2.3				
3					
4					
5					
6					
7					
8					
9					

Attempt No. 1 of 1

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/12/12 Time 1549
Project No.	090243-01.12	Latitude	33°36'47.184" Longitude 117°55'39.258"
Station ID	RC-03	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	13.9
Tide (ft)	-1.3	Mudline Elevation (ft MLLW)	-15.2
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + native material
Penetration Length (ft)	2.5	Core Recovery (ft)	1.0

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
1			Low recovery; Sample discarded
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/12/12 Time 1608
Project No.	090243-01.12	Latitude	33°36'47.172" Longitude 117°55'39.222"
Station ID	RC-03	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	13.9
Tide (ft)	-1.3	Mudline Elevation (ft MLLW)	-15.2
Project Depth + Overdepth (ft MLLW)		Target Core Length (ft)	2 ft + native material
Penetration Length (ft)	2.6	Core Recovery (ft)	2.6

Depth in (ft.) Actual / Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)	
	0-0.5	Chemistry	Dark olive gray, soft wet SILT, No odor, No sheen	0.2'
			Dark gray medium ~~stiff dense~~ DIST f-SAND	0.5'
	0.5-1.0	Archive	Dark brownish gray, medium dense	
1	1.0-1.5			
	1.5-2.0		medium stiff CLAY	1.9'
2			Brown gray, medium dense m-SAND	
	2.0-2.5			2.6
3				
4				
5				
6				
7				
8				
9				

Attempt No. 2 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/11/12 Time 1144
Project No.	090243-01.12	Latitude	33°36'45.420" Longitude 117°55'39.930"
Station ID	RC-04	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	15.5
Tide (ft)	0.6	Mudline Elevation (ft MLLW)	-14.9
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	min 2 ft & to native.
Penetration Length (ft)	3.0 (Refusal)	Core Recovery (ft)	2.1

Depth in (ft.) Core Sections	Actual	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)	
		Chemistry	Moist	Olive gray very soft SILT No odor No sheen	0.1'
	0.5		Damp	Dark gray, medium stiff, SILT w/ ~~trace sand~~ little fine sand	0.5'
		Archive		medium dense, fine SAND	0.9'
1	1.0			Light brownish gray. medium SAND	
	1.5				
2	2.0		2.1		2.1'
3					
4					
5					
6					
7					
8					
9					

Attempt No. 1 of 1

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/19/12 Time 10:56:02
Project No.	090243-01.12	Latitude	33° 36' 43.728" Longitude 117° 55' 40.584"
Station ID	RC-05	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	18.3'
Tide (ft)	2.7	Mudline Elevation (ft MLLW)	-15.6
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft. + native material
Penetration Length (ft)	3.9'	Core Recovery (ft)	1.4

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
1			~~Olive gray, soft, moist, SILT. No sheen No odor~~ medium dense CLAY CO 12/19/12
2			Low recovery. sample discarded
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/19/12 Time 11:20:58
Project No.	090243-01.12	Latitude	33°36'43.746" Longitude 117°55'40.536"
Station ID	RC-05	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	18.3
Tide (ft)	2.7	Mudline Elevation (ft MLLW)	-15.6
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + native material
Penetration Length (ft)	2.8'	Core Recovery (ft)	2.0

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
	0-0.5	Chemistry	Olive gray, soft, moist, SILT, no sheen, no odor 0.01
			medium dense silty CLAY 0.05
	0.5-1.0	Archive	Light brown, medium dense, moist, f-sand, no sheen, no odor
1	1.0-1.5 ~~1.5-2~~ 12/19/12		
	1.5-2.0		2.0
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 2 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/11/12 Time 1300
Project No.	090243-01.12	Latitude	33° 36' 42.1920" Longitude -117° 55' 39.7860"
Station ID	RC-06	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	16.4'
Tide (ft)	-0.9	Mudline Elevation (ft MLLW)	-17.3
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft ~~for~~ native material
Penetration Length (ft)	3.7	Core Recovery (ft)	0.3

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
1			Sample lost upon recovery
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 2

Sediment Core Collection Form

ANCHOR QEA

Project: 12 HINE CHANNEL	Date: 12/11/2012 Time: 13:19
Project No.: 090243-01.12	Latitude: 33° 36' 42.1980" Longitude: -117° 55' 39.7680"
Station ID: RC-06	Core Logged By: C. Osuch
Type of Core: PISTON	Water Depth (ft): 16.5'
Tide (ft): -1.1	Mudline Elevation (ft MLLW): -17.6
Project Depth + Overdepth (ft MLLW): N/A	Target Core Length (ft): 2 ft. & NATIVE MATERIAL
Penetration Length (ft): 3.5	Core Recovery (ft): 2.0'

Depth in (ft.) Actual	Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)	
		0-0.5	Chemistry	Olive gray, soft, moist, SILT, No sheen, No odor	0.1'
0.5		0.5-1.0	Archive	light brownish gray, loose, damp, medium SAND	1.0'
1.0	1	1.0-1.5		Scattered shell	
1.5		1.5-2.0			
2.0	2				2.0
	3				
	4				
	5				
	6				
	7				
	8				
	9				

Attempt No. 2 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/19/12 Time 0955:34
Project No.	090243-01.05	Latitude	33°36' 40.242" Longitude 117°53' 39.030"
Station ID	RC-07	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	19.8'
Tide (ft)	2.3	Mudline Elevation (ft MLLW)	-17.5'
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + native material
Penetration Length (ft)	3.0' (refusal)	Core Recovery (ft)	1.3'

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
1			Low recovery. Sample discarded
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/19/12 Time 10:23:07
Project No.	090213-01.12	Latitude	33°36'40.254" Longitude 117°55'38.904"
Station ID	RC-07	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	19.8'
Tide (ft)	2.3	Mudline Elevation (ft MLLW)	-17.5
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + native material
Penetration Length (ft)	29 (refusal)	Core Recovery (ft)	1.6

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
	0-0.5	Chemistry	Olive Gray, soft, moist, SILT, no sheen, no odor 0.01
			medium stiff CLAY 0.05
			Light brown, medium dense, moist, f-sand, no sheen, no odor 0.5
	0.5-1.0	Archive	m-SAND, trace shells, no sheen, no odor
1	1.0-1.5		1.6
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 2 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/11/12 Time 14:50
Project No.	090243-01.12	Latitude	33° 36' 39.4940" Longitude -117° 55' 37.0260"
Station ID	RC-08	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	14.4
Tide (ft)	-0.9	Mudline Elevation (ft MLLW)	-15.3
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + Native material
Penetration Length (ft)	~~2.1~~ TS 2.5	Core Recovery (ft)	2.1

Depth in (ft.) Actual / Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
	0-0.5	chemistry	Olive gray, very soft, moist SILT No sheen, No odor 0.1
			medium stiff, damp, SILT w/ trace sand 0.2
	0.5-1.0	Archive	Light brownish gray, medium dense, m-SAND 0.8
1	1.0-1.5		C-SAND 1.5
	1.5-2.0		dark brownish gray, scattered shell 2.1
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 1

Sediment Core Collection Form

ANCHOR QEA

Project: Rhine Channel
Project No.: 090243-01.12
Station ID: RC-09
Type of Core: Piston
Tide (ft): 2.2
Project Depth + Overdepth (ft MLLW): N/A
Penetration Length (ft): 2.8 (refusal)

Date: 12/19/12 Time: 09:26:06
Latitude: 33°36'37.914" Longitude: 117°55'36.724"
Core Logged By: C. Osuch
Water Depth (ft): 17.3'
Mudline Elevation (ft MLLW): -15.1
Target Core Length (ft): 2 ft + native material
Core Recovery (ft): 1.8

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
	0-0.5	chem/bio	Dark gray, soft wet SILT w/ trace f-sand, No sheen, No odor 0.1
			medium dense, moist, f-SAND, no sheen, no odor
	0.5-1.0	Archive	m-SAND
1	1.0-1.5	↓	↓ 1.8
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 1

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/11/12 Time 1542
Project No.	090243-01.12	Latitude	33°36'36.936" Longitude 117°55'33.756"
Station ID	RC-10	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	15.7
Tide (ft)	-0.2	Mudline Elevation (ft MLLW)	-15.9
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + Native material
Penetration Length (ft)	1.9 (refusal)	Core Recovery (ft)	0.5

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
1			
2			Low recovery; Sample discarded
3			
4			
5			
6			
7			
8			
9			

Attempt No. 1 of 2

Sediment Core Collection Form

ANCHOR QEA

Project: Rhine Channel
Project No.: 090243-01.12
Station ID: RC-10
Type of Core: Piston
Tide (ft): -0.2
Project Depth + Overdepth (ft MLLW): N/A
Penetration Length (ft): 2.8' (refusal)

Date: 12/11/12 Time: 15:58
Latitude: 33° 36' 36.9240" Longitude: -117° 55' 33.7860"
Core Logged By: C. Osuch
Water Depth (ft): 15.7
Mudline Elevation (ft MLLW): -15.9
Target Core Length (ft): 2 ft + Native material
Core Recovery (ft): 1.5

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)
	0-0.5	Chem. 3	Olive gray, very soft, wet, SILT, No sheen, No odor — 0.1'
			gray, soft, moist, SILT w/ trace sand — 0.3'
	0.5-1.0	Archive	medium dense, damp, m-SAND,
1	1.0-1.5	↓	m-SAND w/ trace gravel — ~~1.4~~ 1.3' 1.5'
2			
3			
4			
5			
6			
7			
8			
9			

Attempt No. 2 of 2

Sediment Core Collection Form

ANCHOR QEA

Project	Rhine Channel	Date	12/11/12 Time 10:47
Project No.	090243-01.12	Latitude	33° 36' 35.238" Longitude -117° 55' 32.496"
Station ID	RC-11	Core Logged By	C. Osuch
Type of Core	Piston	Water Depth (ft)	18.6'
Tide (ft)	1.2	Mudline Elevation (ft MLLW)	-17.4
Project Depth + Overdepth (ft MLLW)	N/A	Target Core Length (ft)	2 ft + Native material
Penetration Length (ft)	3.5'	Core Recovery (ft)	1.7

Depth in (ft.) Actual Core Sections	Sample Interval	Sample Analytes	Classification and Remarks (Color, Consistency, Moisture, Grain Size, Sheen, Odor)	
	0-0.5	Chemistry	Olive gray, very soft, wet, SILT, No sheen, No odor	0.1'
			gray dense, damp, f-SAND, trace shell	
	0.5-1.0	Archives	medium dense, scattered shell	0.9'
1	1.0-1.5			
	1.5-1.7			1.7'
2				
3				
4				
5				
6				
7				
8				
9				

Attempt No. 1 of 1

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-02

Sampling Crew: C. Osuch, A. Martin, D. Fellers
Sample Date: 12/11/12 Sampling Method: PONAR (Grabs 1-4)
Sampling Vessel: AQ Aquasport Ekman (Grab 5)
Subcontractor(s): N/A Weather: Sunny
Station Coordinates: N / Lat. 33° 36' 49.~~902~~ 878" 12/11/12
E / (W) / Long. 117° 55' 38.118"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-02-SG
Analysis: (Metals / SVOCs / VOCs / PCBs / Pest) Other: Pyrethroids
(TS / Grain Size / TOC) / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 16.5 Grab Recovery: – cm Time: 1016
Tide Level: 3.0 Sample Interval: – cm
Bioassay / Chemistry 12/11/12 Depth MLLW: 13.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Sampler did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 16.5 Grab Recovery: ≈13 cm Time: 1019
Tide Level: 3.0 Sample Interval: – cm
Bioassay / Chemistry Depth MLLW: 13.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	overpenetrated. Sample discarded.
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 16.5 Grab Recovery: – cm Time: 1021
Tide Level: 3.0 Sample Interval: – cm
Bioassay / Chemistry Depth MLLW: 13.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Sampler did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 4 Water Depth: 16.5 Grab Recovery: ≈13 cm Time: 1023
Tide Level: 3.0 Sample Interval: – cm
Bioassay / Chemistry Depth MLLW: 13.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Overpenetrated, Sample discarded
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: C. Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-02

Sampling Crew: C. Osuch, A. Martin, D. Folkers
Sample Date: 12/11/12
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A
Station Coordinates: N / Lat. 33° 36' 49.878"
E / (W) / Long. 117° 55' 38.118"
Datum: NAD 83 / WGS 84 Zone:

Sampling Method: Ekman (switched to Ekman due to over penetration)
Weather: Sunny

Sample ID: RC-02-S6
Analysis: (Metals) / SVOCs / VOCs / (PCBs / Pest) / (TS / Grain Size / TOC) / Ammonia / Sulfides
(Circle Appropriate Analyses)
Other: Pyrethroids
Other:

Grab Number: 5 Water Depth: 16.5 Grab Recovery: 11.5 cm Time: 1028
Tide Level: 3.0 Sample Interval: 0-2 cm
Bioassay / (Chemistry) Depth MLLW: -13.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	(none)	H2S	(none)	Ekman
gravel cr 12/11/12	gray	slight	Petroleum	slight	photo
sand C M F	black	moderate	other:	moderate	
silt clay w/ trace vf sand	(brown) light olive	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-04

Sampling Crew: A Martin, C. Ouch, D. Fellers
Sample Date: 12/11/12 Sampling Method: Ekman
Sampling Vessel: AQ Aquasport
Subcontractor(s): NYAT Weather: Sunny
Station Coordinates: N / Lat. 33°36' 45.468"
E / (W) / Long. 117°55' 39.948"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-04-SG
Analysis: (Metals) / SVOCs / VOCs / (PCBs / Pest) / (TS / Grain Size / TOC) / Ammonia / Sulfides
(Circle Appropriate Analyses)
Other: Pyrethroids
Other:

Grab Number: 1 Water Depth: 15.5 Grab Recovery: — cm Time: 1123
Tide Level: 0.9 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -14.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Winnowed. sample rejected
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 15.5 Grab Recovery: 11 cm Time: 1128
Tide Level: 0.9 Sample Interval: 0-2 cm
Bioassay / (Chemistry) Depth MLLW: -14.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	(none)	H2S	(none)	Photo
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
(silt clay) w/ vf sand	(light olive) brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Ouch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-06

Sampling Crew: A. Martin D. Fellers C. Osuch
Sample Date: 12/11/12 Sampling Method: Ponar
Sampling Vessel: AQ Aquaspoit
Subcontractor(s): N/A Weather: sunny
Station Coordinates: N / Lat. 33°36'42.222" Att 2
E / (W) / Long. 117°55'39.708"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-06-SG (composite of grabs 2 of 6) @1250
Analysis: (Metals) / SVOCs / VOCs / (PCBs / Pest) Other:
(TS / Grain Size / TOC) / Ammonia / Sulfides Other: Pyrethroids
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 16.8 Grab Recovery: — cm Time: 1228
Tide Level: -0.5 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -17.3

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 16.8 Grab Recovery: 7 cm Time: 1229
Tide Level: -0.5 Sample Interval: 0-2 cm
Bioassay / (Chemistry) Depth MLLW: -17.3

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	(none)	H2S	(none)	photo
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
(silt clay) w/ trace of sand	(light olive) brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 16.8 Grab Recovery: — cm Time: 1239
Tide Level: -0.5 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -17.3

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 4 Water Depth: 16.8 Grab Recovery: — cm Time: 1240
Tide Level: -0.5 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -17.3

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-06

Sampling Crew: A. Martin, C. Osuch, D. Felkers
Sample Date: 12/11/12 Sampling Method: Ponar
Sampling Vessel: AQ Aquasport
Subcontractor(s):
Weather: sunny
Station Coordinates: N / Lat. 33°36'42.228"
Alt 6' E / (W) / Long. 117°55'39.744"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-06-S6 (composite of grabs 2 & 6) @1250
Analysis: (Metals / SVOCs / VOCs / PCBs / Pest) Other:
(TS / Grain Size / TOC) / Ammonia / Sulfides Other: Pyrethroids
(Circle Appropriate Analyses)

Grab Number: 5 Water Depth: 16.8 Grab Recovery: — cm Time: 1242
Tide Level: -0.5 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -17.3

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Jaws did not fully close
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 6 Water Depth: 16.8 Grab Recovery: 7 cm Time: 1244
Tide Level: -0.5 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -17.3

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ trace of sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-08

Sampling Crew: A. Martin, C. Osuch, D. Felbers
Sample Date: 12/1/12 Sampling Method: PONAR
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A Weather: Sunny
Station Coordinates: N / Lat. 33°36'39.486" Att 4: 33°36'39.492"
Att 1: E / W / Long. 117°55'36.990" 117°55'37.013"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-08-SG (composite of grabs 1 and 4 @1445)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Pyrethroids
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 14.5 Grab Recovery: 7.5 cm Time: 1430
Tide Level: -1.1 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -15.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	photo
sand C M F	black	moderate	other:	moderate	
silt clay w/ few vf sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 14.5 Grab Recovery: – cm Time: 1438
Tide Level: -1.1 Sample Interval: – cm
Bioassay / Chemistry Depth MLLW: -15.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 14.5 Grab Recovery: – cm Time: 1439
Tide Level: -1.1 Sample Interval: – cm
Bioassay / Chemistry Depth MLLW: -15.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 4 Water Depth: 14.5 Grab Recovery: 8.0 cm Time: 1440
Tide Level: -1.1 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -15.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ few sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: [signature]

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-002 **Station ID:** RC-10

Sampling Crew: A. Martin D. Fellers C. Osuch
Sample Date: 12/11/12 Sampling Method: Ponar
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A Weather: Sunny
Station Coordinates: N / Lat. 33°36'37.002" Att 2: 33°36'36.990"
Att 1: E / W / Long. 117°55'33.696" 117°55'33.714"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-10-SG (composite of grass 1 + 2 @ 1527)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Pyrethroids
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 15.3 Grab Recovery: 8.5 cm Time: 1516
Tide Level: -0.7 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -16.0

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/few vf sand	brown light olive	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 15.3 Grab Recovery: 8.0 cm Time: 1522
Tide Level: -0.7 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -16.0

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	photo
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/few vf sand	brown light olive	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01 **Station ID:** RC-11

Sampling Crew: A. Martin, D. Fellers, C. Osuch
Sample Date: 12/11/12 Sampling Method: Ponar
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A Weather: Sunny
Station Coordinates: N / Lat. 33°36'35.244" Att 2: 33°36'35.244"
Att 1: E / W / Long. ~~33°36'35.244"~~ 12/11/12 -117°55'32.556"
-117°55'32.556"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-11-SG (composite of grabs 1 + 2 @ 1631)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other: Pyrethroids
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 18.6 Grab Recovery: 7.5 cm Time: 1620
Tide Level: Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	photo
sand C M F	black	moderate	other:	moderate	
silt clay w/ few vf sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 18.6 Grab Recovery: 5.5 cm Time: 1626
Tide Level: Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ few vf sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-12

Sampling Crew: T. Sebek, D. Fellows, C. Osuch
Sample Date: 12/12/12 Sampling Method: Ekman
Sampling Vessel: Ad Aquasport
Subcontractor(s): N/A Weather: cloudy
Station Coordinates: N / Lat. 33°36'53.880"
E / W / Long. 117°55'36.468"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-12-SG
Analysis: Metals / SVOCs / VOCs / PCBs / Pest / TS / Grain Size / TOC / Ammonia / Sulfides (Circle Appropriate Analyses)
Other: Pyrethroids
Other:

Grab Number: 1 Water Depth: 16.5 Grab Recovery: — cm Time: 0917
Tide Level: 5.9 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -10.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	winnowed.
gravel	gray	slight	Petroleum	slight	Rejected
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 16.5 Grab Recovery: — cm Time: 0927
Tide Level: 5.9 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -10.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Jaws not
gravel	gray	slight	Petroleum	slight	fully closed.
sand C M F	black	moderate	other:	moderate	winnowed.
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 16.5 Grab Recovery: 11.5 cm Time: 0929
Tide Level: 5.9 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -10.6

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	photo
sand C M F	black	moderate	other:	moderate	
silt clay w/ trace of sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01-02 **Station ID:** RC-13

Sampling Crew: T Schuh, C. Osuch, D. Fellers
Sample Date: 12/12/12 Sampling Method: Ekman
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A Weather: Cloudy
Station Coordinates: N / Lat. 33°36'39.390" Attempt 2 - 33°36'39.420"
Att 1: E / W / Long. 117°55'39.786" 117°55'39.762"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-13-SG (composite of grabs 1 & 2)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Pyrethroids
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 14.1 Grab Recovery: 12.3 cm Time: 1002
Tide Level: 4.9 Sample Interval: 0-2 cm
Bioassay / Chemistry MS/MSD Depth MLLW: -9.2

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	some algae present.
silt clay w/ trace of sand	light olive brown	strong		heavy	photo
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 14.1 Grab Recovery: 11.5 cm Time: 1020
Tide Level: 4.9 Sample Interval: 0-2 cm
Bioassay / Chemistry MS/MSD Depth MLLW: -9.2

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	some algae present
silt clay w/ trace of sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01 **Station ID:** RC-14

Sampling Crew: T. Schuh, D. Fellers, C. Osuch
Sample Date: 12/12/12
Sampling Method: Ekman - Attempt 1; Ponar - Attempts 2→4
Sampling Vessel: AQ Aquasport
Subcontractor(s):
Weather: Cloudy
Station Coordinates: N / Lat. 33°36'40.788" ①
Att 4 E / (W) / Long. 117°55'36.000"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-14-SG (composite of grabs 4 & 5)
Analysis: (Metals) / SVOCs / VOCs / (PCBs / Pest) Other: Pyrethroids
(TS / Grain Size / TOC) / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 19.7 Grab Recovery: — cm Time: 1053
Tide Level: 3.2 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -16.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 19.7 Grab Recovery: — cm Time: 1101
Tide Level: 3.2 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -16.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 19.7 Grab Recovery: — cm Time: 1102
Tide Level: 3.2 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -16.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Did not trigger
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 4 Water Depth: 19.7 Grab Recovery: 8.1 cm Time: 1103
Tide Level: 3.2 Sample Interval: 0-2 cm
Bioassay / (Chemistry) Depth MLLW: -16.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	(none)	H2S	(none)	
gravel	(gray)	slight	Petroleum	slight	photo
sand C M F	black	moderate	other:	moderate	
(silt clay) w/ trace vf sand	(brown)	strong		heavy	
organic matter	brown surface	overwhelming			

① Station slightly moved. ~~Actual~~ Target location under large vessel. 12/12/12 w 12/12/12

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01 **Station ID:** RC-14

Sampling Crew: T. Schuh D Fellers, C. Osuch
Sample Date: 12/12/12 Sampling Method: Ponar
Sampling Vessel: AQ Aquaspot
Subcontractor(s): N/A Weather: Cloudy
Station Coordinates: N / Lat. 33°36'40.782"
Att 5 E / W / Long. 117°55'35.994"
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-14-SG (composites of grabs 4 & 5)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Pyrethroids
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 5 Water Depth: 19.7 Grab Recovery: 9.6 cm Time: 1119
Tide Level: 3.2 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -16.5

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ trace of sand	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-15

Sampling Crew: T. Schuh D. Fellers, C. Osud

Sample Date: 12/12/12 Sampling Method: Ekman

Sampling Vessel: AQ Aquaport

Subcontractor(s): N/A Weather: Cloudy

Station Coordinates: N / Lat. 33°36'36.858"

E / (W) / Long. 117°55'36.492"

Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-15-SG

Analysis: (Metals) / SVOCs / VOCs / (PCBs / Pest) Other: Pyrethroids

(TS / Grain Size / TOC) / Ammonia / Sulfides Other:

(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 11.7 Grab Recovery: 12.6 cm Time: 1142

Tide Level: 1.7 Sample Interval: 0-2 cm

Bioassay / (Chemistry) Depth MLLW: -10.0

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	(none)	photo.
gravel	gray	slight	Petroleum	slight	scattered
sand C M F	black	moderate	other:	moderate	algae on
(silt clay) w/ trace vf sand	light olive brown	strong		heavy	surface
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____

Tide Level: _____ Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____

Tide Level: _____ Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____

Tide Level: _____ Sample Interval: _____ cm

Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osud

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.12 **Station ID:** RC-16

Sampling Crew: D. Felkis, T. Schuh, C. Osuch
Sample Date: 12/12/12
Sampling Method: Ekman - Attempt 1; Punar - Attempts 2-4
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A
Weather: Cloudy
Station Coordinates: N / Lat. 33°36'36.468" (Att: 2); 33°36'36.432" (Att 4)
E / W / Long. 117°55'30.684" (Att: 2); 117°55'30.654" (Att 4)
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-16-SG (composite of grabs 2 + 4)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest / TS / Grain Size / TOC / Ammonia / Sulfides
Other: Pyrethroids
Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: 15.9 Tide Level: 0.5 Depth MLLW: -15.4 Grab Recovery: — cm Sample Interval: — cm Time: 1216
Bioassay / Chemistry

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Sampler did not fully close due to coarse sand.
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 15.9 Tide Level: 0.5 Depth MLLW: -15.4 Grab Recovery: 8.5 cm Sample Interval: 0-2 cm Time: 1222
Bioassay / Chemistry

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ few f-sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 15.9 Tide Level: 0.5 Depth MLLW: -15.4 Grab Recovery: — cm Sample Interval: — cm Time: 1232
Bioassay / Chemistry

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Slightly over penetrated
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 4 Water Depth: 15.9 Tide Level: 0.5 Depth MLLW: -15.4 Grab Recovery: 8.6 cm Sample Interval: 0-2 cm Time: 1236
Bioassay / Chemistry

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ few f-sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Rhine Channel **Project No:** 090243-01.02 **Station ID:** RC-17

Sampling Crew: T. Schuh, D. Fellers, C. Osuch
Sample Date: 12/12/12
Sampling Method: Ekman - Attempt 1; Ponar - Attempts 2 & 3
Sampling Vessel: AQ Aquasport
Subcontractor(s): N/A
Weather: Cloudy
Station Coordinates: N / Lat. 33°36'34.326" (Att 2: 33°36'34.344", Att 3)
E / W / Long. 117°55'30.348" (Att 2: 117°55'30.360")
Datum: NAD 83 / WGS 84 Zone:

Sample ID: RC-17-S6 (composite of grabs 2 & 3)
Analysis: Metals / SVOCs / VOCs / PCBs / Pest / TS / Grain Size / TOC / Ammonia / Sulfides (Circle Appropriate Analyses)
Other: Pyrethroids
Other:

Grab Number: 1 Water Depth: 12.6 Grab Recovery: — cm Time: 1304
Tide Level: -0.6 Sample Interval: — cm
Bioassay / Chemistry Depth MLLW: -13.2

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Jaws did not fully close due to coarse sand
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2 Water Depth: 12.6 Grab Recovery: 9.6 cm Time: 1312
Tide Level: -0.6 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -13.2

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Scattered bissel mussels on surface
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ trace f-sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3 Water Depth: 12.6 Grab Recovery: 9.3 cm Time: 1321
Tide Level: -0.6 Sample Interval: 0-2 cm
Bioassay / Chemistry Depth MLLW: -13.2

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Scattered bissel mussels on surface
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay w/ trace f-sand	light olive brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Chris Osuch

GRAB SAMPLE PHOTOGRAPHS

RC-02-SG

RC-04-SG

RC-06-SG

RC-08-SG

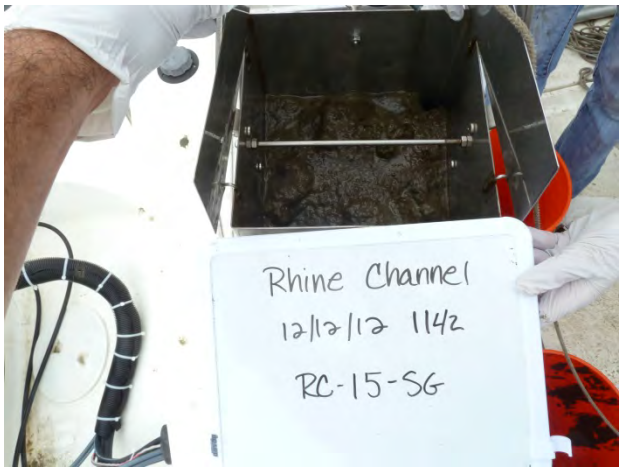
RC-10-SG

RC-11-SG

RC-12-SG

RC-13-SG

RC-14-SG



RC-15-SG

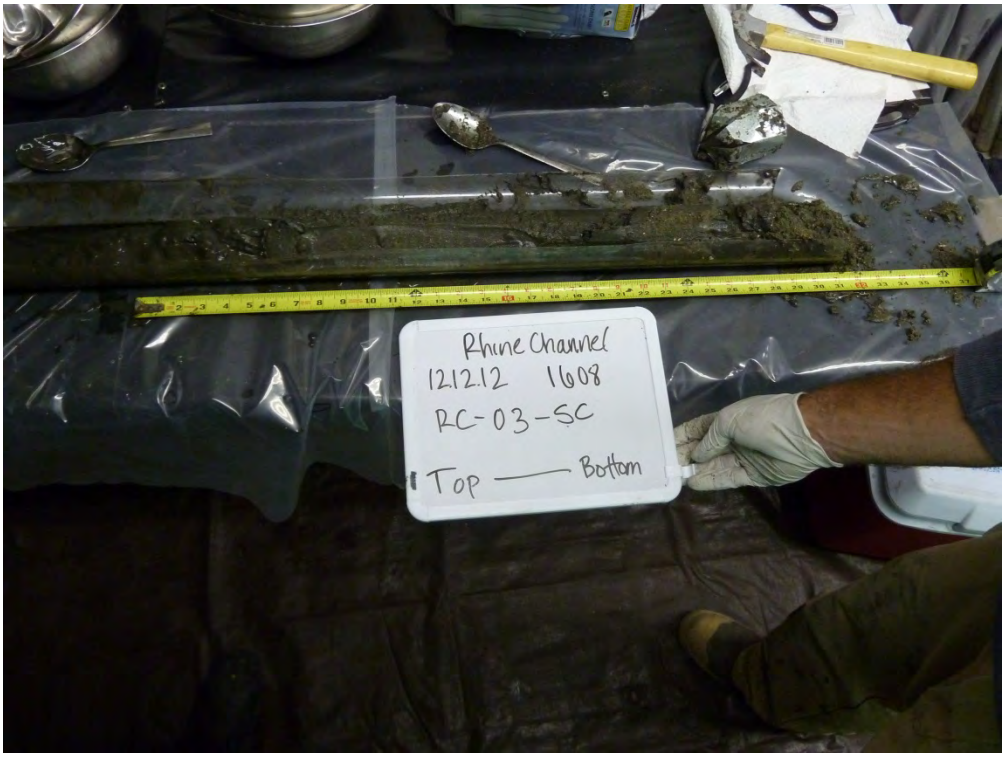
RC-16-SG

RC-17-SG

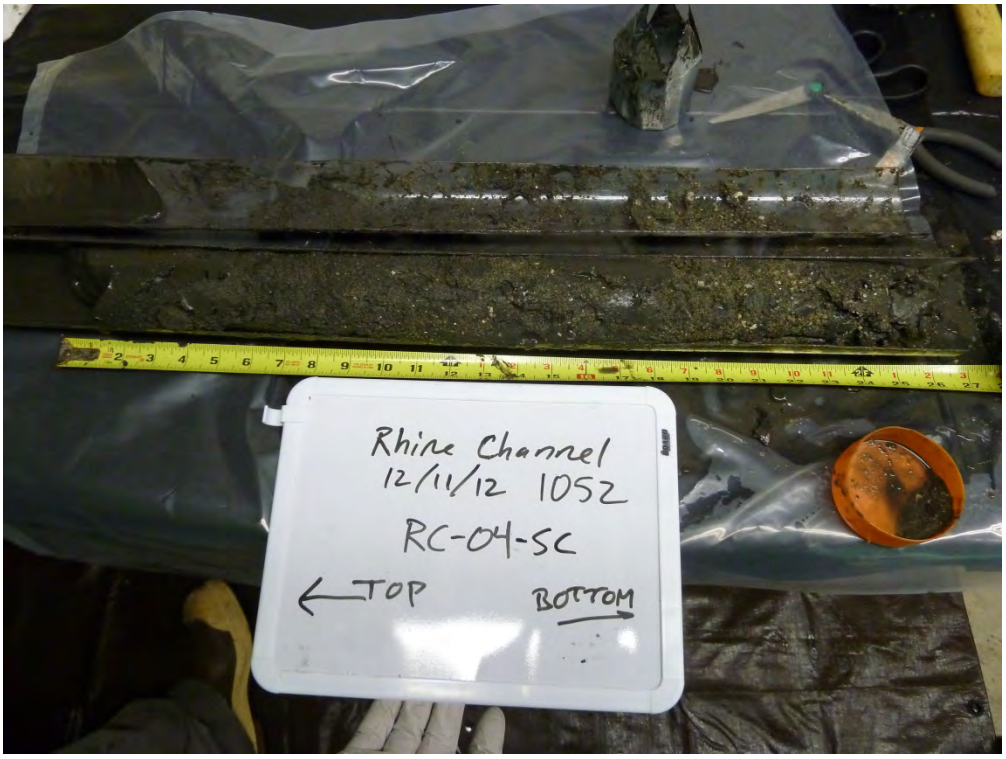
CORE PHOTOGRAPHS

RC-01-SC

RC-02-SC

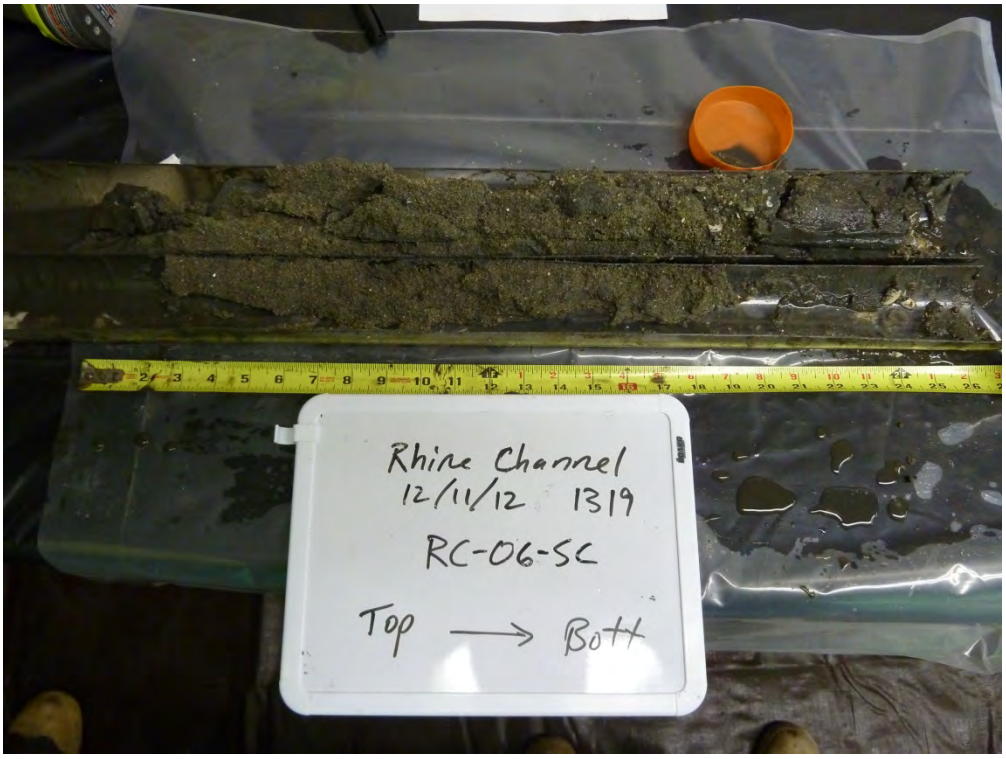


RC-03-SC



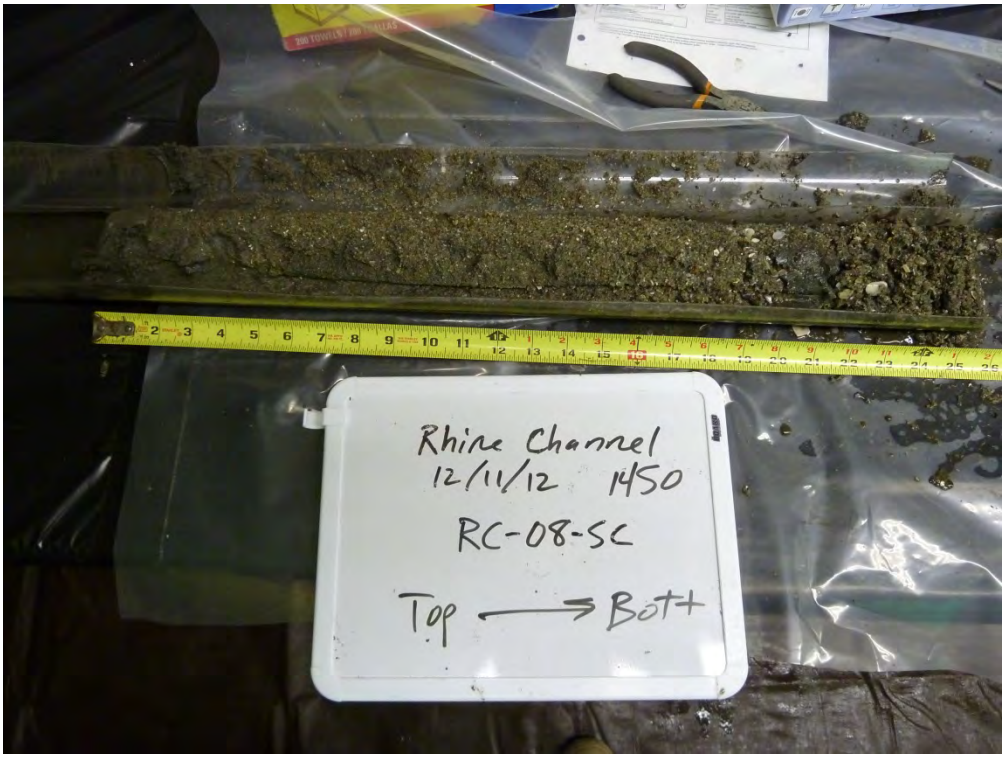
RC-04-SC

RC-05-SC



RC-06-SC

RC-07-SC



RC-08-SC

RC-09-SC

RC-10-SC

RC-11-SC

ATTACHMENT C
DATA VALIDATION REPORTS

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131
www.anchorqea.com

DATA VALIDATION REVIEW REPORT – USEPA STAGE 2A

Project:	Rhine Channel Contaminated Sediment Cleanup
Project Number:	090243-01.12
Date:	January 25, 2013

This report summarizes the review of analytical results for 23 sediment samples collected December 11, 12 and 19, 2012. The samples were collected by Anchor QEA, LLC, and submitted to Calscience Environmental Laboratories, Inc. (Calscience) in Garden Grove, California. The samples were analyzed for the following parameters:

- Total organic carbon (TOC) by U.S Environmental Protection Agency (USEPA) method 9060A
- Total solids (TS) by Standard Method (SM) 2540B
- Grain size by American Society for Testing and Materials (ASTM) method D4464M
- Pyrethroids by USEPA method 8270D (M)
- Chlorinated pesticides by USEPA method 8081A
- Polychlorinated biphenyl congeners (PCBs) by USEPA method 8270C – Select Ion Monitoring (SIM)
- Total metals by USEPA methods 1631E and 6020

Calscience sample data group (SDG) numbers 12-12-0734, 12-12-0857, and 12-12-1364 were reviewed in this report. Samples reviewed in this report are presented in Table 1.

Table 1
Samples Reviewed

Sample ID	Lab ID	Matrix	Analyses Requested
RC-02-SC_0.0-0.5	12-12-0734-1	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-04-SC_0.0-0.5	12-12-0734-2	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-06-SC_0.0-0.5	12-12-0734-3	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-08-SC_0.0-0.5	12-12-0734-4	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-10-SC_0.0-0.5	12-12-0734-5	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-11-SC_0.0-0.5	12-12-0734-6	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS

Sample ID	Lab ID	Matrix	Analyses Requested
RC-02-SG	12-12-0734-7	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-04-SG	12-12-0734-8	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-06-SG	12-12-0734-9	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-08-SG	12-12-0734-10	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-10-SG	12-12-0734-11	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-11-SG	12-12-0734-12	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-12-SG	12-12-0857-1	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-13-SG	12-12-0857-2	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-14-SG	12-12-0857-3	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-15-SG	12-12-0857-4	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-16-SG	12-12-0857-5	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-17-SG	12-12-0857-6	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-01-SC-0.0-0.5	12-12-0857-7	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-03-SC-0.0-0.5	12-12-0857-8	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-09-SC-0.0-0.5	12-12-1364-1	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-07-SC-0.0-0.5	12-12-1364-2	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS
RC-05-SC-0.0-0.5	12-12-1364-3	Sediment	Total metals, PCBs, pesticides, pyrethroids, TOC, TS, GS

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures and data quality objective sections of the Sampling and Analysis Plan (SAP) (Anchor 2012). Laboratory results were reviewed using the following guidelines:

- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2004)
- *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA 1999)
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA 2008)

Laboratory and method QC criteria were also used as stated in USEPA 1986 (SW-846, Third Edition), *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, update 1, August 1993; update II, January 1995; update IIA, February 1994; update IIB, August 1995; update III, June 1997; update IIIA, May 1999; update IIIB, June 2008; update IVA and IVB, January 2008. Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by Calscience at the time of sample receipt; the samples were received cold in good condition.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyzed within holding times. Sample RC-14-SG was extracted outside of the hold time for refrigerated samples; however, the sample was frozen prior to the hold time expiration so no data were qualified.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. All method blanks were free of target analytes.

Field Quality Control

Rinse Blanks

No rinse blanks were required in association with these sample sets.

Field Duplicates

No field duplicates were required in association with these sample sets.

Surrogate Recoveries

All surrogate recoveries were within the laboratory control limits.

Column Confirmation

Detected pesticide results met second column confirmation requirements. PCBs were analyzed by USEPA 8270C-SIM, which does not require a second column confirmation.

Laboratory Control Sample and Laboratory Control Sample Duplicate

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequencies. All LCS/LCSD analyses yielded percent recovery (%R) and/or RPD values within laboratory control limits with the following exceptions:

- SDG 12-12-0734 Pyrethroids: The percent recovery (%R) values for four compounds (bifenthrin, cypermethrin, deltamethrin/tralomethrin, and lambda-cyhalothrin) were below the project control limits in the LCS and/or LCSD. Associated results have been qualified "J" or "UJ" to indicate a potentially low bias.
- SDG 12-12-0857 Pyrethroids: The %R values for six compounds (cyfluthrin, cypermethrin, deltamethrin/tralomethrin, fenpropathrin, fenvalerate/esfenvalerate, and lambda-cyhalothrin) were below the project control limits in the LCS and/or LCSD. Associated results have been qualified "J" or "UJ" to indicate a potentially low bias.
- SDG 12-12-1364 Pyrethroids: The %R values for four compounds (cyfluthrin, cypermethrin, deltamethrin/tralomethrin, and lambda-cyhalothrin) were below the project control limits in the LCS and LCSD. Associated results have been qualified "UJ" to indicate a potentially low bias.

Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at required frequencies. All MS/MSD analyses yielded %R and/or RPD values within laboratory control limits with the following exceptions:

- SDG 12-12-0734
    - Metals: The %R values for lead in the MS, and zinc in the MS/MSD were above the project control limits in sample RC-04-SC_0.0-0.5. Associated sample results were qualified "J" to indicate a potentially high bias. Copper and mercury did not recover in the MS/MSD on this sample; the sample concentrations were significantly greater than (>4x) the concentrations of the spikes, so no data were qualified.
    - Pyrethroids: The MS %R values and/or MS/MSD RPD values for cyfluthrin, cypermethrin, deltamethrin/tralomethrin, fenvalerate/esfenvalerate, and lambda-cyhalothrin were above the project control limits in the MS/MSD performed on sample RC-02-SG. None of these compounds were detected in the parent sample so no data were qualified. The MSD %R value for bifenthrin was below the project control limit. The parent sample result was qualified "UJ" to indicate a potentially low bias.
- SDG 12-12-0857

  - Metals: Copper, zinc, and mercury did not recover in the MS/MSD performed on sample RC-12-SG. Copper and zinc did not recover in the post-digestion spike. The sample concentrations were significantly greater than (>4x) the concentrations of the spikes, so no data were qualified.
  - Pyrethroids: The %R values for bifenthrin were below the control limit in the MS and MSD, and the %R value for fenpropathrin was below the control limit in the MS performed on sample RC-13-SG. Parent sample results were qualified "J" or "UJ" to indicate a potentially low bias.
- SDG 12-12-1364
  - Metals: The %R values for zinc in the MS/MSD and a post-digestion spike performed on sample RC-09-SC-0.0-0.5 were below the project data quality objectives. Three associated sample results were qualified "J" to indicate a potentially low bias. Mercury did not recover in the MS/MSD on this sample; the sample concentration was significantly greater than (>4x) the concentration of the spike, so no data were qualified.
  - Pyrethroids: The %R values for cyfluthrin, cypermethrin, deltamethrin/tralomethrin, and lambda-cyhalothrin were below the project data quality objectives in the MS/MSD performed on sample RC-07-SC-0.0-0.5. The parent sample results were qualified "UJ" to indicate a potentially low bias.

See Table 2 for qualified data.

Laboratory Replicates

Laboratory replicates were analyzed at the required frequencies and all detected results were within required limits.

Method Reporting Limits

Reporting limits were deemed acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted, or when reported as diluted, the reporting limit accurately reflects the dilution factor. Some non-detected reporting limits

for sediment samples were above those listed in the SAP due to moisture content and variations in sample size.

Overall Assessment

This evaluation determined that the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD %R values, with the exceptions noted above. Precision was also acceptable as demonstrated by the laboratory duplicates, MS/MSD, and LCS/LCSD RPD values, with the exceptions noted above. Most data were deemed acceptable as reported; all other data are acceptable as qualified. Table 2 summarizes the qualifiers applied to samples reviewed in this report.

Data Qualifier Definitions

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

J Indicates an estimated value.

R Indicates data is rejected and unusable

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated

DNR Do not report

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
RC-01-SC-0.0-0.5	Pyrethroids	Cyfluthrin	0.16U µg/kg	0.16UJ µg/kg	Low LCS/LCSD %R value
		Cypermethrin	0.13U µg/kg	0.13UJ µg/kg	
		Deltamethrin/Tralomethrin	0.4U µg/kg	0.4UJ µg/kg	
		Fenvalerate	0.069U µg/kg	0.069UJ µg/kg	
		Lambda-Cyhalothrin	0.084U µg/kg	0.084UJ µg/kg	
		Fenpropathrin	0.07U µg/kg	0.07UJ µg/kg	Low LCSD %R value
RC-02-SC_0.0-0.5	Metals	Lead	17.3 mg/kg	17.3J mg/kg	High MS %R value

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Zinc	54.8 mg/kg	54.8J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.12U µg/kg	0.12UJ µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.28U µg/kg	0.28UJ µg/kg	
		Lambda-Cyhalothrin	0.058U µg/kg	0.058UJ µg/kg	
		Cypermethrin	0.091U µg/kg	0.091UJ µg/kg	Low LCSD %R value
RC-02-SG	Metals	Lead	80.4 mg/kg	80.4J mg/kg	High MS %R value
		Zinc	257 mg/kg	257J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.26J µg/kg	0.26J µg/kg	Low LCS/LCSD and MSD %R values
		Cypermethrin	0.19U µg/kg	0.19UJ µg/kg	Low LCSD %R value
		Deltamethrin/Tralomethrin	0.57U µg/kg	0.57UJ µg/kg	Low LCS/LCSD %R values
		Lambda-Cyhalothrin	0.12U µg/kg	0.12UJ µg/kg	Low LCS/LCSD %R values
RC-03-SC-0.0-0.5	Pyrethroids	Cyfluthrin	0.19J µg/kg	0.19J µg/kg	Low LCS/LCSD %R values
		Cypermethrin	0.13U µg/kg	0.13UJ µg/kg	
		Deltamethrin/Tralomethrin	0.4U µg/kg	0.4UJ µg/kg	
		Fenvalerate	0.069U µg/kg	0.069UJ µg/kg	
		Lambda-Cyhalothrin	0.084U µg/kg	0.084UJ µg/kg	
		Fenpropathrin	0.07U µg/kg	0.07UJ µg/kg	Low LCSD %R value
RC-04-SC_0.0-0.5	Metals	Lead	47.5 mg/kg	47.5J mg/kg	High MS %R value
		Zinc	148 mg/kg	148J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.16U µg/kg	0.16UJ µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.35U µg/kg	0.35UJ µg/kg	
		Lambda-Cyhalothrin	0.073U µg/kg	0.073UJ µg/kg	
		Cypermethrin	0.11U µg/kg	0.11UJ µg/kg	Low LCSD %R value
RC-04-SG	Metals	Lead	84.5 mg/kg	84.5J mg/kg	High MS %R value

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Zinc	285 mg/kg	285J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.43J µg/kg	0.43J µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.68U µg/kg	0.68UJ µg/kg	
		Lambda-Cyhalothrin	0.14U µg/kg	0.14UJ µg/kg	
		Cypermethrin	0.22U µg/kg	0.22UJ µg/kg	Low LCSD %R value
RC-05-SC-0.0-0.5	Metals	Zinc	64.4 mg/kg	64.4J mg/kg	Low MS/MSD %R values
	Pyrethroids	Cyfluthrin	0.11U µg/kg	0.11UJ µg/kg	Low LCS/LCSD %R values
		Cypermethrin	0.093U µg/kg	0.093UJ µg/kg	
		Deltamethrin/Tralomethrin	0.28U µg/kg	0.28UJ µg/kg	
		Lambda-Cyhalothrin	0.059U µg/kg	0.059UJ µg/kg	
RC-06-SC_0.0-0.5	Metals	Lead	10.6 mg/kg	10.6J mg/kg	High MS %R value
		Zinc	43.4 mg/kg	43.4J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.12U µg/kg	0.12UJ µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.27U µg/kg	0.27UJ µg/kg	
		Lambda-Cyhalothrin	0.056U µg/kg	0.056UJ µg/kg	
		Cypermethrin	0.088U µg/kg	0.088UJ µg/kg	Low LCSD %R value
RC-06-SG	Metals	Lead	71.3 mg/kg	71.3J mg/kg	High MS %R value
		Zinc	280 mg/kg	280J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.44J µg/kg	0.44J µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.59U µg/kg	0.59UJ µg/kg	
		Lambda-Cyhalothrin	0.12U µg/kg	0.12UJ µg/kg	
		Cypermethrin	0.19U µg/kg	0.19UJ µg/kg	Low LCSD %R value
RC-07-SC-0.0-0.5	Metals	Zinc	40 mg/kg	40J mg/kg	Low MS/MSD %R values
	Pyrethroids	Cyfluthrin	0.11U µg/kg	0.11UJ µg/kg	Low LCS/LCSD and MS/MSD %R values

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Cypermethrin	0.089U µg/kg	0.089UJ µg/kg	
		Deltamethrin/Tralomethrin	0.27U µg/kg	0.27UJ µg/kg	
		Lambda-Cyhalothrin	0.056U µg/kg	0.056UJ µg/kg	
RC-08-SC_0.0-0.5	Metals	Lead	20.1 mg/kg	20.1J mg/kg	High MS %R value
		Zinc	80.6 mg/kg	80.6J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.13U µg/kg	0.13UJ µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.3U µg/kg	0.3UJ µg/kg	
		Lambda-Cyhalothrin	0.062U µg/kg	0.062UJ µg/kg	
		Cypermethrin	0.097U µg/kg	0.097UJ µg/kg	Low LCSD %R value
RC-08-SG	Metals	Lead	44.2 mg/kg	44.2J mg/kg	High MS %R value
		Zinc	165 mg/kg	165J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.23J µg/kg	0.23J µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.44U µg/kg	0.44UJ µg/kg	
		Lambda-Cyhalothrin	0.092U µg/kg	0.092UJ µg/kg	
		Cypermethrin	0.15U µg/kg	0.15UJ µg/kg	Low LCSD %R value
RC-09-SC-0.0-0.5	Metals	Zinc	87.7 mg/kg	87.7J mg/kg	Low MS/MSD %R values
	Pyrethroids	Cyfluthrin	0.12U µg/kg	0.12UJ µg/kg	Low LCS/LCSD %R values
		Cypermethrin	0.094U µg/kg	0.094UJ µg/kg	
		Deltamethrin/Tralomethrin	0.29U µg/kg	0.29UJ µg/kg	
		Lambda-Cyhalothrin	0.06U µg/kg	0.06UJ µg/kg	
RC-10-SC_0.0-0.5	Metals	Lead	18 mg/kg	18J mg/kg	High MS %R value
		Zinc	85.9 mg/kg	85.9J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.14U µg/kg	0.14UJ µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.32U µg/kg	0.32UJ µg/kg	
		Lambda-Cyhalothrin	0.066U	0.066UJ	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
			µg/kg	µg/kg	
		Cypermethrin	0.1U µg/kg	0.1UJ µg/kg	Low LCSD %R value
RC-10-SG	Metals	Lead	34.8 mg/kg	34.8J mg/kg	High MS %R value
		Zinc	160 mg/kg	160J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.23J µg/kg	0.23J µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.41U µg/kg	0.41UJ µg/kg	
		Lambda-Cyhalothrin	0.086U µg/kg	0.086UJ µg/kg	
		Cypermethrin	0.13U µg/kg	0.13UJ µg/kg	Low LCSD %R value
RC-11-SC_0.0-0.5	Metals	Lead	9.51 mg/kg	9.51J mg/kg	High MS %R value
		Zinc	59.9 mg/kg	59.9J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.14U µg/kg	0.14UJ µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.31U µg/kg	0.31UJ µg/kg	
		Lambda-Cyhalothrin	0.065U µg/kg	0.065UJ µg/kg	
		Cypermethrin	0.1U µg/kg	0.1UJ µg/kg	Low LCSD %R value
RC-11-SG	Metals	Lead	28.5 mg/kg	28.5J mg/kg	High MS %R value
		Zinc	155 mg/kg	155J mg/kg	High MS/MSD %R values
	Pyrethroids	Bifenthrin	0.56J µg/kg	0.56J µg/kg	Low LCS/LCSD %R values
		Deltamethrin/Tralomethrin	0.52U µg/kg	0.52UJ µg/kg	
		Lambda-Cyhalothrin	0.11U µg/kg	0.11UJ µg/kg	
		Cypermethrin	0.17U µg/kg	0.17UJ µg/kg	Low LCSD %R value
RC-12-SG	Pyrethroids	Cyfluthrin	0.29U µg/kg	0.29UJ µg/kg	Low LCS/LCSD %R value
		Cypermethrin	0.24U µg/kg	0.24UJ µg/kg	
		Deltamethrin/Tralomethrin	0.72U µg/kg	0.72UJ µg/kg	
		Fenvalerate	0.12U µg/kg	0.12UJ µg/kg	
		Lambda-Cyhalothrin	0.15U	0.15UJ	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
			µg/kg	µg/kg	
		Fenpropathrin	0.12U µg/kg	0.12UJ µg/kg	Low LCSD %R value
RC-13-SG	Pyrethroids	Bifenthrin	1.1J µg/kg	1.1J µg/kg	Low MS/MSD %R values
		Cyfluthrin	0.75J µg/kg	0.75J µg/kg	Low LCS/LCSD %R values
		Cypermethrin	0.27U µg/kg	0.27UJ µg/kg	
		Deltamethrin/Tralomethrin	0.81U µg/kg	0.81UJ µg/kg	
		Fenvalerate	0.14U µg/kg	0.14UJ µg/kg	
		Lambda-Cyhalothrin	0.17U µg/kg	0.17UJ µg/kg	
		Fenpropathrin	0.14U µg/kg	0.14UJ µg/kg	Low MS and LCSD %R value
RC-14-SG	Pyrethroids	Cyfluthrin	0.29U µg/kg	0.29UJ µg/kg	Low LCS/LCSD %R value
		Cypermethrin	0.23U µg/kg	0.23UJ µg/kg	
		Deltamethrin/Tralomethrin	0.71U µg/kg	0.71UJ µg/kg	
		Fenvalerate	0.12U µg/kg	0.12UJ µg/kg	
		Lambda-Cyhalothrin	0.15U µg/kg	0.15UJ µg/kg	
		Fenpropathrin	0.12U µg/kg	0.12UJ µg/kg	Low LCSD %R value
RC-15-SG	Pyrethroids	Cyfluthrin	0.76J µg/kg	0.76J µg/kg	Low LCS/LCSD %R values
		Cypermethrin	0.25U µg/kg	0.25UJ µg/kg	
		Deltamethrin/Tralomethrin	0.77U µg/kg	0.77UJ µg/kg	
		Fenvalerate	0.13U µg/kg	0.13UJ µg/kg	
		Lambda-Cyhalothrin	0.16U µg/kg	0.16UJ µg/kg	
		Fenpropathrin	0.13U µg/kg	0.13UJ µg/kg	Low LCSD %R value
RC-16-SG	Pyrethroids	Cyfluthrin	0.24U µg/kg	0.24UJ µg/kg	Low LCS/LCSD %R value
		Cypermethrin	0.2U µg/kg	0.2UJ µg/kg	
		Deltamethrin/Tralomethrin	0.6U µg/kg	0.6UJ µg/kg	
		Fenvalerate	0.1U	0.1UJ	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
			µg/kg	µg/kg	
		Lambda-Cyhalothrin	0.13U µg/kg	0.13UJ µg/kg	
		Fenpropathrin	0.1U µg/kg	0.1UJ µg/kg	Low LCSD %R value
RC-17-SG	Pyrethroids	Cyfluthrin	0.23U µg/kg	0.23UJ µg/kg	Low LCS/LCSD %R value
		Cypermethrin	0.18U µg/kg	0.18UJ µg/kg	
		Deltamethrin/Tralomethrin	0.56U µg/kg	0.56UJ µg/kg	
		Fenvalerate	0.095U µg/kg	0.095UJ µg/kg	
		Lambda-Cyhalothrin	0.12U µg/kg	0.12UJ µg/kg	
		Fenpropathrin	0.097U µg/kg	0.097UJ µg/kg	Low LCSD %R value

REFERENCES

Anchor QEA, 2012. Sampling and Analysis Plan; Post-Dredge Sediment Characterization; Rhine Channel Contaminated Sediment Cleanup. December.

USEPA (U.S. Environmental Protection Agency), 1986. Test methods for Evaluating Solid Waste: Physical/Chemical Methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 530/SW-846.

USEPA, 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. USEPA 540/R-99/008. October.

USEPA, 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation (OSRTI). EPA 540-R-04-004. October.

USEPA, 2008. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. USEPA 540-R-08-01. June.

ANCHOR QEA

720 Olive Way, Suite 1900
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131
www.anchorqea.com

DATA VALIDATION REVIEW REPORT – USEPA STAGE 2A

Project:	Rhine Channel Contaminated Sediment Cleanup
Project Number:	090243-01.12
Date:	February 5, 2013

This report summarizes the review of analytical results for 22 sediment samples collected December 11, 12 and 19, 2012. The samples were collected by Anchor QEA, LLC, and submitted to Calscience Environmental Laboratories, Inc. (Calscience) in Garden Grove, California. The samples were analyzed for the following parameters:

- Total metals by U.S. Environmental Protection Agency (USEPA) methods 1631E and 6020
- Total solids (TS) by Standard Method (SM) 2540B
- Chlorinated pesticides by USEPA method 8081A
- Polychlorinated biphenyl congeners (PCBs) by USEPA method 8270C – Select Ion Monitoring (SIM)

Calscience sample data group (SDG) number 13-01-0633 was reviewed in this report. Samples reviewed in this report are presented in Table 1.

Table 1
Samples Reviewed

Sample ID	Lab ID	Matrix	Analyses Requested
RC-01-SC_0.5-1.0	13-01-0633-1	Sediment	Total metals, TS, pesticides and PCBs
RC-02-SC_0.5-1.0	13-01-0633-2	Sediment	Total metals, TS, pesticides and PCBs
RC-03-SC_0.5-1.0	13-01-0633-3	Sediment	Total metals, TS, pesticides and PCBs
RC-04-SC_0.5-1.0	13-01-0633-4	Sediment	Total metals, TS, pesticides and PCBs
RC-05-SC_0.5-1.0	13-01-0633-5	Sediment	Total metals, TS, pesticides and PCBs
RC-06-SC_0.5-1.0	13-01-0633-6	Sediment	Total metals, TS, pesticides and PCBs
RC-07-SC_0.5-1.0	13-01-0633-7	Sediment	Total metals, TS, pesticides and PCBs
RC-08-SC_0.5-1.0	13-01-0633-8	Sediment	Total metals, TS, pesticides and PCBs
RC-09-SC_0.5-1.0	13-01-0633-9	Sediment	Total metals, TS, pesticides and PCBs
RC-010-SC_0.5-1.0	13-01-0633-10	Sediment	Total metals, TS, pesticides and PCBs
RC-011-SC_0.5-1.0	13-01-0633-11	Sediment	Total metals, TS, pesticides and PCBs
RC-01-SC_1.0-1.5	13-01-0633-12	Sediment	Total metals, TS, pesticides and PCBs
RC-02-SC_1.0-1.5	13-01-0633-13	Sediment	Total metals, TS, pesticides and PCBs

Sample ID	Lab ID	Matrix	Analyses Requested
RC-03-SC_1.0-1.5	13-01-0633-14	Sediment	Total metals, TS, pesticides and PCBs
RC-04-SC_1.0-1.5	13-01-0633-15	Sediment	Total metals, TS, pesticides and PCBs
RC-05-SC_1.0-1.5	13-01-0633-16	Sediment	Total metals, TS, pesticides and PCBs
RC-06-SC_1.0-1.5	13-01-0633-17	Sediment	Total metals, TS, pesticides and PCBs
RC-07-SC_1.0-1.5	13-01-0633-18	Sediment	Total metals, TS, pesticides and PCBs
RC-08-SC_1.0-1.5	13-01-0633-19	Sediment	Total metals, TS, pesticides and PCBs
RC-09-SC_1.0-1.5	13-01-0633-20	Sediment	Total metals, TS, pesticides and PCBs
RC-010-SC_1.0-1.5	13-01-0633-21	Sediment	Total metals, TS, pesticides and PCBs
RC-011-SC_1.0-1.5	13-01-0633-22	Sediment	Total metals, TS, pesticides and PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures and data quality objective sections of the Sampling and Analysis Plan (SAP) (Anchor 2012). Laboratory results were reviewed using the following guidelines:

- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2004)
- *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA 1999)
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA 2008)

Laboratory and method QC criteria were also used as stated in USEPA 1986 (SW-846, Third Edition), *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, update 1, August 1993; update II, January 1995; update IIA, February 1994; update IIB, August 1995; update III, June 1997; update IIIA, May 1999; update IIIB, June 2008; update IVA and IVB, January 2008. Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by Calscience at the time of sample receipt; the samples were received cold in good condition.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyzed within holding times. Samples were delivered to the laboratory past the EPA recommended holding times, but were frozen prior to the hold time expiration so no data were qualified.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. All method blanks were free of target analytes.

Field Quality Control

Rinse Blanks

Rinse blanks were not required in association with this sample set.

Field Duplicates

Field duplicates were not required in association with this sample set.

Surrogate Recoveries

All surrogate percent recovery (%R) values were within laboratory control limits with the following exceptions:

- Pesticides: The %R values for the pesticide surrogate decachlorobiphenyl were above the control limit in samples RC-09-SC_1.0-1.5 and RC-011-SC_1.0-1.5. Detected results for 4,4'-DDT and 4,4'-DDE in sample RC-09-SC_1.0-1.5 have been qualified with a "J" to indicate a potentially high bias; no pesticides were detected in sample RC-011-SC_1.0-1.5 so no data were qualified.
- PCBs: The %R values for p-Terphenyl-d14 were above the control limit in samples RC-06-SC_0.5-1.0, RC-06-SC_1.0-1.5, RC-07-SC_1.0-1.5, and RC-010-SC_1.0-1.5. Detected PCBs in the parent samples were qualified "J" to indicate a potentially high bias.

See Table 2 for qualified data.

Column Confirmation

Detected pesticide results met second column confirmation requirements. PCBs were analyzed by USEPA 8270C-SIM, which does not require a second column confirmation.

Laboratory Control Sample and Laboratory Control Sample Duplicate

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequencies. All LCS/LCSD analyses yielded percent recovery (%R) and/or RPD values within laboratory control limits.

Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at required frequencies. All MS/MSD analyses yielded %R and/or RPD values within laboratory control limits with the following exceptions:

- Metals: The MS %R value for zinc was below the project control limits in sample RC-01-SC_0.5-1.0. Associated sample results were qualified "J" to indicate a potentially low bias. Mercury did not recover in the MS/MSD performed on samples RC-01-SC_0.5-1.0, RC-010-SC_1.0-1.5 RC-011-SC_0.5-1.0; the sample concentrations were significantly greater than (>4x) the concentrations of the spikes, so no data were qualified. The MSD %R value for copper was above the control limits, and zinc did not recover in the MS/MSD on a non-project sample; the zinc sample concentration was significantly greater than (>4x) the concentration of the spike, and the parent sample was not associated with this project, so no data were qualified.
- Pesticides: The MS/MSD %R values for 4,4'-DDE were below the project control limit in sample RC-010-SC_1.0-1.5. The parent sample result was qualified "J" to indicate a potentially low bias.

See Table 2 for qualified data.

Laboratory Replicates

One duplicate was analyzed for 22 samples and all detected results were within required limits. The number of laboratory replicates did not meet the frequency outlined in the SAP, due to a lab error.

Method Reporting Limits

Reporting limits were deemed acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted, or when reported as diluted, the reporting limit accurately reflects the dilution factor.

Overall Assessment

This evaluation determined that the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD %R values, with the exceptions noted above. Precision was also acceptable as demonstrated by the laboratory duplicates, MS/MSD, and LCS/LCSD RPD values, with the exceptions noted above. Most data were deemed acceptable as reported; all other data are acceptable as qualified. Table 2 summarizes the qualifiers applied to samples reviewed in this report.

Data Qualifier Definitions

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

J Indicates an estimated value.

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
RC-011-SC_0.5-1.0	Metals	Zinc	9.33 mg/kg	9.33J mg/kg	Low MS %R value
RC-01-SC_0.5-1.0	Metals	Zinc	56.9 mg/kg	56.9J mg/kg	Low MS %R value
RC-01-SC_1.0-1.5	Metals	Zinc	24.6 mg/kg	24.6J mg/kg	Low MS %R value
RC-02-SC_0.5-1.0	Metals	Zinc	139 mg/kg	139J mg/kg	Low MS %R value
RC-02-SC_1.0-1.5	Metals	Zinc	312 mg/kg	312J mg/kg	Low MS %R value
RC-03-SC_0.5-1.0	Metals	Zinc	43.5 mg/kg	43.5J mg/kg	Low MS %R value
RC-03-SC_1.0-1.5	Metals	Zinc	55.8 mg/kg	55.8J mg/kg	Low MS %R value
RC-04-SC_0.5-1.0	Metals	Zinc	95.6 mg/kg	95.6J mg/kg	Low MS %R value
RC-04-SC_1.0-1.5	Metals	Zinc	128 mg/kg	128J mg/kg	Low MS %R value
RC-05-SC_0.5-1.0	Metals	Zinc	61.3 mg/kg	61.3J mg/kg	Low MS %R value
RC-05-SC_1.0-1.5	Metals	Zinc	278 mg/kg	278J mg/kg	Low MS %R value
RC-06-SC_0.5-1.0	Metals	Zinc	35.2 mg/kg	35.2J mg/kg	Low MS %R value
	PCBs	PCB-018	0.76 µg/kg	0.76J µg/kg	High surrogate %R value
		PCB-028	0.6J µg/kg	0.6J µg/kg	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		PCB-037	0.2J µg/kg	0.2J µg/kg	
		PCB-044	0.66 µg/kg	0.66J µg/kg	
		PCB-049	0.92 µg/kg	0.92J µg/kg	
		PCB-052	1.5 µg/kg	1.5J µg/kg	
		PCB-066	1.6 µg/kg	1.6J µg/kg	
		PCB-070	1.2 µg/kg	1.2J µg/kg	
		PCB-074	0.57J µg/kg	0.57J µg/kg	
		PCB-087	0.26J µg/kg	0.26J µg/kg	
		PCB-099	0.97 µg/kg	0.97J µg/kg	
		PCB-101	1.6 µg/kg	1.6J µg/kg	
		PCB-105	0.56J µg/kg	0.56J µg/kg	
		PCB-110	1.3 µg/kg	1.3J µg/kg	
		PCB-114	0.19J µg/kg	0.19J µg/kg	
		PCB-118	1.5 µg/kg	1.5J µg/kg	
		PCB-128	0.25J µg/kg	0.25J µg/kg	
		PCB-138/158	1.1J µg/kg	1.1J µg/kg	
		PCB-149	0.83 µg/kg	0.83J µg/kg	
		PCB-151	0.27J µg/kg	0.27J µg/kg	
		PCB-153	1.3 µg/kg	1.3J µg/kg	
		PCB-170	0.42J µg/kg	0.42J µg/kg	
		PCB-177	0.18J µg/kg	0.18J µg/kg	
		PCB-180	0.72 µg/kg	0.72J µg/kg	
		PCB-183	0.19J µg/kg	0.19J µg/kg	
		PCB-187	0.55J µg/kg	0.55J µg/kg	
		PCB-194	0.22J µg/kg	0.22J µg/kg	
RC-06-SC_1.0-1.5	Metals	Zinc	39.8 mg/kg	39.8J mg/kg	Low MS %R value
	PCBs	PCB-018	1.2 µg/kg	1.2J µg/kg	High surrogate %R value
		PCB-028	0.7 µg/kg	0.7J µg/kg	
		PCB-044	0.79 µg/kg	0.79J µg/kg	
		PCB-049	1.1 µg/kg	1.1J µg/kg	
		PCB-052	1.6 µg/kg	1.6J µg/kg	
		PCB-066	1.5 µg/kg	1.5J µg/kg	
		PCB-070	1.1 µg/kg	1.1J µg/kg	
		PCB-074	0.66 µg/kg	0.66J µg/kg	
		PCB-087	0.39J µg/kg	0.39J µg/kg	
		PCB-099	0.92 µg/kg	0.92J µg/kg	
		PCB-101	1.7 µg/kg	1.7J µg/kg	
		PCB-105	0.54J µg/kg	0.54J µg/kg	
		PCB-110	1.2 µg/kg	1.2J µg/kg	
		PCB-114	0.27J µg/kg	0.27J µg/kg	
		PCB-118	1.4 µg/kg	1.4J µg/kg	
		PCB-119	0.12J µg/kg	0.12J µg/kg	
		PCB-126	0.2J µg/kg	0.2J µg/kg	
		PCB-128	0.14J µg/kg	0.14J µg/kg	
		PCB-138/158	1.1J µg/kg	1.1J µg/kg	
		PCB-149	0.76 µg/kg	0.76J µg/kg	
		PCB-151	0.25J µg/kg	0.25J µg/kg	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		PCB-153	1.2 µg/kg	1.2J µg/kg	
		PCB-170	0.3J µg/kg	0.3J µg/kg	
		PCB-177	0.2J µg/kg	0.2J µg/kg	
		PCB-180	0.73 µg/kg	0.73J µg/kg	
		PCB-183	0.21J µg/kg	0.21J µg/kg	
		PCB-187	0.58J µg/kg	0.58J µg/kg	
		PCB-194	0.4J µg/kg	0.4J µg/kg	
RC-07-SC_0.5-1.0	Metals	Zinc	17.8 mg/kg	17.8J mg/kg	Low MS %R value
RC-07-SC_1.0-1.5	Metals	Zinc	48.8 mg/kg	48.8J mg/kg	Low MS %R value
	PCBs	PCB-018	2.2 µg/kg	2.2J µg/kg	High surrogate %R value
		PCB-028	1.3 µg/kg	1.3J µg/kg	
		PCB-044	1.5 µg/kg	1.5J µg/kg	
		PCB-049	2.2 µg/kg	2.2J µg/kg	
		PCB-052	3.2 µg/kg	3.2J µg/kg	
		PCB-066	3.5 µg/kg	3.5J µg/kg	
		PCB-070	2.5 µg/kg	2.5J µg/kg	
		PCB-074	1.3 µg/kg	1.3J µg/kg	
		PCB-077	0.28J µg/kg	0.28J µg/kg	
		PCB-087	0.49J µg/kg	0.49J µg/kg	
		PCB-099	2 µg/kg	2J µg/kg	
		PCB-101	3.1 µg/kg	3.1J µg/kg	
		PCB-105	0.82 µg/kg	0.82J µg/kg	
		PCB-110	2.5 µg/kg	2.5J µg/kg	
		PCB-114	0.18J µg/kg	0.18J µg/kg	
		PCB-118	2.9 µg/kg	2.9J µg/kg	
		PCB-119	0.24J µg/kg	0.24J µg/kg	
		PCB-128	0.34J µg/kg	0.34J µg/kg	
		PCB-138/158	2 µg/kg	2J µg/kg	
		PCB-149	1.5 µg/kg	1.5J µg/kg	
		PCB-151	0.42J µg/kg	0.42J µg/kg	
		PCB-153	2.4 µg/kg	2.4J µg/kg	
		PCB-156	0.23J µg/kg	0.23J µg/kg	
		PCB-170	0.93 µg/kg	0.93J µg/kg	
		PCB-177	0.3J µg/kg	0.3J µg/kg	
		PCB-180	1.2 µg/kg	1.2J µg/kg	
		PCB-183	0.29J µg/kg	0.29J µg/kg	
		PCB-187	0.92 µg/kg	0.92J µg/kg	
		PCB-194	0.5J µg/kg	0.5J µg/kg	
		PCB-206	0.7 µg/kg	0.7J µg/kg	
RC-08-SC_0.5-1.0	Metals	Zinc	24.1 mg/kg	24.1J mg/kg	Low MS %R value
RC-08-SC_1.0-1.5	Metals	Zinc	14.8 mg/kg	14.8J mg/kg	Low MS %R value
RC-09-SC_0.5-1.0	Metals	Zinc	74 mg/kg	74J mg/kg	Low MS %R value
RC-09-SC_1.0-1.5	Metals	Zinc	56.5 mg/kg	56.5J mg/kg	Low MS %R value
	Pesticides	4,4'-DDE (p,p'-DDE)	8 µg/kg	8J µg/kg	High surrogate %R value
		4,4'-DDT (p,p'-DDT)	6.3 µg/kg	6.3J µg/kg	
RC-010-SC_0.5-1.0	Metals	Zinc	20.4 mg/kg	20.4J mg/kg	Low MS %R value

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
RC-010-SC_1.0-1.5	Pesticides	4,4'-DDE (p,p'-DDE)	4.2 µg/kg	4.2J µg/kg	Low MS/MSD %R value
	PCBs	PCB-018	2.4 µg/kg	2.4J µg/kg	High surrogate %R value
		PCB-028	1.5 µg/kg	1.5J µg/kg	
		PCB-037	0.34J µg/kg	0.34J µg/kg	
		PCB-044	1.7 µg/kg	1.7J µg/kg	
		PCB-049	1.9 µg/kg	1.9J µg/kg	
		PCB-052	2.6 µg/kg	2.6J µg/kg	
		PCB-066	3.6 µg/kg	3.6J µg/kg	
		PCB-070	1.8 µg/kg	1.8J µg/kg	
		PCB-074	1.2 µg/kg	1.2J µg/kg	
		PCB-077	0.26J µg/kg	0.26J µg/kg	
		PCB-087	0.46J µg/kg	0.46J µg/kg	
		PCB-099	1.9 µg/kg	1.9J µg/kg	
		PCB-101	2.9 µg/kg	2.9J µg/kg	
		PCB-105	0.66 µg/kg	0.66J µg/kg	
		PCB-110	2.1 µg/kg	2.1J µg/kg	
		PCB-114	0.32J µg/kg	0.32J µg/kg	
		PCB-118	2.4 µg/kg	2.4J µg/kg	
		PCB-119	0.13J µg/kg	0.13J µg/kg	
		PCB-126	0.24J µg/kg	0.24J µg/kg	
		PCB-128	0.31J µg/kg	0.31J µg/kg	
		PCB-138/158	1.8 µg/kg	1.8J µg/kg	
		PCB-149	1.4 µg/kg	1.4J µg/kg	
		PCB-151	0.41J µg/kg	0.41J µg/kg	
		PCB-153	2.4 µg/kg	2.4J µg/kg	
		PCB-157	0.4J µg/kg	0.4J µg/kg	
		PCB-170	0.57J µg/kg	0.57J µg/kg	
		PCB-177	0.31J µg/kg	0.31J µg/kg	
		PCB-180	1.3 µg/kg	1.3J µg/kg	
		PCB-183	0.28J µg/kg	0.28J µg/kg	
		PCB-187	1.1 µg/kg	1.1J µg/kg	
		PCB-194	0.49J µg/kg	0.49J µg/kg	

REFERENCES

Anchor QEA, 2012. *Sampling and Analysis Plan; Post-Dredge Sediment Characterization; Rhine Channel Contaminated Sediment Cleanup*. December.

USEPA (U.S. Environmental Protection Agency), 1986. *Test methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 530/SW-846.

USEPA, 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. USEPA 540/R-99/008. October.

USEPA, 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation (OSRTI). EPA 540-R-04-004. October.

USEPA, 2008. *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. USEPA 540-R-08-01. June.

ATTACHMENT D
LABORATORY REPORTS

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-12-0734

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: Rhine Channel Confirmation Testing Program

Attention: Chris Osuch
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Approved for release on 12/28/2012 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Rhine Channel Confirmation Testing Program
Work Order Number: 12-12-0734

1 Case Narrative 3

2 Client Sample Data 6
2.1 EPA 9060A Total Organic Carbon (Solid) 6
2.2 SM 2540 B (M) Total Solids (Solid) 9
2.3 Pyrethroids by EPA 8270D (M)/TQ/EI (Sediment) 12
2.4 EPA 8081A Organochlorine Pesticides (Solid) 17
2.5 EPA 8270C SIM PCB Congeners (Solid) 22
2.6 EPA 1631E (M) Hg Soil (Solid) 36
2.7 EPA 6020 ICP/MS Metals (Solid) 39

3 ASTM D4464M Particle Size 43

4 Quality Control Sample Data 56
4.1 MS/MSD and/or Duplicate 56
4.2 LCS/LCSD 64

5 Glossary of Terms and Qualifiers 70

6 Chain of Custody/Sample Receipt Form 71

Calscience Environmental Laboratories, Inc.

CASE NARRATIVE

Calscience Work Order No.: 12-12-0734
Project ID: Rhine Channel Confirmation Testing Program

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

Sample Condition on Receipt

Twelve sediment samples were received for this project on December 12, 2012. 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 0.9°C. All samples were logged into the Laboratory Information Management System (LIMS), given laboratory identification numbers and then stored in refrigeration units pending chemistry testing.

Any COC discrepancies were noted in the Sample Anomaly Form.

Tests Performed

Total Solids by SM 2540B
Grain Size by ASTM D4464
Total Organic Carbon by EPA 9060A
Trace Metals by EPA 6020/7471
Mercury by EPA 1631
PCB Congeners by EPA 8270C SIM
Chlorinated Pesticides by EPA 8081A
Pyrethroids by EPA 8270DM GC/MS/MS

Data Summary

Holding times

All holding times were met.

Calibration

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

Blanks

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

Return to Contents

Reporting Limits

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

Laboratory Duplicate

A laboratory duplicate was created for this project using sample RC-11-SG. The laboratory duplicate was analyzed for the requested analyses and the precision between the two samples was acceptable.

Laboratory Control Samples

A Laboratory Control Sample (LCS) analysis was performed for each applicable test. All parameters were within established control limits.

Matrix Spikes

Matrix spiking was performed at the required frequencies. Matrix spikes were performed on either sample RC-04-SC_0.0-0.5 or RC-02-SG. All parameters were within the acceptable control limits with the following exceptions.

For EPA 6020, the recovery of several metals in the matrix spike was high due to the concentration of the metal in the spiked sample. Given that the batch associated LCS/LCSDs recoveries and RPDs were within the acceptable limits, the data are released with no further action.

For Mercury by EPA 1631, the concentration of mercury detected in the sample was four times or more higher than the spike amount, therefore causing the MS, MSD and RPDs to fall outside the control limits. The LCS/LCSD recoveries and RPDs were within acceptable limits, so the data are released with no further action.

For EPA 8081A, the recovery and RPD of several compounds were outside the established control limit. Since the batch LCS/LCSDs recoveries and RPDs were within acceptable limits, the data are released with no further action.

For Pyrethroids by EPA 8270D, the recovery and RPD of several compounds were outside the established control limit. Since the batch LCS/LCSDs recoveries and RPDs were within acceptable limits, the data are released with no further action.

Surrogates

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

Return to Contents

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-A**	**12/11/12 10:52**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.32	0.066	0.016	1		%

RC-04-SC_0.0-0.5	**12-12-0734-2-A**	**12/11/12 11:44**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.82	0.084	0.020	1		%

RC-06-SC_0.0-0.5	**12-12-0734-3-A**	**12/11/12 13:19**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.19	0.064	0.016	1		%

RC-08-SC_0.0-0.5	**12-12-0734-4-A**	**12/11/12 14:50**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.34	0.071	0.017	1		%

RC-10-SC_0.0-0.5	**12-12-0734-5-A**	**12/11/12 15:58**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.51	0.075	0.018	1		%

RC-11-SC_0.0-0.5	**12-12-0734-6-A**	**12/11/12 16:47**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.37	0.074	0.018	1		%

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SG	**12-12-0734-7-A**	**12/11/12 10:28**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	1.6	0.14	0.033	1		%

RC-04-SG	**12-12-0734-8-A**	**12/11/12 11:28**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	2.0	0.16	0.040	1		%

RC-06-SG	**12-12-0734-9-A**	**12/11/12 12:50**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	1.6	0.14	0.034	1		%

RC-08-SG	**12-12-0734-10-A**	**12/11/12 14:45**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	1.0	0.11	0.026	1		%

RC-10-SG	**12-12-0734-11-A**	**12/11/12 15:27**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.92	0.098	0.024	1		%

RC-11-SG	**12-12-0734-12-A**	**12/11/12 16:31**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	1.2	0.12	0.030	1		%

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-A**	**12/11/12 00:00**	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	1.2	0.12	0.030	1		%

Method Blank	**099-06-013-812**	**N/A**	**Solid**	**TOC 5**	**12/19/12**	**12/20/12 14:20**	**C1219TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	ND	0.050	0.012	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-A**	**12/11/12 10:52**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	75.2	0.100	0.100	1		%

RC-04-SC_0.0-0.5	**12-12-0734-2-A**	**12/11/12 11:44**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	59.8	0.100	0.100	1		%

RC-06-SC_0.0-0.5	**12-12-0734-3-A**	**12/11/12 13:19**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	77.9	0.100	0.100	1		%

RC-08-SC_0.0-0.5	**12-12-0734-4-A**	**12/11/12 14:50**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	70.7	0.100	0.100	1		%

RC-10-SC_0.0-0.5	**12-12-0734-5-A**	**12/11/12 15:58**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	66.3	0.100	0.100	1		%

RC-11-SC_0.0-0.5	**12-12-0734-6-A**	**12/11/12 16:47**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	67.4	0.100	0.100	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SG	**12-12-0734-7-A**	**12/11/12 10:28**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

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

RC-04-SG	**12-12-0734-8-A**	**12/11/12 11:28**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	30.6	0.100	0.100	1		%

RC-06-SG	**12-12-0734-9-A**	**12/11/12 12:50**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	35.4	0.100	0.100	1		%

RC-08-SG	**12-12-0734-10-A**	**12/11/12 14:45**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	47.2	0.100	0.100	1		%

RC-10-SG	**12-12-0734-11-A**	**12/11/12 15:27**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

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

RC-11-SG	**12-12-0734-12-A**	**12/11/12 16:31**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	40.5	0.100	0.100	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-A**	**12/11/12 00:00**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	40.3	0.100	0.100	1		%

Method Blank	**099-05-019-2,123**	**N/A**	**Solid**	**N/A**	**12/14/12**	**12/14/12 18:00**	**C1214TSB1**

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

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-B**	**12/11/12 10:52**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 16:27**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.66	0.12	1		Fenpropathrin	ND	0.66	0.048	1	
Cyfluthrin	ND	0.66	0.11	1		Fenvalerate/Esfenvalerate	ND	0.66	0.047	1	
Cypermethrin	ND	0.66	0.091	1		Permethrin (cis/trans)	0.83	1.3	0.15	1	J
Deltamethrin/Tralomethrin	ND	0.66	0.28	1		lambda-Cyhalothrin	ND	0.66	0.058	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	46	25-200	

RC-04-SC_0.0-0.5	**12-12-0734-2-B**	**12/11/12 11:44**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 17:03**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.84	0.16	1		Fenpropathrin	ND	0.84	0.061	1	
Cyfluthrin	ND	0.84	0.14	1		Fenvalerate/Esfenvalerate	ND	0.84	0.060	1	
Cypermethrin	ND	0.84	0.11	1		Permethrin (cis/trans)	1.0	1.7	0.18	1	J
Deltamethrin/Tralomethrin	ND	0.84	0.35	1		lambda-Cyhalothrin	ND	0.84	0.073	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	44	25-200	

RC-06-SC_0.0-0.5	**12-12-0734-3-B**	**12/11/12 13:19**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 17:40**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.64	0.12	1		Fenpropathrin	ND	0.64	0.047	1	
Cyfluthrin	ND	0.64	0.11	1		Fenvalerate/Esfenvalerate	ND	0.64	0.046	1	
Cypermethrin	ND	0.64	0.088	1		Permethrin (cis/trans)	0.50	1.3	0.14	1	J
Deltamethrin/Tralomethrin	ND	0.64	0.27	1		lambda-Cyhalothrin	ND	0.64	0.056	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	46	25-200	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_0.0-0.5	**12-12-0734-4-B**	**12/11/12 14:50**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 18:16**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.71	0.13	1		Fenpropathrin	ND	0.71	0.051	1	
Cyfluthrin	ND	0.71	0.12	1		Fenvalerate/Esfenvalerate	ND	0.71	0.050	1	
Cypermethrin	ND	0.71	0.097	1		Permethrin (cis/trans)	1.1	1.4	0.16	1	J
Deltamethrin/Tralomethrin	ND	0.71	0.30	1		lambda-Cyhalothrin	ND	0.71	0.062	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	58	25-200	

RC-10-SC_0.0-0.5	**12-12-0734-5-B**	**12/11/12 15:58**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 18:53**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.75	0.14	1		Fenpropathrin	ND	0.75	0.055	1	
Cyfluthrin	ND	0.75	0.13	1		Fenvalerate/Esfenvalerate	ND	0.75	0.054	1	
Cypermethrin	ND	0.75	0.10	1		Permethrin (cis/trans)	0.48	1.5	0.17	1	J
Deltamethrin/Tralomethrin	ND	0.75	0.32	1		lambda-Cyhalothrin	ND	0.75	0.066	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	44	25-200	

RC-11-SC_0.0-0.5	**12-12-0734-6-B**	**12/11/12 16:47**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 19:29**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.74	0.14	1		Fenpropathrin	ND	0.74	0.054	1	
Cyfluthrin	ND	0.74	0.13	1		Fenvalerate/Esfenvalerate	ND	0.74	0.053	1	
Cypermethrin	ND	0.74	0.10	1		Permethrin (cis/trans)	0.25	1.5	0.16	1	J
Deltamethrin/Tralomethrin	ND	0.74	0.31	1		lambda-Cyhalothrin	ND	0.74	0.065	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	49	25-200	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SG	**12-12-0734-7-B**	**12/11/12 10:28**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 20:06**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.26	1.4	0.25	1	J	Fenpropathrin	ND	1.4	0.098	1	
Cyfluthrin	ND	1.4	0.23	1		Fenvalerate/Esfenvalerate	ND	1.4	0.096	1	
Cypermethrin	ND	1.4	0.19	1		Permethrin (cis/trans)	1.6	2.7	0.30	1	J
Deltamethrin/Tralomethrin	ND	1.4	0.57	1		lambda-Cyhalothrin	ND	1.4	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	48	25-200	

RC-04-SG	**12-12-0734-8-B**	**12/11/12 11:28**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 20:42**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.43	1.6	0.31	1	J	Fenpropathrin	ND	1.6	0.12	1	
Cyfluthrin	0.58	1.6	0.28	1	J	Fenvalerate/Esfenvalerate	ND	1.6	0.12	1	
Cypermethrin	ND	1.6	0.22	1		Permethrin (cis/trans)	1.7	3.3	0.36	1	J
Deltamethrin/Tralomethrin	ND	1.6	0.68	1		lambda-Cyhalothrin	ND	1.6	0.14	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	95	25-200	

RC-06-SG	**12-12-0734-9-B**	**12/11/12 12:50**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 21:19**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.44	1.4	0.26	1	J	Fenpropathrin	ND	1.4	0.10	1	
Cyfluthrin	0.65	1.4	0.24	1	J	Fenvalerate/Esfenvalerate	ND	1.4	0.10	1	
Cypermethrin	ND	1.4	0.19	1		Permethrin (cis/trans)	2.0	2.8	0.31	1	J
Deltamethrin/Tralomethrin	ND	1.4	0.59	1		lambda-Cyhalothrin	ND	1.4	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	98	25-200	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SG	**12-12-0734-10-B**	**12/11/12 14:45**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 21:55**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.23	1.1	0.20	1	J	Fenpropathrin	ND	1.1	0.077	1	
Cyfluthrin	0.21	1.1	0.18	1	J	Fenvalerate/Esfenvalerate	ND	1.1	0.076	1	
Cypermethrin	ND	1.1	0.15	1		Permethrin (cis/trans)	2.9	2.1	0.23	1	
Deltamethrin/Tralomethrin	ND	1.1	0.44	1		lambda-Cyhalothrin	ND	1.1	0.092	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	101	25-200	

RC-10-SG	**12-12-0734-11-B**	**12/11/12 15:27**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 22:32**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.23	0.98	0.18	1	J	Fenpropathrin	ND	0.98	0.071	1	
Cyfluthrin	ND	0.98	0.17	1		Fenvalerate/Esfenvalerate	ND	0.98	0.070	1	
Cypermethrin	ND	0.98	0.13	1		Permethrin (cis/trans)	1.0	2.0	0.22	1	J
Deltamethrin/Tralomethrin	ND	0.98	0.41	1		lambda-Cyhalothrin	ND	0.98	0.086	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	86	25-200	

RC-11-SG	**12-12-0734-12-B**	**12/11/12 16:31**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 23:08**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.56	1.2	0.23	1	J	Fenpropathrin	ND	1.2	0.090	1	
Cyfluthrin	ND	1.2	0.21	1		Fenvalerate/Esfenvalerate	ND	1.2	0.088	1	
Cypermethrin	ND	1.2	0.17	1		Permethrin (cis/trans)	1.0	2.5	0.27	1	J
Deltamethrin/Tralomethrin	ND	1.2	0.52	1		lambda-Cyhalothrin	ND	1.2	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	97	25-200	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-B**	**12/11/12 00:00**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 23:45**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.52	1.2	0.23	1	J	Fenpropathrin	ND	1.2	0.090	1	
Cyfluthrin	1.2	1.2	0.21	1	J	Fenvalerate/Esfenvalerate	ND	1.2	0.089	1	
Cypermethrin	ND	1.2	0.17	1		Permethrin (cis/trans)	1.3	2.5	0.27	1	J
Deltamethrin/Tralomethrin	ND	1.2	0.52	1		lambda-Cyhalothrin	ND	1.2	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	100	25-200	

Method Blank	**099-14-403-27**	**N/A**	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12 15:50**	**121219L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.50	0.094	1		Fenpropathrin	ND	0.50	0.036	1	
Cyfluthrin	ND	0.50	0.085	1		Fenvalerate/Esfenvalerate	ND	0.50	0.036	1	
Cypermethrin	ND	0.50	0.069	1		Permethrin (cis/trans)	ND	1.0	0.11	1	
Deltamethrin/Tralomethrin	ND	0.50	0.21	1		lambda-Cyhalothrin	ND	0.50	0.044	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	34	25-200	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-B**	**12/11/12 10:52**	**Sediment**	**GC 51**	**12/13/12**	**12/19/12 13:34**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.49	1.3	0.44	1	J	4,4'-DDE	2.1	1.3	0.40	1	
2,4'-DDD	ND	1.3	0.45	1		4,4'-DDT	ND	1.3	0.44	1	
2,4'-DDE	ND	1.3	0.41	1		Alpha Chlordane	ND	1.3	0.43	1	
2,4'-DDT	ND	1.3	0.40	1		Gamma Chlordane	ND	1.3	0.42	1	
4,4'-DDD	ND	1.3	0.42	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	78	50-130		Decachlorobiphenyl	88	50-130	

RC-04-SC_0.0-0.5	**12-12-0734-2-B**	**12/11/12 11:44**	**Sediment**	**GC 51**	**12/13/12**	**12/19/12 13:48**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.72	1.7	0.55	1	J	4,4'-DDE	3.5	1.7	0.50	1	
2,4'-DDD	ND	1.7	0.57	1		4,4'-DDT	3.6	1.7	0.56	1	
2,4'-DDE	ND	1.7	0.51	1		Alpha Chlordane	ND	1.7	0.54	1	
2,4'-DDT	ND	1.7	0.50	1		Gamma Chlordane	ND	1.7	0.53	1	
4,4'-DDD	11	1.7	0.53	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	55	50-130		Decachlorobiphenyl	86	50-130	

RC-06-SC_0.0-0.5	**12-12-0734-3-B**	**12/11/12 13:19**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 12:31**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.3	0.42	1		4,4'-DDE	1.3	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.43	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	ND	1.3	0.39	1		Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.39	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.41	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	57	50-130		Decachlorobiphenyl	64	50-130	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/12/12
Work Order No:	12-12-0734
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_0.0-0.5	**12-12-0734-4-B**	**12/11/12 14:50**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 12:45**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.4	0.47	1		4,4'-DDE	2.2	1.4	0.42	1	
2,4'-DDD	ND	1.4	0.48	1		4,4'-DDT	ND	1.4	0.47	1	
2,4'-DDE	ND	1.4	0.43	1		Alpha Chlordane	ND	1.4	0.45	1	
2,4'-DDT	ND	1.4	0.43	1		Gamma Chlordane	ND	1.4	0.45	1	
4,4'-DDD	ND	1.4	0.45	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	63	50-130		Decachlorobiphenyl	82	50-130	

RC-10-SC_0.0-0.5	**12-12-0734-5-B**	**12/11/12 15:58**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 12:59**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.5	0.50	1		4,4'-DDE	1.8	1.5	0.45	1	
2,4'-DDD	ND	1.5	0.51	1		4,4'-DDT	ND	1.5	0.50	1	
2,4'-DDE	ND	1.5	0.46	1		Alpha Chlordane	ND	1.5	0.48	1	
2,4'-DDT	ND	1.5	0.45	1		Gamma Chlordane	ND	1.5	0.48	1	
4,4'-DDD	ND	1.5	0.48	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	56	50-130		Decachlorobiphenyl	70	50-130	

RC-11-SC_0.0-0.5	**12-12-0734-6-B**	**12/11/12 16:47**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 13:14**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.5	0.49	1		4,4'-DDE	1.4	1.5	0.44	1	J
2,4'-DDD	ND	1.5	0.50	1		4,4'-DDT	ND	1.5	0.50	1	
2,4'-DDE	ND	1.5	0.45	1		Alpha Chlordane	ND	1.5	0.48	1	
2,4'-DDT	ND	1.5	0.45	1		Gamma Chlordane	ND	1.5	0.47	1	
4,4'-DDD	ND	1.5	0.47	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	69	50-130		Decachlorobiphenyl	77	50-130	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SG	**12-12-0734-7-B**	**12/11/12 10:28**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 11:19**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	2.0	2.7	0.89	1	J	4,4'-DDE	11	2.7	0.81	1	
2,4'-DDD	ND	2.7	0.92	1		4,4'-DDT	ND	2.7	0.90	1	
2,4'-DDE	ND	2.7	0.83	1		Alpha Chlordane	ND	2.7	0.87	1	
2,4'-DDT	ND	2.7	0.81	1		Gamma Chlordane	ND	2.7	0.86	1	
4,4'-DDD	ND	2.7	0.85	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	56	50-130		Decachlorobiphenyl	76	50-130	

RC-04-SG	**12-12-0734-8-B**	**12/11/12 11:28**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 13:28**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	3.3	1.1	1		4,4'-DDE	ND	3.3	0.98	1	
2,4'-DDD	ND	3.3	1.1	1		4,4'-DDT	ND	3.3	1.1	1	
2,4'-DDE	ND	3.3	1.0	1		Alpha Chlordane	ND	3.3	1.0	1	
2,4'-DDT	ND	3.3	0.98	1		Gamma Chlordane	ND	3.3	1.0	1	
4,4'-DDD	ND	3.3	1.0	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	54	50-130		Decachlorobiphenyl	61	50-130	

RC-06-SG	**12-12-0734-9-B**	**12/11/12 12:50**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 13:42**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.8	0.93	1		4,4'-DDE	ND	2.8	0.84	1	
2,4'-DDD	ND	2.8	0.96	1		4,4'-DDT	ND	2.8	0.95	1	
2,4'-DDE	ND	2.8	0.86	1		Alpha Chlordane	ND	2.8	0.91	1	
2,4'-DDT	ND	2.8	0.85	1		Gamma Chlordane	ND	2.8	0.90	1	
4,4'-DDD	ND	2.8	0.89	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	73	50-130		Decachlorobiphenyl	114	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SG	**12-12-0734-10-B**	**12/11/12 14:45**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 13:57**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.1	0.70	1		4,4'-DDE	4.3	2.1	0.63	1	
2,4'-DDD	ND	2.1	0.72	1		4,4'-DDT	ND	2.1	0.71	1	
2,4'-DDE	ND	2.1	0.65	1		Alpha Chlordane	ND	2.1	0.68	1	
2,4'-DDT	ND	2.1	0.64	1		Gamma Chlordane	ND	2.1	0.67	1	
4,4'-DDD	ND	2.1	0.67	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	108	50-130		Decachlorobiphenyl	78	50-130	

RC-10-SG	**12-12-0734-11-B**	**12/11/12 15:27**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 16:34**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.0	0.65	1		4,4'-DDE	4.1	2.0	0.59	1	
2,4'-DDD	ND	2.0	0.66	1		4,4'-DDT	ND	2.0	0.66	1	
2,4'-DDE	ND	2.0	0.60	1		Alpha Chlordane	ND	2.0	0.63	1	
2,4'-DDT	ND	2.0	0.59	1		Gamma Chlordane	ND	2.0	0.62	1	
4,4'-DDD	ND	2.0	0.62	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	69	50-130		Decachlorobiphenyl	53	50-130	

RC-11-SG	**12-12-0734-12-B**	**12/11/12 16:31**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 11:34**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.5	0.81	1		4,4'-DDE	7.1	2.5	0.74	1	
2,4'-DDD	ND	2.5	0.84	1		4,4'-DDT	ND	2.5	0.83	1	
2,4'-DDE	ND	2.5	0.75	1		Alpha Chlordane	ND	2.5	0.79	1	
2,4'-DDT	ND	2.5	0.74	1		Gamma Chlordane	ND	2.5	0.78	1	
4,4'-DDD	2.5	2.5	0.78	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	66	50-130		Decachlorobiphenyl	87	50-130	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-B**	**12/11/12 00:00**	**Sediment**	**GC 51**	**12/13/12**	**12/20/12 11:48**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.5	0.82	1		4,4'-DDE	6.5	2.5	0.74	1	
2,4'-DDD	ND	2.5	0.84	1		4,4'-DDT	ND	2.5	0.83	1	
2,4'-DDE	ND	2.5	0.76	1		Alpha Chlordane	ND	2.5	0.80	1	
2,4'-DDT	ND	2.5	0.75	1		Gamma Chlordane	ND	2.5	0.79	1	
4,4'-DDD	2.2	2.5	0.78	1	J						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	70	50-130		Decachlorobiphenyl	85	50-130	

Method Blank	**099-12-858-174**	**N/A**	**Solid**	**GC 51**	**12/13/12**	**12/14/12 19:02**	**121213L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.0	0.33	1		4,4'-DDE	ND	1.0	0.30	1	
2,4'-DDD	ND	1.0	0.34	1		4,4'-DDT	ND	1.0	0.33	1	
2,4'-DDE	ND	1.0	0.31	1		Alpha Chlordane	ND	1.0	0.32	1	
2,4'-DDT	ND	1.0	0.30	1		Gamma Chlordane	ND	1.0	0.32	1	
4,4'-DDD	ND	1.0	0.32	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	108	50-130		Decachlorobiphenyl	107	50-130	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-B**	**12/11/12 10:52**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 12:29**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.47	0.66	0.21	1	J	PCB126	ND	0.66	0.18	1	
PCB028	0.28	0.66	0.13	1	J	PCB128	ND	0.66	0.14	1	
PCB037	0.23	0.66	0.17	1	J	PCB138/158	0.83	1.3	0.27	1	J
PCB044	0.59	0.66	0.17	1	J	PCB149	0.60	0.66	0.12	1	J
PCB049	0.90	0.66	0.16	1		PCB151	0.21	0.66	0.14	1	J
PCB052	0.82	0.66	0.13	1		PCB153	0.91	0.66	0.14	1	
PCB066	1.1	0.66	0.12	1		PCB156	ND	0.66	0.13	1	
PCB070	0.93	0.66	0.11	1		PCB157	ND	0.66	0.13	1	
PCB074	0.48	0.66	0.13	1	J	PCB167	ND	0.66	0.13	1	
PCB077	0.15	0.66	0.13	1	J	PCB168	ND	0.66	0.11	1	
PCB081	ND	0.66	0.16	1		PCB169	ND	0.66	0.11	1	
PCB087	0.28	0.66	0.13	1	J	PCB170	0.39	0.66	0.12	1	J
PCB099	0.57	0.66	0.11	1	J	PCB177	ND	0.66	0.16	1	
PCB101	1.2	0.66	0.11	1		PCB180	0.54	0.66	0.081	1	J
PCB105	0.45	0.66	0.14	1	J	PCB183	ND	0.66	0.15	1	
PCB110	0.99	0.66	0.14	1		PCB187	0.35	0.66	0.14	1	J
PCB114	0.20	0.66	0.13	1	J	PCB189	ND	0.66	0.11	1	
PCB118	1.2	0.66	0.18	1		PCB194	0.20	0.66	0.13	1	J
PCB119	ND	0.66	0.12	1		PCB201	ND	0.66	0.076	1	
PCB123	ND	0.66	0.12	1		PCB206	0.91	0.66	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	122	50-125		p-Terphenyl-d14	86	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-04-SC_0.0-0.5	**12-12-0734-2-B**	**12/11/12 11:44**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 14:21**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.71	0.84	0.26	1	J	PCB126	ND	0.84	0.23	1	
PCB028	0.49	0.84	0.17	1	J	PCB128	0.63	0.84	0.17	1	J
PCB037	0.41	0.84	0.22	1	J	PCB138/158	3.1	1.7	0.34	1	
PCB044	1.5	0.84	0.22	1		PCB149	1.9	0.84	0.15	1	
PCB049	1.2	0.84	0.20	1		PCB151	0.38	0.84	0.17	1	J
PCB052	2.6	0.84	0.16	1		PCB153	2.9	0.84	0.17	1	
PCB066	1.9	0.84	0.15	1		PCB156	0.40	0.84	0.16	1	J
PCB070	1.9	0.84	0.14	1		PCB157	ND	0.84	0.16	1	
PCB074	0.84	0.84	0.16	1		PCB167	ND	0.84	0.17	1	
PCB077	0.23	0.84	0.16	1	J	PCB168	ND	0.84	0.14	1	
PCB081	ND	0.84	0.20	1		PCB169	ND	0.84	0.14	1	
PCB087	1.3	0.84	0.17	1		PCB170	0.50	0.84	0.15	1	J
PCB099	1.6	0.84	0.14	1		PCB177	ND	0.84	0.21	1	
PCB101	3.7	0.84	0.14	1		PCB180	0.77	0.84	0.10	1	J
PCB105	1.2	0.84	0.18	1		PCB183	0.23	0.84	0.19	1	J
PCB110	3.4	0.84	0.17	1		PCB187	0.50	0.84	0.18	1	J
PCB114	ND	0.84	0.17	1		PCB189	ND	0.84	0.14	1	
PCB118	3.3	0.84	0.22	1		PCB194	0.36	0.84	0.16	1	J
PCB119	ND	0.84	0.15	1		PCB201	ND	0.84	0.095	1	
PCB123	ND	0.84	0.15	1		PCB206	ND	0.84	0.14	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	66	50-125		p-Terphenyl-d14	79	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SC_0.0-0.5	**12-12-0734-3-B**	**12/11/12 13:19**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 14:49**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.89	0.64	0.20	1		PCB126	ND	0.64	0.18	1	
PCB028	0.57	0.64	0.13	1	J	PCB128	ND	0.64	0.13	1	
PCB037	0.21	0.64	0.17	1	J	PCB138/158	0.77	1.3	0.26	1	J
PCB044	0.63	0.64	0.17	1	J	PCB149	0.57	0.64	0.11	1	J
PCB049	0.71	0.64	0.15	1		PCB151	0.17	0.64	0.13	1	J
PCB052	1.2	0.64	0.12	1		PCB153	0.84	0.64	0.13	1	
PCB066	1.3	0.64	0.12	1		PCB156	ND	0.64	0.13	1	
PCB070	1.2	0.64	0.11	1		PCB157	ND	0.64	0.12	1	
PCB074	0.57	0.64	0.12	1	J	PCB167	ND	0.64	0.13	1	
PCB077	ND	0.64	0.13	1		PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	ND	0.64	0.10	1	
PCB087	0.32	0.64	0.13	1	J	PCB170	0.31	0.64	0.12	1	J
PCB099	0.88	0.64	0.11	1		PCB177	ND	0.64	0.16	1	
PCB101	1.5	0.64	0.10	1		PCB180	0.34	0.64	0.079	1	J
PCB105	0.45	0.64	0.13	1	J	PCB183	ND	0.64	0.14	1	
PCB110	1.1	0.64	0.13	1		PCB187	0.27	0.64	0.13	1	J
PCB114	ND	0.64	0.13	1		PCB189	ND	0.64	0.11	1	
PCB118	1.3	0.64	0.17	1		PCB194	0.22	0.64	0.12	1	J
PCB119	ND	0.64	0.11	1		PCB201	ND	0.64	0.073	1	
PCB123	ND	0.64	0.11	1		PCB206	0.21	0.64	0.11	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	83	50-125		p-Terphenyl-d14	74	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_0.0-0.5	**12-12-0734-4-B**	**12/11/12 14:50**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 15:44**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.3	0.71	0.22	1		PCB126	ND	0.71	0.20	1	
PCB028	1.1	0.71	0.14	1		PCB128	0.19	0.71	0.15	1	J
PCB037	0.83	0.71	0.19	1		PCB138/158	0.93	1.4	0.29	1	J
PCB044	1.6	0.71	0.19	1		PCB149	0.58	0.71	0.13	1	J
PCB049	1.3	0.71	0.17	1		PCB151	ND	0.71	0.15	1	
PCB052	1.8	0.71	0.14	1		PCB153	1.0	0.71	0.15	1	
PCB066	2.4	0.71	0.13	1		PCB156	ND	0.71	0.14	1	
PCB070	2.0	0.71	0.12	1		PCB157	ND	0.71	0.14	1	
PCB074	1.0	0.71	0.13	1		PCB167	ND	0.71	0.14	1	
PCB077	0.31	0.71	0.14	1	J	PCB168	ND	0.71	0.12	1	
PCB081	ND	0.71	0.17	1		PCB169	ND	0.71	0.12	1	
PCB087	0.38	0.71	0.14	1	J	PCB170	0.34	0.71	0.13	1	J
PCB099	0.90	0.71	0.12	1		PCB177	ND	0.71	0.17	1	
PCB101	1.5	0.71	0.11	1		PCB180	0.44	0.71	0.087	1	J
PCB105	0.61	0.71	0.15	1	J	PCB183	ND	0.71	0.16	1	
PCB110	1.1	0.71	0.15	1		PCB187	0.32	0.71	0.15	1	J
PCB114	ND	0.71	0.14	1		PCB189	ND	0.71	0.12	1	
PCB118	1.2	0.71	0.19	1		PCB194	0.18	0.71	0.14	1	J
PCB119	ND	0.71	0.12	1		PCB201	ND	0.71	0.081	1	
PCB123	ND	0.71	0.12	1		PCB206	ND	0.71	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	87	50-125		p-Terphenyl-d14	97	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-10-SC_0.0-0.5	**12-12-0734-5-B**	**12/11/12 15:58**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 16:12**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.67	0.75	0.24	1	J	PCB126	ND	0.75	0.21	1	
PCB028	0.26	0.75	0.15	1	J	PCB128	ND	0.75	0.15	1	
PCB037	ND	0.75	0.20	1		PCB138/158	0.56	1.5	0.31	1	J
PCB044	0.43	0.75	0.20	1	J	PCB149	0.47	0.75	0.13	1	J
PCB049	0.48	0.75	0.18	1	J	PCB151	ND	0.75	0.16	1	
PCB052	0.59	0.75	0.15	1	J	PCB153	0.64	0.75	0.16	1	J
PCB066	0.80	0.75	0.14	1		PCB156	ND	0.75	0.15	1	
PCB070	0.60	0.75	0.12	1	J	PCB157	ND	0.75	0.14	1	
PCB074	0.31	0.75	0.14	1	J	PCB167	ND	0.75	0.15	1	
PCB077	ND	0.75	0.15	1		PCB168	ND	0.75	0.13	1	
PCB081	ND	0.75	0.18	1		PCB169	ND	0.75	0.12	1	
PCB087	ND	0.75	0.15	1		PCB170	0.26	0.75	0.14	1	J
PCB099	0.47	0.75	0.13	1	J	PCB177	ND	0.75	0.19	1	
PCB101	0.77	0.75	0.12	1		PCB180	0.34	0.75	0.092	1	J
PCB105	0.32	0.75	0.16	1	J	PCB183	ND	0.75	0.17	1	
PCB110	0.58	0.75	0.16	1	J	PCB187	0.32	0.75	0.16	1	J
PCB114	ND	0.75	0.15	1		PCB189	ND	0.75	0.13	1	
PCB118	0.66	0.75	0.20	1	J	PCB194	ND	0.75	0.14	1	
PCB119	ND	0.75	0.13	1		PCB201	ND	0.75	0.086	1	
PCB123	ND	0.75	0.13	1		PCB206	ND	0.75	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	82	50-125		p-Terphenyl-d14	98	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SC_0.0-0.5	**12-12-0734-6-B**	**12/11/12 16:47**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 16:40**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.74	0.23	1		PCB126	ND	0.74	0.20	1	
PCB028	ND	0.74	0.15	1		PCB128	ND	0.74	0.15	1	
PCB037	ND	0.74	0.19	1		PCB138/158	ND	1.5	0.30	1	
PCB044	0.21	0.74	0.20	1	J	PCB149	0.16	0.74	0.13	1	J
PCB049	ND	0.74	0.18	1		PCB151	ND	0.74	0.15	1	
PCB052	0.25	0.74	0.14	1	J	PCB153	0.22	0.74	0.15	1	J
PCB066	0.28	0.74	0.14	1	J	PCB156	ND	0.74	0.15	1	
PCB070	0.23	0.74	0.12	1	J	PCB157	ND	0.74	0.14	1	
PCB074	ND	0.74	0.14	1		PCB167	ND	0.74	0.15	1	
PCB077	ND	0.74	0.14	1		PCB168	ND	0.74	0.13	1	
PCB081	ND	0.74	0.18	1		PCB169	ND	0.74	0.12	1	
PCB087	ND	0.74	0.15	1		PCB170	ND	0.74	0.14	1	
PCB099	0.18	0.74	0.13	1	J	PCB177	ND	0.74	0.18	1	
PCB101	0.30	0.74	0.12	1	J	PCB180	0.11	0.74	0.091	1	J
PCB105	ND	0.74	0.16	1		PCB183	ND	0.74	0.17	1	
PCB110	0.22	0.74	0.15	1	J	PCB187	ND	0.74	0.16	1	
PCB114	ND	0.74	0.15	1		PCB189	ND	0.74	0.13	1	
PCB118	0.21	0.74	0.20	1	J	PCB194	ND	0.74	0.14	1	
PCB119	ND	0.74	0.13	1		PCB201	ND	0.74	0.085	1	
PCB123	ND	0.74	0.13	1		PCB206	ND	0.74	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	74	50-125		p-Terphenyl-d14	83	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SG	**12-12-0734-7-B**	**12/11/12 10:28**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 17:08**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.1	1.4	0.42	1	J	PCB126	ND	1.4	0.37	1	
PCB028	0.55	1.4	0.27	1	J	PCB128	0.46	1.4	0.28	1	J
PCB037	0.59	1.4	0.35	1	J	PCB138/158	1.9	2.7	0.55	1	J
PCB044	1.2	1.4	0.36	1	J	PCB149	1.6	1.4	0.24	1	
PCB049	1.5	1.4	0.32	1		PCB151	0.42	1.4	0.28	1	J
PCB052	1.6	1.4	0.26	1		PCB153	2.4	1.4	0.28	1	
PCB066	2.4	1.4	0.25	1		PCB156	ND	1.4	0.26	1	
PCB070	1.5	1.4	0.22	1		PCB157	ND	1.4	0.26	1	
PCB074	0.92	1.4	0.26	1	J	PCB167	ND	1.4	0.27	1	
PCB077	ND	1.4	0.26	1		PCB168	ND	1.4	0.23	1	
PCB081	ND	1.4	0.33	1		PCB169	ND	1.4	0.22	1	
PCB087	0.57	1.4	0.27	1	J	PCB170	0.81	1.4	0.25	1	J
PCB099	1.6	1.4	0.23	1		PCB177	ND	1.4	0.33	1	
PCB101	2.4	1.4	0.22	1		PCB180	1.2	1.4	0.17	1	J
PCB105	0.95	1.4	0.28	1	J	PCB183	0.31	1.4	0.30	1	J
PCB110	2.0	1.4	0.28	1		PCB187	0.98	1.4	0.28	1	J
PCB114	ND	1.4	0.27	1		PCB189	ND	1.4	0.23	1	
PCB118	2.4	1.4	0.36	1		PCB194	ND	1.4	0.26	1	
PCB119	ND	1.4	0.23	1		PCB201	ND	1.4	0.15	1	
PCB123	ND	1.4	0.24	1		PCB206	ND	1.4	0.22	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	72	50-125		p-Terphenyl-d14	95	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-04-SG	**12-12-0734-8-B**	**12/11/12 11:28**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 17:36**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.1	1.6	0.51	1	J	PCB126	ND	1.6	0.45	1	
PCB028	1.2	1.6	0.33	1	J	PCB128	0.57	1.6	0.34	1	J
PCB037	1.2	1.6	0.43	1	J	PCB138/158	2.4	3.3	0.66	1	J
PCB044	2.2	1.6	0.43	1		PCB149	1.7	1.6	0.29	1	
PCB049	1.7	1.6	0.39	1		PCB151	0.47	1.6	0.34	1	J
PCB052	2.2	1.6	0.32	1		PCB153	2.8	1.6	0.34	1	
PCB066	4.2	1.6	0.30	1		PCB156	ND	1.6	0.32	1	
PCB070	2.9	1.6	0.27	1		PCB157	ND	1.6	0.31	1	
PCB074	1.7	1.6	0.31	1		PCB167	ND	1.6	0.33	1	
PCB077	0.44	1.6	0.32	1	J	PCB168	ND	1.6	0.28	1	
PCB081	ND	1.6	0.40	1		PCB169	ND	1.6	0.27	1	
PCB087	0.51	1.6	0.33	1	J	PCB170	0.76	1.6	0.30	1	J
PCB099	2.0	1.6	0.28	1		PCB177	ND	1.6	0.40	1	
PCB101	3.4	1.6	0.27	1		PCB180	1.4	1.6	0.20	1	J
PCB105	1.0	1.6	0.34	1	J	PCB183	0.46	1.6	0.36	1	J
PCB110	2.5	1.6	0.34	1		PCB187	1.0	1.6	0.34	1	J
PCB114	ND	1.6	0.33	1		PCB189	ND	1.6	0.28	1	
PCB118	3.0	1.6	0.43	1		PCB194	0.69	1.6	0.31	1	J
PCB119	ND	1.6	0.28	1		PCB201	ND	1.6	0.19	1	
PCB123	ND	1.6	0.29	1		PCB206	ND	1.6	0.27	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	93	50-125		p-Terphenyl-d14	91	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SG	**12-12-0734-9-B**	**12/11/12 12:50**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/18/12 18:04**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.64	1.4	0.44	1	J	PCB126	ND	1.4	0.39	1	
PCB028	0.49	1.4	0.28	1	J	PCB128	ND	1.4	0.29	1	
PCB037	0.79	1.4	0.37	1	J	PCB138/158	1.3	2.8	0.57	1	J
PCB044	0.91	1.4	0.37	1	J	PCB149	0.86	1.4	0.25	1	J
PCB049	0.95	1.4	0.33	1	J	PCB151	ND	1.4	0.29	1	
PCB052	1.1	1.4	0.27	1	J	PCB153	1.4	1.4	0.29	1	J
PCB066	2.0	1.4	0.26	1		PCB156	ND	1.4	0.28	1	
PCB070	1.8	1.4	0.23	1		PCB157	ND	1.4	0.27	1	
PCB074	0.75	1.4	0.27	1	J	PCB167	ND	1.4	0.28	1	
PCB077	0.48	1.4	0.28	1	J	PCB168	ND	1.4	0.24	1	
PCB081	ND	1.4	0.35	1		PCB169	ND	1.4	0.23	1	
PCB087	ND	1.4	0.29	1		PCB170	0.54	1.4	0.26	1	J
PCB099	0.97	1.4	0.24	1	J	PCB177	ND	1.4	0.35	1	
PCB101	1.4	1.4	0.23	1		PCB180	0.72	1.4	0.17	1	J
PCB105	0.74	1.4	0.30	1	J	PCB183	ND	1.4	0.31	1	
PCB110	1.3	1.4	0.29	1	J	PCB187	0.54	1.4	0.30	1	J
PCB114	ND	1.4	0.28	1		PCB189	ND	1.4	0.24	1	
PCB118	1.5	1.4	0.38	1		PCB194	ND	1.4	0.27	1	
PCB119	ND	1.4	0.25	1		PCB201	ND	1.4	0.16	1	
PCB123	ND	1.4	0.25	1		PCB206	ND	1.4	0.23	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	51	50-125		p-Terphenyl-d14	67	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SG	**12-12-0734-10-B**	**12/11/12 14:45**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/20/12 14:35**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.77	1.1	0.33	1	J	PCB126	ND	1.1	0.29	1	
PCB028	0.53	1.1	0.21	1	J	PCB128	0.36	1.1	0.22	1	J
PCB037	0.50	1.1	0.28	1	J	PCB138/158	1.7	2.1	0.43	1	J
PCB044	0.90	1.1	0.28	1	J	PCB149	0.93	1.1	0.19	1	J
PCB049	0.80	1.1	0.25	1	J	PCB151	0.23	1.1	0.22	1	J
PCB052	1.2	1.1	0.21	1		PCB153	1.5	1.1	0.22	1	
PCB066	1.5	1.1	0.19	1		PCB156	ND	1.1	0.21	1	
PCB070	1.2	1.1	0.17	1		PCB157	ND	1.1	0.20	1	
PCB074	0.59	1.1	0.20	1	J	PCB167	ND	1.1	0.21	1	
PCB077	0.22	1.1	0.21	1	J	PCB168	ND	1.1	0.18	1	
PCB081	ND	1.1	0.26	1		PCB169	ND	1.1	0.17	1	
PCB087	0.51	1.1	0.21	1	J	PCB170	0.60	1.1	0.20	1	J
PCB099	1.0	1.1	0.18	1	J	PCB177	ND	1.1	0.26	1	
PCB101	1.7	1.1	0.17	1		PCB180	0.59	1.1	0.13	1	J
PCB105	0.68	1.1	0.22	1	J	PCB183	ND	1.1	0.24	1	
PCB110	1.5	1.1	0.22	1		PCB187	0.51	1.1	0.22	1	J
PCB114	ND	1.1	0.21	1		PCB189	ND	1.1	0.18	1	
PCB118	1.8	1.1	0.28	1		PCB194	0.32	1.1	0.20	1	J
PCB119	ND	1.1	0.18	1		PCB201	ND	1.1	0.12	1	
PCB123	ND	1.1	0.18	1		PCB206	0.35	1.1	0.18	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	93	50-125		p-Terphenyl-d14	95	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-10-SG	**12-12-0734-11-B**	**12/11/12 15:27**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/20/12 15:02**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.78	0.98	0.31	1	J	PCB126	ND	0.98	0.27	1	
PCB028	0.48	0.98	0.20	1	J	PCB128	ND	0.98	0.20	1	
PCB037	ND	0.98	0.26	1		PCB138/158	0.94	2.0	0.40	1	J
PCB044	0.60	0.98	0.26	1	J	PCB149	0.63	0.98	0.18	1	J
PCB049	0.75	0.98	0.23	1	J	PCB151	ND	0.98	0.20	1	
PCB052	0.96	0.98	0.19	1	J	PCB153	1.1	0.98	0.20	1	
PCB066	1.2	0.98	0.18	1		PCB156	ND	0.98	0.19	1	
PCB070	0.84	0.98	0.16	1	J	PCB157	ND	0.98	0.19	1	
PCB074	0.47	0.98	0.19	1	J	PCB167	ND	0.98	0.20	1	
PCB077	ND	0.98	0.19	1		PCB168	ND	0.98	0.17	1	
PCB081	ND	0.98	0.24	1		PCB169	ND	0.98	0.16	1	
PCB087	0.23	0.98	0.20	1	J	PCB170	0.30	0.98	0.18	1	J
PCB099	0.71	0.98	0.17	1	J	PCB177	ND	0.98	0.24	1	
PCB101	1.0	0.98	0.16	1		PCB180	0.55	0.98	0.12	1	J
PCB105	0.38	0.98	0.21	1	J	PCB183	ND	0.98	0.22	1	
PCB110	0.80	0.98	0.20	1	J	PCB187	0.43	0.98	0.21	1	J
PCB114	ND	0.98	0.20	1		PCB189	ND	0.98	0.17	1	
PCB118	0.87	0.98	0.26	1	J	PCB194	0.29	0.98	0.19	1	J
PCB119	ND	0.98	0.17	1		PCB201	ND	0.98	0.11	1	
PCB123	ND	0.98	0.17	1		PCB206	0.26	0.98	0.16	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	72	50-125		p-Terphenyl-d14	115	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG	**12-12-0734-12-B**	**12/11/12 16:31**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/20/12 15:30**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	1.2	0.39	1		PCB126	ND	1.2	0.34	1	
PCB028	0.62	1.2	0.25	1	J	PCB128	ND	1.2	0.25	1	
PCB037	0.67	1.2	0.32	1	J	PCB138/158	0.68	2.5	0.50	1	J
PCB044	0.98	1.2	0.32	1	J	PCB149	0.45	1.2	0.22	1	J
PCB049	0.52	1.2	0.29	1	J	PCB151	ND	1.2	0.26	1	
PCB052	0.80	1.2	0.24	1	J	PCB153	0.60	1.2	0.26	1	J
PCB066	1.1	1.2	0.23	1	J	PCB156	ND	1.2	0.24	1	
PCB070	0.75	1.2	0.20	1	J	PCB157	ND	1.2	0.24	1	
PCB074	0.46	1.2	0.23	1	J	PCB167	ND	1.2	0.25	1	
PCB077	ND	1.2	0.24	1		PCB168	ND	1.2	0.21	1	
PCB081	ND	1.2	0.30	1		PCB169	ND	1.2	0.20	1	
PCB087	ND	1.2	0.25	1		PCB170	0.26	1.2	0.23	1	J
PCB099	0.31	1.2	0.21	1	J	PCB177	ND	1.2	0.30	1	
PCB101	0.63	1.2	0.20	1	J	PCB180	0.29	1.2	0.15	1	J
PCB105	ND	1.2	0.26	1		PCB183	ND	1.2	0.28	1	
PCB110	0.46	1.2	0.25	1	J	PCB187	0.28	1.2	0.26	1	J
PCB114	ND	1.2	0.25	1		PCB189	ND	1.2	0.21	1	
PCB118	0.49	1.2	0.33	1	J	PCB194	ND	1.2	0.24	1	
PCB119	ND	1.2	0.21	1		PCB201	ND	1.2	0.14	1	
PCB123	ND	1.2	0.22	1		PCB206	ND	1.2	0.20	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	51	50-125		p-Terphenyl-d14	73	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 13 of 14

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-B**	**12/11/12 00:00**	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/20/12 16:00**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	1.2	0.39	1		PCB126	ND	1.2	0.34	1	
PCB028	0.54	1.2	0.25	1	J	PCB128	ND	1.2	0.25	1	
PCB037	0.78	1.2	0.32	1	J	PCB138/158	0.68	2.5	0.50	1	J
PCB044	0.98	1.2	0.33	1	J	PCB149	0.45	1.2	0.22	1	J
PCB049	0.53	1.2	0.29	1	J	PCB151	ND	1.2	0.26	1	
PCB052	0.81	1.2	0.24	1	J	PCB153	0.67	1.2	0.26	1	J
PCB066	0.93	1.2	0.23	1	J	PCB156	ND	1.2	0.24	1	
PCB070	0.91	1.2	0.20	1	J	PCB157	ND	1.2	0.24	1	
PCB074	0.47	1.2	0.23	1	J	PCB167	ND	1.2	0.25	1	
PCB077	ND	1.2	0.24	1		PCB168	ND	1.2	0.21	1	
PCB081	ND	1.2	0.30	1		PCB169	ND	1.2	0.20	1	
PCB087	ND	1.2	0.25	1		PCB170	0.24	1.2	0.23	1	J
PCB099	0.40	1.2	0.21	1	J	PCB177	ND	1.2	0.31	1	
PCB101	0.66	1.2	0.20	1	J	PCB180	0.29	1.2	0.15	1	J
PCB105	0.33	1.2	0.26	1	J	PCB183	ND	1.2	0.28	1	
PCB110	0.50	1.2	0.26	1	J	PCB187	0.31	1.2	0.26	1	J
PCB114	ND	1.2	0.25	1		PCB189	ND	1.2	0.21	1	
PCB118	0.57	1.2	0.33	1	J	PCB194	ND	1.2	0.24	1	
PCB119	ND	1.2	0.22	1		PCB201	ND	1.2	0.14	1	
PCB123	ND	1.2	0.22	1		PCB206	ND	1.2	0.21	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	53	50-125		p-Terphenyl-d14	71	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/12/12
Work Order No:	12-12-0734
Preparation:	EPA 3545
Method:	EPA 8270C SIM PCB Congeners
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-75**	**N/A**	**Solid**	**GC/MS HHH**	**12/13/12**	**12/14/12 21:31**	**121213L04**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	85	50-125		p-Terphenyl-d14	94	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-B**	**12/11/12 10:52**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.2	0.053	0.020	200		mg/kg

RC-04-SC_0.0-0.5	**12-12-0734-2-B**	**12/11/12 11:44**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	3.6	0.17	0.064	500		mg/kg

RC-06-SC_0.0-0.5	**12-12-0734-3-B**	**12/11/12 13:19**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.68	0.051	0.020	200		mg/kg

RC-08-SC_0.0-0.5	**12-12-0734-4-B**	**12/11/12 14:50**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	3.0	0.14	0.054	500		mg/kg

RC-10-SC_0.0-0.5	**12-12-0734-5-B**	**12/11/12 15:58**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.3	0.060	0.023	200		mg/kg

RC-11-SC_0.0-0.5	**12-12-0734-6-B**	**12/11/12 16:47**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.37	0.015	0.0057	50		mg/kg

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SG	**12-12-0734-7-B**	**12/11/12 10:28**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	5.2	0.27	0.10	500		mg/kg

RC-04-SG	**12-12-0734-8-B**	**12/11/12 11:28**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	3.9	0.33	0.12	500		mg/kg

RC-06-SG	**12-12-0734-9-B**	**12/11/12 12:50**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	2.8	0.11	0.043	200		mg/kg

RC-08-SG	**12-12-0734-10-B**	**12/11/12 14:45**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	2.3	0.085	0.032	200		mg/kg

RC-10-SG	**12-12-0734-11-B**	**12/11/12 15:27**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.6	0.078	0.030	200		mg/kg

RC-11-SG	**12-12-0734-12-B**	**12/11/12 16:31**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.1	0.049	0.019	100		mg/kg

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-B**	**12/11/12 00:00**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.1	0.050	0.019	100		mg/kg

Method Blank	**099-15-082-7**	**N/A**	**Solid**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.00020	0.000076	1		mg/kg

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.0-0.5	**12-12-0734-1-B**	**12/11/12 10:52**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:24**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.17	0.0665	0.0581	0.5		Lead	17.3	0.0665	0.0438	0.5	
Cadmium	0.180	0.0665	0.0380	0.5		Nickel	2.84	0.0665	0.0337	0.5	
Chromium	5.57	0.0665	0.0413	0.5		Selenium	ND	0.0665	0.0486	0.5	
Copper	75.8	0.0665	0.0279	0.5		Zinc	54.8	0.665	0.528	0.5	

RC-04-SC_0.0-0.5	**12-12-0734-2-B**	**12/11/12 11:44**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:21**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	6.08	0.0836	0.0730	0.5		Lead	47.5	0.0836	0.0551	0.5	
Cadmium	0.538	0.0836	0.0478	0.5		Nickel	8.74	0.0836	0.0423	0.5	
Chromium	14.8	0.0836	0.0519	0.5		Selenium	0.177	0.0836	0.0611	0.5	
Copper	200	0.0836	0.0350	0.5		Zinc	148	0.836	0.665	0.5	

RC-06-SC_0.0-0.5	**12-12-0734-3-B**	**12/11/12 13:19**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:28**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.56	0.0642	0.0560	0.5		Lead	10.6	0.0642	0.0423	0.5	
Cadmium	0.121	0.0642	0.0367	0.5		Nickel	2.44	0.0642	0.0325	0.5	
Chromium	3.95	0.0642	0.0398	0.5		Selenium	ND	0.0642	0.0469	0.5	
Copper	45.1	0.0642	0.0269	0.5		Zinc	43.4	0.642	0.510	0.5	

RC-08-SC_0.0-0.5	**12-12-0734-4-B**	**12/11/12 14:50**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:32**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.07	0.0707	0.0617	0.5		Lead	20.1	0.0707	0.0466	0.5	
Cadmium	0.175	0.0707	0.0405	0.5		Nickel	3.77	0.0707	0.0358	0.5	
Chromium	6.02	0.0707	0.0439	0.5		Selenium	ND	0.0707	0.0517	0.5	
Copper	82.5	0.0707	0.0296	0.5		Zinc	80.6	0.707	0.562	0.5	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-10-SC_0.0-0.5	**12-12-0734-5-B**	**12/11/12 15:58**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:36**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.75	0.0754	0.0658	0.5		Lead	18.0	0.0754	0.0497	0.5	
Cadmium	0.213	0.0754	0.0432	0.5		Nickel	5.59	0.0754	0.0382	0.5	
Chromium	10.0	0.0754	0.0468	0.5		Selenium	ND	0.0754	0.0551	0.5	
Copper	79.8	0.0754	0.0316	0.5		Zinc	85.9	0.754	0.599	0.5	

RC-11-SC_0.0-0.5	**12-12-0734-6-B**	**12/11/12 16:47**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:51**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	3.82	0.0742	0.0648	0.5		Lead	9.51	0.0742	0.0489	0.5	
Cadmium	0.118	0.0742	0.0425	0.5		Nickel	2.44	0.0742	0.0376	0.5	
Chromium	4.22	0.0742	0.0460	0.5		Selenium	ND	0.0742	0.0542	0.5	
Copper	61.6	0.0742	0.0311	0.5		Zinc	59.9	0.742	0.590	0.5	

RC-02-SG	**12-12-0734-7-B**	**12/11/12 10:28**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:55**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	8.36	0.135	0.118	0.5		Lead	80.4	0.135	0.0891	0.5	
Cadmium	0.496	0.135	0.0773	0.5		Nickel	7.82	0.135	0.0684	0.5	
Chromium	16.7	0.135	0.0839	0.5		Selenium	ND	0.135	0.0987	0.5	
Copper	400	0.135	0.0566	0.5		Zinc	257	1.35	1.07	0.5	

RC-04-SG	**12-12-0734-8-B**	**12/11/12 11:28**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 20:59**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	11.5	0.163	0.143	0.5		Lead	84.5	0.163	0.108	0.5	
Cadmium	0.541	0.163	0.0935	0.5		Nickel	17.3	0.163	0.0827	0.5	
Chromium	33.0	0.163	0.101	0.5		Selenium	ND	0.163	0.119	0.5	
Copper	428	0.163	0.0685	0.5		Zinc	285	1.63	1.30	0.5	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SG	**12-12-0734-9-B**	**12/11/12 12:50**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 21:03**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	8.93	0.141	0.123	0.5		Lead	71.3	0.141	0.0931	0.5	
Cadmium	0.617	0.141	0.0808	0.5		Nickel	8.63	0.141	0.0715	0.5	
Chromium	17.4	0.141	0.0877	0.5		Selenium	0.321	0.141	0.103	0.5	
Copper	399	0.141	0.0592	0.5		Zinc	280	1.41	1.12	0.5	

RC-08-SG	**12-12-0734-10-B**	**12/11/12 14:45**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 21:06**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	7.27	0.106	0.0925	0.5		Lead	44.2	0.106	0.0698	0.5	
Cadmium	0.388	0.106	0.0606	0.5		Nickel	8.50	0.106	0.0536	0.5	
Chromium	14.3	0.106	0.0658	0.5		Selenium	ND	0.106	0.0774	0.5	
Copper	220	0.106	0.0444	0.5		Zinc	165	1.06	0.842	0.5	

RC-10-SG	**12-12-0734-11-B**	**12/11/12 15:27**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 21:10**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	6.54	0.0980	0.0856	0.5		Lead	34.8	0.0980	0.0646	0.5	
Cadmium	0.403	0.0980	0.0561	0.5		Nickel	7.82	0.0980	0.0496	0.5	
Chromium	15.7	0.0980	0.0609	0.5		Selenium	ND	0.0980	0.0716	0.5	
Copper	166	0.0980	0.0411	0.5		Zinc	160	0.980	0.779	0.5	

RC-11-SG	**12-12-0734-12-B**	**12/11/12 16:31**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 21:14**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	6.89	0.123	0.108	0.5		Lead	28.5	0.123	0.0814	0.5	
Cadmium	0.314	0.123	0.0707	0.5		Nickel	10.9	0.123	0.0625	0.5	
Chromium	18.7	0.123	0.0766	0.5		Selenium	ND	0.123	0.0902	0.5	
Copper	178	0.123	0.0517	0.5		Zinc	155	1.23	0.981	0.5	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-11-SG LAB DUP	**12-12-0734-13-B**	**12/11/12 00:00**	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12 21:18**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	7.15	0.124	0.108	0.5		Lead	31.8	0.124	0.0818	0.5	
Cadmium	0.335	0.124	0.0710	0.5		Nickel	11.1	0.124	0.0628	0.5	
Chromium	19.4	0.124	0.0770	0.5		Selenium	ND	0.124	0.0907	0.5	
Copper	192	0.124	0.0520	0.5		Zinc	164	1.24	0.986	0.5	

Method Blank	**099-15-254-76**	**N/A**	**Solid**	**ICP/MS 04**	**12/13/12**	**12/17/12 19:06**	**121213L03A**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	ND	0.0500	0.0437	0.5		Lead	ND	0.0500	0.0330	0.5	
Cadmium	ND	0.0500	0.0286	0.5		Nickel	ND	0.0500	0.0253	0.5	
Chromium	ND	0.0500	0.0310	0.5		Selenium	ND	0.0500	0.0365	0.5	
Copper	ND	0.0500	0.0210	0.5		Zinc	ND	0.500	0.397	0.5	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

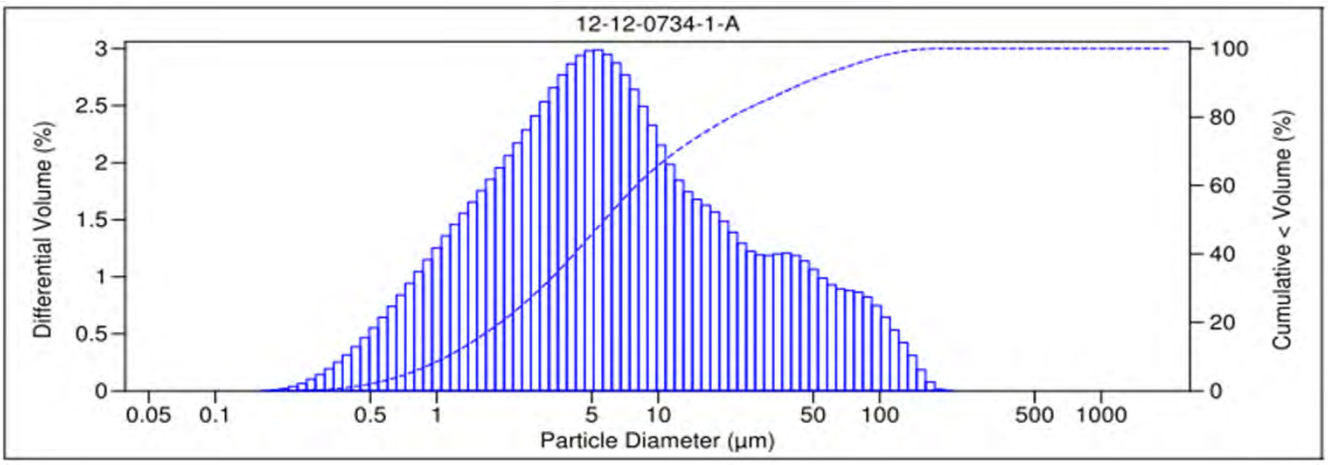
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 1 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-02-SC_0.0-0.5		Silt	0.016

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.90	5.65	55.41	38.04	93.45



Return to Contents

Calscience Environmental Laboratories, Inc.

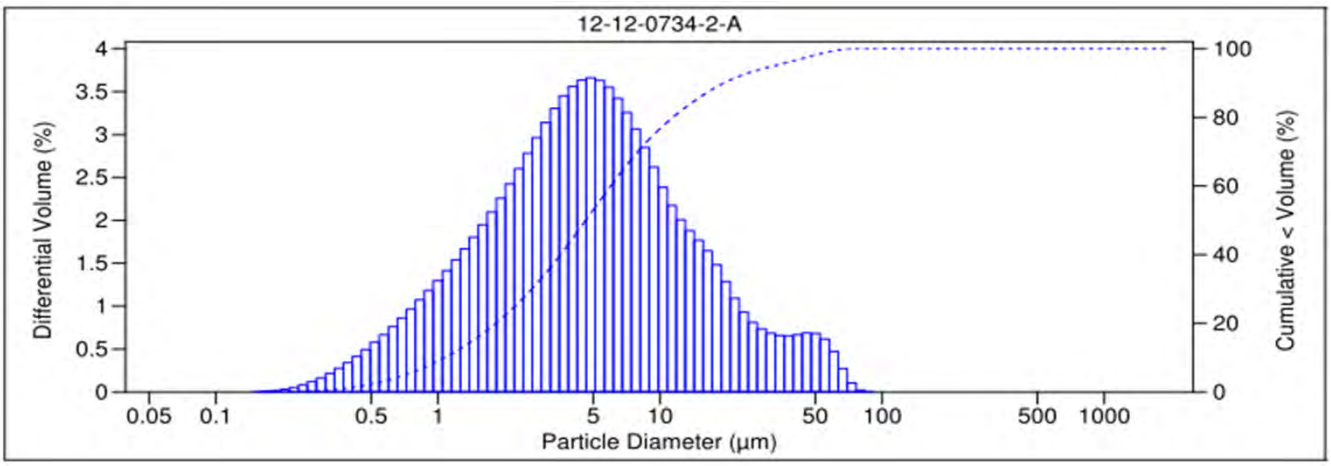
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 2 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-04-SC_0.0-0.5		Silt	0.008

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	0.48	56.05	43.47	99.52



Return to Contents

Calscience Environmental Laboratories, Inc.

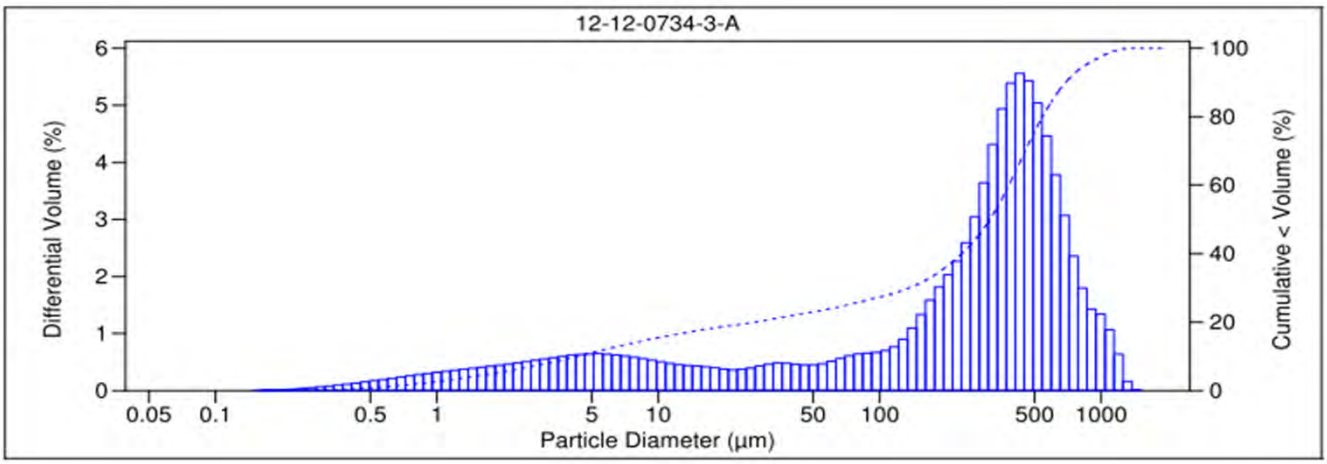
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 3 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-06-SC_0.0-0.5		Medium Sand	0.331

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	2.48	22.00	33.80	12.60	4.95	14.80	9.37	24.17



Return to Contents

Calscience Environmental Laboratories, Inc.

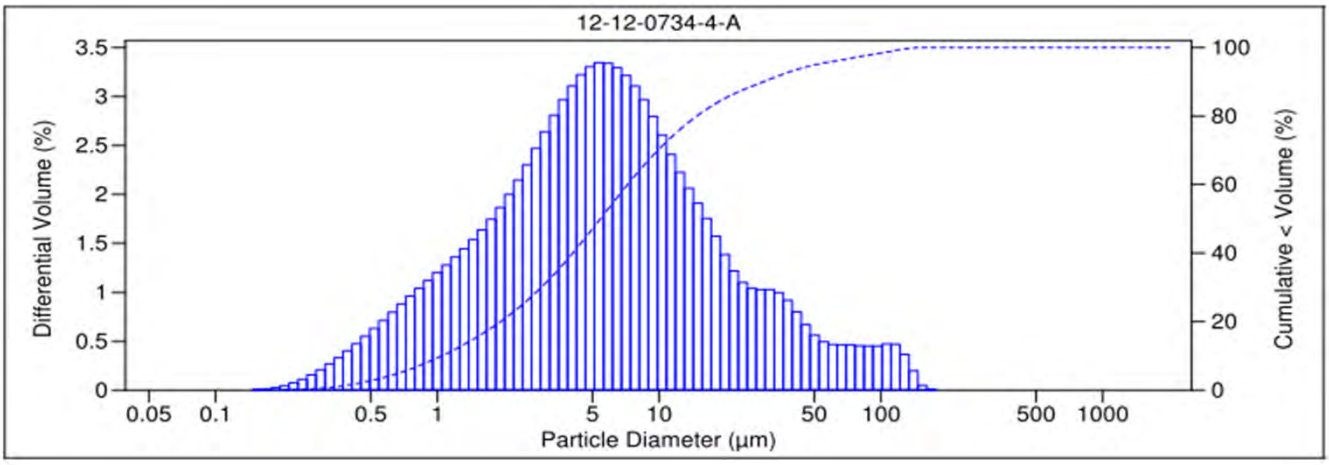
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 4 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-08-SC_0.0-0.5		Silt	0.012

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.52	3.39	57.55	38.54	96.09



Return to Contents

Calscience Environmental Laboratories, Inc.

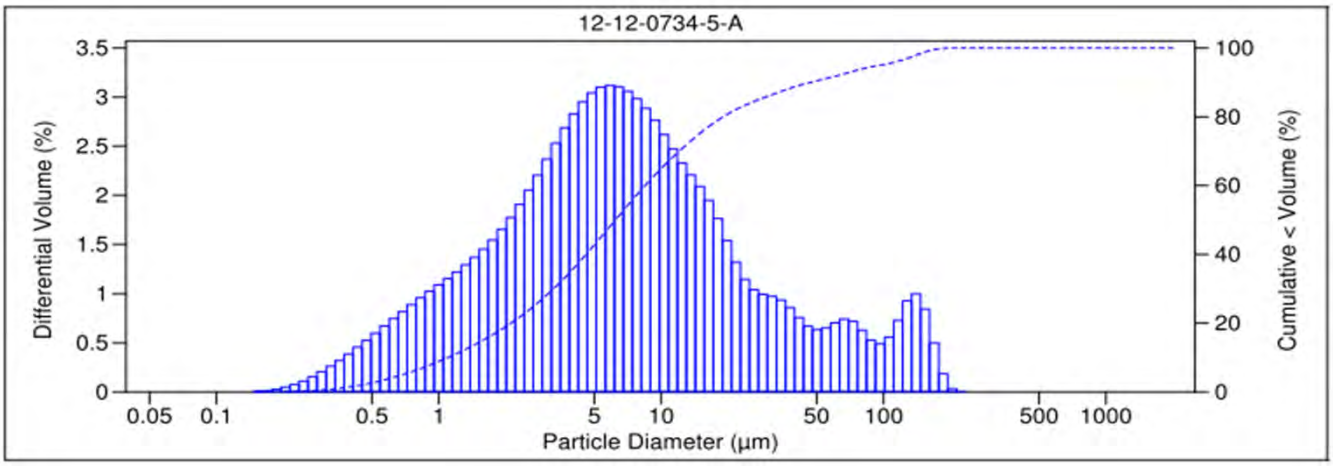
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 5 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-10-SC_0.0-0.5		Silt	0.018

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	3.24	4.76	57.07	34.93	92.00



Return to Contents

Calscience Environmental Laboratories, Inc.

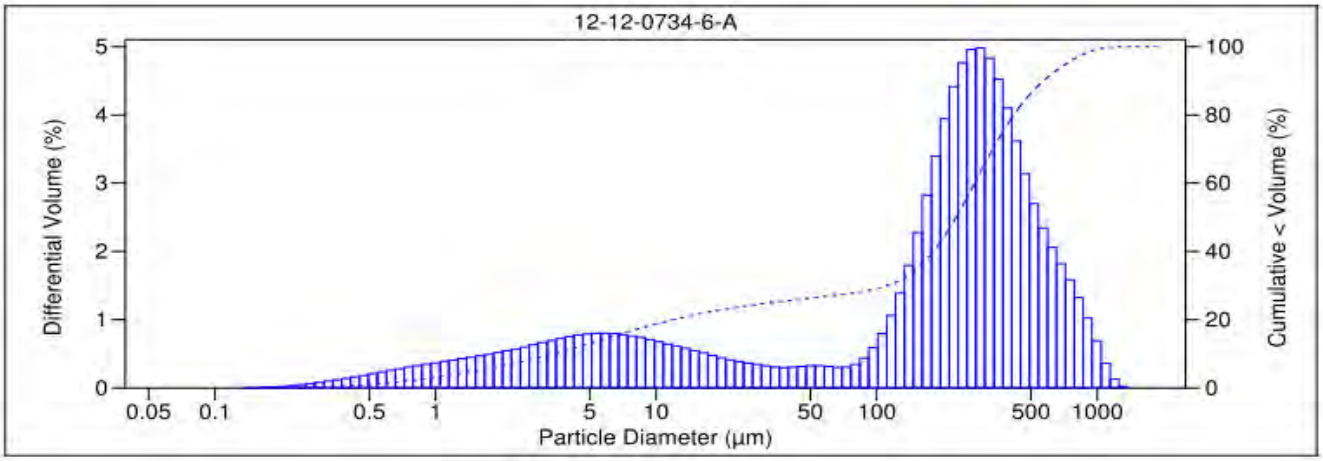
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 6 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-11-SC_0.0-0.5		Medium Sand	0.259

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.83	12.90	31.90	23.00	4.26	16.10	11.00	27.10



Return to Contents

Calscience Environmental Laboratories, Inc.

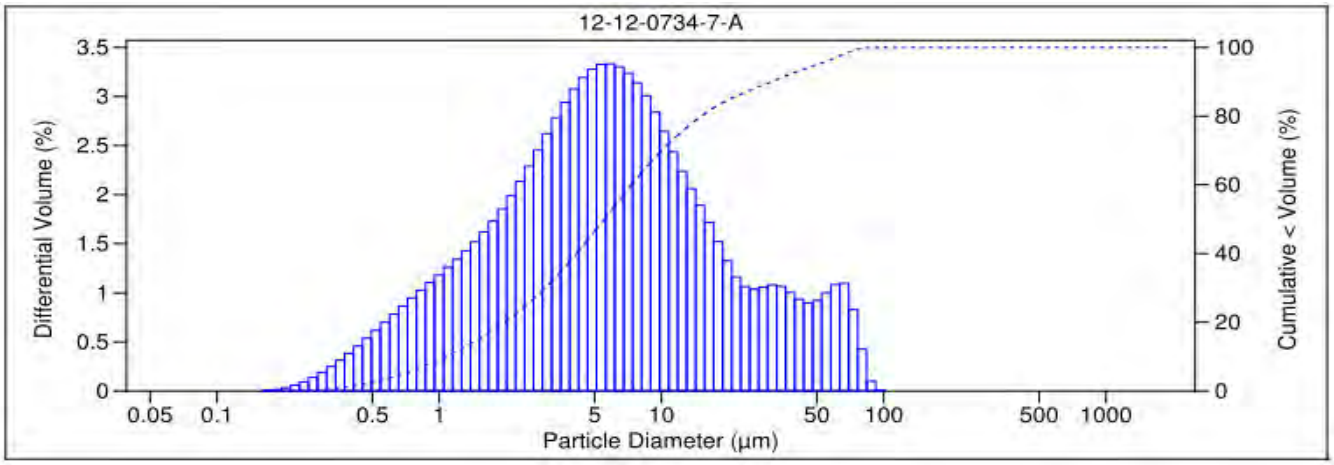
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 7 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-02-SG		Silt	0.011

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	2.64	59.30	38.06	97.36



Return to Contents

Calscience Environmental Laboratories, Inc.

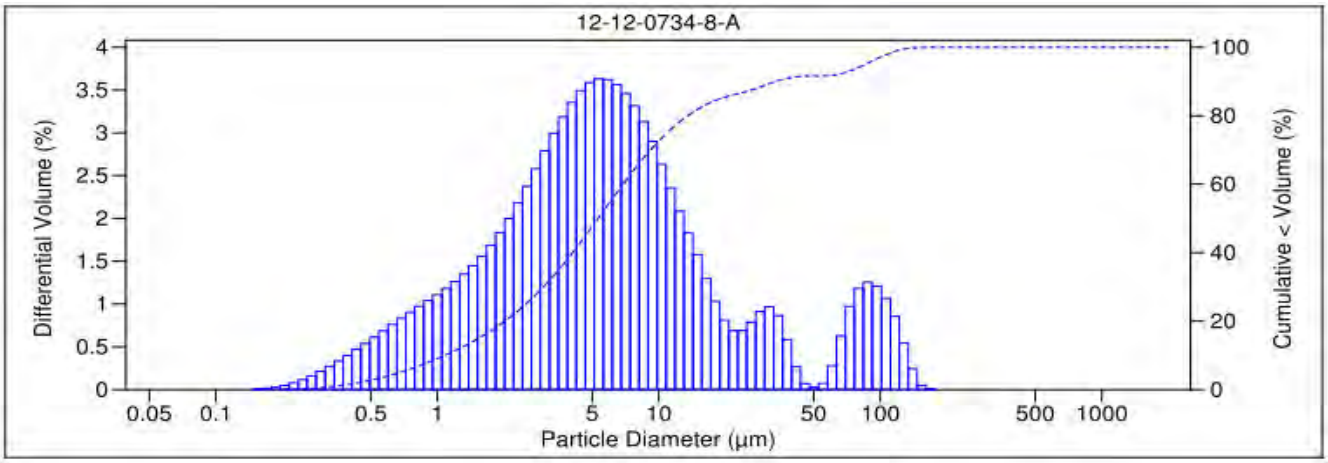
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 8 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-04-SG		Silt	0.014

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.70	7.36	53.44	38.50	91.94



Return to Contents

Calscience Environmental Laboratories, Inc.

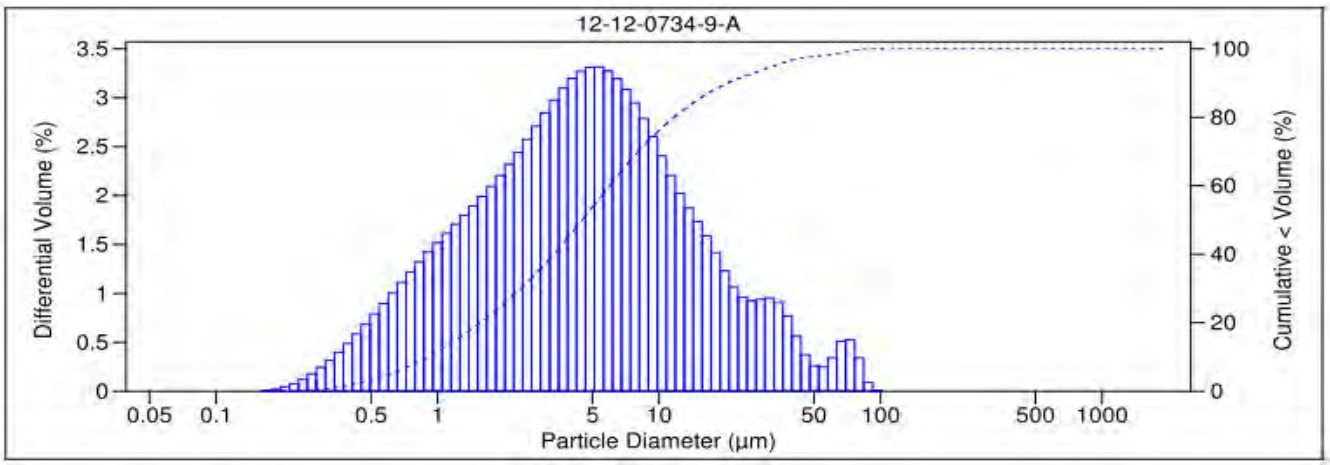
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 9 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-06-SG		Silt	0.009

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	1.54	53.31	45.15	98.46



Return to Contents

Calscience Environmental Laboratories, Inc.

PARTICLE SIZE SUMMARY

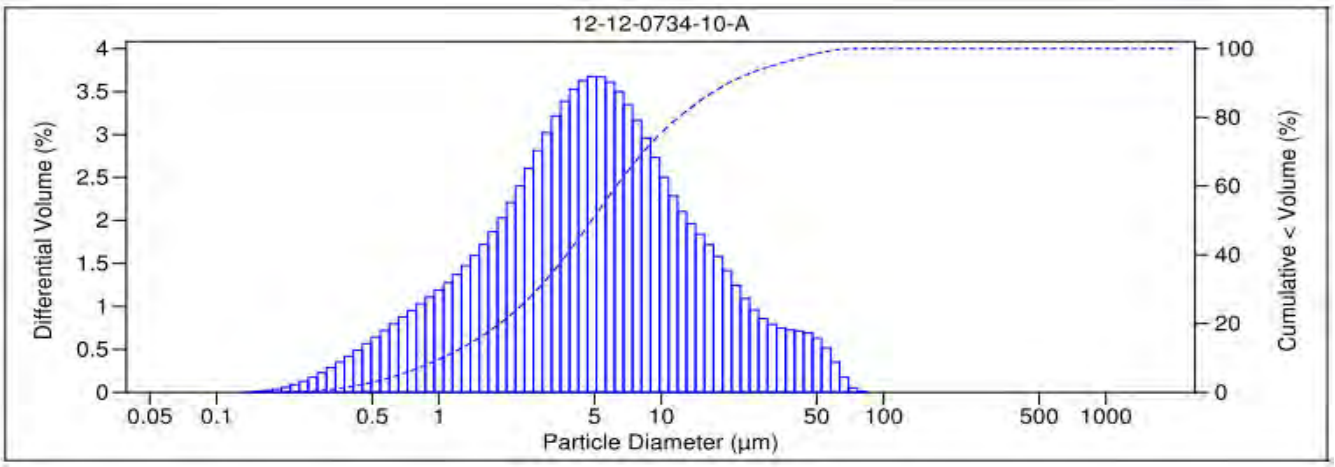
(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M

Project: Rhine Channel Confirmation Testing Program

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-08-SG		Silt	0.008

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	0.30	58.05	41.65	99.70



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

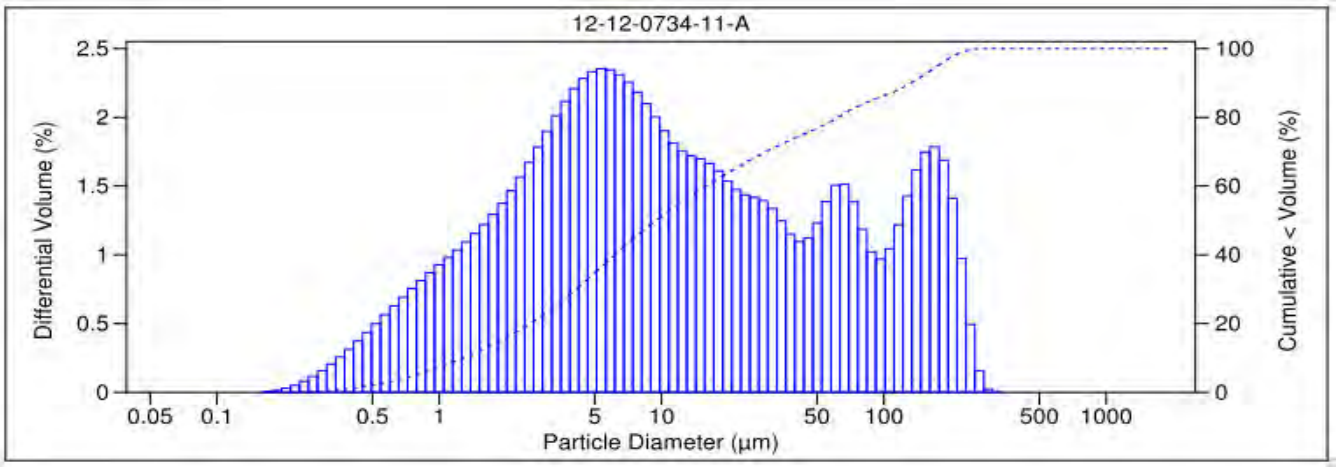
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 11 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-10-SG		Silt	0.037

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.33	10.60	8.96	51.39	28.72	80.11



Return to Contents

Calscience Environmental Laboratories, Inc.

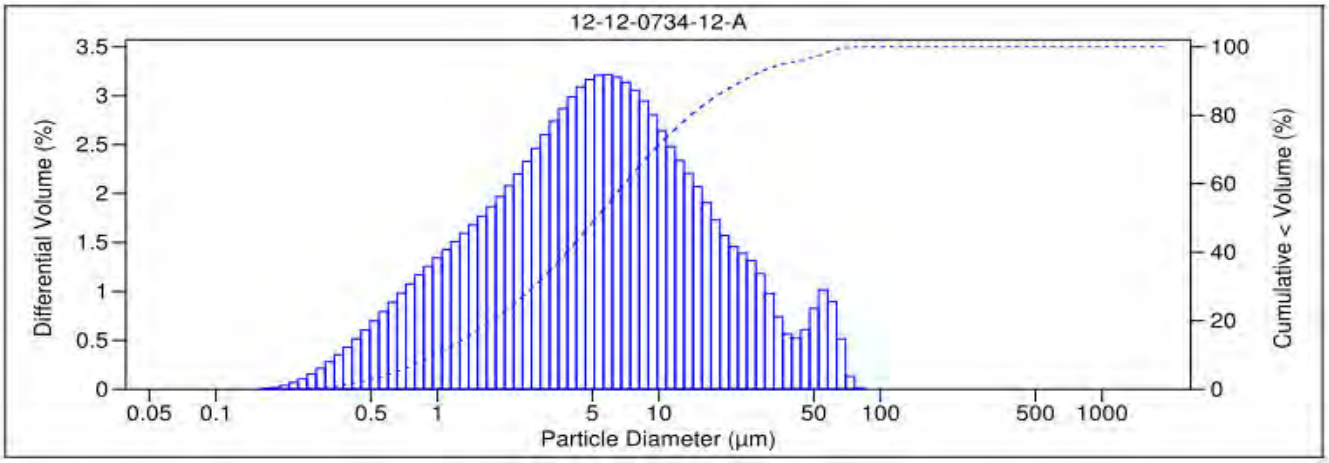
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 12 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-11-SG		Silt	0.010

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	0.81	58.73	40.46	99.19



Return to Contents

Calscience Environmental Laboratories, Inc.

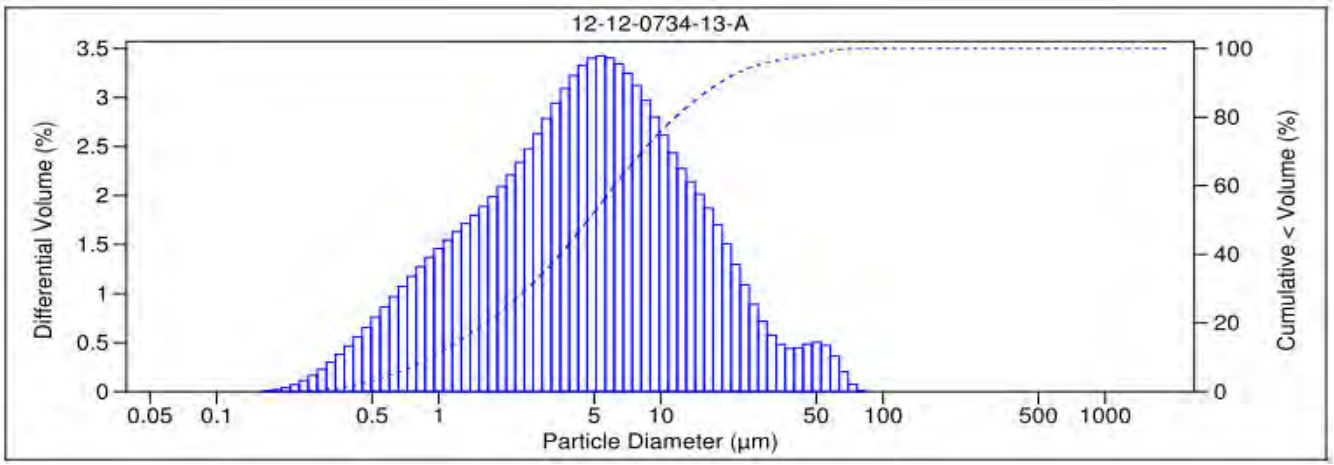
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/11/2012
26300 La Alameda, Suite 240		Date Received:	12/12/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0734
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 13 of 13

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-11-SG LAB DUP		Silt	0.008

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	0.35	56.10	43.55	99.65



Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-04-SC_0.0-0.5	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12**	**121213S03A**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	3.633	25.00	29.60	104	29.98	105	80-120	1	0-20	
Cadmium	0.3220	25.00	28.03	111	27.73	110	80-120	1	0-20	
Chromium	8.879	25.00	35.89	108	34.54	103	80-120	4	0-20	
Copper	119.3	25.00	154.5	4X	154.7	4X	80-120	4X	0-20	Q
Lead	28.40	25.00	63.05	139	58.54	121	80-120	7	0-20	3
Nickel	5.229	25.00	31.81	106	31.40	105	80-120	1	0-20	
Selenium	0.1058	25.00	24.76	99	24.15	96	80-120	3	0-20	
Zinc	88.35	25.00	123.9	142	127.4	156	80-120	3	0-20	3

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
RC-04-SC_0.0-0.5	**Sediment**	**ICP/MS 04**	**12/13/12**	**12/17/12**	**121213S03A**

Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	%REC CL	Qualifiers
Arsenic	3.633	12.50	16.84	106	75-125	
Cadmium	0.3220	12.50	13.75	107	75-125	
Chromium	8.879	12.50	20.96	97	75-125	
Copper	119.3	12.50	133.5	4X	75-125	Q
Lead	28.40	12.50	43.42	120	75-125	
Nickel	5.229	12.50	18.42	106	75-125	
Selenium	0.1058	12.50	12.96	103	75-125	
Zinc	88.35	12.50	103.7	4X	75-125	Q

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-04-SC_0.0-0.5	**Sediment**	**TOC 5**	**12/19/12**	**12/20/12**	**C1219TOCS1**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.49	3.0	3.4	97	3.2	89	75-125	7	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
RC-02-SG	**Sediment**	**N/A**	**12/14/12**	**12/14/12**	**C1214TSD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	37.0	37.0	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3540C
Method: EPA 8270D (M)/TQ/EI

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-02-SG	**Sediment**	**GCTQ 1**	**12/19/12**	**12/23/12**	**121219S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	1.977	40	1.470	29	25-200	29	0-30	
Bifenthrin	ND	5.000	2.674	53	2.237	45	25-200	18	0-30	
Cyfluthrin	ND	5.000	8.180	164	5.303	106	25-200	43	0-30	4
Cypermethrin	ND	5.000	7.176	144	4.874	97	25-200	38	0-30	4
Deltamethrin/Tralomethrin	ND	5.000	7.674	153	6.620	132	25-200	15	0-30	
Fenpropathrin	ND	5.000	4.081	82	2.951	59	25-200	32	0-30	4
Fenvalerate/Esfenvalerate	ND	5.000	10.67	213	7.134	143	25-200	40	0-30	3,4
Fluvalinate	ND	5.000	9.288	186	5.968	119	25-200	44	0-30	4
Permethrin (cis/trans)	ND	5.000	6.426	129	5.581	112	25-200	14	0-30	
Phenothrin	ND	5.000	4.693	94	3.797	76	25-200	21	0-30	
Resmethrin/Bioresmethrin	ND	5.000	5.316	106	4.051	81	25-200	27	0-30	
Tetramethrin	ND	5.000	5.141	103	3.936	79	25-200	27	0-30	
lambda-Cyhalothrin	ND	5.000	5.418	108	3.776	76	25-200	36	0-30	4

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/12/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-04-SC_0.0-0.5	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12**	**121218S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	2.143	0.001600	1.969	4X	1.962	4X	70-130	4X	0-30	Q

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8081A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-02-SG	**Sediment**	**GC 51**	**12/13/12**	**12/20/12**	**121213S02A**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	4.858	97	4.655	93	50-135	4	0-25	
Alpha-BHC	ND	5.000	5.552	111	5.463	109	50-135	2	0-25	
Beta-BHC	ND	5.000	7.040	141	7.893	158	50-135	11	0-25	3
Delta-BHC	ND	5.000	5.258	105	5.117	102	50-135	3	0-25	
Gamma-BHC	ND	5.000	3.506	70	3.328	67	50-135	5	0-25	
Dieldrin	ND	5.000	4.611	92	4.567	91	50-135	1	0-25	
4,4'-DDD	ND	5.000	6.740	135	6.637	133	50-135	2	0-25	
4,4'-DDE	3.994	5.000	8.273	86	8.190	84	50-135	1	0-25	
4,4'-DDT	ND	5.000	3.367	67	3.106	62	50-135	8	0-25	
Endosulfan I	ND	5.000	4.029	81	3.995	80	50-135	1	0-25	
Endosulfan II	ND	5.000	4.087	82	4.007	80	50-135	2	0-25	
Endosulfan Sulfate	ND	5.000	4.159	83	4.063	81	50-135	2	0-25	
Endrin	ND	5.000	4.760	95	4.471	89	50-135	6	0-25	
Endrin Aldehyde	ND	5.000	4.032	81	3.884	78	50-135	4	0-25	
Endrin Ketone	ND	5.000	3.957	79	3.546	71	50-135	11	0-25	
Heptachlor	ND	5.000	4.154	83	3.641	73	50-135	13	0-25	
Heptachlor Epoxide	ND	5.000	4.223	84	4.074	81	50-135	4	0-25	
Methoxychlor	ND	5.000	1.628	33	1.221	24	50-135	29	0-25	3,4
Alpha Chlordane	ND	5.000	5.280	106	5.141	103	50-135	3	0-25	
Gamma Chlordane	ND	5.000	4.370	87	4.245	85	50-135	3	0-25	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/12/12
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-02-SG	**Sediment**	**GC/MS HHH**	**12/13/12**	**12/19/12**	**121213S04A**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	ND	25.00	23.17	93	22.84	91	50-125	1	0-30	
PCB018	ND	25.00	20.13	81	20.94	84	50-125	4	0-30	
PCB028	ND	25.00	23.63	95	23.37	93	50-125	1	0-30	
PCB044	ND	25.00	26.44	106	25.62	102	50-125	3	0-30	
PCB052	0.5769	25.00	24.62	96	24.08	94	50-125	2	0-30	
PCB066	0.9054	25.00	27.72	107	26.54	103	50-125	4	0-30	
PCB077	ND	25.00	27.92	112	26.53	106	50-125	5	0-30	
PCB101	0.8748	25.00	29.33	114	27.74	107	50-125	6	0-30	
PCB105	ND	25.00	27.92	112	26.45	106	50-125	5	0-30	
PCB118	0.9042	25.00	31.01	120	31.42	122	50-125	1	0-30	
PCB126	ND	25.00	26.16	105	24.99	100	50-125	5	0-30	
PCB128	ND	25.00	27.39	110	26.16	105	50-125	5	0-30	
PCB153	0.8811	25.00	27.34	106	26.16	101	50-125	4	0-30	
PCB170	ND	25.00	28.58	114	28.28	113	50-125	1	0-30	
PCB180	ND	25.00	29.01	116	27.27	109	50-125	6	0-30	
PCB187	ND	25.00	27.93	112	26.03	104	50-125	7	0-30	
PCB195	ND	25.00	30.86	123	30.60	122	50-125	1	0-30	
PCB206	ND	25.00	31.36	125	30.86	123	50-125	2	0-30	
PCB209	ND	25.00	29.77	119	29.79	119	50-125	0	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-76	**Solid**	**ICP/MS 04**	**12/13/12**	**12/18/12**	**121213L03A**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	25.63	103	25.29	101	80-120	1	0-20	
Cadmium	25.00	23.90	96	23.64	95	80-120	1	0-20	
Chromium	25.00	24.83	99	24.44	98	80-120	2	0-20	
Copper	25.00	26.40	106	26.46	106	80-120	0	0-20	
Lead	25.00	24.92	100	24.32	97	80-120	2	0-20	
Nickel	25.00	24.29	97	24.56	98	80-120	1	0-20	
Selenium	25.00	23.53	94	23.17	93	80-120	2	0-20	
Zinc	25.00	25.71	103	25.64	103	80-120	0	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-812	**Solid**	**TOC 5**	**12/19/12**	**12/20/12**	**C1219TOCL1**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.60	0.59	98	0.57	95	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-0734
Preparation: EPA 3540C
Method: EPA 8270D (M)/TQ/EI

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-403-27	**Sediment**	**GCTQ 1**	**12/19/12**	**12/22/12**	**121219L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	1.615	32	1.839	37	25-200	0-229	13	0-30	
Bifenthrin	5.000	1.657	33	2.066	41	25-200	0-229	22	0-30	
Cyfluthrin	5.000	3.207	64	2.514	50	25-200	0-229	24	0-30	
Cypermethrin	5.000	2.910	58	2.388	48	25-200	0-229	20	0-30	
Deltamethrin/Tralomethrin	5.000	1.986	40	1.596	32	25-200	0-229	22	0-30	
Fenpropathrin	5.000	2.677	54	2.751	55	25-200	0-229	3	0-30	
Fenvalerate/Esfenvalerate	5.000	3.245	65	2.508	50	25-200	0-229	26	0-30	
Fluvalinate	5.000	3.460	69	2.590	52	25-200	0-229	29	0-30	
Permethrin (cis/trans)	5.000	2.803	56	2.909	58	25-200	0-229	4	0-30	
Phenothrin	5.000	2.049	41	2.644	53	25-200	0-229	25	0-30	
Resmethrin/Bioresmethrin	5.000	2.786	56	3.125	62	25-200	0-229	11	0-30	
Tetramethrin	5.000	2.873	57	2.831	57	25-200	0-229	1	0-30	
lambda-Cyhalothrin	5.000	2.121	42	1.883	38	25-200	0-229	12	0-30	

Total number of LCS compounds : 13
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0734
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-082-7	**Solid**	**Hg/AF 1**	**12/18/12**	**12/18/12**	**121218L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.001600	0.001315	82	0.001311	82	70-130	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8081A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-858-174	**Solid**	**GC 51**	**12/13/12**	**12/14/12**	**121213L02**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	4.016	80	3.946	79	50-135	36-149	2	0-25	
Alpha-BHC	5.000	3.569	71	3.566	71	50-135	36-149	0	0-25	
Beta-BHC	5.000	3.568	71	3.546	71	50-135	36-149	1	0-25	
Delta-BHC	5.000	3.582	72	3.570	71	50-135	36-149	0	0-25	
Gamma-BHC	5.000	3.635	73	3.616	72	50-135	36-149	1	0-25	
Dieldrin	5.000	3.585	72	3.585	72	50-135	36-149	0	0-25	
4,4'-DDD	5.000	3.591	72	3.571	71	50-135	36-149	1	0-25	
4,4'-DDE	5.000	3.692	74	3.661	73	50-135	36-149	1	0-25	
4,4'-DDT	5.000	3.415	68	3.407	68	50-135	36-149	0	0-25	
Endosulfan I	5.000	3.544	71	3.564	71	50-135	36-149	1	0-25	
Endosulfan II	5.000	3.608	72	3.630	73	50-135	36-149	1	0-25	
Endosulfan Sulfate	5.000	3.507	70	3.523	70	50-135	36-149	0	0-25	
Endrin	5.000	3.453	69	3.444	69	50-135	36-149	0	0-25	
Endrin Aldehyde	5.000	3.692	74	3.728	75	50-135	36-149	1	0-25	
Endrin Ketone	5.000	3.735	75	3.756	75	50-135	36-149	1	0-25	
Heptachlor	5.000	3.626	73	3.629	73	50-135	36-149	0	0-25	
Heptachlor Epoxide	5.000	3.415	68	3.416	68	50-135	36-149	0	0-25	
Methoxychlor	5.000	3.541	71	3.539	71	50-135	36-149	0	0-25	
Alpha Chlordane	5.000	3.541	71	3.547	71	50-135	36-149	0	0-25	
Gamma Chlordane	5.000	3.508	70	3.512	70	50-135	36-149	0	0-25	

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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-0734
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-75	**Solid**	**GC/MS HHH**	**12/13/12**	**12/14/12**	**121213L04**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	24.09	96	22.90	92	50-125	38-138	5	0-30	
PCB018	25.00	22.57	90	22.26	89	50-125	38-138	1	0-30	
PCB028	25.00	21.14	85	21.92	88	50-125	38-138	4	0-30	
PCB044	25.00	21.62	86	23.05	92	50-125	38-138	6	0-30	
PCB052	25.00	20.29	81	21.37	85	50-125	38-138	5	0-30	
PCB066	25.00	21.45	86	22.77	91	50-125	38-138	6	0-30	
PCB077	25.00	21.72	87	22.21	89	50-125	38-138	2	0-30	
PCB101	25.00	21.84	87	23.25	93	50-125	38-138	6	0-30	
PCB105	25.00	21.39	86	21.25	85	50-125	38-138	1	0-30	
PCB118	25.00	24.90	100	25.31	101	50-125	38-138	2	0-30	
PCB126	25.00	20.60	82	19.67	79	50-125	38-138	5	0-30	
PCB128	25.00	21.38	86	20.47	82	50-125	38-138	4	0-30	
PCB153	25.00	20.51	82	20.67	83	50-125	38-138	1	0-30	
PCB170	25.00	20.06	80	20.11	80	50-125	38-138	0	0-30	
PCB180	25.00	22.67	91	21.45	86	50-125	38-138	6	0-30	
PCB187	25.00	21.19	85	20.57	82	50-125	38-138	3	0-30	
PCB195	25.00	21.19	85	21.55	86	50-125	38-138	2	0-30	
PCB206	25.00	21.73	87	22.38	90	50-125	38-138	3	0-30	
PCB209	25.00	20.86	83	20.83	83	50-125	38-138	0	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-12-0734

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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

Return to Contents

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12.11.12

PAGE: 1 OF 1

LABORATORY CLIENT: Anchor QEA

ADDRESS: 26300 La Alameda, Suite 240

CITY: Mission Viejo, CA 92691

TEL: 949.334.9632 FAX: 949.334.9646 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Rhine Channel Confirmation Testing Program

PROJECT CONTACT: Chris Osuch

SAMPLER(S): (SIGNATURE) [signature]

P.O. NO.:

QUOTE NO.:

LAB USE ONLY: 12-12-0734

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS

Homogenize thoroughly prior to analysis.
Specific analytes, methods, and QA/QC in accordance with SAP and SAP Addendum.
Lower MDL/RL is requested for selenium (see Danielle Gonsman).

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	SM 2540 B Total Solids	ASTM D4464 Grain Size	EPA 9060A TOC	EPA 6020/1631 As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn	EPA 8270C SIM PCB Congener	EPA 8081A OC Pesticides	GC/MS/MS Pyrethroids	MS/MSD
1	RC-02-SC-0.0-0.5	Rhine Channel	12.11.12	1052	Sed	1	X	X	X	X	X	X	X	
2	RC-04-SC-0.0-0.5			1144	Sed	1								
3	RC-06-SC-0.0-0.5			1319	Sed	1								
4	RC-08-SC-0.0-0.5			1450	Sed	1								
5	RC-10-SC-0.0-0.5			1558	Sed	1								
6	RC-10-SC-0.0-0.5			1647	Sed	1								
7	RC-02-SG			1028	Sed	1								
8	RC-04-SG			1128	Sed	1								
9	RC-06-SG			1250	Sed	1								
10	RC-08-SG			1445	Sed	1								
11	RC-10-SG			1527	Sed	1								
12	RC-11-SG			1631	Sed	1								

Relinquished by: (Signature) [signature]	Received by: (Signature) [signature]	Date: 12/12/12	Time: 1045
Relinquished by: (Signature) [signature]	Received by: (Signature) [signature]	Date: 12/12/12	Time: 1300
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Return to Contents

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-0734

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Anchor QEA

DATE: 12/12/12

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.2 °C - 0.3 °C (CF) = 0.9 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Initial:** AP

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** AP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** MS

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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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 ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** MS

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** PS

Preservative: h: HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** PS

Return to Contents

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-12-0857

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: Rhine Channel Confirmation Testing Program

Attention: Chris Osuch
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Approved for release on 01/8/2013 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Rhine Channel Confirmation Testing Program
Work Order Number: 12-12-0857

1 Case Narrative 3

2 Client Sample Data 5
2.1 EPA 9060A Total Organic Carbon (Solid) 5
2.2 SM 2540 B (M) Total Solids (Solid) 7
2.3 Pyrethroids by EPA 8270D (M)/TQ/EI (Sediment) 9
2.4 EPA 8081A Organochlorine Pesticides (Solid) 12
2.5 EPA 8270C SIM PCB Congeners (Solid) 15
2.6 EPA 1631E (M) Hg Soil (Solid) 25
2.7 EPA 6020 ICP/MS Metals (Solid) 27

3 ASTM D4464M Particle Size 30

4 Quality Control Sample Data 38
4.1 MS/MSD and/or Duplicate 38
4.2 LCS/LCSD 48

5 Glossary of Terms and Qualifiers 56

6 Chain of Custody/Sample Receipt Form 57

Calscience Environmental Laboratories, Inc.

CASE NARRATIVE

Calscience Work Order No.: 12-12-0857
Project ID: Rhine Channel Confirmation Testing Program

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

Sample Condition on Receipt

Eight sediment samples were received for this project on December 13, 2012. 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 1.3°C. All samples were logged into the Laboratory Information Management System (LIMS), given laboratory identification numbers and then stored in refrigeration units pending chemistry testing.

COC discrepancies (if found) are noted in the Sample Anomaly Form.

Tests Performed

Total Solids by SM 2540B
Grain Size by ASTM D4464
Total Organic Carbon by EPA 9060A
Trace Metals by EPA 6020/7471
Mercury by EPA 1631
PCB Congeners by EPA 8270C SIM
Chlorinated Pesticides by EPA 8081A
Pyrethroids by EPA 8270DM GC/MS/MS

Data Summary

<u>Holding times</u>

All holding times were met with the following exceptions.

Sample RC-14-SG was extracted outside the recommended EPA Method 8270C 14-day holding time due to a necessary re-extraction and analysis. However, SW-846 Ch.4, Table 4-1 (Rev. 4) lists “none” as the recommended holding time for PCBs. In addition, the sample was frozen prior to holding time expiration and Calscience follows standard industry practice and the Puget Sound protocol for holding times in sediment, which states holding time may be extended up to one year if kept frozen after collection. Therefore, the results have not been flagged as exceeding the EPA recommended holding time.

Return to Contents

Calibration

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

Blanks

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

Reporting Limits

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

Laboratory Control Samples

A Laboratory Control Sample (LCS) analysis was performed for each applicable test. All parameters were within established control limits.

Matrix Spikes

Matrix spiking was performed at the required frequencies. Matrix spikes were performed on Rhine Channel project sample RC-13-SG. All parameters were within the acceptable control limits with the following exceptions.

For EPA 6020, the matrix spike recoveries of several metals were high due to the concentrations in the spiked sample exceeding the matrix spike concentration by four times or more. Given that the batch associated LCS/LCSDs recoveries and RPDs were within the acceptable limits, the data are released with no further action.

For Mercury by EPA 1631, the concentration of mercury in the sample was four times or more higher than the spike amount, therefore the recoveries could not be calculated. The LCS/LCSD recoveries and RPDs were within acceptable limits, the data are released with no further action.

Surrogates

Surrogate recoveries for all applicable tests and samples were within acceptable 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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-A**	**12/12/12 09:29**	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	2.3	0.17	1		%

RC-13-SG	**12-12-0857-2-A**	**12/12/12 10:02**	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	2.4	0.19	1		%

RC-14-SG	**12-12-0857-3-A**	**12/12/12 11:03**	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	2.0	0.17	1		%

RC-15-SG	**12-12-0857-4-A**	**12/12/12 11:42**	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	2.4	0.18	1		%

RC-16-SG	**12-12-0857-5-A**	**12/12/12 12:22**	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	1.6	0.14	1		%

RC-17-SG	**12-12-0857-6-A**	**12/12/12 13:12**	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	1.4	0.13	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC-0.0-0.5	**12-12-0857-7-A**	**12/12/12 15:12**	**Sediment**	**TOC 5**	**12/17/12**	**12/17/12 14:46**	**C1217TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	1.5	0.096	1		%

RC-03-SC-0.0-0.5	**12-12-0857-8-A**	**12/12/12 16:08**	**Sediment**	**TOC 5**	**12/17/12**	**12/17/12 14:46**	**C1217TOCL1**

-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	0.81	0.096	1		%

Method Blank	**099-06-013-814**	**N/A**	**Solid**	**TOC 5**	**12/14/12**	**12/14/12 19:06**	**C1214TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	ND	0.050	1		%

Method Blank	**099-06-013-815**	**N/A**	**Solid**	**TOC 5**	**12/17/12**	**12/17/12 14:46**	**C1217TOCL1**

Parameter	Result	RL	DF	Qual	Units
Carbon, Total Organic	ND	0.050	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-A**	**12/12/12 09:29**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	29.1	0.100	1		%

RC-13-SG	**12-12-0857-2-A**	**12/12/12 10:02**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	25.8	0.100	1		%

RC-14-SG	**12-12-0857-3-A**	**12/12/12 11:03**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	29.4	0.100	1		%

RC-15-SG	**12-12-0857-4-A**	**12/12/12 11:42**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	27.3	0.100	1		%

RC-16-SG	**12-12-0857-5-A**	**12/12/12 12:22**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	34.7	0.100	1		%

RC-17-SG	**12-12-0857-6-A**	**12/12/12 13:12**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	37.6	0.100	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC-0.0-0.5	**12-12-0857-7-A**	**12/12/12 15:12**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	51.9	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-03-SC-0.0-0.5	**12-12-0857-8-A**	**12/12/12 16:08**	**Sediment**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	52.0	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-019-2,122**	**N/A**	**Solid**	**N/A**	**12/14/12**	**12/14/12 18:30**	**C1214TSB2**

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-B**	**12/12/12 09:29**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 17:15**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	1.5	1.7	0.32	1	J	Fenpropathrin	ND	1.7	0.12	1	
Cyfluthrin	ND	1.7	0.29	1		Fenvalerate/Esfenvalerate	ND	1.7	0.12	1	
Cypermethrin	ND	1.7	0.24	1		Permethrin (cis/trans)	8.0	3.4	0.38	1	
Deltamethrin/Tralomethrin	ND	1.7	0.72	1		lambda-Cyhalothrin	ND	1.7	0.15	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	113	25-200	

RC-13-SG	**12-12-0857-2-B**	**12/12/12 10:02**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 17:51**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	1.1	1.9	0.36	1	J	Fenpropathrin	ND	1.9	0.14	1	
Cyfluthrin	0.75	1.9	0.33	1	J	Fenvalerate/Esfenvalerate	ND	1.9	0.14	1	
Cypermethrin	ND	1.9	0.27	1		Permethrin (cis/trans)	4.5	3.9	0.43	1	
Deltamethrin/Tralomethrin	ND	1.9	0.81	1		lambda-Cyhalothrin	ND	1.9	0.17	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	98	25-200	

RC-14-SG	**12-12-0857-3-B**	**12/12/12 11:03**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 18:26**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	1.0	1.7	0.32	1	J	Fenpropathrin	ND	1.7	0.12	1	
Cyfluthrin	ND	1.7	0.29	1		Fenvalerate/Esfenvalerate	ND	1.7	0.12	1	
Cypermethrin	ND	1.7	0.23	1		Permethrin (cis/trans)	3.6	3.4	0.38	1	
Deltamethrin/Tralomethrin	ND	1.7	0.71	1		lambda-Cyhalothrin	ND	1.7	0.15	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	111	25-200	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-15-SG	**12-12-0857-4-A**	**12/12/12 11:42**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 19:03**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	1.1	1.8	0.34	1	J	Fenpropathrin	ND	1.8	0.13	1	
Cyfluthrin	0.76	1.8	0.31	1	J	Fenvalerate/Esfenvalerate	ND	1.8	0.13	1	
Cypermethrin	ND	1.8	0.25	1		Permethrin (cis/trans)	5.8	3.7	0.40	1	
Deltamethrin/Tralomethrin	ND	1.8	0.77	1		lambda-Cyhalothrin	ND	1.8	0.16	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	114	25-200	

RC-16-SG	**12-12-0857-5-B**	**12/12/12 12:22**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 19:39**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.53	1.4	0.27	1	J	Fenpropathrin	ND	1.4	0.10	1	
Cyfluthrin	ND	1.4	0.24	1		Fenvalerate/Esfenvalerate	ND	1.4	0.10	1	
Cypermethrin	ND	1.4	0.20	1		Permethrin (cis/trans)	0.84	2.9	0.32	1	J
Deltamethrin/Tralomethrin	ND	1.4	0.60	1		lambda-Cyhalothrin	ND	1.4	0.13	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	108	25-200	

RC-17-SG	**12-12-0857-6-B**	**12/12/12 13:12**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 20:16**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.72	1.3	0.25	1	J	Fenpropathrin	ND	1.3	0.097	1	
Cyfluthrin	ND	1.3	0.23	1		Fenvalerate/Esfenvalerate	ND	1.3	0.095	1	
Cypermethrin	ND	1.3	0.18	1		Permethrin (cis/trans)	1.5	2.7	0.29	1	J
Deltamethrin/Tralomethrin	ND	1.3	0.56	1		lambda-Cyhalothrin	ND	1.3	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	97	25-200	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC-0.0-0.5	**12-12-0857-7-B**	**12/12/12 15:12**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 20:52**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.68	0.96	0.18	1	J	Fenpropathrin	ND	0.96	0.070	1	
Cyfluthrin	ND	0.96	0.16	1		Fenvalerate/Esfenvalerate	ND	0.96	0.069	1	
Cypermethrin	ND	0.96	0.13	1		Permethrin (cis/trans)	4.2	1.9	0.21	1	
Deltamethrin/Tralomethrin	ND	0.96	0.40	1		lambda-Cyhalothrin	ND	0.96	0.084	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	125	25-200	

RC-03-SC-0.0-0.5	**12-12-0857-8-B**	**12/12/12 16:08**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 21:28**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.34	0.96	0.18	1	J	Fenpropathrin	ND	0.96	0.070	1	
Cyfluthrin	0.19	0.96	0.16	1	J	Fenvalerate/Esfenvalerate	ND	0.96	0.069	1	
Cypermethrin	ND	0.96	0.13	1		Permethrin (cis/trans)	3.9	1.9	0.21	1	
Deltamethrin/Tralomethrin	ND	0.96	0.40	1		lambda-Cyhalothrin	ND	0.96	0.084	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	115	25-200	

Method Blank	**099-14-403-28**	**N/A**	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12 16:39**	**121217L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.50	0.094	1		Fenpropathrin	ND	0.50	0.036	1	
Cyfluthrin	ND	0.50	0.085	1		Fenvalerate/Esfenvalerate	ND	0.50	0.036	1	
Cypermethrin	ND	0.50	0.069	1		Permethrin (cis/trans)	ND	1.0	0.11	1	
Deltamethrin/Tralomethrin	ND	0.50	0.21	1		lambda-Cyhalothrin	ND	0.50	0.044	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	85	25-200	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/13/12
Work Order No:	12-12-0857
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-B**	**12/12/12 09:29**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 11:39**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	3.4	1.1	1		4,4'-DDE	10	3.4	1.0	1	
2,4'-DDD	ND	3.4	1.2	1		4,4'-DDT	ND	3.4	1.1	1	
2,4'-DDE	ND	3.4	1.0	1		Alpha Chlordane	ND	3.4	1.1	1	
2,4'-DDT	ND	3.4	1.0	1		Gamma Chlordane	ND	3.4	1.1	1	
4,4'-DDD	ND	3.4	1.1	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	70	50-130		Decachlorobiphenyl	99	50-130	

RC-13-SG	**12-12-0857-2-B**	**12/12/12 10:02**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 11:53**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	3.9	1.3	1		4,4'-DDE	13	3.9	1.2	1	
2,4'-DDD	ND	3.9	1.3	1		4,4'-DDT	ND	3.9	1.3	1	
2,4'-DDE	ND	3.9	1.2	1		Alpha Chlordane	ND	3.9	1.2	1	
2,4'-DDT	ND	3.9	1.2	1		Gamma Chlordane	ND	3.9	1.2	1	
4,4'-DDD	ND	3.9	1.2	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	75	50-130		Decachlorobiphenyl	96	50-130	

RC-14-SG	**12-12-0857-3-B**	**12/12/12 11:03**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 12:07**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	3.4	1.1	1		4,4'-DDE	12	3.4	1.0	1	
2,4'-DDD	ND	3.4	1.2	1		4,4'-DDT	ND	3.4	1.1	1	
2,4'-DDE	ND	3.4	1.0	1		Alpha Chlordane	ND	3.4	1.1	1	
2,4'-DDT	ND	3.4	1.0	1		Gamma Chlordane	ND	3.4	1.1	1	
4,4'-DDD	ND	3.4	1.1	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	70	50-130		Decachlorobiphenyl	91	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-15-SG	**12-12-0857-4-B**	**12/12/12 11:42**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 12:22**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	3.7	1.2	1		4,4'-DDE	13	3.7	1.1	1	
2,4'-DDD	ND	3.7	1.2	1		4,4'-DDT	ND	3.7	1.2	1	
2,4'-DDE	ND	3.7	1.1	1		Alpha Chlordane	ND	3.7	1.2	1	
2,4'-DDT	ND	3.7	1.1	1		Gamma Chlordane	ND	3.7	1.2	1	
4,4'-DDD	ND	3.7	1.2	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	82	50-130		Decachlorobiphenyl	105	50-130	

RC-16-SG	**12-12-0857-5-B**	**12/12/12 12:22**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 12:36**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.9	0.95	1		4,4'-DDE	6.5	2.9	0.86	1	
2,4'-DDD	ND	2.9	0.98	1		4,4'-DDT	ND	2.9	0.96	1	
2,4'-DDE	ND	2.9	0.88	1		Alpha Chlordane	ND	2.9	0.92	1	
2,4'-DDT	ND	2.9	0.87	1		Gamma Chlordane	ND	2.9	0.92	1	
4,4'-DDD	ND	2.9	0.91	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	70	50-130		Decachlorobiphenyl	85	50-130	

RC-17-SG	**12-12-0857-6-B**	**12/12/12 13:12**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 12:50**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	2.7	0.88	1		4,4'-DDE	5.5	2.7	0.80	1	
2,4'-DDD	ND	2.7	0.90	1		4,4'-DDT	ND	2.7	0.89	1	
2,4'-DDE	ND	2.7	0.81	1		Alpha Chlordane	ND	2.7	0.85	1	
2,4'-DDT	ND	2.7	0.80	1		Gamma Chlordane	ND	2.7	0.84	1	
4,4'-DDD	ND	2.7	0.84	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	69	50-130		Decachlorobiphenyl	82	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/13/12
Work Order No:	12-12-0857
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC-0.0-0.5	**12-12-0857-7-B**	**12/12/12 15:12**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 13:05**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.9	0.64	1		4,4'-DDE	9.8	1.9	0.58	1	
2,4'-DDD	ND	1.9	0.65	1		4,4'-DDT	ND	1.9	0.64	1	
2,4'-DDE	ND	1.9	0.59	1		Alpha Chlordane	ND	1.9	0.62	1	
2,4'-DDT	ND	1.9	0.58	1		Gamma Chlordane	ND	1.9	0.61	1	
4,4'-DDD	ND	1.9	0.61	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	74	50-130		Decachlorobiphenyl	92	50-130	

RC-03-SC-0.0-0.5	**12-12-0857-8-B**	**12/12/12 16:08**	**Sediment**	**GC 51**	**12/14/12**	**12/19/12 13:19**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.9	0.63	1		4,4'-DDE	9.9	1.9	0.58	1	
2,4'-DDD	ND	1.9	0.65	1		4,4'-DDT	ND	1.9	0.64	1	
2,4'-DDE	ND	1.9	0.59	1		Alpha Chlordane	ND	1.9	0.62	1	
2,4'-DDT	ND	1.9	0.58	1		Gamma Chlordane	ND	1.9	0.61	1	
4,4'-DDD	ND	1.9	0.61	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	78	50-130		Decachlorobiphenyl	98	50-130	

Method Blank	**099-12-858-175**	**N/A**	**Solid**	**GC 51**	**12/14/12**	**12/19/12 11:25**	**121214L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.0	0.33	1		4,4'-DDE	ND	1.0	0.30	1	
2,4'-DDD	ND	1.0	0.34	1		4,4'-DDT	ND	1.0	0.33	1	
2,4'-DDE	ND	1.0	0.31	1		Alpha Chlordane	ND	1.0	0.32	1	
2,4'-DDT	ND	1.0	0.30	1		Gamma Chlordane	ND	1.0	0.32	1	
4,4'-DDD	ND	1.0	0.32	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	90	50-130		Decachlorobiphenyl	103	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-B**	**12/12/12 09:29**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 14:19**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	2.0	1.7	0.54	1		PCB126	ND	1.7	0.47	1	
PCB028	1.1	1.7	0.34	1	J	PCB128	0.96	1.7	0.35	1	J
PCB037	1.3	1.7	0.45	1	J	PCB138/158	4.3	3.4	0.70	1	
PCB044	2.9	1.7	0.45	1		PCB149	2.7	1.7	0.31	1	
PCB049	2.9	1.7	0.41	1		PCB151	0.82	1.7	0.36	1	J
PCB052	3.9	1.7	0.33	1		PCB153	4.5	1.7	0.36	1	
PCB066	5.3	1.7	0.31	1		PCB156	ND	1.7	0.34	1	
PCB070	3.8	1.7	0.28	1		PCB157	ND	1.7	0.33	1	
PCB074	2.2	1.7	0.32	1		PCB167	ND	1.7	0.34	1	
PCB077	0.63	1.7	0.33	1	J	PCB168	ND	1.7	0.30	1	
PCB081	ND	1.7	0.42	1		PCB169	ND	1.7	0.28	1	
PCB087	1.3	1.7	0.35	1	J	PCB170	1.3	1.7	0.32	1	J
PCB099	3.3	1.7	0.29	1		PCB177	0.58	1.7	0.42	1	J
PCB101	5.2	1.7	0.28	1		PCB180	2.3	1.7	0.21	1	
PCB105	2.3	1.7	0.36	1		PCB183	0.52	1.7	0.38	1	J
PCB110	4.6	1.7	0.35	1		PCB187	1.8	1.7	0.36	1	
PCB114	0.58	1.7	0.34	1	J	PCB189	ND	1.7	0.29	1	
PCB118	5.2	1.7	0.46	1		PCB194	0.81	1.7	0.33	1	J
PCB119	ND	1.7	0.30	1		PCB201	ND	1.7	0.20	1	
PCB123	ND	1.7	0.30	1		PCB206	0.83	1.7	0.28	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	86	50-125		p-Terphenyl-d14	93	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-13-SG	**12-12-0857-2-B**	**12/12/12 10:02**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 14:47**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	7.8	1.9	0.61	1		PCB126	ND	1.9	0.54	1	
PCB028	6.5	1.9	0.39	1		PCB128	0.85	1.9	0.40	1	J
PCB037	1.7	1.9	0.51	1	J	PCB138/158	3.4	3.9	0.79	1	J
PCB044	4.9	1.9	0.51	1		PCB149	2.5	1.9	0.35	1	
PCB049	4.1	1.9	0.46	1		PCB151	0.68	1.9	0.40	1	J
PCB052	5.8	1.9	0.38	1		PCB153	3.8	1.9	0.40	1	
PCB066	7.4	1.9	0.35	1		PCB156	0.54	1.9	0.38	1	J
PCB070	5.9	1.9	0.32	1		PCB157	0.48	1.9	0.37	1	J
PCB074	3.1	1.9	0.37	1		PCB167	ND	1.9	0.39	1	
PCB077	0.64	1.9	0.38	1	J	PCB168	ND	1.9	0.33	1	
PCB081	ND	1.9	0.47	1		PCB169	ND	1.9	0.32	1	
PCB087	1.1	1.9	0.39	1	J	PCB170	1.5	1.9	0.36	1	J
PCB099	3.3	1.9	0.33	1		PCB177	ND	1.9	0.48	1	
PCB101	4.8	1.9	0.31	1		PCB180	2.0	1.9	0.24	1	
PCB105	1.6	1.9	0.41	1	J	PCB183	ND	1.9	0.43	1	
PCB110	3.9	1.9	0.40	1		PCB187	1.5	1.9	0.41	1	J
PCB114	0.40	1.9	0.39	1	J	PCB189	ND	1.9	0.33	1	
PCB118	4.7	1.9	0.51	1		PCB194	0.71	1.9	0.37	1	J
PCB119	ND	1.9	0.34	1		PCB201	ND	1.9	0.22	1	
PCB123	ND	1.9	0.34	1		PCB206	1.2	1.9	0.32	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	71	50-125		p-Terphenyl-d14	84	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-14-SG	**12-12-0857-3-A**	**12/12/12 11:03**	**Sediment**	**GC/MS HHH**	**01/03/13**	**01/07/13 14:05**	**130103L05**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	2.2	1.7	0.53	1		PCB126	ND	1.7	0.47	1	
PCB028	1.7	1.7	0.34	1	J	PCB128	0.87	1.7	0.35	1	J
PCB037	0.99	1.7	0.45	1	J	PCB138/158	5.4	3.4	0.69	1	
PCB044	2.4	1.7	0.45	1		PCB149	3.6	1.7	0.30	1	
PCB049	2.8	1.7	0.40	1		PCB151	0.92	1.7	0.35	1	J
PCB052	5.0	1.7	0.33	1		PCB153	5.6	1.7	0.35	1	
PCB066	5.1	1.7	0.31	1		PCB156	0.64	1.7	0.33	1	J
PCB070	4.3	1.7	0.28	1		PCB157	0.39	1.7	0.33	1	J
PCB074	2.0	1.7	0.32	1		PCB167	ND	1.7	0.34	1	
PCB077	0.63	1.7	0.33	1	J	PCB168	ND	1.7	0.29	1	
PCB081	ND	1.7	0.42	1		PCB169	ND	1.7	0.28	1	
PCB087	1.6	1.7	0.34	1	J	PCB170	1.6	1.7	0.31	1	J
PCB099	3.7	1.7	0.29	1		PCB177	0.65	1.7	0.42	1	J
PCB101	6.1	1.7	0.28	1		PCB180	2.9	1.7	0.21	1	
PCB105	2.1	1.7	0.36	1		PCB183	0.70	1.7	0.38	1	J
PCB110	5.3	1.7	0.35	1		PCB187	2.1	1.7	0.36	1	
PCB114	0.54	1.7	0.34	1	J	PCB189	ND	1.7	0.29	1	
PCB118	5.9	1.7	0.45	1		PCB194	0.88	1.7	0.33	1	J
PCB119	ND	1.7	0.30	1		PCB201	ND	1.7	0.19	1	
PCB123	ND	1.7	0.30	1		PCB206	0.72	1.7	0.28	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	104	50-125		p-Terphenyl-d14	91	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-15-SG	**12-12-0857-4-B**	**12/12/12 11:42**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 15:45**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.6	1.8	0.58	1	J	PCB126	ND	1.8	0.51	1	
PCB028	1.3	1.8	0.36	1	J	PCB128	0.66	1.8	0.38	1	J
PCB037	0.69	1.8	0.48	1	J	PCB138/158	3.6	3.7	0.74	1	J
PCB044	1.6	1.8	0.48	1	J	PCB149	2.4	1.8	0.33	1	
PCB049	2.1	1.8	0.43	1		PCB151	0.75	1.8	0.38	1	J
PCB052	2.8	1.8	0.35	1		PCB153	4.2	1.8	0.38	1	
PCB066	3.5	1.8	0.33	1		PCB156	ND	1.8	0.36	1	
PCB070	2.6	1.8	0.30	1		PCB157	ND	1.8	0.35	1	
PCB074	1.4	1.8	0.35	1	J	PCB167	ND	1.8	0.37	1	
PCB077	0.37	1.8	0.36	1	J	PCB168	ND	1.8	0.32	1	
PCB081	ND	1.8	0.45	1		PCB169	ND	1.8	0.30	1	
PCB087	0.87	1.8	0.37	1	J	PCB170	1.3	1.8	0.34	1	J
PCB099	2.9	1.8	0.31	1		PCB177	0.55	1.8	0.45	1	J
PCB101	4.4	1.8	0.30	1		PCB180	1.7	1.8	0.22	1	J
PCB105	1.3	1.8	0.38	1	J	PCB183	0.42	1.8	0.41	1	J
PCB110	3.2	1.8	0.38	1		PCB187	1.5	1.8	0.38	1	J
PCB114	0.47	1.8	0.37	1	J	PCB189	ND	1.8	0.31	1	
PCB118	3.7	1.8	0.49	1		PCB194	0.80	1.8	0.35	1	J
PCB119	ND	1.8	0.32	1		PCB201	ND	1.8	0.21	1	
PCB123	ND	1.8	0.32	1		PCB206	0.72	1.8	0.30	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	83	50-125		p-Terphenyl-d14	101	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-16-SG	**12-12-0857-5-B**	**12/12/12 12:22**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 16:13**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	1.4	0.45	1		PCB126	ND	1.4	0.40	1	
PCB028	0.49	1.4	0.29	1	J	PCB128	ND	1.4	0.30	1	
PCB037	0.38	1.4	0.38	1	J	PCB138/158	0.95	2.9	0.58	1	J
PCB044	0.94	1.4	0.38	1	J	PCB149	0.72	1.4	0.26	1	J
PCB049	0.66	1.4	0.34	1	J	PCB151	ND	1.4	0.30	1	
PCB052	0.87	1.4	0.28	1	J	PCB153	1.1	1.4	0.30	1	J
PCB066	1.4	1.4	0.26	1	J	PCB156	ND	1.4	0.28	1	
PCB070	0.91	1.4	0.24	1	J	PCB157	ND	1.4	0.28	1	
PCB074	0.60	1.4	0.27	1	J	PCB167	ND	1.4	0.29	1	
PCB077	ND	1.4	0.28	1		PCB168	ND	1.4	0.25	1	
PCB081	ND	1.4	0.35	1		PCB169	ND	1.4	0.24	1	
PCB087	ND	1.4	0.29	1		PCB170	0.37	1.4	0.27	1	J
PCB099	0.68	1.4	0.25	1	J	PCB177	ND	1.4	0.36	1	
PCB101	1.1	1.4	0.23	1	J	PCB180	0.50	1.4	0.18	1	J
PCB105	0.39	1.4	0.30	1	J	PCB183	ND	1.4	0.32	1	
PCB110	0.75	1.4	0.30	1	J	PCB187	0.47	1.4	0.30	1	J
PCB114	ND	1.4	0.29	1		PCB189	ND	1.4	0.25	1	
PCB118	0.80	1.4	0.38	1	J	PCB194	ND	1.4	0.28	1	
PCB119	ND	1.4	0.25	1		PCB201	ND	1.4	0.16	1	
PCB123	ND	1.4	0.25	1		PCB206	ND	1.4	0.24	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	57	50-125		p-Terphenyl-d14	62	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 6 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-17-SG	**12-12-0857-6-B**	**12/12/12 13:12**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 16:40**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	1.3	0.42	1		PCB126	ND	1.3	0.37	1	
PCB028	ND	1.3	0.26	1		PCB128	ND	1.3	0.27	1	
PCB037	ND	1.3	0.35	1		PCB138/158	ND	2.7	0.54	1	
PCB044	0.38	1.3	0.35	1	J	PCB149	0.24	1.3	0.24	1	J
PCB049	ND	1.3	0.31	1		PCB151	ND	1.3	0.28	1	
PCB052	0.33	1.3	0.26	1	J	PCB153	0.52	1.3	0.28	1	J
PCB066	0.35	1.3	0.24	1	J	PCB156	ND	1.3	0.26	1	
PCB070	0.27	1.3	0.22	1	J	PCB157	ND	1.3	0.25	1	
PCB074	ND	1.3	0.25	1		PCB167	ND	1.3	0.27	1	
PCB077	ND	1.3	0.26	1		PCB168	ND	1.3	0.23	1	
PCB081	ND	1.3	0.33	1		PCB169	ND	1.3	0.22	1	
PCB087	ND	1.3	0.27	1		PCB170	ND	1.3	0.25	1	
PCB099	0.29	1.3	0.23	1	J	PCB177	ND	1.3	0.33	1	
PCB101	0.42	1.3	0.22	1	J	PCB180	0.23	1.3	0.16	1	J
PCB105	ND	1.3	0.28	1		PCB183	ND	1.3	0.30	1	
PCB110	0.32	1.3	0.27	1	J	PCB187	ND	1.3	0.28	1	
PCB114	ND	1.3	0.27	1		PCB189	ND	1.3	0.23	1	
PCB118	0.41	1.3	0.35	1	J	PCB194	ND	1.3	0.25	1	
PCB119	ND	1.3	0.23	1		PCB201	ND	1.3	0.15	1	
PCB123	ND	1.3	0.23	1		PCB206	ND	1.3	0.22	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	73	50-125		p-Terphenyl-d14	79	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC-0.0-0.5	**12-12-0857-7-B**	**12/12/12 15:12**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 17:07**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	3.0	0.96	0.30	1		PCB126	ND	0.96	0.27	1	
PCB028	2.5	0.96	0.19	1		PCB128	0.99	0.96	0.20	1	
PCB037	0.95	0.96	0.25	1	J	PCB138/158	5.6	1.9	0.39	1	
PCB044	3.7	0.96	0.25	1		PCB149	3.8	0.96	0.17	1	
PCB049	4.6	0.96	0.23	1		PCB151	1.0	0.96	0.20	1	
PCB052	6.1	0.96	0.19	1		PCB153	5.9	0.96	0.20	1	
PCB066	7.0	0.96	0.18	1		PCB156	0.78	0.96	0.19	1	J
PCB070	5.0	0.96	0.16	1		PCB157	ND	0.96	0.18	1	
PCB074	2.6	0.96	0.18	1		PCB167	ND	0.96	0.19	1	
PCB077	0.69	0.96	0.19	1	J	PCB168	ND	0.96	0.17	1	
PCB081	ND	0.96	0.24	1		PCB169	ND	0.96	0.16	1	
PCB087	1.7	0.96	0.19	1		PCB170	1.7	0.96	0.18	1	
PCB099	4.4	0.96	0.16	1		PCB177	0.71	0.96	0.24	1	J
PCB101	6.6	0.96	0.16	1		PCB180	2.9	0.96	0.12	1	
PCB105	2.9	0.96	0.20	1		PCB183	0.73	0.96	0.21	1	J
PCB110	6.1	0.96	0.20	1		PCB187	2.4	0.96	0.20	1	
PCB114	0.62	0.96	0.19	1	J	PCB189	ND	0.96	0.16	1	
PCB118	6.7	0.96	0.26	1		PCB194	1.1	0.96	0.18	1	
PCB119	0.45	0.96	0.17	1	J	PCB201	ND	0.96	0.11	1	
PCB123	ND	0.96	0.17	1		PCB206	1.0	0.96	0.16	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	106	50-125		p-Terphenyl-d14	97	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-03-SC-0.0-0.5	**12-12-0857-8-B**	**12/12/12 16:08**	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12 17:35**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	5.6	0.96	0.30	1		PCB126	ND	0.96	0.27	1	
PCB028	4.4	0.96	0.19	1		PCB128	2.4	0.96	0.20	1	
PCB037	6.6	0.96	0.25	1		PCB138/158	11	1.9	0.39	1	
PCB044	6.5	0.96	0.25	1		PCB149	8.6	0.96	0.17	1	
PCB049	8.7	0.96	0.23	1		PCB151	2.3	0.96	0.20	1	
PCB052	11	0.96	0.19	1		PCB153	13	0.96	0.20	1	
PCB066	15	0.96	0.18	1		PCB156	1.3	0.96	0.19	1	
PCB070	9.1	0.96	0.16	1		PCB157	2.1	0.96	0.18	1	
PCB074	5.0	0.96	0.18	1		PCB167	ND	0.96	0.19	1	
PCB077	1.1	0.96	0.19	1		PCB168	ND	0.96	0.17	1	
PCB081	ND	0.96	0.24	1		PCB169	ND	0.96	0.16	1	
PCB087	2.9	0.96	0.19	1		PCB170	3.7	0.96	0.18	1	
PCB099	10	0.96	0.16	1		PCB177	1.9	0.96	0.24	1	
PCB101	15	0.96	0.16	1		PCB180	7.0	0.96	0.12	1	
PCB105	5.3	0.96	0.20	1		PCB183	1.8	0.96	0.21	1	
PCB110	12	0.96	0.20	1		PCB187	5.9	0.96	0.20	1	
PCB114	1.8	0.96	0.19	1		PCB189	ND	0.96	0.16	1	
PCB118	14	0.96	0.26	1		PCB194	2.7	0.96	0.18	1	
PCB119	1.2	0.96	0.17	1		PCB201	ND	0.96	0.11	1	
PCB123	ND	0.96	0.17	1		PCB206	4.1	0.96	0.16	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	123	50-125		p-Terphenyl-d14	121	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 9 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-76**	**N/A**	**Solid**	**GC/MS HHH**	**12/14/12**	**12/19/12 12:03**	**121214L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	93	50-125		p-Terphenyl-d14	94	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-78**	**N/A**	**Solid**	**GC/MS HHH**	**01/03/13**	**01/07/13 16:52**	**130103L05**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	72	50-125		p-Terphenyl-d14	90	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-B**	**12/12/12 09:29**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	5.6	0.34	0.13	500		mg/kg

RC-13-SG	**12-12-0857-2-B**	**12/12/12 10:02**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	6.3	0.39	0.15	500		mg/kg

RC-14-SG	**12-12-0857-3-B**	**12/12/12 11:03**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	4.9	0.34	0.13	500		mg/kg

RC-15-SG	**12-12-0857-4-B**	**12/12/12 11:42**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	4.3	0.37	0.14	500		mg/kg

RC-16-SG	**12-12-0857-5-B**	**12/12/12 12:22**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	3.0	0.29	0.11	500		mg/kg

RC-17-SG	**12-12-0857-6-B**	**12/12/12 13:12**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.3	0.053	0.020	100		mg/kg

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC-0.0-0.5	**12-12-0857-7-B**	**12/12/12 15:12**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	8.6	0.77	0.29	2000		mg/kg

RC-03-SC-0.0-0.5	**12-12-0857-8-B**	**12/12/12 16:08**	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	3.2	0.19	0.074	500		mg/kg

Method Blank	**099-15-082-8**	**N/A**	**Solid**	**Hg/AF 1**	**12/18/12**	**12/18/12 00:00**	**121218L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.00020	0.000076	1		mg/kg

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/13/12
Work Order No:	12-12-0857
Preparation:	EPA 3050B
Method:	EPA 6020
Units:	mg/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-12-SG	**12-12-0857-1-B**	**12/12/12 09:29**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 21:59**	**121214L02E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	16.5	0.344	0.300	1		Lead	118	0.344	0.226	1	
Cadmium	0.912	0.344	0.197	1		Nickel	20.1	0.344	0.174	1	
Chromium	35.3	0.344	0.213	1		Selenium	1.26	0.344	0.251	1	
Copper	673	0.344	0.144	1		Zinc	430	3.44	2.73	1	

RC-13-SG	**12-12-0857-2-B**	**12/12/12 10:02**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 21:55**	**121214L02E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	19.1	0.388	0.338	1		Lead	127	0.388	0.255	1	
Cadmium	0.877	0.388	0.222	1		Nickel	23.2	0.388	0.196	1	
Chromium	41.6	0.388	0.241	1		Selenium	0.991	0.388	0.283	1	
Copper	862	0.388	0.162	1		Zinc	486	3.88	3.08	1	

RC-14-SG	**12-12-0857-3-B**	**12/12/12 11:03**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 22:02**	**121214L02E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	15.9	0.340	0.297	1		Lead	96.4	0.340	0.224	1	
Cadmium	0.833	0.340	0.195	1		Nickel	20.6	0.340	0.172	1	
Chromium	35.8	0.340	0.211	1		Selenium	0.933	0.340	0.249	1	
Copper	605	0.340	0.143	1		Zinc	370	3.40	2.70	1	

RC-15-SG	**12-12-0857-4-B**	**12/12/12 11:42**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 22:44**	**121214L02E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	14.4	0.366	0.320	1		Lead	101	0.366	0.241	1	
Cadmium	0.841	0.366	0.210	1		Nickel	23.1	0.366	0.185	1	
Chromium	42.2	0.366	0.227	1		Selenium	1.64	0.183	0.134	0.5	
Copper	624	0.366	0.154	1		Zinc	425	3.66	2.91	1	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/13/12
Work Order No:	12-12-0857
Preparation:	EPA 3050B
Method:	EPA 6020
Units:	mg/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-16-SG	**12-12-0857-5-B**	**12/12/12 12:22**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 22:48**	**121214L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	10.9	0.288	0.252	1		Lead	63.1	0.288	0.190	1	
Cadmium	0.778	0.288	0.165	1		Nickel	19.6	0.288	0.146	1	
Chromium	29.8	0.288	0.179	1		Selenium	0.604	0.288	0.211	1	
Copper	318	0.288	0.121	1		Zinc	283	2.88	2.29	1	

RC-17-SG	**12-12-0857-6-B**	**12/12/12 13:12**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 22:52**	**121214L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	8.22	0.266	0.232	1		Lead	41.3	0.266	0.175	1	
Cadmium	0.736	0.266	0.152	1		Nickel	16.5	0.266	0.135	1	
Chromium	28.3	0.266	0.165	1		Selenium	0.844	0.133	0.0972	0.5	
Copper	249	0.266	0.111	1		Zinc	280	2.66	2.11	1	

RC-01-SC-0.0-0.5	**12-12-0857-7-B**	**12/12/12 15:12**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 22:56**	**121214L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	10.8	0.193	0.168	1		Lead	95.0	0.193	0.127	1	
Cadmium	0.930	0.193	0.110	1		Nickel	15.5	0.193	0.0975	1	
Chromium	26.8	0.193	0.120	1		Selenium	0.836	0.0963	0.0704	0.5	
Copper	386	0.193	0.0808	1		Zinc	285	1.93	1.53	1	

RC-03-SC-0.0-0.5	**12-12-0857-8-B**	**12/12/12 16:08**	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12 23:00**	**121214L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	7.79	0.192	0.168	1		Lead	66.8	0.192	0.127	1	
Cadmium	0.671	0.192	0.110	1		Nickel	12.0	0.192	0.0974	1	
Chromium	20.4	0.192	0.119	1		Selenium	0.585	0.192	0.141	1	
Copper	249	0.192	0.0806	1		Zinc	212	1.92	1.53	1	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-254-74**	**N/A**	**Solid**	**ICP/MS 04**	**12/14/12**	**12/14/12 21:09**	**121214L02E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	ND	0.0500	0.0437	0.5		Lead	ND	0.0500	0.0330	0.5	
Cadmium	ND	0.0500	0.0286	0.5		Nickel	ND	0.0500	0.0253	0.5	
Chromium	ND	0.0500	0.0310	0.5		Selenium	ND	0.0500	0.0365	0.5	
Copper	ND	0.0500	0.0210	0.5		Zinc	ND	0.500	0.397	0.5	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

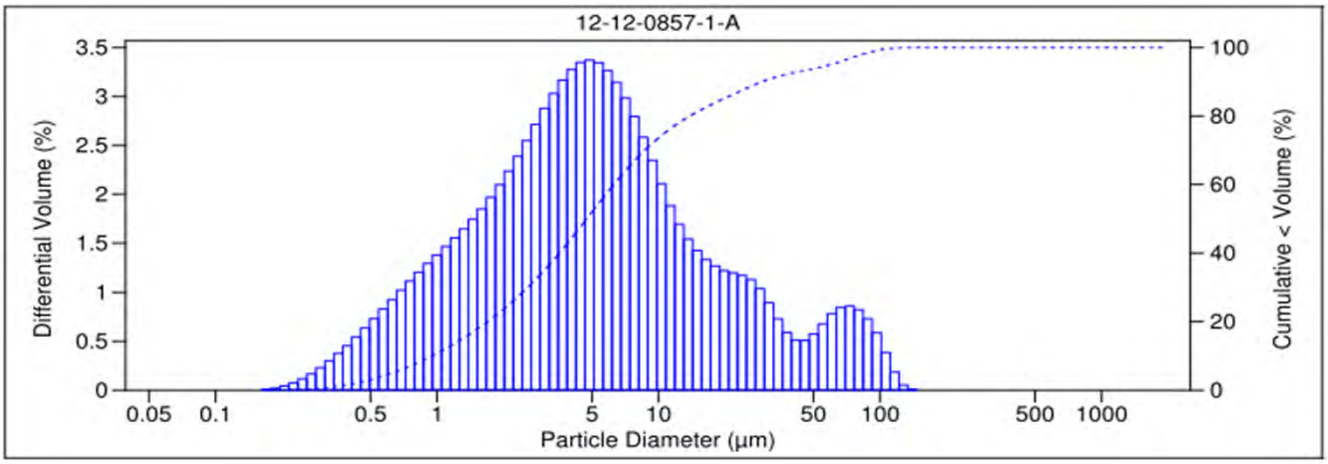
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 1 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-12-SG		Silt	0.012

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.05	4.55	52.18	43.22	95.41



Return to Contents

Calscience Environmental Laboratories, Inc.

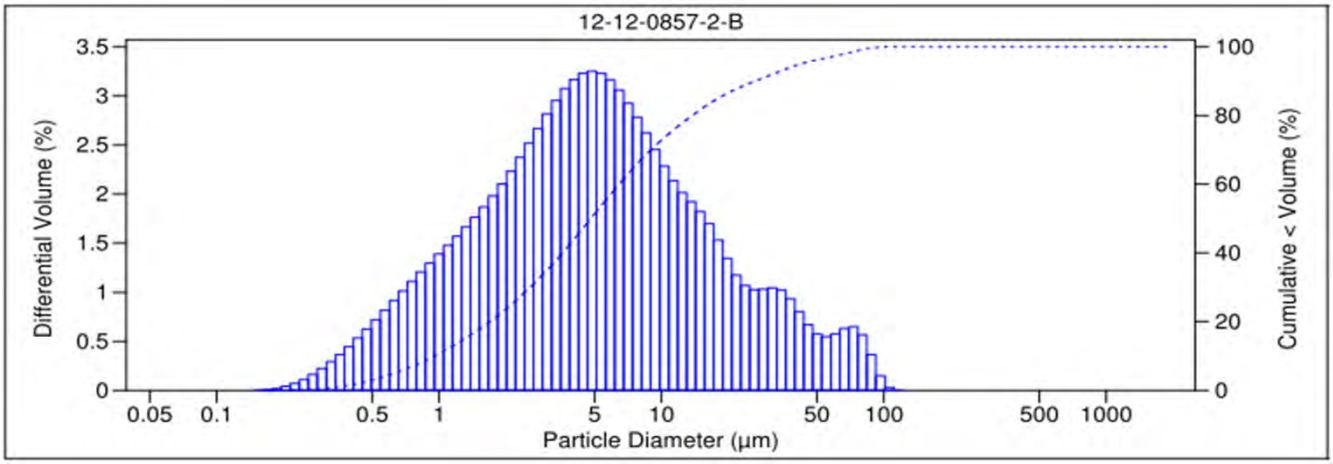
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 2 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-13-SG		Silt	0.010

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	2.49	54.65	42.85	97.51



Return to Contents

Calscience Environmental Laboratories, Inc.

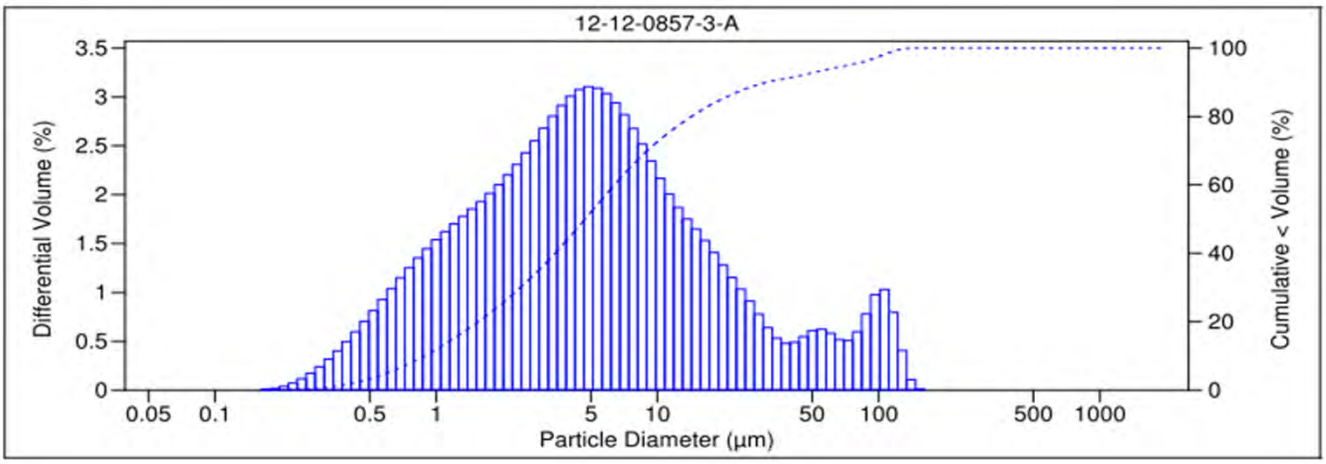
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 3 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-14-SG		Silt	0.013

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.42	5.41	50.17	44.00	94.17



Return to Contents

Calscience Environmental Laboratories, Inc.

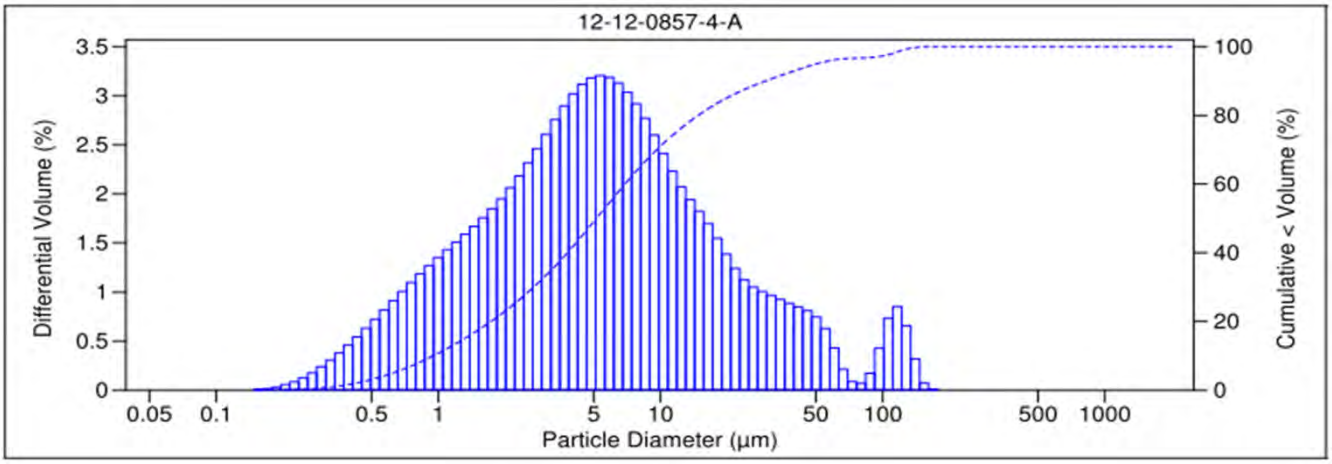
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 4 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-15-SG		Silt	0.013

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.88	2.80	55.50	40.82	96.32



Return to Contents

Calscience Environmental Laboratories, Inc.

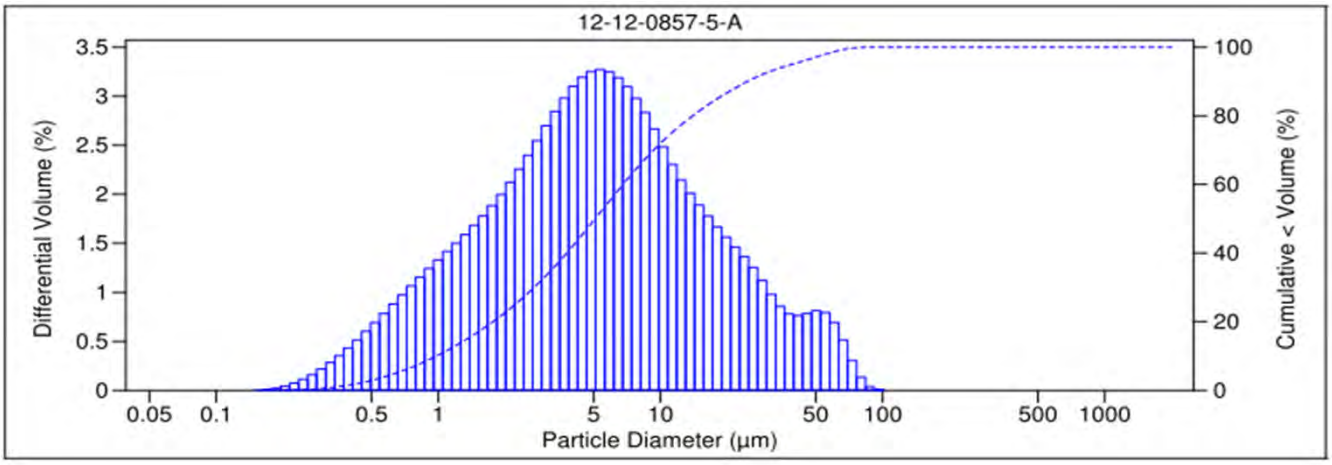
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 5 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-16-SG		Silt	0.010

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	1.11	57.81	41.08	98.89



Return to Contents

Calscience Environmental Laboratories, Inc.

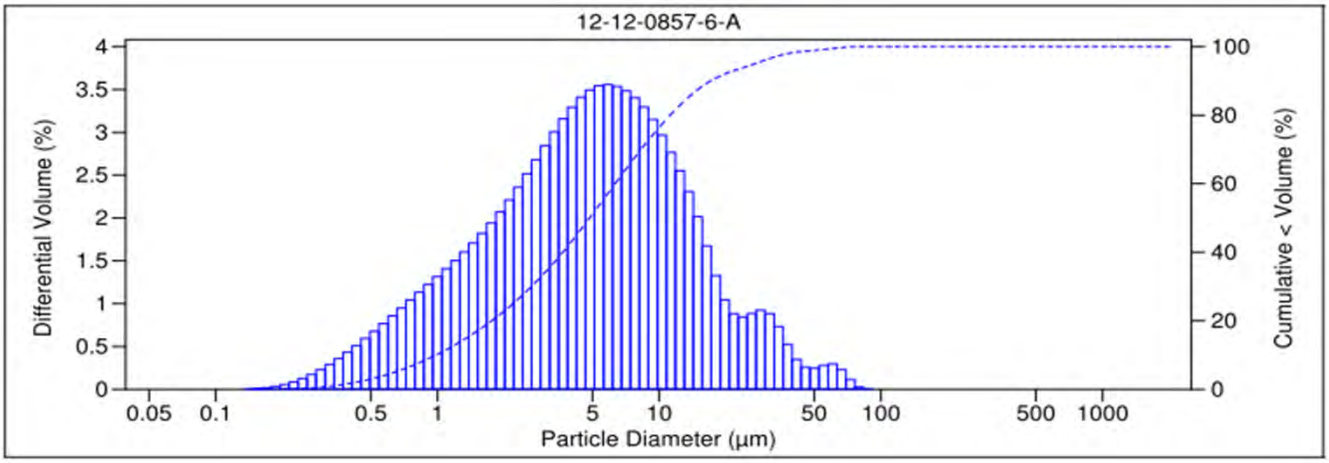
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 6 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-17-SG		Silt	0.008

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	0.42	57.44	42.14	99.58



Return to Contents

Calscience Environmental Laboratories, Inc.

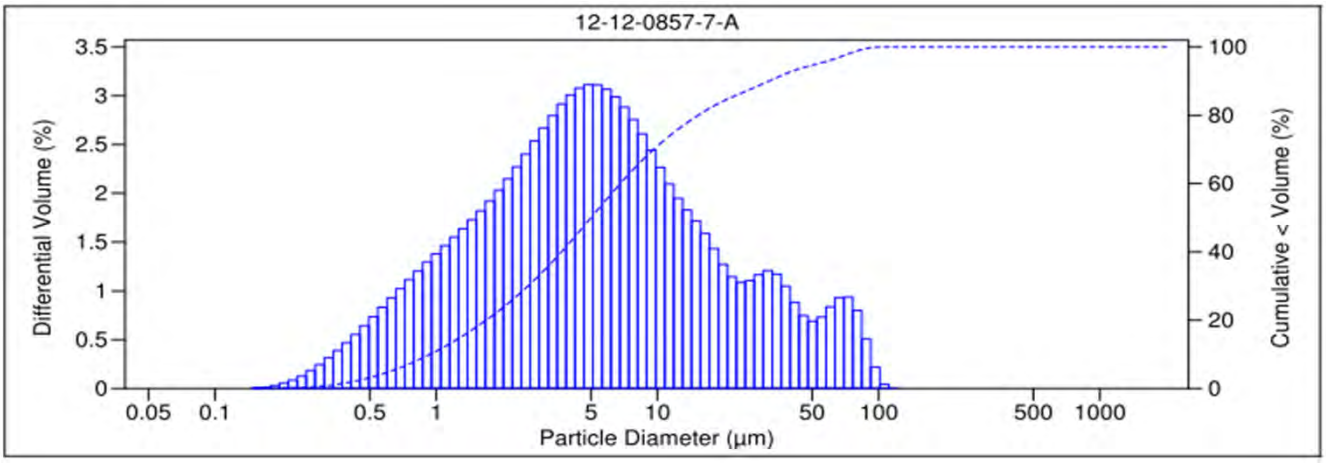
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 7 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-01-SC-0.0-0.5		Silt	0.012

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	3.58	54.53	41.89	96.42



Return to Contents

Calscience Environmental Laboratories, Inc.

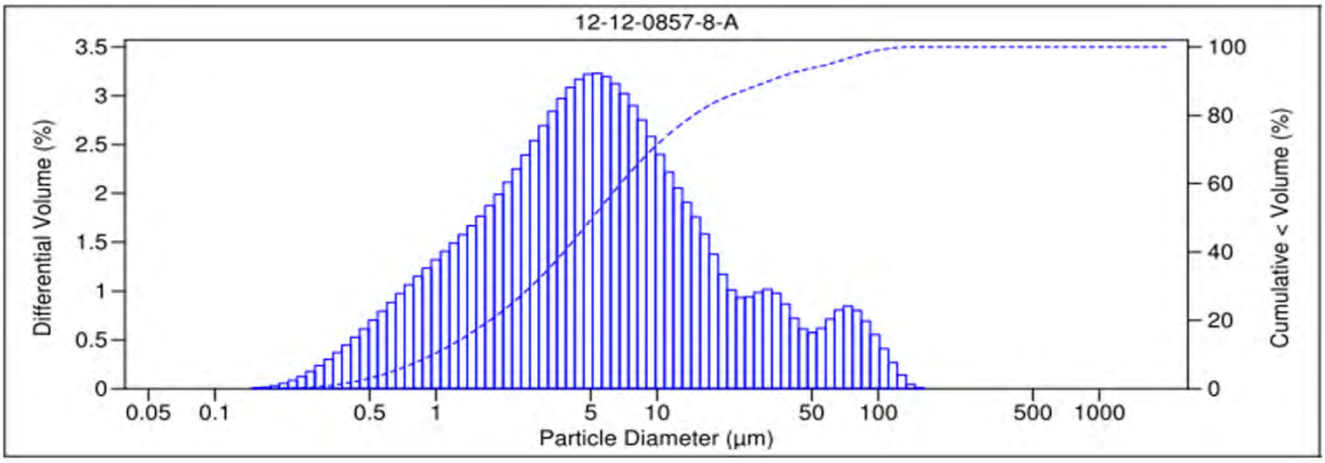
PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/12/2012
26300 La Alameda, Suite 240		Date Received:	12/13/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-0857
		Date Analyzed:	12/18/2012
		Method:	ASTM D4464M
Project:	Rhine Channel Confirmation Testing Program		Page 8 of 8

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-03-SC-0.0-0.5		Silt	0.012

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.16	4.53	54.20	41.11	95.31



Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-12-SG	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12**	**121214S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	4.795	25.00	33.60	115	32.15	109	80-120	4	0-20	
Cadmium	0.2652	25.00	27.25	108	25.76	102	80-120	6	0-20	
Chromium	10.26	25.00	32.27	88	32.76	90	80-120	2	0-20	
Copper	196.0	25.00	243.7	4X	240.8	4X	80-120	4X	0-20	Q
Lead	34.39	25.00	57.55	93	58.75	97	80-120	2	0-20	
Nickel	5.862	25.00	30.51	99	29.97	96	80-120	2	0-20	
Selenium	0.3674	25.00	24.14	95	24.18	95	80-120	0	0-20	
Zinc	125.0	25.00	148.9	4X	146.5	4X	80-120	4X	0-20	Q

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
RC-12-SG	**Sediment**	**ICP/MS 04**	**12/14/12**	**12/14/12**	**121214S02**

Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	%REC CL	Qualifiers
Arsenic	4.795	25.00	34.66	119	75-125	
Cadmium	0.2652	25.00	26.72	106	75-125	
Chromium	10.26	25.00	34.34	96	75-125	
Copper	196.0	25.00	254.1	4X	75-125	Q
Lead	34.39	25.00	59.55	101	75-125	
Nickel	5.862	25.00	32.14	105	75-125	
Selenium	0.3674	25.00	26.78	106	75-125	
Zinc	125.0	25.00	155.2	4X	75-125	Q

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-13-SG	**Sediment**	**TOC 5**	**12/14/12**	**12/14/12**	**C1214TOCS1**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.61	3.0	3.2	88	3.3	89	75-125	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-01-SC-0.0-0.5	**Sediment**	**TOC 5**	**12/17/12**	**12/17/12**	**C1217TOCS1**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.78	3.0	3.4	86	3.3	85	75-125	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC	Date Received:	12/13/12
26300 La Alameda, Suite 240	Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306	Preparation:	N/A
	Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
RC-13-SG	**Sediment**	**N/A**	**12/14/12**	**12/14/12**	**C1214TSD2**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	25.8	26.2	2	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-13-SG	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12**	**121217S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	1.392	28	1.809	36	25-200	26	0-30	
Bifenthrin	ND	5.000	2.352	47	2.379	48	25-200	1	0-30	
Cyfluthrin	ND	5.000	3.752	75	4.833	97	25-200	25	0-30	
Cypermethrin	ND	5.000	3.536	71	4.321	86	25-200	20	0-30	
Deltamethrin/Tralomethrin	ND	5.000	4.356	87	5.541	111	25-200	24	0-30	
Fenpropathrin	ND	5.000	2.325	47	2.966	59	25-200	24	0-30	
Fenvalerate/Esfenvalerate	ND	5.000	4.697	94	6.142	123	25-200	27	0-30	
Fluvalinate	ND	5.000	4.063	81	5.272	105	25-200	26	0-30	
Permethrin (cis/trans)	1.163	5.000	5.713	91	5.865	94	25-200	3	0-30	
Phenothrin	ND	5.000	3.748	75	4.117	82	25-200	9	0-30	
Resmethrin/Bioresmethrin	ND	5.000	3.682	74	4.477	90	25-200	19	0-30	
Tetramethrin	ND	5.000	3.296	66	3.934	79	25-200	18	0-30	
lambda-Cyhalothrin	ND	5.000	2.666	53	2.993	60	25-200	12	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-13-SG	**Sediment**	**Hg/AF 1**	**12/18/12**	**12/18/12**	**121218S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	1.635	0.001600	1.655	4X	1.641	4X	70-130	4X	0-30	Q

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/13/12
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-13-SG	**Sediment**	**GC 51**	**12/14/12**	**12/20/12**	**121214S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	4.640	93	4.746	95	50-135	2	0-25	
Alpha-BHC	ND	5.000	5.379	108	5.253	105	50-135	2	0-25	
Beta-BHC	ND	5.000	6.013	120	6.023	120	50-135	0	0-25	
Delta-BHC	ND	5.000	5.792	116	5.786	116	50-135	0	0-25	
Gamma-BHC	ND	5.000	3.649	73	3.626	73	50-135	1	0-25	
Dieldrin	ND	5.000	4.827	97	4.842	97	50-135	0	0-25	
4,4'-DDD	ND	5.000	6.362	127	6.632	133	50-135	4	0-25	
4,4'-DDE	3.387	5.000	7.573	84	7.520	83	50-135	1	0-25	
4,4'-DDT	ND	5.000	5.124	102	4.654	93	50-135	10	0-25	
Endosulfan I	ND	5.000	3.832	77	3.845	77	50-135	0	0-25	
Endosulfan II	ND	5.000	4.093	82	4.058	81	50-135	1	0-25	
Endosulfan Sulfate	ND	5.000	4.206	84	4.184	84	50-135	1	0-25	
Endrin	ND	5.000	4.792	96	4.641	93	50-135	3	0-25	
Endrin Aldehyde	ND	5.000	3.642	73	3.549	71	50-135	3	0-25	
Endrin Ketone	ND	5.000	4.483	90	4.278	86	50-135	5	0-25	
Heptachlor	ND	5.000	4.259	85	4.309	86	50-135	1	0-25	
Heptachlor Epoxide	ND	5.000	4.278	86	4.365	87	50-135	2	0-25	
Methoxychlor	ND	5.000	4.165	83	3.606	72	50-135	14	0-25	
Alpha Chlordane	ND	5.000	5.263	105	5.280	106	50-135	0	0-25	
Gamma Chlordane	ND	5.000	4.066	81	4.081	82	50-135	0	0-25	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-13-SG	**Sediment**	**GC/MS HHH**	**12/14/12**	**12/19/12**	**121214S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	ND	25.00	29.41	118	28.34	113	50-125	4	0-30	
PCB018	2.019	25.00	28.43	106	28.96	108	50-125	2	0-30	
PCB028	1.664	25.00	28.45	107	28.43	107	50-125	0	0-30	
PCB044	1.263	25.00	26.28	100	26.24	100	50-125	0	0-30	
PCB052	1.500	25.00	25.56	96	25.56	96	50-125	0	0-30	
PCB066	1.899	25.00	25.82	96	25.88	96	50-125	0	0-30	
PCB077	ND	25.00	25.55	102	25.67	103	50-125	0	0-30	
PCB101	1.232	25.00	26.45	101	26.67	102	50-125	1	0-30	
PCB105	ND	25.00	25.00	100	25.28	101	50-125	1	0-30	
PCB118	1.214	25.00	30.08	115	30.09	116	50-125	0	0-30	
PCB126	ND	25.00	23.52	94	23.79	95	50-125	1	0-30	
PCB128	ND	25.00	24.41	98	24.55	98	50-125	1	0-30	
PCB153	0.9922	25.00	24.48	94	24.63	95	50-125	1	0-30	
PCB170	ND	25.00	26.93	108	26.11	104	50-125	3	0-30	
PCB180	0.5280	25.00	25.61	100	26.06	102	50-125	2	0-30	
PCB187	ND	25.00	24.53	98	24.79	99	50-125	1	0-30	
PCB195	ND	25.00	28.49	114	27.90	112	50-125	2	0-30	
PCB206	ND	25.00	29.18	117	28.76	115	50-125	1	0-30	
PCB209	0.6031	25.00	26.40	103	26.05	102	50-125	1	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/13/12
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-14-SG	**Sediment**	**GC/MS HHH**	**01/03/13**	**01/07/13**	**130103S05**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	ND	25.00	29.64	119	29.41	118	50-125	1	0-30	
PCB018	0.6572	25.00	27.88	109	27.82	109	50-125	0	0-30	
PCB028	ND	25.00	27.77	111	27.47	110	50-125	1	0-30	
PCB044	0.7182	25.00	28.20	110	28.27	110	50-125	0	0-30	
PCB052	1.464	25.00	27.82	105	27.88	106	50-125	0	0-30	
PCB066	1.511	25.00	28.30	107	28.98	110	50-125	2	0-30	
PCB077	ND	25.00	27.60	110	27.90	112	50-125	1	0-30	
PCB101	1.800	25.00	28.46	107	28.65	107	50-125	1	0-30	
PCB105	0.6221	25.00	27.01	106	27.67	108	50-125	2	0-30	
PCB118	1.743	25.00	32.21	122	33.01	125	50-125	2	0-30	
PCB126	ND	25.00	25.62	102	25.87	103	50-125	1	0-30	
PCB128	ND	25.00	26.92	108	26.68	107	50-125	1	0-30	
PCB153	1.649	25.00	26.88	101	27.21	102	50-125	1	0-30	
PCB170	ND	25.00	26.48	106	26.13	105	50-125	1	0-30	
PCB180	0.8437	25.00	28.31	110	28.60	111	50-125	1	0-30	
PCB187	0.6155	25.00	26.67	104	27.01	106	50-125	1	0-30	
PCB195	ND	25.00	28.35	113	27.93	112	50-125	1	0-30	
PCB206	ND	25.00	30.00	120	29.90	120	50-125	0	0-30	
PCB209	ND	25.00	26.48	106	26.31	105	50-125	1	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-74	**Solid**	**ICP/MS 04**	**12/14/12**	**12/14/12**	**121214L02E**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	28.33	113	28.03	112	80-120	1	0-20	
Cadmium	25.00	27.06	108	26.51	106	80-120	2	0-20	
Chromium	25.00	24.29	97	23.93	96	80-120	1	0-20	
Copper	25.00	29.16	117	29.61	118	80-120	2	0-20	
Lead	25.00	28.49	114	28.14	113	80-120	1	0-20	
Nickel	25.00	26.48	106	27.33	109	80-120	3	0-20	
Selenium	25.00	26.19	105	25.78	103	80-120	2	0-20	
Zinc	25.00	29.31	117	29.07	116	80-120	1	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-814	**Solid**	**TOC 5**	**12/14/12**	**12/14/12**	**C1214TOCL1**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.60	0.56	93	0.55	91	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-815	**Solid**	**TOC 5**	**12/17/12**	**12/17/12**	**C1217TOCL1**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.60	0.60	100	0.58	96	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-0857
Preparation: EPA 3540C
Method: EPA 8270D (M)/TQ/EI

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-403-28	**Sediment**	**GCTQ 1**	**12/17/12**	**12/21/12**	**121217L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	2.572	51	2.688	54	25-200	0-229	4	0-30	
Bifenthrin	5.000	3.567	71	3.080	62	25-200	0-229	15	0-30	
Cyfluthrin	5.000	2.052	41	1.699	34	25-200	0-229	19	0-30	
Cypermethrin	5.000	2.401	48	2.013	40	25-200	0-229	18	0-30	
Deltamethrin/Tralomethrin	5.000	1.535	31	1.378	28	25-200	0-229	11	0-30	
Fenpropathrin	5.000	2.873	57	2.262	45	25-200	0-229	24	0-30	
Fenvalerate/Esfenvalerate	5.000	2.135	43	1.767	35	25-200	0-229	19	0-30	
Fluvalinate	5.000	1.944	39	1.456	29	25-200	0-229	29	0-30	
Permethrin (cis/trans)	5.000	3.127	63	2.530	51	25-200	0-229	21	0-30	
Phenothrin	5.000	4.279	86	3.877	78	25-200	0-229	10	0-30	
Resmethrin/Bioresmethrin	5.000	3.206	64	2.978	60	25-200	0-229	7	0-30	
Tetramethrin	5.000	2.960	59	2.372	47	25-200	0-229	22	0-30	
lambda-Cyhalothrin	5.000	2.055	41	1.836	37	25-200	0-229	11	0-30	

Total number of LCS compounds : 13
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-082-8	**Solid**	**Hg/AF 1**	**12/18/12**	**12/18/12**	**121218L02**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.001600	0.001424	89	0.001454	91	70-130	2	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-0857
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-858-175	**Solid**	**GC 51**	**12/14/12**	**12/18/12**	**121214L02**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	4.228	85	4.544	91	50-135	36-149	7	0-25	
Alpha-BHC	5.000	4.500	90	4.546	91	50-135	36-149	1	0-25	
Beta-BHC	5.000	4.416	88	5.139	103	50-135	36-149	15	0-25	
Delta-BHC	5.000	4.468	89	4.752	95	50-135	36-149	6	0-25	
Gamma-BHC	5.000	4.544	91	4.635	93	50-135	36-149	2	0-25	
Dieldrin	5.000	4.252	85	4.570	91	50-135	36-149	7	0-25	
4,4'-DDD	5.000	4.419	88	4.812	96	50-135	36-149	9	0-25	
4,4'-DDE	5.000	4.696	94	5.071	101	50-135	36-149	8	0-25	
4,4'-DDT	5.000	4.150	83	4.303	86	50-135	36-149	4	0-25	
Endosulfan I	5.000	3.903	78	4.240	85	50-135	36-149	8	0-25	
Endosulfan II	5.000	4.248	85	4.511	90	50-135	36-149	6	0-25	
Endosulfan Sulfate	5.000	4.196	84	4.320	86	50-135	36-149	3	0-25	
Endrin	5.000	4.055	81	4.067	81	50-135	36-149	0	0-25	
Endrin Aldehyde	5.000	4.296	86	4.679	94	50-135	36-149	9	0-25	
Endrin Ketone	5.000	4.517	90	4.778	96	50-135	36-149	6	0-25	
Heptachlor	5.000	4.420	88	4.597	92	50-135	36-149	4	0-25	
Heptachlor Epoxide	5.000	4.209	84	4.435	89	50-135	36-149	5	0-25	
Methoxychlor	5.000	4.249	85	4.389	88	50-135	36-149	3	0-25	
Alpha Chlordane	5.000	4.141	83	4.541	91	50-135	36-149	9	0-25	
Gamma Chlordane	5.000	4.151	83	4.528	91	50-135	36-149	9	0-25	

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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-76	**Solid**	**GC/MS HHH**	**12/14/12**	**12/19/12**	**121214L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	29.70	119	30.43	122	50-125	38-138	2	0-30	
PCB018	25.00	26.59	106	27.20	109	50-125	38-138	2	0-30	
PCB028	25.00	26.43	106	27.34	109	50-125	38-138	3	0-30	
PCB044	25.00	27.83	111	29.06	116	50-125	38-138	4	0-30	
PCB052	25.00	25.90	104	26.39	106	50-125	38-138	2	0-30	
PCB066	25.00	27.70	111	28.56	114	50-125	38-138	3	0-30	
PCB077	25.00	27.97	112	29.03	116	50-125	38-138	4	0-30	
PCB101	25.00	28.55	114	29.21	117	50-125	38-138	2	0-30	
PCB105	25.00	27.48	110	28.88	116	50-125	38-138	5	0-30	
PCB118	25.00	30.29	121	31.21	125	50-125	38-138	3	0-30	
PCB126	25.00	25.68	103	27.09	108	50-125	38-138	5	0-30	
PCB128	25.00	27.22	109	28.66	115	50-125	38-138	5	0-30	
PCB153	25.00	26.73	107	27.49	110	50-125	38-138	3	0-30	
PCB170	25.00	26.08	104	27.21	109	50-125	38-138	4	0-30	
PCB180	25.00	28.83	115	30.48	122	50-125	38-138	6	0-30	
PCB187	25.00	27.77	111	29.17	117	50-125	38-138	5	0-30	
PCB195	25.00	28.66	115	29.75	119	50-125	38-138	4	0-30	
PCB206	25.00	29.26	117	30.82	123	50-125	38-138	5	0-30	
PCB209	25.00	26.17	105	27.86	111	50-125	38-138	6	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-0857
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-78	**Solid**	**GC/MS HHH**	**01/03/13**	**01/07/13**	**130103L05**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	26.78	107	26.70	107	50-125	38-138	0	0-30	
PCB018	25.00	25.37	101	24.91	100	50-125	38-138	2	0-30	
PCB028	25.00	25.95	104	25.07	100	50-125	38-138	3	0-30	
PCB044	25.00	27.64	111	26.53	106	50-125	38-138	4	0-30	
PCB052	25.00	25.55	102	24.70	99	50-125	38-138	3	0-30	
PCB066	25.00	27.22	109	26.56	106	50-125	38-138	2	0-30	
PCB077	25.00	26.97	108	26.72	107	50-125	38-138	1	0-30	
PCB101	25.00	27.44	110	26.87	107	50-125	38-138	2	0-30	
PCB105	25.00	26.89	108	26.41	106	50-125	38-138	2	0-30	
PCB118	25.00	31.16	125	30.94	124	50-125	38-138	1	0-30	
PCB126	25.00	25.32	101	25.24	101	50-125	38-138	0	0-30	
PCB128	25.00	26.78	107	26.65	107	50-125	38-138	0	0-30	
PCB153	25.00	25.85	103	25.34	101	50-125	38-138	2	0-30	
PCB170	25.00	26.12	104	25.55	102	50-125	38-138	2	0-30	
PCB180	25.00	28.74	115	28.25	113	50-125	38-138	2	0-30	
PCB187	25.00	27.25	109	26.82	107	50-125	38-138	2	0-30	
PCB195	25.00	29.03	116	28.15	113	50-125	38-138	3	0-30	
PCB206	25.00	29.77	119	29.17	117	50-125	38-138	2	0-30	
PCB209	25.00	27.64	111	27.04	108	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-12-0857

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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

Return to Contents

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12.12.12
PAGE: 1 OF 1

LABORATORY CLIENT: Anchor QEA
ADDRESS: 26300 La Alameda, Suite 240
CITY: Mission Viejo, CA 92691
TEL: 949.334.9632 FAX: 949.334.9646 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Rhine Channel Confirmation Testing Program
PROJECT CONTACT: Chris Osuch
SAMPLER(S): (SIGNATURE) Austin Sellers
P.O. NO.:
QUOTE NO.:
LAB USE ONLY: 12-12-0857

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Homogenize thoroughly prior to analysis.
Specific analytes, methods, and QA/QC in accordance with SAP and SAP Addendum.
Lower MDL/RL is requested for selenium (see Danielle Gonsman).

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	SM 2540 B Total Solids	ASTM D4464 Grain Size	EPA 9060A TOC	EPA 6020/1631 As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn	EPA 8270C SIM PCB Congener	EPA 8081A OC Pesticides	GC/MS/MS Pyrethroids	MS/MSD
1	RC-12-SG	Rhine Channel	12.12.12	0929	Sed	1	X	X	X	X	X	X	X	
2	RC-13-SG			1002	Sed	2	X	X	X	X	X	X	X	X
3	RC-14-SG			1103	Sed	1	X	X	X	X	X	X	X	
4	RC-15-SG			1142	Sed	1	X	X	X	X	X	X	X	
5	RC-16-SG			1222	Sed	1	X	X	X	X	X	X	X	
6	RC-17-SG			1304	Sed	1	X	X	X	X	X	X	X	
7	RC-01-SC-0.0-0.5			1312 ~~1449~~	Sed	1	X	X	X	X	X	X	X	
8	RC-03-SC-0.0-0.5			1512 1608	Sed	1	X	X	X	X	X	X	X	
	~~RC-03-SC-0.5-1.0~~			~~1608~~	~~Sed~~									
	~~RC-03-SC-1.0-1.5~~			~~1608~~	~~Sed~~									
	~~RC-03-SC-1.5-2.0~~			~~1608~~	~~Sed~~									
	~~RC-03-SC-2.0-2.5~~			~~1608~~	~~Sed~~									

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Austin Sellers	[illegible] CCL	12/13/12	1145
[illegible]	Bannigle CCL	12/13/12	13:40

Return to Contents

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-0857

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Anchor QEA

DATE: 12/13/12

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.6 °C - 0.3 °C (CF) = 1.3 °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:** AP

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** AP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** HH

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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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 ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** HH

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: h: HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

Return to Contents

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-12-1364

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: Rhine Channel Confirmation Testing Program

Attention: Chris Osuch
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Approved for release on 01/9/2013 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Rhine Channel Confirmation Testing Program
Work Order Number: 12-12-1364

1 Case Narrative 3

2 Client Sample Data 5
2.1 EPA 9060A Total Organic Carbon (Solid) 5
2.2 SM 2540 B (M) Total Solids (Solid) 6
2.3 Pyrethroids by EPA 8270D (M)/TQ/EI (Sediment) 7
2.4 EPA 8081A Organochlorine Pesticides (Solid) 9
2.5 EPA 8270C SIM PCB Congeners (Solid) 11
2.6 EPA 1631E (M) Hg Soil (Solid) 15
2.7 EPA 6020 ICP/MS Metals (Solid) 16

3 ASTM D4464M Grain Size 17

4 Quality Control Sample Data 20
4.1 MS/MSD and/or Duplicate 20
4.2 LCS/LCSD 28

5 Glossary of Terms and Qualifiers 34

6 Chain of Custody/Sample Receipt Form 35

Calscience Environmental Laboratories, Inc.

CASE NARRATIVE

Calscience Work Order No.: 12-12-1364
Project ID: Rhine Channel Confirmation Testing Program

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

Sample Condition on Receipt

Three sediment samples were received for this project on December 20, 2012. 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 1.3°C. All samples were logged into the Laboratory Information Management System (LIMS), given laboratory identification numbers and then stored in refrigeration units pending chemistry testing.

COC discrepancies (if any) were noted in the Sample Anomaly Form.

Tests Performed

Total Solids by SM 2540B
Grain Size by ASTM D4464
Total Organic Carbon by EPA 9060A
Trace Metals by EPA 6020/7471
Mercury by EPA 1631
PCB Congeners by EPA 8270C SIM
Chlorinated Pesticides by EPA 8081A
Pyrethroids by EPA 8270DM GC/MS/MS

Data Summary

Holding times

All holding times were met.

Calibration

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

Blanks

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

Return to Contents

Reporting Limits

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

Laboratory Control Samples

A Laboratory Control Sample (LCS) analysis was performed for each applicable test. All parameters were within established control limits.

Matrix Spikes

Matrix spiking was performed at the required frequencies. Matrix spikes were performed on project samples. All parameters were within the acceptable control limits with the following exceptions.

The Zinc MS and MSD recoveries (by EPA 6020) were below the established control limits. Given that the batch associated LCS/LCSD recoveries were within the acceptable limits, the data are released with no further action.

For Mercury by EPA 1631, the concentration of mercury detected in the sample was four times or more than the spike amount, which caused the MS, MSD and RPDs to fall outside the control limits. The LCS/LCSD recoveries and RPDs were within acceptable limits, so the data are released with no further action.

Surrogates

Surrogate recoveries for all applicable tests and samples were within acceptable 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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-A**	**12/19/12 09:26**	**Sediment**	**TOC 5**	**12/28/12**	**12/28/12 17:00**	**C1228TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.36	0.068	0.017	1		%

RC-07-SC-0.0-0.5	**12-12-1364-2-A**	**12/19/12 10:23**	**Sediment**	**TOC 5**	**12/28/12**	**12/28/12 17:00**	**C1228TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.17	0.065	0.016	1		%

RC-05-SC-0.0-0.5	**12-12-1364-3-A**	**12/19/12 11:20**	**Sediment**	**TOC 5**	**12/28/12**	**12/28/12 17:00**	**C1228TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	0.30	0.068	0.016	1		%

Method Blank	**099-06-013-821**	**N/A**	**Solid**	**TOC 5**	**12/28/12**	**12/28/12 17:00**	**C1228TOCL1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Carbon, Total Organic	ND	0.050	0.012	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-B**	**12/19/12 09:26**	**Sediment**	**N/A**	**12/21/12**	**12/21/12 16:00**	**C1221TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	73.0	0.100	0.100	1		%

RC-07-SC-0.0-0.5	**12-12-1364-2-B**	**12/19/12 10:23**	**Sediment**	**N/A**	**12/21/12**	**12/21/12 16:00**	**C1221TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	77.5	0.100	0.100	1		%

RC-05-SC-0.0-0.5	**12-12-1364-3-B**	**12/19/12 11:20**	**Sediment**	**N/A**	**12/21/12**	**12/21/12 16:00**	**C1221TSB1**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Solids, Total	73.9	0.100	0.100	1		%

Method Blank	**099-05-019-2,127**	**N/A**	**Solid**	**N/A**	**12/21/12**	**12/21/12 16:00**	**C1221TSB1**

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

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-B**	**12/19/12 09:26**	**Sediment**	**GCTQ 2**	**12/26/12**	**12/28/12 19:59**	**121226L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.25	0.68	0.13	1	J	Fenpropathrin	ND	0.68	0.050	1	
Cyfluthrin	ND	0.68	0.12	1		Fenvalerate/Esfenvalerate	ND	0.68	0.049	1	
Cypermethrin	ND	0.68	0.094	1		Permethrin (cis/trans)	2.1	1.4	0.15	1	
Deltamethrin/Tralomethrin	ND	0.68	0.29	1		lambda-Cyhalothrin	ND	0.68	0.060	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	101	25-200	

RC-07-SC-0.0-0.5	**12-12-1364-2-B**	**12/19/12 10:23**	**Sediment**	**GCTQ 2**	**12/26/12**	**12/28/12 20:36**	**121226L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.65	0.12	1		Fenpropathrin	ND	0.65	0.047	1	
Cyfluthrin	ND	0.65	0.11	1		Fenvalerate/Esfenvalerate	ND	0.65	0.046	1	
Cypermethrin	ND	0.65	0.089	1		Permethrin (cis/trans)	0.89	1.3	0.14	1	J
Deltamethrin/Tralomethrin	ND	0.65	0.27	1		lambda-Cyhalothrin	ND	0.65	0.056	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	85	25-200	

RC-05-SC-0.0-0.5	**12-12-1364-3-B**	**12/19/12 11:20**	**Sediment**	**GCTQ 2**	**12/26/12**	**12/28/12 21:13**	**121226L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	0.28	0.68	0.13	1	J	Fenpropathrin	ND	0.68	0.049	1	
Cyfluthrin	ND	0.68	0.11	1		Fenvalerate/Esfenvalerate	ND	0.68	0.048	1	
Cypermethrin	ND	0.68	0.093	1		Permethrin (cis/trans)	1.7	1.4	0.15	1	
Deltamethrin/Tralomethrin	ND	0.68	0.28	1		lambda-Cyhalothrin	ND	0.68	0.059	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	96	25-200	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-403-29**	**N/A**	**Sediment**	**GCTQ 2**	**12/26/12**	**12/28/12 19:23**	**121226L01**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Bifenthrin	ND	0.50	0.094	1		Fenpropathrin	ND	0.50	0.036	1	
Cyfluthrin	ND	0.50	0.085	1		Fenvalerate/Esfenvalerate	ND	0.50	0.036	1	
Cypermethrin	ND	0.50	0.069	1		Permethrin (cis/trans)	ND	1.0	0.11	1	
Deltamethrin/Tralomethrin	ND	0.50	0.21	1		lambda-Cyhalothrin	ND	0.50	0.044	1	

Surrogates:	REC (%)	Control Limits	Qual
trans-Permethrin(C13)	98	25-200	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/20/12
Work Order No:	12-12-1364
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-B**	**12/19/12 09:26**	**Sediment**	**GC 51**	**12/26/12**	**12/31/12 13:01**	**121226L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.4	0.45	1		4,4'-DDE	5.4	1.4	0.41	1	
2,4'-DDD	ND	1.4	0.46	1		4,4'-DDT	ND	1.4	0.46	1	
2,4'-DDE	0.94	1.4	0.42	1	J	Alpha Chlordane	ND	1.4	0.44	1	
2,4'-DDT	ND	1.4	0.41	1		Gamma Chlordane	ND	1.4	0.44	1	
4,4'-DDD	ND	1.4	0.43	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	78	50-130		Decachlorobiphenyl	98	50-130	

RC-07-SC-0.0-0.5	**12-12-1364-2-B**	**12/19/12 10:23**	**Sediment**	**GC 51**	**12/26/12**	**12/31/12 13:15**	**121226L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.3	0.43	1		4,4'-DDE	2.4	1.3	0.39	1	
2,4'-DDD	ND	1.3	0.44	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	ND	1.3	0.39	1		Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.39	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.41	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	79	50-130		Decachlorobiphenyl	85	50-130	

RC-05-SC-0.0-0.5	**12-12-1364-3-B**	**12/19/12 11:20**	**Sediment**	**GC 51**	**12/26/12**	**12/31/12 13:30**	**121226L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.4	0.45	1		4,4'-DDE	4.7	1.4	0.40	1	
2,4'-DDD	ND	1.4	0.46	1		4,4'-DDT	ND	1.4	0.45	1	
2,4'-DDE	0.79	1.4	0.41	1	J	Alpha Chlordane	ND	1.4	0.43	1	
2,4'-DDT	ND	1.4	0.41	1		Gamma Chlordane	ND	1.4	0.43	1	
4,4'-DDD	ND	1.4	0.43	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	97	50-130	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-858-177**	**N/A**	**Solid**	**GC 51**	**12/26/12**	**12/31/12 11:35**	**121226L02**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.0	0.33	1		4,4'-DDE	ND	1.0	0.30	1	
2,4'-DDD	ND	1.0	0.34	1		4,4'-DDT	ND	1.0	0.33	1	
2,4'-DDE	ND	1.0	0.31	1		Alpha Chlordane	ND	1.0	0.32	1	
2,4'-DDT	ND	1.0	0.30	1		Gamma Chlordane	ND	1.0	0.32	1	
4,4'-DDD	ND	1.0	0.32	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	86	50-130		Decachlorobiphenyl	85	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-B**	**12/19/12 09:26**	**Sediment**	**GC/MS HHH**	**12/26/12**	**12/31/12 16:35**	**121226L03**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.9	0.68	0.22	1		PCB126	0.20	0.68	0.19	1	J
PCB028	1.2	0.68	0.14	1		PCB128	0.46	0.68	0.14	1	J
PCB037	0.22	0.68	0.18	1	J	PCB138/158	2.0	1.4	0.28	1	
PCB044	1.2	0.68	0.18	1		PCB149	1.5	0.68	0.12	1	
PCB049	1.8	0.68	0.16	1		PCB151	0.39	0.68	0.14	1	J
PCB052	2.8	0.68	0.13	1		PCB153	2.5	0.68	0.14	1	
PCB066	3.0	0.68	0.13	1		PCB156	0.34	0.68	0.13	1	J
PCB070	2.2	0.68	0.11	1		PCB157	ND	0.68	0.13	1	
PCB074	1.1	0.68	0.13	1		PCB167	ND	0.68	0.14	1	
PCB077	0.26	0.68	0.13	1	J	PCB168	ND	0.68	0.12	1	
PCB081	ND	0.68	0.17	1		PCB169	ND	0.68	0.11	1	
PCB087	0.60	0.68	0.14	1	J	PCB170	0.79	0.68	0.13	1	
PCB099	1.9	0.68	0.12	1		PCB177	0.29	0.68	0.17	1	J
PCB101	2.7	0.68	0.11	1		PCB180	1.2	0.68	0.084	1	
PCB105	0.84	0.68	0.14	1		PCB183	0.36	0.68	0.15	1	J
PCB110	2.1	0.68	0.14	1		PCB187	1.1	0.68	0.14	1	
PCB114	0.34	0.68	0.14	1	J	PCB189	ND	0.68	0.12	1	
PCB118	2.6	0.68	0.18	1		PCB194	0.47	0.68	0.13	1	J
PCB119	0.19	0.68	0.12	1	J	PCB201	0.14	0.68	0.078	1	J
PCB123	ND	0.68	0.12	1		PCB206	1.0	0.68	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	123	50-125		p-Terphenyl-d14	115	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/20/12
Work Order No: 12-12-1364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-07-SC-0.0-0.5	**12-12-1364-2-B**	**12/19/12 10:23**	**Sediment**	**GC/MS HHH**	**12/26/12**	**12/31/12 13:55**	**121226L03**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.1	0.65	0.20	1		PCB126	ND	0.65	0.18	1	
PCB028	0.92	0.65	0.13	1		PCB128	0.37	0.65	0.13	1	J
PCB037	0.49	0.65	0.17	1	J	PCB138/158	2.2	1.3	0.26	1	
PCB044	1.7	0.65	0.17	1		PCB149	1.6	0.65	0.12	1	
PCB049	1.5	0.65	0.15	1		PCB151	0.40	0.65	0.13	1	J
PCB052	2.6	0.65	0.12	1		PCB153	2.5	0.65	0.13	1	
PCB066	2.9	0.65	0.12	1		PCB156	0.30	0.65	0.13	1	J
PCB070	2.4	0.65	0.11	1		PCB157	ND	0.65	0.12	1	
PCB074	1.1	0.65	0.12	1		PCB167	ND	0.65	0.13	1	
PCB077	0.30	0.65	0.13	1	J	PCB168	ND	0.65	0.11	1	
PCB081	ND	0.65	0.16	1		PCB169	ND	0.65	0.11	1	
PCB087	0.65	0.65	0.13	1		PCB170	0.64	0.65	0.12	1	J
PCB099	1.6	0.65	0.11	1		PCB177	0.29	0.65	0.16	1	J
PCB101	2.6	0.65	0.10	1		PCB180	1.2	0.65	0.079	1	
PCB105	0.81	0.65	0.14	1		PCB183	0.31	0.65	0.14	1	J
PCB110	2.2	0.65	0.13	1		PCB187	0.90	0.65	0.14	1	
PCB114	ND	0.65	0.13	1		PCB189	ND	0.65	0.11	1	
PCB118	2.5	0.65	0.17	1		PCB194	0.42	0.65	0.12	1	J
PCB119	ND	0.65	0.11	1		PCB201	0.093	0.65	0.073	1	J
PCB123	ND	0.65	0.11	1		PCB206	0.63	0.65	0.11	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	122	50-125		p-Terphenyl-d14	119	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/20/12
Work Order No:	12-12-1364
Preparation:	EPA 3545
Method:	EPA 8270C SIM PCB Congeners
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-05-SC-0.0-0.5	**12-12-1364-3-B**	**12/19/12 11:20**	**Sediment**	**GC/MS HHH**	**12/26/12**	**12/31/12 14:22**	**121226L03**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.3	0.68	0.21	1		PCB126	ND	0.68	0.19	1	
PCB028	0.89	0.68	0.13	1		PCB128	ND	0.68	0.14	1	
PCB037	0.25	0.68	0.18	1	J	PCB138/158	2.0	1.4	0.27	1	
PCB044	1.1	0.68	0.18	1		PCB149	1.5	0.68	0.12	1	
PCB049	1.5	0.68	0.16	1		PCB151	0.41	0.68	0.14	1	J
PCB052	2.6	0.68	0.13	1		PCB153	2.4	0.68	0.14	1	
PCB066	2.6	0.68	0.12	1		PCB156	ND	0.68	0.13	1	
PCB070	1.8	0.68	0.11	1		PCB157	ND	0.68	0.13	1	
PCB074	0.89	0.68	0.13	1		PCB167	ND	0.68	0.14	1	
PCB077	0.27	0.68	0.13	1	J	PCB168	ND	0.68	0.12	1	
PCB081	ND	0.68	0.17	1		PCB169	ND	0.68	0.11	1	
PCB087	0.61	0.68	0.14	1	J	PCB170	0.71	0.68	0.13	1	
PCB099	1.9	0.68	0.12	1		PCB177	0.31	0.68	0.17	1	J
PCB101	2.7	0.68	0.11	1		PCB180	1.2	0.68	0.083	1	
PCB105	0.77	0.68	0.14	1		PCB183	0.27	0.68	0.15	1	J
PCB110	2.3	0.68	0.14	1		PCB187	1.0	0.68	0.14	1	
PCB114	0.25	0.68	0.13	1	J	PCB189	ND	0.68	0.12	1	
PCB118	2.6	0.68	0.18	1		PCB194	0.48	0.68	0.13	1	J
PCB119	ND	0.68	0.12	1		PCB201	ND	0.68	0.077	1	
PCB123	ND	0.68	0.12	1		PCB206	0.57	0.68	0.11	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	92	50-125		p-Terphenyl-d14	104	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	12/20/12
Work Order No:	12-12-1364
Preparation:	EPA 3545
Method:	EPA 8270C SIM PCB Congeners
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-77**	**N/A**	**Solid**	**GC/MS HHH**	**12/26/12**	**12/31/12 11:40**	**121226L03**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	124	50-125		p-Terphenyl-d14	116	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-B**	**12/19/12 09:26**	**Sediment**	**Hg/AF 1**	**12/28/12**	**01/03/13 00:00**	**121228L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.8	0.27	0.10	1000		mg/kg

RC-07-SC-0.0-0.5	**12-12-1364-2-B**	**12/19/12 10:23**	**Sediment**	**Hg/AF 1**	**12/28/12**	**01/03/13 00:00**	**121228L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.49	0.052	0.020	200		mg/kg

RC-05-SC-0.0-0.5	**12-12-1364-3-B**	**12/19/12 11:20**	**Sediment**	**Hg/AF 1**	**12/28/12**	**01/03/13 00:00**	**121228L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.3	0.14	0.052	500		mg/kg

Method Blank	**099-15-082-9**	**N/A**	**Solid**	**Hg/AF 1**	**12/28/12**	**01/03/13 00:00**	**121228L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.00020	0.000076	1		mg/kg

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC-0.0-0.5	**12-12-1364-1-B**	**12/19/12 09:26**	**Sediment**	**ICP/MS 04**	**12/27/12**	**12/27/12 18:10**	**121227L04E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.02	0.0685	0.0598	0.5		Lead	15.7	0.0685	0.0451	0.5	
Cadmium	0.199	0.0685	0.0392	0.5		Nickel	4.78	0.0685	0.0347	0.5	
Chromium	8.75	0.0685	0.0425	0.5		Selenium	0.147	0.0685	0.0500	0.5	
Copper	66.1	0.0685	0.0287	0.5		Zinc	87.7	0.685	0.544	0.5	

RC-07-SC-0.0-0.5	**12-12-1364-2-B**	**12/19/12 10:23**	**Sediment**	**ICP/MS 04**	**12/27/12**	**12/27/12 18:13**	**121227L04E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.11	0.0645	0.0563	0.5		Lead	7.46	0.0645	0.0425	0.5	
Cadmium	0.0925	0.0645	0.0369	0.5		Nickel	2.47	0.0645	0.0327	0.5	
Chromium	4.57	0.0645	0.0400	0.5		Selenium	0.103	0.0645	0.0471	0.5	
Copper	35.8	0.0645	0.0270	0.5		Zinc	40.0	0.645	0.513	0.5	

RC-05-SC-0.0-0.5	**12-12-1364-3-B**	**12/19/12 11:20**	**Sediment**	**ICP/MS 04**	**12/27/12**	**12/27/12 19:39**	**121227L04E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	3.39	0.0677	0.0591	0.5		Lead	13.8	0.0677	0.0446	0.5	
Cadmium	0.181	0.0677	0.0387	0.5		Nickel	4.27	0.0677	0.0343	0.5	
Chromium	7.44	0.0677	0.0420	0.5		Selenium	ND	0.0677	0.0494	0.5	
Copper	68.6	0.0677	0.0284	0.5		Zinc	64.4	0.677	0.538	0.5	

Method Blank	**099-15-254-77**	**N/A**	**Solid**	**ICP/MS 04**	**12/27/12**	**12/27/12 15:41**	**121227L04E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	ND	0.0500	0.0437	0.5		Lead	ND	0.0500	0.0330	0.5	
Cadmium	ND	0.0500	0.0286	0.5		Nickel	ND	0.0500	0.0253	0.5	
Chromium	ND	0.0500	0.0310	0.5		Selenium	ND	0.0500	0.0365	0.5	
Copper	ND	0.0500	0.0210	0.5		Zinc	ND	0.500	0.397	0.5	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

PARTICLE SIZE SUMMARY

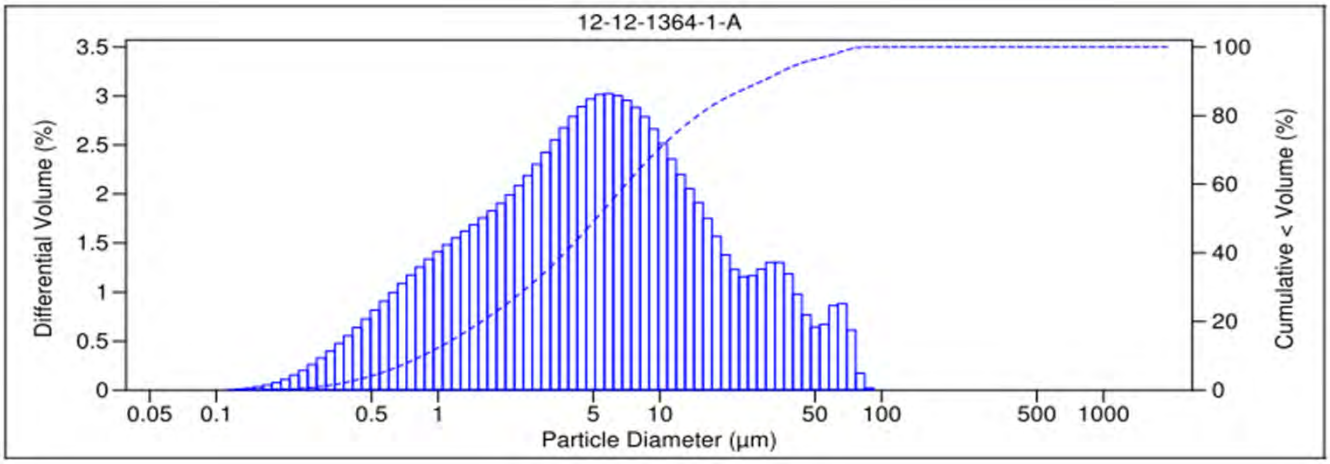
(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/19/2012
26300 La Alameda, Suite 240		Date Received:	12/20/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-1364
		Date Analyzed:	12/26/2012
		Method:	ASTM D4464M

Project: Rhine Channel Confirmation Testing Program

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-09-SC-0.0-0.5		Silt	0.010

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	1.83	56.75	41.42	98.17



Return to Contents

Calscience Environmental Laboratories, Inc.

PARTICLE SIZE SUMMARY

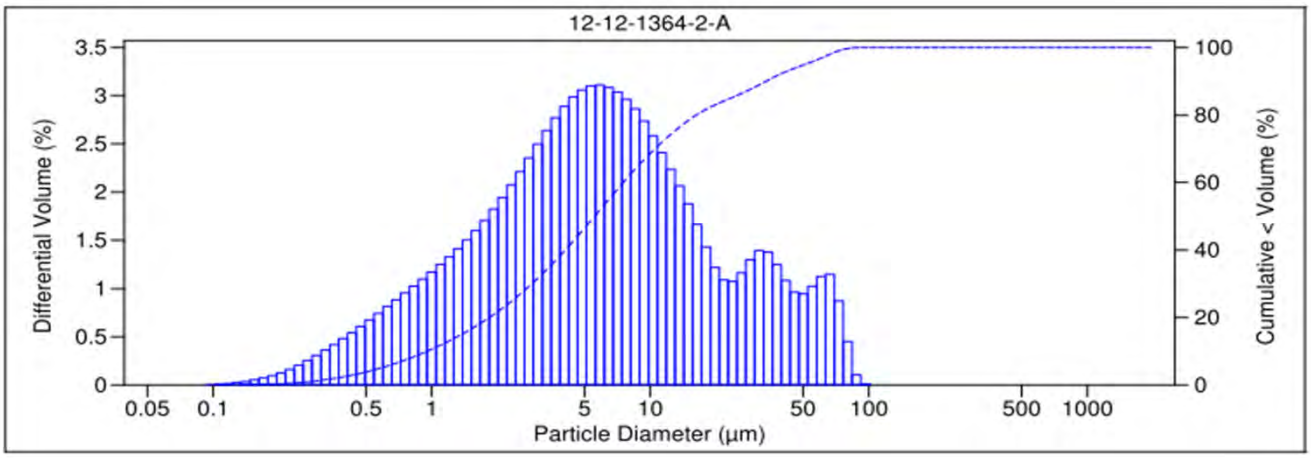
(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/19/2012
26300 La Alameda, Suite 240		Date Received:	12/20/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-1364
		Date Analyzed:	12/26/2012
		Method:	ASTM D4464M

Project: Rhine Channel Confirmation Testing Program

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-07-SC-0.0-0.5		Silt	0.012

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	2.77	58.57	38.66	97.23



Return to Contents

Calscience Environmental Laboratories, Inc.

PARTICLE SIZE SUMMARY

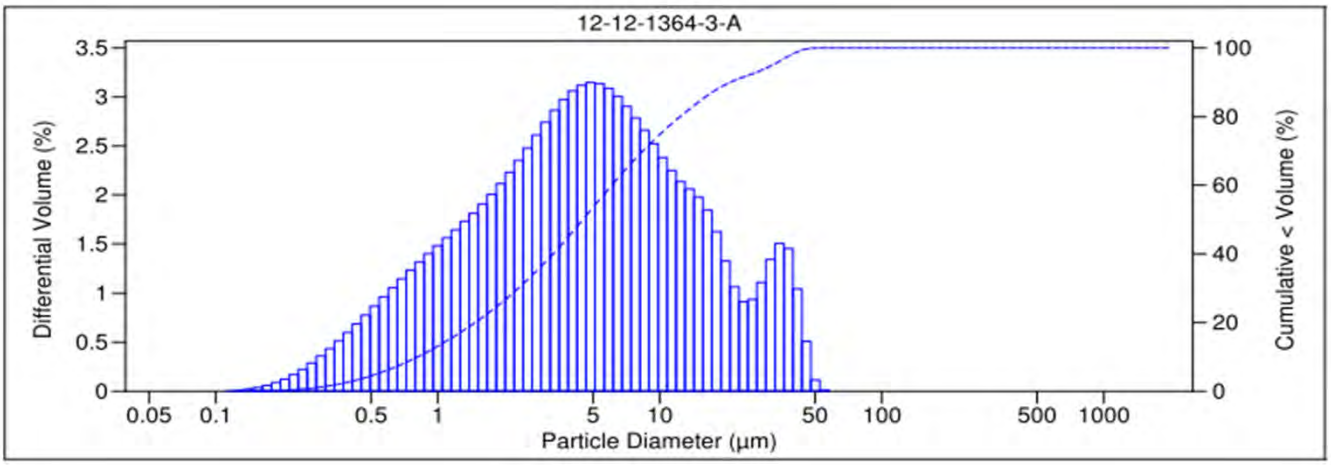
(ASTM D422 / D4464M)

ANCHOR QEA, LLC		Date Sampled:	12/19/2012
26300 La Alameda, Suite 240		Date Received:	12/20/2012
Mission Viejo, CA 92691-8306		Work Order No:	12-12-1364
		Date Analyzed:	12/26/2012
		Method:	ASTM D4464M

Project: Rhine Channel Confirmation Testing Program

Sample ID	Depth ft	Description	Mean Grain Size mm
RC-05-SC-0.0-0.5		Silt	0.008

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	0.00	0.00	54.67	45.33	100.00



Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-09-SC-0.0-0.5	**Sediment**	**ICP/MS 04**	**12/27/12**	**12/27/12**	**121227S04**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	2.931	25.00	27.63	99	27.35	98	80-120	1	0-20	
Cadmium	0.1456	25.00	25.44	101	25.54	102	80-120	0	0-20	
Chromium	6.391	25.00	34.41	112	32.84	106	80-120	5	0-20	
Copper	48.25	25.00	74.40	105	72.25	96	80-120	3	0-20	
Lead	11.48	25.00	40.09	114	38.62	109	80-120	4	0-20	
Nickel	3.488	25.00	28.41	100	28.12	99	80-120	1	0-20	
Selenium	0.1074	25.00	21.83	87	21.99	88	80-120	1	0-20	
Zinc	64.06	25.00	74.97	44	72.86	35	80-120	3	0-20	3

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
RC-09-SC-0.0-0.5	**Sediment**	**ICP/MS 04**	**12/27/12**	**12/27/12**	**121227S04**

Analysis Comment: * - Analyzed 12/28/2012 1:53:50 PM

Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	%REC CL	Qualifiers
Arsenic	2.931	25.00	26.68	95	75-125	
Cadmium	0.1456	25.00	24.37	97	75-125	
Chromium	6.391	25.00	31.86	102	75-125	
Copper	48.25	25.00	70.06	87	75-125	
Lead	11.48	25.00	35.04	94	75-125	
Nickel	3.488	25.00	26.84	93	75-125	
Selenium	0.1074	25.00	20.62	82	75-125	
Zinc	64.06	25.00	69.68	22	75-125	5

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-09-SC-0.0-0.5	**Sediment**	**TOC 5**	**12/28/12**	**12/28/12**	**C1228TOCS1**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.26	3.0	2.8	86	2.8	85	75-125	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
RC-05-SC-0.0-0.5	**Sediment**	**N/A**	**12/21/12**	**12/21/12**	**C1221TSD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	73.9	74.1	0	0-10	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3540C
		Method:	EPA 8270D (M)/TQ/EI

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-07-SC-0.0-0.5	**Sediment**	**GCTQ 2**	**12/26/12**	**12/28/12**	**121226S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	2.693	54	2.654	53	25-200	1	0-30	
Bifenthrin	ND	5.000	3.053	61	3.091	62	25-200	1	0-30	
Cyfluthrin	ND	5.000	1.302	26	1.389	28	25-200	6	0-30	
Cypermethrin	ND	5.000	1.476	30	1.532	31	25-200	4	0-30	
Deltamethrin/Tralomethrin	ND	5.000	1.337	27	1.453	29	25-200	8	0-30	
Fenpropathrin	ND	5.000	2.508	50	2.654	53	25-200	6	0-30	
Fenvalerate/Esfenvalerate	ND	5.000	3.237	65	3.397	68	25-200	5	0-30	
Fluvalinate	ND	5.000	0.9361	19	0.9746	19	25-200	4	0-30	3
Permethrin (cis/trans)	ND	5.000	4.512	90	4.133	83	25-200	9	0-30	
Phenothrin	ND	5.000	4.888	98	5.050	101	25-200	3	0-30	
Resmethrin/Bioresmethrin	ND	5.000	4.194	84	3.813	76	25-200	10	0-30	
Tetramethrin	ND	5.000	2.776	56	2.986	60	25-200	7	0-30	
lambda-Cyhalothrin	ND	5.000	1.597	32	1.771	35	25-200	10	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-09-SC-0.0-0.5	**Sediment**	**Hg/AF 1**	**12/28/12**	**01/03/13**	**121228S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	1.306	0.001600	1.363	4X	1.400	4X	70-130	4X	0-30	Q

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	12/20/12
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-07-SC-0.0-0.5	**Sediment**	**GC 51**	**12/26/12**	**12/31/12**	**121226S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	3.226	65	3.884	78	50-135	18	0-25	
Alpha-BHC	ND	5.000	3.179	64	4.042	81	50-135	24	0-25	
Beta-BHC	ND	5.000	3.702	74	4.546	91	50-135	20	0-25	
Delta-BHC	ND	5.000	3.740	75	4.741	95	50-135	24	0-25	
Gamma-BHC	ND	5.000	3.062	61	3.812	76	50-135	22	0-25	
Dieldrin	ND	5.000	3.562	71	4.336	87	50-135	20	0-25	
4,4'-DDD	ND	5.000	3.786	76	4.562	91	50-135	19	0-25	
4,4'-DDE	1.854	5.000	4.783	59	5.656	76	50-135	17	0-25	
4,4'-DDT	ND	5.000	3.440	69	4.094	82	50-135	17	0-25	
Endosulfan I	ND	5.000	3.223	64	3.789	76	50-135	16	0-25	
Endosulfan II	ND	5.000	3.178	64	3.699	74	50-135	15	0-25	
Endosulfan Sulfate	ND	5.000	3.130	63	3.728	75	50-135	17	0-25	
Endrin	ND	5.000	3.522	70	4.286	86	50-135	20	0-25	
Endrin Aldehyde	ND	5.000	3.107	62	3.745	75	50-135	19	0-25	
Endrin Ketone	ND	5.000	3.911	78	4.714	94	50-135	19	0-25	
Heptachlor	ND	5.000	3.283	66	4.001	80	50-135	20	0-25	
Heptachlor Epoxide	ND	5.000	3.461	69	4.088	82	50-135	17	0-25	
Methoxychlor	ND	5.000	3.378	68	3.847	77	50-135	13	0-25	
Alpha Chlordane	ND	5.000	3.314	66	3.952	79	50-135	18	0-25	
Gamma Chlordane	ND	5.000	3.256	65	3.841	77	50-135	16	0-25	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 12/20/12
Work Order No: 12-12-1364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-07-SC-0.0-0.5	**Sediment**	**GC/MS HHH**	**12/26/12**	**12/31/12**	**121226S03**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	ND	25.00	23.57	94	23.06	92	50-125	2	0-30	
PCB018	0.8759	25.00	22.28	86	22.13	85	50-125	1	0-30	
PCB028	0.7152	25.00	21.27	82	21.12	82	50-125	1	0-30	
PCB044	1.330	25.00	21.70	81	21.71	82	50-125	0	0-30	
PCB052	1.991	25.00	21.05	76	21.12	77	50-125	0	0-30	
PCB066	2.216	25.00	20.44	73	20.55	73	50-125	1	0-30	
PCB077	ND	25.00	21.18	85	21.47	86	50-125	1	0-30	
PCB101	2.044	25.00	21.89	79	21.83	79	50-125	0	0-30	
PCB105	0.6284	25.00	21.10	82	21.22	82	50-125	1	0-30	
PCB118	1.907	25.00	24.85	92	25.11	93	50-125	1	0-30	
PCB126	ND	25.00	20.06	80	20.20	81	50-125	1	0-30	
PCB128	ND	25.00	20.59	82	20.79	83	50-125	1	0-30	
PCB153	1.902	25.00	20.28	74	20.60	75	50-125	2	0-30	
PCB170	ND	25.00	20.51	82	20.62	82	50-125	1	0-30	
PCB180	0.8926	25.00	22.11	85	22.20	85	50-125	0	0-30	
PCB187	0.6938	25.00	20.85	81	21.11	82	50-125	1	0-30	
PCB195	ND	25.00	22.05	88	22.32	89	50-125	1	0-30	
PCB206	ND	25.00	23.28	93	23.30	93	50-125	0	0-30	
PCB209	0.7444	25.00	21.11	81	21.16	82	50-125	0	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-77	**Solid**	**ICP/MS 04**	**12/27/12**	**12/27/12**	**121227L04E**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	23.79	95	25.26	101	80-120	6	0-20	
Cadmium	25.00	25.20	101	24.42	98	80-120	3	0-20	
Chromium	25.00	23.97	96	23.95	96	80-120	0	0-20	
Copper	25.00	26.10	104	27.10	108	80-120	4	0-20	
Lead	25.00	25.13	101	24.50	98	80-120	3	0-20	
Nickel	25.00	24.36	97	25.28	101	80-120	4	0-20	
Selenium	25.00	24.09	96	24.18	97	80-120	0	0-20	
Zinc	25.00	26.18	105	27.35	109	80-120	4	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 9060A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-06-013-821	**Solid**	**TOC 5**	**12/28/12**	**12/28/12**	**C1228TOCL1**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.60	0.55	92	0.57	95	80-120	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-1364
Preparation: EPA 3540C
Method: EPA 8270D (M)/TQ/EI

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-403-29	**Sediment**	**GCTQ 2**	**12/26/12**	**12/28/12**	**121226L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	4.178	84	4.568	91	25-200	0-229	9	0-30	
Bifenthrin	5.000	4.654	93	5.737	115	25-200	0-229	21	0-30	
Cyfluthrin	5.000	1.510	30	1.554	31	25-200	0-229	3	0-30	
Cypermethrin	5.000	1.797	36	1.917	38	25-200	0-229	6	0-30	
Deltamethrin/Tralomethrin	5.000	1.285	26	1.308	26	25-200	0-229	2	0-30	
Fenpropathrin	5.000	3.278	66	4.291	86	25-200	0-229	27	0-30	
Fenvalerate/Esfenvalerate	5.000	3.377	68	3.763	75	25-200	0-229	11	0-30	
Fluvalinate	5.000	1.427	29	1.564	31	25-200	0-229	9	0-30	
Permethrin (cis/trans)	5.000	3.561	71	4.247	85	25-200	0-229	18	0-30	
Phenothrin	5.000	5.623	112	6.848	137	25-200	0-229	20	0-30	
Resmethrin/Bioresmethrin	5.000	4.050	81	4.630	93	25-200	0-229	13	0-30	
Tetramethrin	5.000	2.479	50	2.840	57	25-200	0-229	14	0-30	
lambda-Cyhalothrin	5.000	2.044	41	2.129	43	25-200	0-229	4	0-30	

Total number of LCS compounds : 13
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-082-9	**Solid**	**Hg/AF 1**	**12/28/12**	**01/03/13**	**121228L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.001600	0.001627	102	0.001663	104	70-130	2	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	12-12-1364
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-858-177	**Solid**	**GC 51**	**12/26/12**	**12/31/12**	**121226L02**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	3.891	78	3.677	74	50-135	36-149	6	0-25	
Alpha-BHC	5.000	3.657	73	3.695	74	50-135	36-149	1	0-25	
Beta-BHC	5.000	4.272	85	3.803	76	50-135	36-149	12	0-25	
Delta-BHC	5.000	3.853	77	3.758	75	50-135	36-149	3	0-25	
Gamma-BHC	5.000	3.634	73	3.699	74	50-135	36-149	2	0-25	
Dieldrin	5.000	3.937	79	3.699	74	50-135	36-149	6	0-25	
4,4'-DDD	5.000	4.155	83	3.941	79	50-135	36-149	5	0-25	
4,4'-DDE	5.000	4.112	82	3.903	78	50-135	36-149	5	0-25	
4,4'-DDT	5.000	3.409	68	3.213	64	50-135	36-149	6	0-25	
Endosulfan I	5.000	3.893	78	3.640	73	50-135	36-149	7	0-25	
Endosulfan II	5.000	3.957	79	3.773	75	50-135	36-149	5	0-25	
Endosulfan Sulfate	5.000	3.774	75	3.575	72	50-135	36-149	5	0-25	
Endrin	5.000	3.553	71	3.591	72	50-135	36-149	1	0-25	
Endrin Aldehyde	5.000	4.052	81	3.741	75	50-135	36-149	8	0-25	
Endrin Ketone	5.000	4.069	81	3.757	75	50-135	36-149	8	0-25	
Heptachlor	5.000	3.936	79	3.748	75	50-135	36-149	5	0-25	
Heptachlor Epoxide	5.000	3.831	77	3.639	73	50-135	36-149	5	0-25	
Methoxychlor	5.000	3.620	72	3.386	68	50-135	36-149	7	0-25	
Alpha Chlordane	5.000	3.833	77	3.613	72	50-135	36-149	6	0-25	
Gamma Chlordane	5.000	3.825	76	3.607	72	50-135	36-149	6	0-25	

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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 12-12-1364
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-77	**Solid**	**GC/MS HHH**	**12/26/12**	**12/31/12**	**121226L03**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	21.97	88	21.73	87	50-125	38-138	1	0-30	
PCB018	25.00	21.72	87	21.53	86	50-125	38-138	1	0-30	
PCB028	25.00	21.50	86	21.57	86	50-125	38-138	0	0-30	
PCB044	25.00	22.42	90	22.51	90	50-125	38-138	0	0-30	
PCB052	25.00	20.01	80	20.46	82	50-125	38-138	2	0-30	
PCB066	25.00	21.98	88	22.01	88	50-125	38-138	0	0-30	
PCB077	25.00	22.90	92	22.69	91	50-125	38-138	1	0-30	
PCB101	25.00	22.98	92	23.03	92	50-125	38-138	0	0-30	
PCB105	25.00	22.66	91	22.49	90	50-125	38-138	1	0-30	
PCB118	25.00	25.62	102	25.92	104	50-125	38-138	1	0-30	
PCB126	25.00	21.53	86	21.53	86	50-125	38-138	0	0-30	
PCB128	25.00	22.07	88	22.40	90	50-125	38-138	1	0-30	
PCB153	25.00	21.42	86	21.42	86	50-125	38-138	0	0-30	
PCB170	25.00	19.14	77	19.36	77	50-125	38-138	1	0-30	
PCB180	25.00	23.53	94	23.65	95	50-125	38-138	1	0-30	
PCB187	25.00	22.84	91	22.69	91	50-125	38-138	1	0-30	
PCB195	25.00	21.43	86	21.31	85	50-125	38-138	1	0-30	
PCB206	25.00	22.65	91	22.54	90	50-125	38-138	0	0-30	
PCB209	25.00	20.11	80	20.03	80	50-125	38-138	0	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-12-1364

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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

Return to Contents

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12/19/12
PAGE: 1 OF 1

LABORATORY CLIENT: Anchor QEA
ADDRESS: 26300 La Alameda, Suite 240
CITY: Mission Viejo, CA 92691
TEL: 949.334.9632 FAX: 949.334.9646 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Rhine Channel Confirmation Testing Program
PROJECT CONTACT: Chris Osuch
SAMPLER(S): (SIGNATURE)
P.O. NO.:
QUOTE NO.:
LAB USE ONLY: 12-12-1364

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Homogenize thoroughly prior to analysis.
Specific analytes, methods, and QA/QC in accordance with SAP and SAP Addendum.
Lower MDL/RL is requested for selenium (see Danielle Gonsman).

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	SM 2540 B Total Solids	ASTM D4464 Grain Size	EPA 9060A TOC	EPA 6020/1631 As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn	EPA 8270C SIM PCB Congener	EPA 8081A OC Pesticides	GC/MS/MS Pyrethroids	MS/MSD
1	RC-09-SC-0.0-0.5	Rhine Channel	12/19/12	0926	Sed	1	X	X	X	X	X	X	X	
2	RC-07-SC-0.0-0.5	↓	↓	1023	Sed	1	↓	↓	↓	↓	↓	↓	↓	
3	RC-05-SC-0.0-0.5	↓	↓	1120	Sed	1	↓	↓	↓	↓	↓	↓	↓	
					Sed									
					Sed									
					Sed									
					Sed									
					Sed									
					Sed									
					Sed									
					Sed									
					Sed									

Relinquished by: (Signature)	Received by: (Signature)	Date: 12/20/12	Time: 1116
Relinquished by: (Signature)	Received by: (Signature)	Date: 12/20/12	Time: 1245
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Return to Contents

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-1364

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Anchor QEA

DATE: 12/20/12

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.6 °C - 0.3 °C (CF) = 1.3 °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: AP

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: HH

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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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 ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** HH

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** VS

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JB

Return to Contents

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-01-0633

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: Rhine Channel Confirmation Testing Program

Attention: Chris Osuch
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Approved for release on 01/29/2013 by:
Danielle Gonsman
Project Manager

ResultLink

Email your PM

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

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Rhine Channel Confirmation Testing Program
Work Order Number: 13-01-0633

1 Case Narrative 3

2 Client Sample Data 6
2.1 SM 2540 B (M) Total Solids (Solid) 6
2.2 EPA 8081A Organochlorine Pesticides (Solid) 11
2.3 EPA 8270C SIM PCB Congeners (Solid) 20
2.4 EPA 1631E (M) Hg Soil (Solid) 46
2.5 EPA 6020 ICP/MS Metals (Solid) 51

3 Quality Control Sample Data 61
3.1 MS/MSD and/or Duplicate 61
3.2 LCS/LCSD 75

4 Glossary of Terms and Qualifiers 84

5 Chain of Custody/Sample Receipt Form 85

Calscience Environmental Laboratories, Inc.

CASE NARRATIVE

Calscience Work Order No.: 13-01-0633
Project ID: Rhine Channel Confirmation Testing Program

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

Sample Condition on Receipt

Twenty two sediment samples were received for this project on January 11, 2013. 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 2.2°C. All samples were logged into the Laboratory Information Management System (LIMS), given laboratory identification numbers and then stored in refrigeration units pending chemistry testing.

COC discrepancies (if any) were noted in the Sample Anomaly Form.

Tests Performed

Total Solids by SM 2540B
Trace Metals by EPA 6020
Mercury by EPA 1631
PCB Congeners by EPA 8270C SIM
Chlorinated Pesticides by EPA 8081A

Data Summary

Holding times

All samples were received past the EPA recommended holding times for Chlorinated Pesticides, PCB Congeners and Total Solids. Samples collected on 12/11/12 were received past the EPA recommended holding time for Mercury. However, we have been advised by the client that these samples were frozen after collection (prior to receipt at the laboratory) and remained in that condition until received by Calscience. Calscience follows standard industry practice and the Puget Sound Protocol, which states the holding times for sediment samples may be extended up to one year if kept frozen after collection. Therefore, the results have not been flagged as exceeding the EPA recommended extractions holding time.

Calibration

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

Return to Contents

Blanks

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

Reporting Limits

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

Laboratory Control Samples

A Laboratory Control Sample (LCS) analysis was performed for each applicable test. All parameters were within established control limits.

Matrix Spikes

Matrix spiking was performed at the required frequencies. Matrix spikes were performed on project samples. All parameters were within the acceptable control limits with the following exceptions.

For Metals by 6020 the Zinc MS and MSD recoveries were outside the established control limits (QC Batch # 130115S02). Given that the batch associated PDS and LCS/LCSD recoveries were within the acceptable limits, the data are released with no further action.

For Mercury by EPA 1631, the concentration of mercury detected in the sample was four times or more than the spike amount, which caused the MS, MSD and RPDs to fall outside the control limits in all three QC Batches. All three LCS/LCSD recoveries and RPDs were within acceptable limits, so the data are released with no further action.

In Chlorinated Pesticides QC Batch #130115S08, the MS/MSD recoveries were out low for 4,4-DDE. However, since the LCS/LCSD recoveries were within acceptable limits, the data are flagged with the appropriate qualifiers and are released with no further action.

Surrogates

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

One of the surrogates for the PCB Congeners was above the established control limits in three samples. Both surrogates were outside the control limits in sample RC-010-SC_1.0-1.5. The recoveries have been confirmed by re-analysis and the results have been flagged with the appropriate qualifiers and are released with no further action.

Return to Contents

For Chlorinated Pesticides by EPA 8081A, the Decachlorobiphenyl surrogate recovery was out high in three samples. Since the second surrogate and Method Blank surrogates were acceptable, the data are released with no further action.

Laboratory Duplicate

A laboratory duplicate was created for this project using sample RC-011-SC_1.0-1.5. The laboratory duplicate was analyzed for the requested analyses and the precision between the two samples was acceptable.

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC_0.5-1.0	**13-01-0633-1-B**	**12/12/12 15:12**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	77.8	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.5-1.0	**13-01-0633-2-B**	**12/11/12 10:52**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	67.5	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-03-SC_0.5-1.0	**13-01-0633-3-B**	**12/12/12 16:08**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	78.4	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-04-SC_0.5-1.0	**13-01-0633-4-B**	**12/11/12 11:44**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	73.7	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-05-SC_0.5-1.0	**13-01-0633-5-B**	**12/19/12 11:20**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	77.6	0.100	1		%

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SC_0.5-1.0	**13-01-0633-6-B**	**12/11/12 13:19**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	78.9	0.100	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-07-SC_0.5-1.0	**13-01-0633-7-B**	**12/19/12 10:23**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	82.0	0.100	1		%

RC-08-SC_0.5-1.0	**13-01-0633-8-B**	**12/11/12 14:50**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	84.5	0.100	1		%

RC-09-SC_0.5-1.0	**13-01-0633-9-B**	**12/19/12 09:26**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	78.2	0.100	1		%

RC-010-SC_0.5-1.0	**13-01-0633-10-B**	**12/11/12 15:58**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	81.9	0.100	1		%

RC-011-SC_0.5-1.0	**13-01-0633-11-B**	**12/11/12 16:47**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	81.5	0.100	1		%

RC-01-SC_1.0-1.5	**13-01-0633-12-B**	**12/12/12 15:12**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	82.2	0.100	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_1.0-1.5	**13-01-0633-13-B**	**12/11/12 10:52**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	58.5	0.100	1		%

RC-03-SC_1.0-1.5	**13-01-0633-14-B**	**12/12/12 16:08**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	77.9	0.100	1		%

RC-04-SC_1.0-1.5	**13-01-0633-15-B**	**12/11/12 11:44**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	69.9	0.100	1		%

RC-05-SC_1.0-1.5	**13-01-0633-16-B**	**12/19/12 11:20**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	81.3	0.100	1		%

RC-06-SC_1.0-1.5	**13-01-0633-17-B**	**12/11/12 13:19**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	80.1	0.100	1		%

RC-07-SC_1.0-1.5	**13-01-0633-18-B**	**12/19/12 10:23**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	79.3	0.100	1		%

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_1.0-1.5	**13-01-0633-19-B**	**12/11/12 14:50**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	83.5	0.100	1		%

RC-09-SC_1.0-1.5	**13-01-0633-20-B**	**12/19/12 09:26**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	78.5	0.100	1		%

RC-010-SC_1.0-1.5	**13-01-0633-21-B**	**12/11/12 15:58**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 18:30**	**D0114TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	81.0	0.100	1		%

RC-011-SC_1.0-1.5	**13-01-0633-22-B**	**12/11/12 16:47**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 18:30**	**D0114TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	83.4	0.100	1		%

RC-011-SC_1.0-1.5 LAB DUP	**13-01-0633-23-B**	**12/11/12 00:00**	**Sediment**	**N/A**	**01/14/13**	**01/14/13 18:30**	**D0114TSB2**

Parameter	Result	RL	DF	Qual	Units
Solids, Total	82.9	0.100	1		%

Method Blank	**099-05-019-2,142**	**N/A**	**Solid**	**N/A**	**01/14/13**	**01/14/13 19:00**	**D0114TSB3**

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

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-019-2,143**	**N/A**	**Solid**	**N/A**	**01/14/13**	**01/14/13 18:30**	**D0114TSB2**

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

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC_0.5-1.0	**13-01-0633-1-B**	**12/12/12 15:12**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 11:21**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.59	1.3	0.42	1	J	4,4'-DDE	2.5	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.44	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	ND	1.3	0.39	1		Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.39	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.41	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	82	50-130		Decachlorobiphenyl	84	50-130	

RC-02-SC_0.5-1.0	**13-01-0633-2-B**	**12/11/12 10:52**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 11:35**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	2.6	1.5	0.49	1		4,4'-DDE	11	1.5	0.44	1	
2,4'-DDD	ND	1.5	0.50	1		4,4'-DDT	ND	1.5	0.50	1	
2,4'-DDE	1.5	1.5	0.45	1		Alpha Chlordane	ND	1.5	0.48	1	
2,4'-DDT	ND	1.5	0.45	1		Gamma Chlordane	ND	1.5	0.47	1	
4,4'-DDD	ND	1.5	0.47	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	77	50-130		Decachlorobiphenyl	109	50-130	

RC-03-SC_0.5-1.0	**13-01-0633-3-B**	**12/12/12 16:08**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 11:50**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.54	1.3	0.42	1	J	4,4'-DDE	2.3	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.43	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	ND	1.3	0.39	1		Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.38	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.40	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	80	50-130		Decachlorobiphenyl	115	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-04-SC_0.5-1.0	**13-01-0633-4-B**	**12/11/12 11:44**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 12:04**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	2.3	1.4	0.45	1		4,4'-DDE	9.0	1.4	0.41	1	
2,4'-DDD	ND	1.4	0.46	1		4,4'-DDT	ND	1.4	0.45	1	
2,4'-DDE	1.1	1.4	0.41	1	J	Alpha Chlordane	ND	1.4	0.44	1	
2,4'-DDT	ND	1.4	0.41	1		Gamma Chlordane	ND	1.4	0.43	1	
4,4'-DDD	ND	1.4	0.43	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	97	50-130	

RC-05-SC_0.5-1.0	**13-01-0633-5-B**	**12/19/12 11:20**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 12:18**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.74	1.3	0.42	1	J	4,4'-DDE	4.0	1.3	0.39	1	
2,4'-DDD	ND	1.3	0.44	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	0.42	1.3	0.39	1	J	Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.39	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.41	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	80	50-130		Decachlorobiphenyl	81	50-130	

RC-06-SC_0.5-1.0	**13-01-0633-6-B**	**12/11/12 13:19**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 12:32**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.47	1.3	0.42	1	J	4,4'-DDE	1.9	1.3	0.38	1	
2,4'-DDD	0.44	1.3	0.43	1	J	4,4'-DDT	ND	1.3	0.42	1	
2,4'-DDE	0.56	1.3	0.39	1	J	Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.38	1		Gamma Chlordane	ND	1.3	0.40	1	
4,4'-DDD	1.8	1.3	0.40	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	81	50-130		Decachlorobiphenyl	78	50-130	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-07-SC_0.5-1.0	**13-01-0633-7-B**	**12/19/12 10:23**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 12:47**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.40	1		4,4'-DDE	0.67	1.2	0.36	1	J
2,4'-DDD	ND	1.2	0.41	1		4,4'-DDT	ND	1.2	0.41	1	
2,4'-DDE	ND	1.2	0.37	1		Alpha Chlordane	ND	1.2	0.39	1	
2,4'-DDT	ND	1.2	0.37	1		Gamma Chlordane	ND	1.2	0.39	1	
4,4'-DDD	ND	1.2	0.39	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	87	50-130		Decachlorobiphenyl	78	50-130	

RC-08-SC_0.5-1.0	**13-01-0633-8-B**	**12/11/12 14:50**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 13:01**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.39	1		4,4'-DDE	1.0	1.2	0.35	1	J
2,4'-DDD	ND	1.2	0.40	1		4,4'-DDT	ND	1.2	0.40	1	
2,4'-DDE	ND	1.2	0.36	1		Alpha Chlordane	ND	1.2	0.38	1	
2,4'-DDT	ND	1.2	0.36	1		Gamma Chlordane	ND	1.2	0.38	1	
4,4'-DDD	ND	1.2	0.37	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	87	50-130		Decachlorobiphenyl	78	50-130	

RC-09-SC_0.5-1.0	**13-01-0633-9-B**	**12/19/12 09:26**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 13:15**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	2.5	1.3	0.42	1		4,4'-DDE	9.4	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.43	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	1.1	1.3	0.39	1	J	Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.38	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.40	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	97	50-130	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	01/11/13
Work Order No:	13-01-0633
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-010-SC_0.5-1.0	**13-01-0633-10-B**	**12/11/12 15:58**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 13:30**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.40	1		4,4'-DDE	1.1	1.2	0.37	1	J
2,4'-DDD	ND	1.2	0.41	1		4,4'-DDT	ND	1.2	0.41	1	
2,4'-DDE	0.41	1.2	0.37	1	J	Alpha Chlordane	ND	1.2	0.39	1	
2,4'-DDT	ND	1.2	0.37	1		Gamma Chlordane	ND	1.2	0.39	1	
4,4'-DDD	ND	1.2	0.39	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	76	50-130		Decachlorobiphenyl	93	50-130	

RC-011-SC_0.5-1.0	**13-01-0633-11-B**	**12/11/12 16:47**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 13:44**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.40	1		4,4'-DDE	ND	1.2	0.37	1	
2,4'-DDD	ND	1.2	0.42	1		4,4'-DDT	ND	1.2	0.41	1	
2,4'-DDE	ND	1.2	0.37	1		Alpha Chlordane	ND	1.2	0.39	1	
2,4'-DDT	ND	1.2	0.37	1		Gamma Chlordane	ND	1.2	0.39	1	
4,4'-DDD	ND	1.2	0.39	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	75	50-130	

RC-01-SC_1.0-1.5	**13-01-0633-12-B**	**12/12/12 15:12**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 13:58**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.40	1		4,4'-DDE	0.89	1.2	0.36	1	J
2,4'-DDD	ND	1.2	0.41	1		4,4'-DDT	ND	1.2	0.41	1	
2,4'-DDE	ND	1.2	0.37	1		Alpha Chlordane	ND	1.2	0.39	1	
2,4'-DDT	ND	1.2	0.37	1		Gamma Chlordane	ND	1.2	0.39	1	
4,4'-DDD	ND	1.2	0.38	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	84	50-130		Decachlorobiphenyl	74	50-130	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	01/11/13
Work Order No:	13-01-0633
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_1.0-1.5	**13-01-0633-13-B**	**12/11/12 10:52**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 14:13**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	8.1	1.7	0.56	1		4,4'-DDE	27	8.5	2.6	5	
2,4'-DDD	ND	1.7	0.58	1		4,4'-DDT	ND	1.7	0.57	1	
2,4'-DDE	ND	1.7	0.52	1		Alpha Chlordane	ND	1.7	0.55	1	
2,4'-DDT	ND	1.7	0.51	1		Gamma Chlordane	ND	1.7	0.54	1	
4,4'-DDD	ND	1.7	0.54	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	130	50-130	

RC-03-SC_1.0-1.5	**13-01-0633-14-B**	**12/12/12 16:08**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 14:27**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.92	1.3	0.42	1	J	4,4'-DDE	4.0	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.43	1		4,4'-DDT	ND	1.3	0.43	1	
2,4'-DDE	0.48	1.3	0.39	1	J	Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.39	1		Gamma Chlordane	ND	1.3	0.41	1	
4,4'-DDD	ND	1.3	0.41	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	75	50-130		Decachlorobiphenyl	72	50-130	

RC-04-SC_1.0-1.5	**13-01-0633-15-B**	**12/11/12 11:44**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 14:41**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	2.1	1.4	0.47	1		4,4'-DDE	12	2.9	0.86	2	
2,4'-DDD	ND	1.4	0.48	1		4,4'-DDT	ND	1.4	0.48	1	
2,4'-DDE	1.3	1.4	0.44	1	J	Alpha Chlordane	ND	1.4	0.46	1	
2,4'-DDT	ND	1.4	0.43	1		Gamma Chlordane	ND	1.4	0.45	1	
4,4'-DDD	ND	1.4	0.45	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	83	50-130		Decachlorobiphenyl	77	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 6 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-05-SC_1.0-1.5	**13-01-0633-16-B**	**12/19/12 11:20**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 14:56**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.67	1.2	0.41	1	J	4,4'-DDE	2.5	1.2	0.37	1	
2,4'-DDD	ND	1.2	0.42	1		4,4'-DDT	ND	1.2	0.41	1	
2,4'-DDE	ND	1.2	0.38	1		Alpha Chlordane	ND	1.2	0.39	1	
2,4'-DDT	ND	1.2	0.37	1		Gamma Chlordane	ND	1.2	0.39	1	
4,4'-DDD	ND	1.2	0.39	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	80	50-130		Decachlorobiphenyl	128	50-130	

RC-06-SC_1.0-1.5	**13-01-0633-17-B**	**12/11/12 13:19**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 15:10**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.41	1		4,4'-DDE	1.2	1.2	0.37	1	J
2,4'-DDD	ND	1.2	0.42	1		4,4'-DDT	ND	1.2	0.42	1	
2,4'-DDE	ND	1.2	0.38	1		Alpha Chlordane	ND	1.2	0.40	1	
2,4'-DDT	ND	1.2	0.38	1		Gamma Chlordane	ND	1.2	0.40	1	
4,4'-DDD	ND	1.2	0.39	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	77	50-130		Decachlorobiphenyl	74	50-130	

RC-07-SC_1.0-1.5	**13-01-0633-18-B**	**12/19/12 10:23**	**Sediment**	**GC 51**	**01/15/13**	**01/19/13 15:24**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	0.65	1.3	0.42	1	J	4,4'-DDE	2.8	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.43	1		4,4'-DDT	ND	1.3	0.42	1	
2,4'-DDE	0.64	1.3	0.38	1	J	Alpha Chlordane	ND	1.3	0.40	1	
2,4'-DDT	ND	1.3	0.38	1		Gamma Chlordane	ND	1.3	0.40	1	
4,4'-DDD	ND	1.3	0.40	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	77	50-130		Decachlorobiphenyl	66	50-130	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 7 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_1.0-1.5	**13-01-0633-19-B**	**12/11/12 14:50**	**Sediment**	**GC 51**	**01/15/13**	**01/21/13 12:23**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.39	1		4,4'-DDE	0.55	1.2	0.36	1	J
2,4'-DDD	ND	1.2	0.41	1		4,4'-DDT	ND	1.2	0.40	1	
2,4'-DDE	ND	1.2	0.37	1		Alpha Chlordane	ND	1.2	0.38	1	
2,4'-DDT	ND	1.2	0.36	1		Gamma Chlordane	ND	1.2	0.38	1	
4,4'-DDD	ND	1.2	0.38	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	83	50-130		Decachlorobiphenyl	75	50-130	

RC-09-SC_1.0-1.5	**13-01-0633-20-B**	**12/19/12 09:26**	**Sediment**	**GC 51**	**01/15/13**	**01/21/13 12:37**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.3	0.42	1		4,4'-DDE	8.0	1.3	0.38	1	
2,4'-DDD	ND	1.3	0.43	1		4,4'-DDT	6.3	1.3	0.43	1	
2,4'-DDE	ND	1.3	0.39	1		Alpha Chlordane	ND	1.3	0.41	1	
2,4'-DDT	ND	1.3	0.38	1		Gamma Chlordane	ND	1.3	0.40	1	
4,4'-DDD	ND	1.3	0.40	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	121	50-130		Decachlorobiphenyl	215	50-130	2,7

RC-010-SC_1.0-1.5	**13-01-0633-21-B**	**12/11/12 15:58**	**Sediment**	**GC 51**	**01/15/13**	**01/21/13 12:52**	**130115L08**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.41	1		4,4'-DDE	4.2	1.2	0.37	1	
2,4'-DDD	ND	1.2	0.42	1		4,4'-DDT	ND	1.2	0.41	1	
2,4'-DDE	0.59	1.2	0.38	1	J	Alpha Chlordane	ND	1.2	0.40	1	
2,4'-DDT	ND	1.2	0.37	1		Gamma Chlordane	ND	1.2	0.39	1	
4,4'-DDD	ND	1.2	0.39	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	75	50-130		Decachlorobiphenyl	81	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	01/11/13
Work Order No:	13-01-0633
Preparation:	EPA 3545
Method:	EPA 8081A
Units:	ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-011-SC_1.0-1.5	**13-01-0633-22-B**	**12/11/12 16:47**	**Sediment**	**GC 51**	**01/15/13**	**01/21/13 13:06**	**130115L08**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.40	1		4,4'-DDE	ND	1.2	0.36	1	
2,4'-DDD	ND	1.2	0.41	1		4,4'-DDT	ND	1.2	0.40	1	
2,4'-DDE	ND	1.2	0.37	1		Alpha Chlordane	ND	1.2	0.38	1	
2,4'-DDT	ND	1.2	0.36	1		Gamma Chlordane	ND	1.2	0.38	1	
4,4'-DDD	ND	1.2	0.38	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	137	50-130	2,7

RC-011-SC_1.0-1.5 LAB DUP	**13-01-0633-23-B**	**12/11/12 00:00**	**Sediment**	**GC 51**	**01/15/13**	**01/21/13 13:20**	**130115L08**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.2	0.40	1		4,4'-DDE	ND	1.2	0.36	1	
2,4'-DDD	ND	1.2	0.41	1		4,4'-DDT	ND	1.2	0.40	1	
2,4'-DDE	ND	1.2	0.37	1		Alpha Chlordane	ND	1.2	0.39	1	
2,4'-DDT	ND	1.2	0.36	1		Gamma Chlordane	ND	1.2	0.38	1	
4,4'-DDD	ND	1.2	0.38	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	176	50-130	2,7

Method Blank	**099-12-858-178**	**N/A**	**Solid**	**GC 51**	**01/15/13**	**01/19/13 10:52**	**130115L07**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.0	0.33	1		4,4'-DDE	ND	1.0	0.30	1	
2,4'-DDD	ND	1.0	0.34	1		4,4'-DDT	ND	1.0	0.33	1	
2,4'-DDE	ND	1.0	0.31	1		Alpha Chlordane	ND	1.0	0.32	1	
2,4'-DDT	ND	1.0	0.30	1		Gamma Chlordane	ND	1.0	0.32	1	
4,4'-DDD	ND	1.0	0.32	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	80	50-130		Decachlorobiphenyl	81	50-130	

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

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 9 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-858-179**	**N/A**	**Solid**	**GC 51**	**01/15/13**	**01/19/13 16:50**	**130115L08**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Dieldrin	ND	1.0	0.33	1		4,4'-DDE	ND	1.0	0.30	1	
2,4'-DDD	ND	1.0	0.34	1		4,4'-DDT	ND	1.0	0.33	1	
2,4'-DDE	ND	1.0	0.31	1		Alpha Chlordane	ND	1.0	0.32	1	
2,4'-DDT	ND	1.0	0.30	1		Gamma Chlordane	ND	1.0	0.32	1	
4,4'-DDD	ND	1.0	0.32	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2,4,5,6-Tetrachloro-m-Xylene	88	50-130		Decachlorobiphenyl	89	50-130	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC_0.5-1.0	**13-01-0633-1-B**	**12/12/12 15:12**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 19:07**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.3	0.64	0.20	1		PCB126	ND	0.64	0.18	1	
PCB028	0.38	0.64	0.13	1	J	PCB128	0.19	0.64	0.13	1	J
PCB037	ND	0.64	0.17	1		PCB138/158	0.77	1.3	0.26	1	J
PCB044	0.76	0.64	0.17	1		PCB149	0.51	0.64	0.11	1	J
PCB049	0.71	0.64	0.15	1		PCB151	0.15	0.64	0.13	1	J
PCB052	1.1	0.64	0.12	1		PCB153	0.83	0.64	0.13	1	
PCB066	1.1	0.64	0.12	1		PCB156	ND	0.64	0.13	1	
PCB070	1.0	0.64	0.11	1		PCB157	0.17	0.64	0.12	1	J
PCB074	0.45	0.64	0.12	1	J	PCB167	ND	0.64	0.13	1	
PCB077	ND	0.64	0.13	1		PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	ND	0.64	0.10	1	
PCB087	0.25	0.64	0.13	1	J	PCB170	0.22	0.64	0.12	1	J
PCB099	0.68	0.64	0.11	1		PCB177	ND	0.64	0.16	1	
PCB101	1.2	0.64	0.10	1		PCB180	0.50	0.64	0.079	1	J
PCB105	0.41	0.64	0.13	1	J	PCB183	ND	0.64	0.14	1	
PCB110	0.99	0.64	0.13	1		PCB187	0.29	0.64	0.13	1	J
PCB114	0.13	0.64	0.13	1	J	PCB189	ND	0.64	0.11	1	
PCB118	1.0	0.64	0.17	1		PCB194	0.22	0.64	0.12	1	J
PCB119	ND	0.64	0.11	1		PCB201	ND	0.64	0.073	1	
PCB123	ND	0.64	0.11	1		PCB206	0.15	0.64	0.11	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	62	50-125		p-Terphenyl-d14	53	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_0.5-1.0	**13-01-0633-2-B**	**12/11/12 10:52**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 19:34**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	5.6	0.74	0.23	1		PCB126	1.2	0.74	0.20	1	
PCB028	3.9	0.74	0.15	1		PCB128	1.8	0.74	0.15	1	
PCB037	ND	0.74	0.19	1		PCB138/158	9.5	1.5	0.30	1	
PCB044	7.5	0.74	0.19	1		PCB149	6.4	0.74	0.13	1	
PCB049	8.7	0.74	0.17	1		PCB151	2.0	0.74	0.15	1	
PCB052	11	0.74	0.14	1		PCB153	10	0.74	0.15	1	
PCB066	13	0.74	0.14	1		PCB156	1.4	0.74	0.15	1	
PCB070	9.0	0.74	0.12	1		PCB157	2.5	0.74	0.14	1	
PCB074	5.0	0.74	0.14	1		PCB167	ND	0.74	0.15	1	
PCB077	1.6	0.74	0.14	1		PCB168	ND	0.74	0.13	1	
PCB081	ND	0.74	0.18	1		PCB169	0.81	0.74	0.12	1	
PCB087	3.4	0.74	0.15	1		PCB170	2.6	0.74	0.14	1	
PCB099	7.8	0.74	0.13	1		PCB177	1.5	0.74	0.18	1	
PCB101	14	0.74	0.12	1		PCB180	7.2	0.74	0.091	1	
PCB105	5.6	0.74	0.16	1		PCB183	1.6	0.74	0.17	1	
PCB110	11	0.74	0.15	1		PCB187	5.2	0.74	0.16	1	
PCB114	0.99	0.74	0.15	1		PCB189	ND	0.74	0.13	1	
PCB118	12	0.74	0.20	1		PCB194	3.1	0.74	0.14	1	
PCB119	0.47	0.74	0.13	1	J	PCB201	0.47	0.74	0.084	1	J
PCB123	ND	0.74	0.13	1		PCB206	ND	0.74	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	107	50-125		p-Terphenyl-d14	120	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-03-SC_0.5-1.0	**13-01-0633-3-B**	**12/12/12 16:08**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 20:01**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.46	0.64	0.20	1	J	PCB126	0.27	0.64	0.18	1	J
PCB028	0.52	0.64	0.13	1	J	PCB128	0.29	0.64	0.13	1	J
PCB037	ND	0.64	0.17	1		PCB138/158	1.7	1.3	0.26	1	
PCB044	0.81	0.64	0.17	1		PCB149	1.1	0.64	0.11	1	
PCB049	1.2	0.64	0.15	1		PCB151	0.42	0.64	0.13	1	J
PCB052	1.2	0.64	0.12	1		PCB153	2.0	0.64	0.13	1	
PCB066	1.8	0.64	0.12	1		PCB156	ND	0.64	0.12	1	
PCB070	1.3	0.64	0.10	1		PCB157	0.41	0.64	0.12	1	J
PCB074	0.68	0.64	0.12	1		PCB167	ND	0.64	0.13	1	
PCB077	0.22	0.64	0.12	1	J	PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	0.15	0.64	0.10	1	J
PCB087	0.44	0.64	0.13	1	J	PCB170	0.42	0.64	0.12	1	J
PCB099	1.3	0.64	0.11	1		PCB177	ND	0.64	0.16	1	
PCB101	2.1	0.64	0.10	1		PCB180	1.1	0.64	0.078	1	
PCB105	0.67	0.64	0.13	1		PCB183	0.24	0.64	0.14	1	J
PCB110	1.8	0.64	0.13	1		PCB187	0.88	0.64	0.13	1	
PCB114	0.32	0.64	0.13	1	J	PCB189	ND	0.64	0.11	1	
PCB118	2.0	0.64	0.17	1		PCB194	0.26	0.64	0.12	1	J
PCB119	ND	0.64	0.11	1		PCB201	ND	0.64	0.073	1	
PCB123	ND	0.64	0.11	1		PCB206	ND	0.64	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	110	50-125		p-Terphenyl-d14	120	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-04-SC_0.5-1.0	**13-01-0633-4-B**	**12/11/12 11:44**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 20:28**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.9	0.68	0.21	1		PCB126	ND	0.68	0.19	1	
PCB028	1.5	0.68	0.13	1		PCB128	0.74	0.68	0.14	1	
PCB037	0.79	0.68	0.18	1		PCB138/158	4.7	1.4	0.28	1	
PCB044	2.5	0.68	0.18	1		PCB149	3.4	0.68	0.12	1	
PCB049	2.8	0.68	0.16	1		PCB151	0.82	0.68	0.14	1	
PCB052	4.5	0.68	0.13	1		PCB153	5.5	0.68	0.14	1	
PCB066	5.5	0.68	0.12	1		PCB156	0.55	0.68	0.13	1	J
PCB070	3.7	0.68	0.11	1		PCB157	0.83	0.68	0.13	1	
PCB074	1.9	0.68	0.13	1		PCB167	ND	0.68	0.14	1	
PCB077	0.58	0.68	0.13	1	J	PCB168	ND	0.68	0.12	1	
PCB081	ND	0.68	0.17	1		PCB169	0.37	0.68	0.11	1	J
PCB087	1.3	0.68	0.14	1		PCB170	1.7	0.68	0.13	1	
PCB099	3.8	0.68	0.12	1		PCB177	0.60	0.68	0.17	1	J
PCB101	6.1	0.68	0.11	1		PCB180	2.7	0.68	0.083	1	
PCB105	1.8	0.68	0.14	1		PCB183	0.69	0.68	0.15	1	
PCB110	4.8	0.68	0.14	1		PCB187	2.0	0.68	0.14	1	
PCB114	0.53	0.68	0.14	1	J	PCB189	ND	0.68	0.12	1	
PCB118	5.6	0.68	0.18	1		PCB194	0.94	0.68	0.13	1	
PCB119	0.34	0.68	0.12	1	J	PCB201	ND	0.68	0.077	1	
PCB123	ND	0.68	0.12	1		PCB206	ND	0.68	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	100	50-125		p-Terphenyl-d14	124	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-05-SC_0.5-1.0	**13-01-0633-5-B**	**12/19/12 11:20**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 20:55**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.1	0.64	0.20	1		PCB126	ND	0.64	0.18	1	
PCB028	0.75	0.64	0.13	1		PCB128	0.42	0.64	0.13	1	J
PCB037	ND	0.64	0.17	1		PCB138/158	2.1	1.3	0.26	1	
PCB044	0.97	0.64	0.17	1		PCB149	1.5	0.64	0.12	1	
PCB049	1.3	0.64	0.15	1		PCB151	0.44	0.64	0.13	1	J
PCB052	2.1	0.64	0.12	1		PCB153	2.4	0.64	0.13	1	
PCB066	2.3	0.64	0.12	1		PCB156	0.32	0.64	0.13	1	J
PCB070	1.7	0.64	0.11	1		PCB157	0.35	0.64	0.12	1	J
PCB074	0.87	0.64	0.12	1		PCB167	ND	0.64	0.13	1	
PCB077	0.28	0.64	0.13	1	J	PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	ND	0.64	0.11	1	
PCB087	0.51	0.64	0.13	1	J	PCB170	0.49	0.64	0.12	1	J
PCB099	1.6	0.64	0.11	1		PCB177	0.32	0.64	0.16	1	J
PCB101	2.8	0.64	0.10	1		PCB180	1.3	0.64	0.079	1	
PCB105	0.83	0.64	0.14	1		PCB183	0.35	0.64	0.14	1	J
PCB110	2.0	0.64	0.13	1		PCB187	0.95	0.64	0.13	1	
PCB114	0.41	0.64	0.13	1	J	PCB189	ND	0.64	0.11	1	
PCB118	2.4	0.64	0.17	1		PCB194	0.58	0.64	0.12	1	J
PCB119	0.22	0.64	0.11	1	J	PCB201	0.13	0.64	0.073	1	J
PCB123	ND	0.64	0.11	1		PCB206	0.55	0.64	0.11	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	108	50-125		p-Terphenyl-d14	114	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 6 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SC_0.5-1.0	**13-01-0633-6-B**	**12/11/12 13:19**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 21:21**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.76	0.63	0.20	1		PCB126	ND	0.63	0.18	1	
PCB028	0.60	0.63	0.13	1	J	PCB128	0.25	0.63	0.13	1	J
PCB037	0.20	0.63	0.17	1	J	PCB138/158	1.1	1.3	0.26	1	J
PCB044	0.66	0.63	0.17	1		PCB149	0.83	0.63	0.11	1	
PCB049	0.92	0.63	0.15	1		PCB151	0.27	0.63	0.13	1	J
PCB052	1.5	0.63	0.12	1		PCB153	1.3	0.63	0.13	1	
PCB066	1.6	0.63	0.12	1		PCB156	ND	0.63	0.12	1	
PCB070	1.2	0.63	0.10	1		PCB157	ND	0.63	0.12	1	
PCB074	0.57	0.63	0.12	1	J	PCB167	ND	0.63	0.13	1	
PCB077	ND	0.63	0.12	1		PCB168	ND	0.63	0.11	1	
PCB081	ND	0.63	0.15	1		PCB169	ND	0.63	0.10	1	
PCB087	0.26	0.63	0.13	1	J	PCB170	0.42	0.63	0.12	1	J
PCB099	0.97	0.63	0.11	1		PCB177	0.18	0.63	0.16	1	J
PCB101	1.6	0.63	0.10	1		PCB180	0.72	0.63	0.078	1	
PCB105	0.56	0.63	0.13	1	J	PCB183	0.19	0.63	0.14	1	J
PCB110	1.3	0.63	0.13	1		PCB187	0.55	0.63	0.13	1	J
PCB114	0.19	0.63	0.13	1	J	PCB189	ND	0.63	0.11	1	
PCB118	1.5	0.63	0.17	1		PCB194	0.22	0.63	0.12	1	J
PCB119	ND	0.63	0.11	1		PCB201	ND	0.63	0.072	1	
PCB123	ND	0.63	0.11	1		PCB206	ND	0.63	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	118	50-125		p-Terphenyl-d14	144	50-125	1,2,7

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 7 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-07-SC_0.5-1.0	**13-01-0633-7-B**	**12/19/12 10:23**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 21:48**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.45	0.61	0.19	1	J	PCB126	ND	0.61	0.17	1	
PCB028	0.35	0.61	0.12	1	J	PCB128	ND	0.61	0.13	1	
PCB037	ND	0.61	0.16	1		PCB138/158	0.46	1.2	0.25	1	J
PCB044	0.38	0.61	0.16	1	J	PCB149	0.36	0.61	0.11	1	J
PCB049	0.49	0.61	0.14	1	J	PCB151	ND	0.61	0.13	1	
PCB052	0.73	0.61	0.12	1		PCB153	0.51	0.61	0.13	1	J
PCB066	0.89	0.61	0.11	1		PCB156	ND	0.61	0.12	1	
PCB070	0.58	0.61	0.10	1	J	PCB157	ND	0.61	0.12	1	
PCB074	0.29	0.61	0.12	1	J	PCB167	ND	0.61	0.12	1	
PCB077	ND	0.61	0.12	1		PCB168	ND	0.61	0.10	1	
PCB081	ND	0.61	0.15	1		PCB169	ND	0.61	0.10	1	
PCB087	ND	0.61	0.12	1		PCB170	0.16	0.61	0.11	1	J
PCB099	0.46	0.61	0.10	1	J	PCB177	ND	0.61	0.15	1	
PCB101	0.75	0.61	0.099	1		PCB180	0.31	0.61	0.075	1	J
PCB105	0.22	0.61	0.13	1	J	PCB183	ND	0.61	0.14	1	
PCB110	0.61	0.61	0.13	1	J	PCB187	0.29	0.61	0.13	1	J
PCB114	ND	0.61	0.12	1		PCB189	ND	0.61	0.10	1	
PCB118	0.56	0.61	0.16	1	J	PCB194	ND	0.61	0.12	1	
PCB119	ND	0.61	0.11	1		PCB201	ND	0.61	0.069	1	
PCB123	ND	0.61	0.11	1		PCB206	ND	0.61	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	100	50-125		p-Terphenyl-d14	115	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_0.5-1.0	**13-01-0633-8-B**	**12/11/12 14:50**	**Sediment**	**GC/MS HHH**	**01/21/13**	**01/21/13 17:49**	**130121L11**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.59	0.19	1		PCB126	ND	0.59	0.16	1	
PCB028	0.41	0.59	0.12	1	J	PCB128	0.57	0.59	0.12	1	J
PCB037	ND	0.59	0.15	1		PCB138/158	3.4	1.2	0.24	1	
PCB044	0.57	0.59	0.16	1	J	PCB149	1.7	0.59	0.11	1	
PCB049	0.64	0.59	0.14	1		PCB151	0.41	0.59	0.12	1	J
PCB052	1.2	0.59	0.11	1		PCB153	3.0	0.59	0.12	1	
PCB066	1.2	0.59	0.11	1		PCB156	0.34	0.59	0.12	1	J
PCB070	1.1	0.59	0.097	1		PCB157	0.93	0.59	0.11	1	
PCB074	0.55	0.59	0.11	1	J	PCB167	ND	0.59	0.12	1	
PCB077	ND	0.59	0.12	1		PCB168	ND	0.59	0.10	1	
PCB081	ND	0.59	0.14	1		PCB169	ND	0.59	0.097	1	
PCB087	0.64	0.59	0.12	1		PCB170	0.72	0.59	0.11	1	
PCB099	1.1	0.59	0.10	1		PCB177	0.39	0.59	0.15	1	J
PCB101	2.3	0.59	0.096	1		PCB180	1.4	0.59	0.072	1	
PCB105	1.3	0.59	0.12	1		PCB183	0.32	0.59	0.13	1	J
PCB110	1.7	0.59	0.12	1		PCB187	1.1	0.59	0.12	1	
PCB114	2.2	0.59	0.12	1		PCB189	ND	0.59	0.10	1	
PCB118	2.3	0.59	0.16	1		PCB194	ND	0.59	0.11	1	
PCB119	0.12	0.59	0.10	1	J	PCB201	ND	0.59	0.067	1	
PCB123	ND	0.59	0.10	1		PCB206	ND	0.59	0.098	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	89	50-125		p-Terphenyl-d14	88	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 9 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC_0.5-1.0	**13-01-0633-9-B**	**12/19/12 09:26**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 22:42**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	4.1	0.64	0.20	1		PCB126	ND	0.64	0.18	1	
PCB028	2.4	0.64	0.13	1		PCB128	0.74	0.64	0.13	1	
PCB037	0.63	0.64	0.17	1	J	PCB138/158	4.8	1.3	0.26	1	
PCB044	2.6	0.64	0.17	1		PCB149	3.8	0.64	0.11	1	
PCB049	3.5	0.64	0.15	1		PCB151	1.2	0.64	0.13	1	
PCB052	4.5	0.64	0.12	1		PCB153	6.2	0.64	0.13	1	
PCB066	5.9	0.64	0.12	1		PCB156	0.41	0.64	0.13	1	J
PCB070	4.3	0.64	0.10	1		PCB157	0.58	0.64	0.12	1	J
PCB074	2.2	0.64	0.12	1		PCB167	ND	0.64	0.13	1	
PCB077	0.49	0.64	0.12	1	J	PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	0.40	0.64	0.10	1	J
PCB087	1.0	0.64	0.13	1		PCB170	1.7	0.64	0.12	1	
PCB099	3.7	0.64	0.11	1		PCB177	0.95	0.64	0.16	1	
PCB101	5.8	0.64	0.10	1		PCB180	4.1	0.64	0.078	1	
PCB105	1.6	0.64	0.13	1		PCB183	0.90	0.64	0.14	1	
PCB110	4.3	0.64	0.13	1		PCB187	2.7	0.64	0.13	1	
PCB114	0.83	0.64	0.13	1		PCB189	ND	0.64	0.11	1	
PCB118	4.8	0.64	0.17	1		PCB194	1.2	0.64	0.12	1	
PCB119	0.33	0.64	0.11	1	J	PCB201	0.19	0.64	0.073	1	J
PCB123	ND	0.64	0.11	1		PCB206	1.0	0.64	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	120	50-125		p-Terphenyl-d14	123	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-010-SC_0.5-1.0	**13-01-0633-10-B**	**12/11/12 15:58**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/18/13 23:09**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.30	0.61	0.19	1	J	PCB126	ND	0.61	0.17	1	
PCB028	0.14	0.61	0.12	1	J	PCB128	ND	0.61	0.13	1	
PCB037	ND	0.61	0.16	1		PCB138/158	0.35	1.2	0.25	1	J
PCB044	0.21	0.61	0.16	1	J	PCB149	0.25	0.61	0.11	1	J
PCB049	0.22	0.61	0.14	1	J	PCB151	ND	0.61	0.13	1	
PCB052	0.39	0.61	0.12	1	J	PCB153	0.36	0.61	0.13	1	J
PCB066	0.43	0.61	0.11	1	J	PCB156	ND	0.61	0.12	1	
PCB070	0.30	0.61	0.10	1	J	PCB157	ND	0.61	0.12	1	
PCB074	0.20	0.61	0.12	1	J	PCB167	ND	0.61	0.12	1	
PCB077	ND	0.61	0.12	1		PCB168	ND	0.61	0.11	1	
PCB081	ND	0.61	0.15	1		PCB169	ND	0.61	0.10	1	
PCB087	ND	0.61	0.12	1		PCB170	ND	0.61	0.11	1	
PCB099	0.28	0.61	0.10	1	J	PCB177	ND	0.61	0.15	1	
PCB101	0.40	0.61	0.099	1	J	PCB180	0.19	0.61	0.075	1	J
PCB105	ND	0.61	0.13	1		PCB183	ND	0.61	0.14	1	
PCB110	0.32	0.61	0.13	1	J	PCB187	0.17	0.61	0.13	1	J
PCB114	0.13	0.61	0.12	1	J	PCB189	ND	0.61	0.10	1	
PCB118	0.40	0.61	0.16	1	J	PCB194	ND	0.61	0.12	1	
PCB119	ND	0.61	0.11	1		PCB201	ND	0.61	0.070	1	
PCB123	ND	0.61	0.11	1		PCB206	ND	0.61	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	101	50-125		p-Terphenyl-d14	110	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 11 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-011-SC_0.5-1.0	**13-01-0633-11-B**	**12/11/12 16:47**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 02:48**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.61	0.19	1		PCB126	ND	0.61	0.17	1	
PCB028	ND	0.61	0.12	1		PCB128	ND	0.61	0.13	1	
PCB037	ND	0.61	0.16	1		PCB138/158	ND	1.2	0.25	1	
PCB044	ND	0.61	0.16	1		PCB149	ND	0.61	0.11	1	
PCB049	ND	0.61	0.14	1		PCB151	ND	0.61	0.13	1	
PCB052	ND	0.61	0.12	1		PCB153	ND	0.61	0.13	1	
PCB066	ND	0.61	0.11	1		PCB156	ND	0.61	0.12	1	
PCB070	ND	0.61	0.10	1		PCB157	ND	0.61	0.12	1	
PCB074	ND	0.61	0.12	1		PCB167	ND	0.61	0.12	1	
PCB077	ND	0.61	0.12	1		PCB168	ND	0.61	0.11	1	
PCB081	ND	0.61	0.15	1		PCB169	ND	0.61	0.10	1	
PCB087	ND	0.61	0.12	1		PCB170	ND	0.61	0.11	1	
PCB099	ND	0.61	0.10	1		PCB177	ND	0.61	0.15	1	
PCB101	ND	0.61	0.10	1		PCB180	ND	0.61	0.075	1	
PCB105	ND	0.61	0.13	1		PCB183	ND	0.61	0.14	1	
PCB110	ND	0.61	0.13	1		PCB187	ND	0.61	0.13	1	
PCB114	ND	0.61	0.12	1		PCB189	ND	0.61	0.11	1	
PCB118	ND	0.61	0.16	1		PCB194	ND	0.61	0.12	1	
PCB119	ND	0.61	0.11	1		PCB201	ND	0.61	0.070	1	
PCB123	ND	0.61	0.11	1		PCB206	ND	0.61	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	114	50-125		p-Terphenyl-d14	112	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 12 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC_1.0-1.5	**13-01-0633-12-B**	**12/12/12 15:12**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 03:15**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.36	0.61	0.19	1	J	PCB126	ND	0.61	0.17	1	
PCB028	0.24	0.61	0.12	1	J	PCB128	0.13	0.61	0.12	1	J
PCB037	ND	0.61	0.16	1		PCB138/158	0.60	1.2	0.25	1	J
PCB044	0.38	0.61	0.16	1	J	PCB149	0.36	0.61	0.11	1	J
PCB049	0.40	0.61	0.14	1	J	PCB151	ND	0.61	0.13	1	
PCB052	0.71	0.61	0.12	1		PCB153	0.59	0.61	0.13	1	J
PCB066	0.70	0.61	0.11	1		PCB156	ND	0.61	0.12	1	
PCB070	0.59	0.61	0.10	1	J	PCB157	ND	0.61	0.12	1	
PCB074	0.31	0.61	0.11	1	J	PCB167	ND	0.61	0.12	1	
PCB077	ND	0.61	0.12	1		PCB168	ND	0.61	0.10	1	
PCB081	ND	0.61	0.15	1		PCB169	ND	0.61	0.099	1	
PCB087	0.19	0.61	0.12	1	J	PCB170	0.13	0.61	0.11	1	J
PCB099	0.45	0.61	0.10	1	J	PCB177	ND	0.61	0.15	1	
PCB101	0.74	0.61	0.099	1		PCB180	0.30	0.61	0.074	1	J
PCB105	0.26	0.61	0.13	1	J	PCB183	ND	0.61	0.14	1	
PCB110	0.60	0.61	0.13	1	J	PCB187	0.24	0.61	0.13	1	J
PCB114	ND	0.61	0.12	1		PCB189	ND	0.61	0.10	1	
PCB118	0.67	0.61	0.16	1		PCB194	ND	0.61	0.12	1	
PCB119	ND	0.61	0.11	1		PCB201	ND	0.61	0.069	1	
PCB123	ND	0.61	0.11	1		PCB206	ND	0.61	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	109	50-125		p-Terphenyl-d14	105	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_1.0-1.5	**13-01-0633-13-B**	**12/11/12 10:52**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 03:42**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	19	0.85	0.27	1		PCB126	ND	0.85	0.24	1	
PCB028	16	0.85	0.17	1		PCB128	5.7	0.85	0.18	1	
PCB037	8.7	0.85	0.22	1		PCB138/158	33	1.7	0.35	1	
PCB044	27	0.85	0.22	1		PCB149	22	0.85	0.15	1	
PCB049	34	0.85	0.20	1		PCB151	6.0	0.85	0.18	1	
PCB052	30	0.85	0.17	1		PCB153	37	0.85	0.18	1	
PCB066	46	0.85	0.16	1		PCB156	4.7	0.85	0.17	1	
PCB070	30	0.85	0.14	1		PCB157	6.8	0.85	0.16	1	
PCB074	17	0.85	0.16	1		PCB167	ND	0.85	0.17	1	
PCB077	3.5	0.85	0.17	1		PCB168	ND	0.85	0.15	1	
PCB081	ND	0.85	0.21	1		PCB169	2.8	0.85	0.14	1	
PCB087	12	0.85	0.17	1		PCB170	11	0.85	0.16	1	
PCB099	24	0.85	0.15	1		PCB177	4.6	0.85	0.21	1	
PCB101	46	0.85	0.14	1		PCB180	23	0.85	0.10	1	
PCB105	17	0.85	0.18	1		PCB183	5.3	0.85	0.19	1	
PCB110	37	0.85	0.18	1		PCB187	14	0.85	0.18	1	
PCB114	4.1	0.85	0.17	1		PCB189	ND	0.85	0.15	1	
PCB118	46	0.85	0.23	1		PCB194	6.9	0.85	0.16	1	
PCB119	3.1	0.85	0.15	1		PCB201	1.2	0.85	0.097	1	
PCB123	ND	0.85	0.15	1		PCB206	ND	0.85	0.14	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	105	50-125		p-Terphenyl-d14	123	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 14 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-03-SC_1.0-1.5	**13-01-0633-14-B**	**12/12/12 16:08**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 04:09**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.97	0.64	0.20	1		PCB126	ND	0.64	0.18	1	
PCB028	0.89	0.64	0.13	1		PCB128	0.47	0.64	0.13	1	J
PCB037	0.37	0.64	0.17	1	J	PCB138/158	2.6	1.3	0.26	1	
PCB044	1.3	0.64	0.17	1		PCB149	1.9	0.64	0.11	1	
PCB049	1.5	0.64	0.15	1		PCB151	0.51	0.64	0.13	1	J
PCB052	2.1	0.64	0.12	1		PCB153	3.0	0.64	0.13	1	
PCB066	2.8	0.64	0.12	1		PCB156	0.41	0.64	0.13	1	J
PCB070	1.9	0.64	0.11	1		PCB157	0.64	0.64	0.12	1	J
PCB074	1.0	0.64	0.12	1		PCB167	0.14	0.64	0.13	1	J
PCB077	0.27	0.64	0.13	1	J	PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	ND	0.64	0.10	1	
PCB087	0.72	0.64	0.13	1		PCB170	0.89	0.64	0.12	1	
PCB099	2.1	0.64	0.11	1		PCB177	0.33	0.64	0.16	1	J
PCB101	3.2	0.64	0.10	1		PCB180	1.8	0.64	0.079	1	
PCB105	0.93	0.64	0.13	1		PCB183	0.39	0.64	0.14	1	J
PCB110	2.4	0.64	0.13	1		PCB187	1.2	0.64	0.13	1	
PCB114	0.51	0.64	0.13	1	J	PCB189	ND	0.64	0.11	1	
PCB118	3.0	0.64	0.17	1		PCB194	0.52	0.64	0.12	1	J
PCB119	0.21	0.64	0.11	1	J	PCB201	ND	0.64	0.073	1	
PCB123	ND	0.64	0.11	1		PCB206	ND	0.64	0.11	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	109	50-125		p-Terphenyl-d14	124	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 15 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-04-SC_1.0-1.5	**13-01-0633-15-B**	**12/11/12 11:44**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 04:35**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	2.3	0.72	0.22	1		PCB126	ND	0.72	0.20	1	
PCB028	2.3	0.72	0.14	1		PCB128	1.4	0.72	0.15	1	
PCB037	1.1	0.72	0.19	1		PCB138/158	6.5	1.4	0.29	1	
PCB044	3.2	0.72	0.19	1		PCB149	5.0	0.72	0.13	1	
PCB049	3.8	0.72	0.17	1		PCB151	1.3	0.72	0.15	1	
PCB052	5.7	0.72	0.14	1		PCB153	8.4	0.72	0.15	1	
PCB066	7.8	0.72	0.13	1		PCB156	0.79	0.72	0.14	1	
PCB070	5.1	0.72	0.12	1		PCB157	1.4	0.72	0.14	1	
PCB074	2.6	0.72	0.14	1		PCB167	ND	0.72	0.14	1	
PCB077	0.74	0.72	0.14	1		PCB168	ND	0.72	0.12	1	
PCB081	ND	0.72	0.17	1		PCB169	ND	0.72	0.12	1	
PCB087	1.5	0.72	0.14	1		PCB170	2.1	0.72	0.13	1	
PCB099	5.8	0.72	0.12	1		PCB177	0.99	0.72	0.18	1	
PCB101	8.9	0.72	0.12	1		PCB180	3.6	0.72	0.087	1	
PCB105	2.4	0.72	0.15	1		PCB183	1.0	0.72	0.16	1	
PCB110	6.8	0.72	0.15	1		PCB187	3.2	0.72	0.15	1	
PCB114	0.86	0.72	0.14	1		PCB189	ND	0.72	0.12	1	
PCB118	8.3	0.72	0.19	1		PCB194	1.4	0.72	0.14	1	
PCB119	0.55	0.72	0.12	1	J	PCB201	ND	0.72	0.081	1	
PCB123	ND	0.72	0.12	1		PCB206	1.4	0.72	0.12	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	116	50-125		p-Terphenyl-d14	123	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 16 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-05-SC_1.0-1.5	**13-01-0633-16-B**	**12/19/12 11:20**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 05:02**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.1	0.62	0.19	1		PCB126	ND	0.62	0.17	1	
PCB028	0.77	0.62	0.12	1		PCB128	0.29	0.62	0.13	1	J
PCB037	ND	0.62	0.16	1		PCB138/158	1.8	1.2	0.25	1	
PCB044	1.1	0.62	0.16	1		PCB149	1.2	0.62	0.11	1	
PCB049	1.3	0.62	0.15	1		PCB151	0.37	0.62	0.13	1	J
PCB052	1.9	0.62	0.12	1		PCB153	1.9	0.62	0.13	1	
PCB066	2.3	0.62	0.11	1		PCB156	ND	0.62	0.12	1	
PCB070	1.7	0.62	0.10	1		PCB157	0.36	0.62	0.12	1	J
PCB074	0.92	0.62	0.12	1		PCB167	ND	0.62	0.12	1	
PCB077	0.21	0.62	0.12	1	J	PCB168	ND	0.62	0.11	1	
PCB081	ND	0.62	0.15	1		PCB169	ND	0.62	0.10	1	
PCB087	0.52	0.62	0.12	1	J	PCB170	0.60	0.62	0.11	1	J
PCB099	1.5	0.62	0.10	1		PCB177	0.29	0.62	0.15	1	J
PCB101	2.4	0.62	0.10	1		PCB180	1.0	0.62	0.075	1	
PCB105	0.89	0.62	0.13	1		PCB183	0.25	0.62	0.14	1	J
PCB110	2.1	0.62	0.13	1		PCB187	0.74	0.62	0.13	1	
PCB114	0.37	0.62	0.12	1	J	PCB189	ND	0.62	0.11	1	
PCB118	2.3	0.62	0.16	1		PCB194	0.52	0.62	0.12	1	J
PCB119	0.13	0.62	0.11	1	J	PCB201	ND	0.62	0.070	1	
PCB123	ND	0.62	0.11	1		PCB206	ND	0.62	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	109	50-125		p-Terphenyl-d14	124	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 17 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SC_1.0-1.5	**13-01-0633-17-B**	**12/11/12 13:19**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 05:30**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	1.2	0.62	0.20	1		PCB126	0.20	0.62	0.17	1	J
PCB028	0.70	0.62	0.12	1		PCB128	0.14	0.62	0.13	1	J
PCB037	ND	0.62	0.16	1		PCB138/158	1.1	1.2	0.25	1	J
PCB044	0.79	0.62	0.16	1		PCB149	0.76	0.62	0.11	1	
PCB049	1.1	0.62	0.15	1		PCB151	0.25	0.62	0.13	1	J
PCB052	1.6	0.62	0.12	1		PCB153	1.2	0.62	0.13	1	
PCB066	1.5	0.62	0.11	1		PCB156	ND	0.62	0.12	1	
PCB070	1.1	0.62	0.10	1		PCB157	ND	0.62	0.12	1	
PCB074	0.66	0.62	0.12	1		PCB167	ND	0.62	0.12	1	
PCB077	ND	0.62	0.12	1		PCB168	ND	0.62	0.11	1	
PCB081	ND	0.62	0.15	1		PCB169	ND	0.62	0.10	1	
PCB087	0.39	0.62	0.13	1	J	PCB170	0.30	0.62	0.12	1	J
PCB099	0.92	0.62	0.11	1		PCB177	0.20	0.62	0.15	1	J
PCB101	1.7	0.62	0.10	1		PCB180	0.73	0.62	0.076	1	
PCB105	0.54	0.62	0.13	1	J	PCB183	0.21	0.62	0.14	1	J
PCB110	1.2	0.62	0.13	1		PCB187	0.58	0.62	0.13	1	J
PCB114	0.27	0.62	0.12	1	J	PCB189	ND	0.62	0.11	1	
PCB118	1.4	0.62	0.17	1		PCB194	0.40	0.62	0.12	1	J
PCB119	0.12	0.62	0.11	1	J	PCB201	ND	0.62	0.071	1	
PCB123	ND	0.62	0.11	1		PCB206	ND	0.62	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	123	50-125		p-Terphenyl-d14	137	50-125	1,2,7

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 18 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-07-SC_1.0-1.5	**13-01-0633-18-B**	**12/19/12 10:23**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 05:58**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	2.2	0.63	0.20	1		PCB126	ND	0.63	0.17	1	
PCB028	1.3	0.63	0.13	1		PCB128	0.34	0.63	0.13	1	J
PCB037	ND	0.63	0.17	1		PCB138/158	2.0	1.3	0.26	1	
PCB044	1.5	0.63	0.17	1		PCB149	1.5	0.63	0.11	1	
PCB049	2.2	0.63	0.15	1		PCB151	0.42	0.63	0.13	1	J
PCB052	3.2	0.63	0.12	1		PCB153	2.4	0.63	0.13	1	
PCB066	3.5	0.63	0.12	1		PCB156	0.23	0.63	0.12	1	J
PCB070	2.5	0.63	0.10	1		PCB157	ND	0.63	0.12	1	
PCB074	1.3	0.63	0.12	1		PCB167	ND	0.63	0.13	1	
PCB077	0.28	0.63	0.12	1	J	PCB168	ND	0.63	0.11	1	
PCB081	ND	0.63	0.15	1		PCB169	ND	0.63	0.10	1	
PCB087	0.49	0.63	0.13	1	J	PCB170	0.93	0.63	0.12	1	
PCB099	2.0	0.63	0.11	1		PCB177	0.30	0.63	0.16	1	J
PCB101	3.1	0.63	0.10	1		PCB180	1.2	0.63	0.077	1	
PCB105	0.82	0.63	0.13	1		PCB183	0.29	0.63	0.14	1	J
PCB110	2.5	0.63	0.13	1		PCB187	0.92	0.63	0.13	1	
PCB114	0.18	0.63	0.13	1	J	PCB189	ND	0.63	0.11	1	
PCB118	2.9	0.63	0.17	1		PCB194	0.50	0.63	0.12	1	J
PCB119	0.24	0.63	0.11	1	J	PCB201	ND	0.63	0.072	1	
PCB123	ND	0.63	0.11	1		PCB206	0.70	0.63	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	122	50-125		p-Terphenyl-d14	132	50-125	1,2,7

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_1.0-1.5	**13-01-0633-19-B**	**12/11/12 14:50**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 06:25**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	0.70	0.60	0.19	1		PCB126	ND	0.60	0.17	1	
PCB028	0.27	0.60	0.12	1	J	PCB128	ND	0.60	0.12	1	
PCB037	ND	0.60	0.16	1		PCB138/158	0.86	1.2	0.24	1	J
PCB044	0.47	0.60	0.16	1	J	PCB149	0.43	0.60	0.11	1	J
PCB049	0.66	0.60	0.14	1		PCB151	0.15	0.60	0.12	1	J
PCB052	0.90	0.60	0.12	1		PCB153	0.94	0.60	0.12	1	
PCB066	1.0	0.60	0.11	1		PCB156	0.12	0.60	0.12	1	J
PCB070	0.83	0.60	0.098	1		PCB157	0.17	0.60	0.11	1	J
PCB074	0.42	0.60	0.11	1	J	PCB167	ND	0.60	0.12	1	
PCB077	ND	0.60	0.12	1		PCB168	ND	0.60	0.10	1	
PCB081	ND	0.60	0.15	1		PCB169	ND	0.60	0.098	1	
PCB087	0.28	0.60	0.12	1	J	PCB170	0.23	0.60	0.11	1	J
PCB099	0.64	0.60	0.10	1		PCB177	ND	0.60	0.15	1	
PCB101	1.1	0.60	0.097	1		PCB180	0.40	0.60	0.073	1	J
PCB105	0.36	0.60	0.13	1	J	PCB183	ND	0.60	0.13	1	
PCB110	0.95	0.60	0.12	1		PCB187	0.31	0.60	0.13	1	J
PCB114	ND	0.60	0.12	1		PCB189	ND	0.60	0.10	1	
PCB118	1.0	0.60	0.16	1		PCB194	0.22	0.60	0.11	1	J
PCB119	ND	0.60	0.10	1		PCB201	ND	0.60	0.068	1	
PCB123	ND	0.60	0.10	1		PCB206	ND	0.60	0.099	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	108	50-125		p-Terphenyl-d14	124	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-09-SC_1.0-1.5	**13-01-0633-20-B**	**12/19/12 09:26**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 06:52**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	2.6	0.64	0.20	1		PCB126	ND	0.64	0.18	1	
PCB028	1.5	0.64	0.13	1		PCB128	0.46	0.64	0.13	1	J
PCB037	0.59	0.64	0.17	1	J	PCB138/158	2.4	1.3	0.26	1	
PCB044	1.5	0.64	0.17	1		PCB149	1.6	0.64	0.11	1	
PCB049	2.1	0.64	0.15	1		PCB151	0.55	0.64	0.13	1	J
PCB052	2.6	0.64	0.12	1		PCB153	2.9	0.64	0.13	1	
PCB066	3.6	0.64	0.12	1		PCB156	0.25	0.64	0.12	1	J
PCB070	2.7	0.64	0.10	1		PCB157	ND	0.64	0.12	1	
PCB074	1.3	0.64	0.12	1		PCB167	ND	0.64	0.13	1	
PCB077	0.27	0.64	0.12	1	J	PCB168	ND	0.64	0.11	1	
PCB081	ND	0.64	0.16	1		PCB169	0.17	0.64	0.10	1	J
PCB087	0.58	0.64	0.13	1	J	PCB170	0.88	0.64	0.12	1	
PCB099	2.3	0.64	0.11	1		PCB177	0.41	0.64	0.16	1	J
PCB101	3.4	0.64	0.10	1		PCB180	1.5	0.64	0.078	1	
PCB105	0.84	0.64	0.13	1		PCB183	0.36	0.64	0.14	1	J
PCB110	2.5	0.64	0.13	1		PCB187	1.1	0.64	0.13	1	
PCB114	0.40	0.64	0.13	1	J	PCB189	ND	0.64	0.11	1	
PCB118	3.1	0.64	0.17	1		PCB194	0.54	0.64	0.12	1	J
PCB119	0.27	0.64	0.11	1	J	PCB201	ND	0.64	0.073	1	
PCB123	ND	0.64	0.11	1		PCB206	0.59	0.64	0.11	1	J

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	114	50-125		p-Terphenyl-d14	121	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 21 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-010-SC_1.0-1.5	**13-01-0633-21-B**	**12/11/12 15:58**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 10:56**	**130117L10**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	2.4	0.62	0.19	1		PCB126	0.24	0.62	0.17	1	J
PCB028	1.5	0.62	0.12	1		PCB128	0.31	0.62	0.13	1	J
PCB037	0.34	0.62	0.16	1	J	PCB138/158	1.8	1.2	0.25	1	
PCB044	1.7	0.62	0.16	1		PCB149	1.4	0.62	0.11	1	
PCB049	1.9	0.62	0.15	1		PCB151	0.41	0.62	0.13	1	J
PCB052	2.6	0.62	0.12	1		PCB153	2.4	0.62	0.13	1	
PCB066	3.6	0.62	0.11	1		PCB156	ND	0.62	0.12	1	
PCB070	1.8	0.62	0.10	1		PCB157	0.40	0.62	0.12	1	J
PCB074	1.2	0.62	0.12	1		PCB167	ND	0.62	0.12	1	
PCB077	0.26	0.62	0.12	1	J	PCB168	ND	0.62	0.11	1	
PCB081	ND	0.62	0.15	1		PCB169	ND	0.62	0.10	1	
PCB087	0.46	0.62	0.12	1	J	PCB170	0.57	0.62	0.11	1	J
PCB099	1.9	0.62	0.11	1		PCB177	0.31	0.62	0.15	1	J
PCB101	2.9	0.62	0.10	1		PCB180	1.3	0.62	0.076	1	
PCB105	0.66	0.62	0.13	1		PCB183	0.28	0.62	0.14	1	J
PCB110	2.1	0.62	0.13	1		PCB187	1.1	0.62	0.13	1	
PCB114	0.32	0.62	0.12	1	J	PCB189	ND	0.62	0.11	1	
PCB118	2.4	0.62	0.16	1		PCB194	0.49	0.62	0.12	1	J
PCB119	0.13	0.62	0.11	1	J	PCB201	ND	0.62	0.070	1	
PCB123	ND	0.62	0.11	1		PCB206	ND	0.62	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	160	50-125	1,2,7	p-Terphenyl-d14	146	50-125	1,2,7

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 22 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-011-SC_1.0-1.5	**13-01-0633-22-B**	**12/11/12 16:47**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 11:24**	**130117L10**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.60	0.19	1		PCB126	ND	0.60	0.17	1	
PCB028	ND	0.60	0.12	1		PCB128	ND	0.60	0.12	1	
PCB037	ND	0.60	0.16	1		PCB138/158	ND	1.2	0.24	1	
PCB044	ND	0.60	0.16	1		PCB149	ND	0.60	0.11	1	
PCB049	ND	0.60	0.14	1		PCB151	ND	0.60	0.12	1	
PCB052	ND	0.60	0.12	1		PCB153	ND	0.60	0.12	1	
PCB066	ND	0.60	0.11	1		PCB156	ND	0.60	0.12	1	
PCB070	ND	0.60	0.098	1		PCB157	ND	0.60	0.11	1	
PCB074	ND	0.60	0.11	1		PCB167	ND	0.60	0.12	1	
PCB077	ND	0.60	0.12	1		PCB168	ND	0.60	0.10	1	
PCB081	ND	0.60	0.15	1		PCB169	ND	0.60	0.098	1	
PCB087	ND	0.60	0.12	1		PCB170	ND	0.60	0.11	1	
PCB099	ND	0.60	0.10	1		PCB177	ND	0.60	0.15	1	
PCB101	ND	0.60	0.097	1		PCB180	ND	0.60	0.073	1	
PCB105	ND	0.60	0.13	1		PCB183	ND	0.60	0.13	1	
PCB110	ND	0.60	0.12	1		PCB187	ND	0.60	0.13	1	
PCB114	ND	0.60	0.12	1		PCB189	ND	0.60	0.10	1	
PCB118	ND	0.60	0.16	1		PCB194	ND	0.60	0.11	1	
PCB119	ND	0.60	0.10	1		PCB201	ND	0.60	0.068	1	
PCB123	ND	0.60	0.10	1		PCB206	ND	0.60	0.099	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	101	50-125		p-Terphenyl-d14	110	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-011-SC_1.0-1.5 LAB DUP	**13-01-0633-23-B**	**12/11/12 00:00**	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/19/13 11:51**	**130117L10**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.60	0.19	1		PCB126	ND	0.60	0.17	1	
PCB028	ND	0.60	0.12	1		PCB128	ND	0.60	0.12	1	
PCB037	ND	0.60	0.16	1		PCB138/158	ND	1.2	0.24	1	
PCB044	ND	0.60	0.16	1		PCB149	ND	0.60	0.11	1	
PCB049	ND	0.60	0.14	1		PCB151	ND	0.60	0.12	1	
PCB052	ND	0.60	0.12	1		PCB153	ND	0.60	0.13	1	
PCB066	ND	0.60	0.11	1		PCB156	ND	0.60	0.12	1	
PCB070	ND	0.60	0.099	1		PCB157	ND	0.60	0.12	1	
PCB074	ND	0.60	0.11	1		PCB167	ND	0.60	0.12	1	
PCB077	ND	0.60	0.12	1		PCB168	ND	0.60	0.10	1	
PCB081	ND	0.60	0.15	1		PCB169	ND	0.60	0.099	1	
PCB087	ND	0.60	0.12	1		PCB170	ND	0.60	0.11	1	
PCB099	ND	0.60	0.10	1		PCB177	ND	0.60	0.15	1	
PCB101	ND	0.60	0.098	1		PCB180	ND	0.60	0.074	1	
PCB105	ND	0.60	0.13	1		PCB183	ND	0.60	0.13	1	
PCB110	ND	0.60	0.12	1		PCB187	ND	0.60	0.13	1	
PCB114	ND	0.60	0.12	1		PCB189	ND	0.60	0.10	1	
PCB118	ND	0.60	0.16	1		PCB194	ND	0.60	0.12	1	
PCB119	ND	0.60	0.10	1		PCB201	ND	0.60	0.069	1	
PCB123	ND	0.60	0.11	1		PCB206	ND	0.60	0.10	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	102	50-125		p-Terphenyl-d14	110	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 24 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-79**	**N/A**	**Solid**	**GC/MS HHH**	**01/17/13**	**01/18/13 18:40**	**130117L09**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	114	50-125		p-Terphenyl-d14	121	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8270C SIM PCB Congeners
		Units:	ug/kg
Project: Rhine Channel Confirmation Testing Program			Page 25 of 26

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-80**	**N/A**	**Solid**	**GC/MS HHH**	**01/17/13**	**01/19/13 09:09**	**130117L10**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	111	50-125		p-Terphenyl-d14	125	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-341-81**	**N/A**	**Solid**	**GC/MS HHH**	**01/01/95**	**01/21/13 11:57**	**130121L11**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
PCB018	ND	0.50	0.16	1		PCB126	ND	0.50	0.14	1	
PCB028	ND	0.50	0.099	1		PCB128	ND	0.50	0.10	1	
PCB037	ND	0.50	0.13	1		PCB138/158	ND	1.0	0.20	1	
PCB044	ND	0.50	0.13	1		PCB149	ND	0.50	0.089	1	
PCB049	ND	0.50	0.12	1		PCB151	ND	0.50	0.10	1	
PCB052	ND	0.50	0.097	1		PCB153	ND	0.50	0.10	1	
PCB066	ND	0.50	0.091	1		PCB156	ND	0.50	0.098	1	
PCB070	ND	0.50	0.082	1		PCB157	ND	0.50	0.096	1	
PCB074	ND	0.50	0.094	1		PCB167	ND	0.50	0.10	1	
PCB077	ND	0.50	0.097	1		PCB168	ND	0.50	0.086	1	
PCB081	ND	0.50	0.12	1		PCB169	ND	0.50	0.082	1	
PCB087	ND	0.50	0.10	1		PCB170	ND	0.50	0.093	1	
PCB099	ND	0.50	0.085	1		PCB177	ND	0.50	0.12	1	
PCB101	ND	0.50	0.081	1		PCB180	ND	0.50	0.061	1	
PCB105	ND	0.50	0.10	1		PCB183	ND	0.50	0.11	1	
PCB110	ND	0.50	0.10	1		PCB187	ND	0.50	0.10	1	
PCB114	ND	0.50	0.10	1		PCB189	ND	0.50	0.086	1	
PCB118	ND	0.50	0.13	1		PCB194	ND	0.50	0.096	1	
PCB119	ND	0.50	0.087	1		PCB201	ND	0.50	0.057	1	
PCB123	ND	0.50	0.087	1		PCB206	ND	0.50	0.083	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
2-Fluorobiphenyl	117	50-125		p-Terphenyl-d14	125	50-125	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC_0.5-1.0	**13-01-0633-1-B**	**12/12/12 15:12**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.686	0.0514	0.0197	200		mg/kg

RC-02-SC_0.5-1.0	**13-01-0633-2-B**	**12/11/12 10:52**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	3.52	0.148	0.0566	500		mg/kg

RC-03-SC_0.5-1.0	**13-01-0633-3-B**	**12/12/12 16:08**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.530	0.0510	0.0195	200		mg/kg

RC-04-SC_0.5-1.0	**13-01-0633-4-B**	**12/11/12 11:44**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.87	0.136	0.0519	500		mg/kg

RC-05-SC_0.5-1.0	**13-01-0633-5-B**	**12/19/12 11:20**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.738	0.0515	0.0197	200		mg/kg

RC-06-SC_0.5-1.0	**13-01-0633-6-B**	**12/11/12 13:19**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.490	0.0507	0.0194	200		mg/kg

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

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: N/A
Method: EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-07-SC_0.5-1.0	**13-01-0633-7-B**	**12/19/12 10:23**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.258	0.0244	0.00932	100		mg/kg

RC-08-SC_0.5-1.0	**13-01-0633-8-B**	**12/11/12 14:50**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.372	0.0237	0.00905	100		mg/kg

RC-09-SC_0.5-1.0	**13-01-0633-9-B**	**12/19/12 09:26**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.39	0.128	0.0489	500		mg/kg

RC-010-SC_0.5-1.0	**13-01-0633-10-B**	**12/11/12 15:58**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.101	0.00488	0.00187	20		mg/kg

RC-011-SC_0.5-1.0	**13-01-0633-11-B**	**12/11/12 16:47**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.0202	0.00123	0.000469	5		mg/kg

RC-01-SC_1.0-1.5	**13-01-0633-12-B**	**12/12/12 15:12**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.202	0.0122	0.00465	50		mg/kg

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_1.0-1.5	**13-01-0633-13-B**	**12/11/12 10:52**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	12.4	0.684	0.261	2000		mg/kg

RC-03-SC_1.0-1.5	**13-01-0633-14-B**	**12/12/12 16:08**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.997	0.0513	0.0196	200		mg/kg

RC-04-SC_1.0-1.5	**13-01-0633-15-B**	**12/11/12 11:44**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.96	0.143	0.0547	500		mg/kg

RC-05-SC_1.0-1.5	**13-01-0633-16-B**	**12/19/12 11:20**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.813	0.0492	0.0188	200		mg/kg

RC-06-SC_1.0-1.5	**13-01-0633-17-B**	**12/11/12 13:19**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.557	0.0250	0.00955	100		mg/kg

RC-07-SC_1.0-1.5	**13-01-0633-18-B**	**12/19/12 10:23**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.29	0.0504	0.0193	200		mg/kg

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

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: N/A
Method: EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_1.0-1.5	**13-01-0633-19-B**	**12/11/12 14:50**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.204	0.0240	0.00916	100		mg/kg

RC-09-SC_1.0-1.5	**13-01-0633-20-B**	**12/19/12 09:26**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	1.09	0.0510	0.0195	200		mg/kg

RC-010-SC_1.0-1.5	**13-01-0633-21-B**	**12/11/12 15:58**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.827	0.0494	0.0189	200		mg/kg

RC-011-SC_1.0-1.5	**13-01-0633-22-B**	**12/11/12 16:47**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.0307	0.00240	0.000917	10		mg/kg

RC-011-SC_1.0-1.5 LAB DUP	**13-01-0633-23-B**	**12/11/12 00:00**	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	0.0309	0.00241	0.000922	10		mg/kg

Method Blank	**099-15-082-10**	**N/A**	**Solid**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L01**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.000200	0.0000765	1		mg/kg

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-082-11**	**N/A**	**Solid**	**Hg/AF 1**	**01/16/13**	**01/16/13 00:00**	**130116L02**

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.000200	0.0000765	1		mg/kg

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 1 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-01-SC_0.5-1.0	**13-01-0633-1-B**	**12/12/12 15:12**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:16**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	3.05	0.129	0.112	1		Lead	11.8	0.129	0.0847	1	
Cadmium	0.171	0.129	0.0736	1		Nickel	3.18	0.129	0.0651	1	
Chromium	5.35	0.129	0.0798	1		Zinc	56.9	1.29	1.02	1	
Copper	49.0	0.129	0.0539	1							

RC-01-SC_0.5-1.0	**13-01-0633-1-B**	**12/12/12 15:12**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:05**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.122	0.0643	0.0470	0.5	

RC-02-SC_0.5-1.0	**13-01-0633-2-B**	**12/11/12 10:52**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:19**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	6.60	0.148	0.129	1		Lead	49.3	0.148	0.0976	1	
Cadmium	0.596	0.148	0.0848	1		Nickel	8.81	0.148	0.0750	1	
Chromium	14.4	0.148	0.0920	1		Selenium	0.161	0.148	0.108	1	
Copper	149	0.148	0.0621	1		Zinc	139	1.48	1.18	1	

RC-03-SC_0.5-1.0	**13-01-0633-3-B**	**12/12/12 16:08**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:22**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.55	0.128	0.111	1		Lead	9.82	0.128	0.0841	1	
Cadmium	0.133	0.128	0.0730	1		Nickel	3.07	0.128	0.0646	1	
Chromium	5.01	0.128	0.0792	1		Zinc	43.5	1.28	1.01	1	
Copper	39.4	0.128	0.0535	1							

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 2 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-03-SC_0.5-1.0	**13-01-0633-3-B**	**12/12/12 16:08**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:06**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.0864	0.0638	0.0466	0.5	

RC-04-SC_0.5-1.0	**13-01-0633-4-B**	**12/11/12 11:44**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:25**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.53	0.136	0.118	1		Lead	26.8	0.136	0.0894	1	
Cadmium	0.298	0.136	0.0776	1		Nickel	5.83	0.136	0.0687	1	
Chromium	9.52	0.136	0.0842	1		Selenium	0.180	0.136	0.0991	1	
Copper	118	0.136	0.0569	1		Zinc	95.6	1.36	1.08	1	

RC-05-SC_0.5-1.0	**13-01-0633-5-B**	**12/19/12 11:20**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:28**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	3.13	0.129	0.113	1		Lead	13.1	0.129	0.0849	1	
Cadmium	0.185	0.129	0.0737	1		Nickel	3.53	0.129	0.0652	1	
Chromium	6.51	0.129	0.0800	1		Zinc	61.3	1.29	1.02	1	
Copper	64.3	0.129	0.0540	1							

RC-05-SC_0.5-1.0	**13-01-0633-5-B**	**12/19/12 11:20**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:07**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.147	0.0644	0.0471	0.5	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 3 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-06-SC_0.5-1.0	**13-01-0633-6-B**	**12/11/12 13:19**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:31**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.77	0.127	0.111	1		Lead	12.8	0.127	0.0835	1	
Cadmium	0.132	0.127	0.0725	1		Nickel	2.50	0.127	0.0642	1	
Chromium	4.39	0.127	0.0787	1		Zinc	35.2	1.27	1.01	1	
Copper	29.6	0.127	0.0531	1							

RC-06-SC_0.5-1.0	**13-01-0633-6-B**	**12/11/12 13:19**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:08**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.0750	0.0634	0.0463	0.5	

RC-07-SC_0.5-1.0	**13-01-0633-7-B**	**12/19/12 10:23**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:34**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	1.62	0.122	0.106	1		Lead	3.26	0.122	0.0804	1	
Cadmium	ND	0.122	0.0698	1		Nickel	1.37	0.122	0.0617	1	
Chromium	2.42	0.122	0.0757	1		Zinc	17.8	1.22	0.969	1	
Copper	11.7	0.122	0.0511	1							

RC-07-SC_0.5-1.0	**13-01-0633-7-B**	**12/19/12 10:23**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:09**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	ND	0.0610	0.0446	0.5	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 4 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_0.5-1.0	**13-01-0633-8-B**	**12/11/12 14:50**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:37**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.79	0.118	0.103	1		Lead	6.88	0.118	0.0780	1	
Cadmium	0.0999	0.118	0.0677	1	J	Nickel	2.11	0.118	0.0599	1	
Chromium	3.45	0.118	0.0735	1		Zinc	24.1	1.18	0.941	1	
Copper	24.4	0.118	0.0496	1							

RC-08-SC_0.5-1.0	**13-01-0633-8-B**	**12/11/12 14:50**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:12**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.0776	0.0592	0.0432	0.5	

RC-09-SC_0.5-1.0	**13-01-0633-9-B**	**12/19/12 09:26**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:40**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.52	0.128	0.112	1		Lead	22.3	0.128	0.0843	1	
Cadmium	0.233	0.128	0.0732	1		Nickel	5.14	0.128	0.0647	1	
Chromium	11.1	0.128	0.0794	1		Selenium	0.142	0.128	0.0934	1	
Copper	73.5	0.128	0.0536	1		Zinc	74.0	1.28	1.02	1	

RC-010-SC_0.5-1.0	**13-01-0633-10-B**	**12/11/12 15:58**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:52**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.42	0.122	0.107	1		Lead	3.65	0.122	0.0805	1	
Cadmium	ND	0.122	0.0699	1		Nickel	1.71	0.122	0.0618	1	
Chromium	2.80	0.122	0.0758	1		Zinc	20.4	1.22	0.970	1	
Copper	12.2	0.122	0.0512	1							

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 5 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-010-SC_0.5-1.0	**13-01-0633-10-B**	**12/11/12 15:58**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:13**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	ND	0.0611	0.0446	0.5	

RC-011-SC_0.5-1.0	**13-01-0633-11-B**	**12/11/12 16:47**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:55**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.56	0.123	0.107	1		Lead	0.946	0.123	0.0809	1	
Cadmium	ND	0.123	0.0702	1		Nickel	1.31	0.123	0.0621	1	
Chromium	2.13	0.123	0.0762	1		Zinc	9.33	1.23	0.975	1	
Copper	2.54	0.123	0.0514	1							

RC-011-SC_0.5-1.0	**13-01-0633-11-B**	**12/11/12 16:47**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:14**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	ND	0.0613	0.0448	0.5	

RC-01-SC_1.0-1.5	**13-01-0633-12-B**	**12/12/12 15:12**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 01:58**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	1.99	0.122	0.106	1		Lead	4.70	0.122	0.0802	1	
Cadmium	0.0768	0.122	0.0696	1	J	Nickel	1.78	0.122	0.0616	1	
Chromium	3.16	0.122	0.0755	1		Zinc	24.6	1.22	0.967	1	
Copper	21.1	0.122	0.0510	1							

RC-01-SC_1.0-1.5	**13-01-0633-12-B**	**12/12/12 15:12**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:15**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.0501	0.0608	0.0444	0.5	J

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 6 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-02-SC_1.0-1.5	**13-01-0633-13-B**	**12/11/12 10:52**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:01**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	15.7	0.171	0.149	1		Lead	132	0.171	0.113	1	
Cadmium	1.26	0.171	0.0978	1		Nickel	18.1	0.171	0.0865	1	
Chromium	31.8	0.171	0.106	1		Selenium	0.792	0.171	0.125	1	
Copper	439	0.171	0.0716	1		Zinc	312	1.71	1.36	1	

RC-03-SC_1.0-1.5	**13-01-0633-14-B**	**12/12/12 16:08**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:04**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.96	0.128	0.112	1		Lead	14.1	0.128	0.0846	1	
Cadmium	0.162	0.128	0.0735	1		Nickel	3.67	0.128	0.0650	1	
Chromium	6.68	0.128	0.0797	1		Selenium	0.200	0.128	0.0938	1	
Copper	61.7	0.128	0.0538	1		Zinc	55.8	1.28	1.02	1	

RC-04-SC_1.0-1.5	**13-01-0633-15-B**	**12/11/12 11:44**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:07**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	5.64	0.143	0.125	1		Lead	36.2	0.143	0.0943	1	
Cadmium	0.296	0.143	0.0819	1		Nickel	6.97	0.143	0.0724	1	
Chromium	12.5	0.143	0.0888	1		Selenium	0.308	0.143	0.105	1	
Copper	183	0.143	0.0600	1		Zinc	128	1.43	1.14	1	

RC-05-SC_1.0-1.5	**13-01-0633-16-B**	**12/19/12 11:20**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:10**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.98	0.123	0.107	1		Lead	12.2	0.123	0.0811	1	
Cadmium	0.155	0.123	0.0704	1		Nickel	4.25	0.123	0.0623	1	
Chromium	7.49	0.123	0.0763	1		Zinc	278	1.23	0.978	1	
Copper	51.6	0.123	0.0516	1							

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 7 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-05-SC_1.0-1.5	**13-01-0633-16-B**	**12/19/12 11:20**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:15**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.142	0.0615	0.0449	0.5	

RC-06-SC_1.0-1.5	**13-01-0633-17-B**	**12/11/12 13:19**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:13**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.96	0.125	0.109	1		Lead	12.1	0.125	0.0823	1	
Cadmium	0.127	0.125	0.0714	1		Nickel	2.98	0.125	0.0632	1	
Chromium	4.97	0.125	0.0775	1		Zinc	39.8	1.25	0.992	1	
Copper	33.3	0.125	0.0523	1							

RC-06-SC_1.0-1.5	**13-01-0633-17-B**	**12/11/12 13:19**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:16**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.0670	0.0624	0.0456	0.5	

RC-07-SC_1.0-1.5	**13-01-0633-18-B**	**12/19/12 10:23**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:16**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	3.29	0.126	0.110	1		Lead	13.8	0.126	0.0831	1	
Cadmium	0.149	0.126	0.0722	1		Nickel	3.41	0.126	0.0638	1	
Chromium	5.38	0.126	0.0783	1		Zinc	48.8	1.26	1.00	1	
Copper	65.2	0.126	0.0529	1							

RC-07-SC_1.0-1.5	**13-01-0633-18-B**	**12/19/12 10:23**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:17**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.131	0.0631	0.0461	0.5	

Return to Contents

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received:	01/11/13
Work Order No:	13-01-0633
Preparation:	EPA 3050B
Method:	EPA 6020
Units:	mg/kg

Project: Rhine Channel Confirmation Testing Program

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-08-SC_1.0-1.5	**13-01-0633-19-B**	**12/11/12 14:50**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:19**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	2.43	0.120	0.105	1		Lead	2.99	0.120	0.0789	1	
Cadmium	ND	0.120	0.0685	1		Nickel	1.38	0.120	0.0606	1	
Chromium	2.12	0.120	0.0743	1		Zinc	14.8	1.20	0.952	1	
Copper	9.50	0.120	0.0502	1							

RC-08-SC_1.0-1.5	**13-01-0633-19-B**	**12/11/12 14:50**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:18**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	0.0520	0.0599	0.0438	0.5	J

RC-09-SC_1.0-1.5	**13-01-0633-20-B**	**12/19/12 09:26**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:52**	**130115L02E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	3.56	0.127	0.111	1		Lead	15.2	0.127	0.0840	1	
Cadmium	0.175	0.127	0.0729	1		Nickel	4.29	0.127	0.0645	1	
Chromium	6.83	0.127	0.0791	1		Selenium	0.246	0.127	0.0931	1	
Copper	58.3	0.127	0.0534	1		Zinc	56.5	1.27	1.01	1	

RC-010-SC_1.0-1.5	**13-01-0633-21-B**	**12/11/12 15:58**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 02:55**	**130115L03E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.25	0.123	0.108	1		Lead	12.5	0.123	0.0814	1	
Cadmium	0.192	0.123	0.0707	1		Nickel	4.17	0.123	0.0625	1	
Chromium	6.57	0.123	0.0766	1		Selenium	0.129	0.123	0.0902	1	
Copper	45.5	0.123	0.0517	1		Zinc	67.7	1.23	0.981	1	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 9 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RC-011-SC_1.0-1.5	**13-01-0633-22-B**	**12/11/12 16:47**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 21:42**	**130115L03E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.08	0.120	0.105	1		Lead	1.13	0.120	0.0790	1	
Cadmium	ND	0.120	0.0686	1		Nickel	1.80	0.120	0.0607	1	
Chromium	2.61	0.120	0.0744	1		Zinc	13.9	1.20	0.953	1	
Copper	2.83	0.120	0.0503	1							

RC-011-SC_1.0-1.5	**13-01-0633-22-B**	**12/11/12 16:47**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:19**	**130115L03E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	ND	0.0600	0.0438	0.5	

RC-011-SC_1.0-1.5 LAB DUP	**13-01-0633-23-B**	**12/11/12 00:00**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 21:45**	**130115L03E**

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

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	4.08	0.121	0.105	1		Lead	1.14	0.121	0.0795	1	
Cadmium	ND	0.121	0.0690	1		Nickel	1.82	0.121	0.0611	1	
Chromium	2.70	0.121	0.0749	1		Zinc	10.4	1.21	0.959	1	
Copper	2.71	0.121	0.0506	1							

RC-011-SC_1.0-1.5 LAB DUP	**13-01-0633-23-B**	**12/11/12 00:00**	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13 14:20**	**130115L03E**

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

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

Parameter	Result	RL	MDL	DF	Qual
Selenium	ND	0.0603	0.0441	0.5	

Method Blank	**099-15-254-78**	**N/A**	**Solid**	**ICP/MS 03**	**01/15/13**	**01/15/13 20:33**	**130115L03E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	ND	0.100	0.0873	1		Lead	ND	0.100	0.0659	1	
Cadmium	ND	0.100	0.0572	1		Nickel	ND	0.100	0.0506	1	
Chromium	ND	0.100	0.0621	1		Selenium	ND	0.100	0.0731	1	
Copper	ND	0.100	0.0419	1		Zinc	ND	1.00	0.795	1	

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

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: Rhine Channel Confirmation Testing Program			Page 10 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-254-79**	**N/A**	**Solid**	**ICP/MS 03**	**01/15/13**	**01/16/13 00:20**	**130115L02E**

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Arsenic	ND	0.100	0.0873	1		Lead	ND	0.100	0.0659	1	
Cadmium	ND	0.100	0.0572	1		Nickel	ND	0.100	0.0506	1	
Chromium	ND	0.100	0.0621	1		Selenium	ND	0.100	0.0731	1	
Copper	ND	0.100	0.0419	1		Zinc	ND	1.00	0.795	1	

Return to Contents

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-01-SC_0.5-1.0	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13**	**130115S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	2.372	25.00	26.87	98	27.77	102	80-120	3	0-20	
Cadmium	0.1330	25.00	24.14	96	24.97	99	80-120	3	0-20	
Chromium	4.159	25.00	27.37	93	28.23	96	80-120	3	0-20	
Copper	38.16	25.00	59.47	85	67.68	118	80-120	13	0-20	
Lead	9.168	25.00	31.41	89	33.82	99	80-120	7	0-20	
Nickel	2.472	25.00	25.07	90	25.78	93	80-120	3	0-20	
Selenium	0.09522	25.00	20.39	81	20.67	82	80-120	1	0-20	
Zinc	44.30	25.00	60.70	66	62.47	73	80-120	3	0-20	3

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
RC-01-SC_0.5-1.0	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/16/13**	**130115S02**

Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	%REC CL	Qualifiers
Arsenic	2.372	25.00	27.64	101	75-125	
Cadmium	0.1330	25.00	25.81	103	75-125	
Chromium	4.159	25.00	29.78	102	75-125	
Copper	38.16	25.00	63.48	101	75-125	
Lead	9.168	25.00	34.89	103	75-125	
Nickel	2.472	25.00	28.84	105	75-125	
Selenium	0.09522	25.00	27.62	110	75-125	
Zinc	44.30	25.00	75.40	124	75-125	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-01-0621-1	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/15/13**	**130115S03**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	2.697	25.00	28.80	104	30.94	113	80-120	7	0-20	
Cadmium	0.3353	25.00	24.64	97	26.97	107	80-120	9	0-20	
Chromium	8.879	25.00	33.24	97	33.60	99	80-120	1	0-20	
Copper	19.17	25.00	47.65	114	52.45	133	80-120	10	0-20	3
Lead	32.62	25.00	55.36	91	57.63	100	80-120	4	0-20	
Nickel	3.776	25.00	27.96	97	29.76	104	80-120	6	0-20	
Selenium	0.1327	25.00	21.93	87	24.00	95	80-120	9	0-20	
Zinc	131.6	25.00	115.5	4X	105.3	4X	80-120	4X	0-20	Q

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
13-01-0621-1	**Sediment**	**ICP/MS 03**	**01/15/13**	**01/15/13**	**130115S03**

Parameter	SAMPLE_CONC	SPIKE_ADDED	PDS_CONC	PDS %REC	%REC CL	Qualifiers
Arsenic	2.697	25.00	30.57	111	75-125	
Cadmium	0.3353	25.00	27.17	107	75-125	
Chromium	8.879	25.00	32.86	96	75-125	
Copper	19.17	25.00	45.48	105	75-125	
Lead	32.62	25.00	57.66	100	75-125	
Nickel	3.776	25.00	28.92	101	75-125	
Selenium	0.1327	25.00	23.85	95	75-125	
Zinc	131.6	25.00	160.6	4X	75-125	Q

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC	Date Received:	01/11/13
26300 La Alameda, Suite 240	Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306	Preparation:	N/A
	Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
13-01-0621-2	**Sediment**	**N/A**	**01/14/13**	**01/14/13**	**D0114TSD2**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	76.8	76.8	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC	Date Received:	01/11/13
26300 La Alameda, Suite 240	Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306	Preparation:	N/A
	Method:	SM 2540 B (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
RC-09-SC_1.0-1.5	**Sediment**	**N/A**	**01/14/13**	**01/14/13**	**D0114TSD3**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	78.5	78.5	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-01-SC_0.5-1.0	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13**	**130116S01**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.5338	0.001600	0.5883	4X	0.5868	4X	70-130	4X	0-30	Q

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-011-SC_0.5-1.0	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13**	**130116S01A**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.01650	0.001600	0.02250	4X	0.02309	4X	70-130	4X	0-30	Q

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-010-SC_1.0-1.5	**Sediment**	**Hg/AF 1**	**01/16/13**	**01/16/13**	**130116S02**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.6702	0.001600	0.6649	4X	0.6872	4X	70-130	4X	0-30	Q

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8081A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-04-SC_0.5-1.0	**Sediment**	**GC 51**	**01/15/13**	**01/19/13**	**130115S07**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	4.675	94	4.447	89	50-135	5	0-25	
Alpha-BHC	ND	5.000	4.322	86	4.934	99	50-135	13	0-25	
Beta-BHC	ND	5.000	4.260	85	5.274	105	50-135	21	0-25	
Delta-BHC	ND	5.000	5.205	104	4.996	100	50-135	4	0-25	
Gamma-BHC	ND	5.000	3.751	75	3.923	78	50-135	4	0-25	
Dieldrin	1.665	5.000	5.483	76	5.071	68	50-135	8	0-25	
4,4'-DDD	ND	5.000	5.964	119	5.985	120	50-135	0	0-25	
4,4'-DDE	6.613	5.000	10.25	73	9.847	65	50-135	4	0-25	
4,4'-DDT	ND	5.000	5.852	117	4.753	95	50-135	21	0-25	
Endosulfan I	ND	5.000	3.966	79	3.813	76	50-135	4	0-25	
Endosulfan II	ND	5.000	3.799	76	4.079	82	50-135	7	0-25	
Endosulfan Sulfate	ND	5.000	5.209	104	4.151	83	50-135	23	0-25	
Endrin	ND	5.000	4.962	99	4.682	94	50-135	6	0-25	
Endrin Aldehyde	ND	5.000	2.852	57	2.659	53	50-135	7	0-25	
Endrin Ketone	ND	5.000	5.787	116	5.859	117	50-135	1	0-25	
Heptachlor	ND	5.000	6.415	128	3.578	72	50-135	57	0-25	4
Heptachlor Epoxide	ND	5.000	4.433	89	4.345	87	50-135	2	0-25	
Methoxychlor	ND	5.000	3.994	80	3.403	68	50-135	16	0-25	
Alpha Chlordane	ND	5.000	4.790	96	4.645	93	50-135	3	0-25	
Gamma Chlordane	ND	5.000	4.116	82	3.958	79	50-135	4	0-25	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	01/11/13
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-010-SC_1.0-1.5	**Sediment**	**GC 51**	**01/15/13**	**01/21/13**	**130115S08**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	4.575	92	3.680	74	50-135	22	0-25	
Alpha-BHC	ND	5.000	4.792	96	3.689	74	50-135	26	0-25	4
Beta-BHC	ND	5.000	5.281	106	4.885	98	50-135	8	0-25	
Delta-BHC	ND	5.000	4.591	92	3.810	76	50-135	19	0-25	
Gamma-BHC	ND	5.000	4.299	86	3.312	66	50-135	26	0-25	4
Dieldrin	ND	5.000	4.403	88	3.628	73	50-135	19	0-25	
4,4'-DDD	ND	5.000	4.949	99	4.085	82	50-135	19	0-25	
4,4'-DDE	3.371	5.000	5.612	45	4.986	32	50-135	12	0-25	3
4,4'-DDT	ND	5.000	4.507	90	3.805	76	50-135	17	0-25	
Endosulfan I	ND	5.000	4.242	85	3.415	68	50-135	22	0-25	
Endosulfan II	ND	5.000	3.833	77	4.200	84	50-135	9	0-25	
Endosulfan Sulfate	ND	5.000	4.958	99	5.075	101	50-135	2	0-25	
Endrin	ND	5.000	5.004	100	3.878	78	50-135	25	0-25	
Endrin Aldehyde	ND	5.000	2.939	59	2.238	45	50-135	27	0-25	4,3
Endrin Ketone	ND	5.000	6.188	124	5.574	111	50-135	10	0-25	
Heptachlor	ND	5.000	8.863	177	8.106	162	50-135	9	0-25	3
Heptachlor Epoxide	ND	5.000	4.755	95	4.076	82	50-135	15	0-25	
Methoxychlor	ND	5.000	4.265	85	3.253	65	50-135	27	0-25	4
Alpha Chlordane	ND	5.000	4.174	83	3.581	72	50-135	15	0-25	
Gamma Chlordane	ND	5.000	4.176	84	3.498	70	50-135	18	0-25	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-04-SC_0.5-1.0	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/21/13**	**130117S09**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	ND	25.00	22.64	91	23.27	93	50-125	3	0-30	
PCB018	1.426	25.00	23.02	86	23.59	89	50-125	2	0-30	
PCB028	1.138	25.00	23.32	89	22.88	87	50-125	2	0-30	
PCB044	1.849	25.00	24.54	91	23.94	88	50-125	2	0-30	
PCB052	3.325	25.00	24.22	84	23.90	82	50-125	1	0-30	
PCB066	4.090	25.00	25.07	84	24.67	82	50-125	2	0-30	
PCB077	ND	25.00	23.25	93	22.56	90	50-125	3	0-30	
PCB101	4.484	25.00	25.30	83	24.90	82	50-125	2	0-30	
PCB105	1.292	25.00	23.10	87	22.45	85	50-125	3	0-30	
PCB118	4.096	25.00	27.76	95	27.21	92	50-125	2	0-30	
PCB126	ND	25.00	21.20	85	20.36	81	50-125	4	0-30	
PCB128	0.5429	25.00	22.16	86	21.47	84	50-125	3	0-30	
PCB153	4.078	25.00	23.28	77	22.49	74	50-125	3	0-30	
PCB170	1.235	25.00	20.63	78	20.64	78	50-125	0	0-30	
PCB180	1.968	25.00	23.66	87	22.85	84	50-125	3	0-30	
PCB187	1.489	25.00	22.51	84	21.56	80	50-125	4	0-30	
PCB195	ND	25.00	21.21	85	21.41	86	50-125	1	0-30	
PCB206	ND	25.00	22.19	89	21.99	88	50-125	1	0-30	
PCB209	1.152	25.00	20.11	76	20.26	76	50-125	1	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-010-SC_1.0-1.5	**Sediment**	**GC/MS HHH**	**01/17/13**	**01/21/13**	**130117S10**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	0.7771	25.00	23.65	92	24.23	94	50-125	2	0-30	
PCB018	1.917	25.00	22.26	81	22.02	80	50-125	1	0-30	
PCB028	1.183	25.00	21.50	81	21.41	81	50-125	0	0-30	
PCB044	1.360	25.00	21.77	82	21.69	81	50-125	0	0-30	
PCB052	2.145	25.00	21.37	77	21.02	75	50-125	2	0-30	
PCB066	2.894	25.00	21.78	76	21.80	76	50-125	0	0-30	
PCB077	ND	25.00	21.23	85	21.04	84	50-125	1	0-30	
PCB101	2.368	25.00	22.06	79	21.99	78	50-125	0	0-30	
PCB105	0.5370	25.00	20.65	80	20.67	81	50-125	0	0-30	
PCB118	1.943	25.00	24.63	91	24.47	90	50-125	1	0-30	
PCB126	ND	25.00	19.61	78	19.42	78	50-125	1	0-30	
PCB128	ND	25.00	20.35	81	20.15	81	50-125	1	0-30	
PCB153	1.944	25.00	20.11	73	20.31	73	50-125	1	0-30	
PCB170	ND	25.00	19.79	79	19.70	79	50-125	0	0-30	
PCB180	1.026	25.00	21.43	82	21.23	81	50-125	1	0-30	
PCB187	0.8617	25.00	20.63	79	20.22	77	50-125	2	0-30	
PCB195	ND	25.00	20.75	83	20.98	84	50-125	1	0-30	
PCB206	ND	25.00	21.42	86	21.34	85	50-125	0	0-30	
PCB209	0.6940	25.00	19.24	74	19.43	75	50-125	1	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: 01/11/13
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
RC-08-SC_0.5-1.0	**Sediment**	**GC/MS HHH**	**01/21/13**	**01/21/13**	**130121S11**

Parameter	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
PCB008	ND	25.00	14.79	59	13.75	55	50-125	7	0-30	
PCB018	ND	25.00	14.97	60	14.41	58	50-125	4	0-30	
PCB028	ND	25.00	15.17	61	14.37	57	50-125	5	0-30	
PCB044	ND	25.00	14.69	59	14.43	58	50-125	2	0-30	
PCB052	0.9975	25.00	14.43	54	14.11	52	50-125	2	0-30	
PCB066	0.9726	25.00	14.88	56	14.37	54	50-125	3	0-30	
PCB077	ND	25.00	14.32	57	13.60	54	50-125	5	0-30	
PCB101	1.925	25.00	15.46	54	15.05	53	50-125	3	0-30	
PCB105	1.074	25.00	14.81	55	13.98	52	50-125	6	0-30	
PCB118	1.957	25.00	17.28	61	16.67	59	50-125	4	0-30	
PCB126	ND	25.00	13.90	56	12.98	52	50-125	7	0-30	
PCB128	ND	25.00	14.48	58	13.52	54	50-125	7	0-30	
PCB153	2.522	25.00	15.26	51	14.90	50	50-125	2	0-30	
PCB170	0.6046	25.00	15.39	59	14.92	57	50-125	3	0-30	
PCB180	1.167	25.00	15.06	56	14.65	54	50-125	3	0-30	
PCB187	0.9424	25.00	14.17	53	13.82	52	50-125	2	0-30	
PCB195	ND	25.00	15.99	64	15.69	63	50-125	2	0-30	
PCB206	ND	25.00	17.09	68	16.46	66	50-125	4	0-30	
PCB209	ND	25.00	15.63	63	14.55	58	50-125	7	0-30	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-79	**Solid**	**ICP/MS 03**	**01/15/13**	**01/16/13**	**130115L02E**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	24.40	98	24.82	99	80-120	2	0-20	
Cadmium	25.00	24.92	100	25.52	102	80-120	2	0-20	
Chromium	25.00	23.82	95	25.79	103	80-120	8	0-20	
Copper	25.00	25.95	104	26.68	107	80-120	3	0-20	
Lead	25.00	25.55	102	26.18	105	80-120	2	0-20	
Nickel	25.00	24.16	97	24.94	100	80-120	3	0-20	
Selenium	25.00	19.93	80	20.16	81	80-120	1	0-20	
Zinc	25.00	26.32	105	26.60	106	80-120	1	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3050B
		Method:	EPA 6020

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-78	**Solid**	**ICP/MS 03**	**01/15/13**	**01/15/13**	**130115L03E**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	25.70	103	25.19	101	80-120	2	0-20	
Cadmium	25.00	26.21	105	25.83	103	80-120	1	0-20	
Chromium	25.00	23.50	94	23.45	94	80-120	0	0-20	
Copper	25.00	26.34	105	25.86	103	80-120	2	0-20	
Lead	25.00	25.90	104	25.93	104	80-120	0	0-20	
Nickel	25.00	24.61	98	24.21	97	80-120	2	0-20	
Selenium	25.00	20.14	81	20.26	81	80-120	1	0-20	
Zinc	25.00	27.34	109	29.47	118	80-120	8	0-20	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-082-10	**Solid**	**Hg/AF 1**	**01/16/13**	**01/16/13**	**130116L01**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.001600	0.001698	106	0.001710	107	70-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	N/A
		Method:	EPA 1631E (M)

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-082-11	**Solid**	**Hg/AF 1**	**01/16/13**	**01/16/13**	**130116L02**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.001600	0.001669	104	0.001677	105	70-130	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-858-178	**Solid**	**GC 51**	**01/15/13**	**01/18/13**	**130115L07**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	3.859	77	4.213	84	50-135	36-149	9	0-25	
Alpha-BHC	5.000	3.666	73	3.921	78	50-135	36-149	7	0-25	
Beta-BHC	5.000	3.560	71	3.900	78	50-135	36-149	9	0-25	
Delta-BHC	5.000	3.890	78	4.260	85	50-135	36-149	9	0-25	
Gamma-BHC	5.000	3.673	73	4.002	80	50-135	36-149	9	0-25	
Dieldrin	5.000	3.904	78	4.301	86	50-135	36-149	10	0-25	
4,4'-DDD	5.000	4.012	80	4.446	89	50-135	36-149	10	0-25	
4,4'-DDE	5.000	4.021	80	4.457	89	50-135	36-149	10	0-25	
4,4'-DDT	5.000	3.675	73	4.084	82	50-135	36-149	11	0-25	
Endosulfan I	5.000	3.903	78	4.285	86	50-135	36-149	9	0-25	
Endosulfan II	5.000	3.794	76	4.079	82	50-135	36-149	7	0-25	
Endosulfan Sulfate	5.000	3.725	74	4.124	82	50-135	36-149	10	0-25	
Endrin	5.000	4.001	80	4.396	88	50-135	36-149	9	0-25	
Endrin Aldehyde	5.000	3.825	77	4.220	84	50-135	36-149	10	0-25	
Endrin Ketone	5.000	3.970	79	4.379	88	50-135	36-149	10	0-25	
Heptachlor	5.000	3.986	80	4.358	87	50-135	36-149	9	0-25	
Heptachlor Epoxide	5.000	3.753	75	4.133	83	50-135	36-149	10	0-25	
Methoxychlor	5.000	3.840	77	4.224	84	50-135	36-149	10	0-25	
Alpha Chlordane	5.000	3.803	76	4.173	83	50-135	36-149	9	0-25	
Gamma Chlordane	5.000	3.786	76	4.166	83	50-135	36-149	10	0-25	

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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC		Date Received:	N/A
26300 La Alameda, Suite 240		Work Order No:	13-01-0633
Mission Viejo, CA 92691-8306		Preparation:	EPA 3545
		Method:	EPA 8081A

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-858-179	**Solid**	**GC 51**	**01/15/13**	**01/18/13**	**130115L08**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	4.274	85	4.117	82	50-135	36-149	4	0-25	
Alpha-BHC	5.000	3.912	78	3.733	75	50-135	36-149	5	0-25	
Beta-BHC	5.000	3.683	74	3.439	69	50-135	36-149	7	0-25	
Delta-BHC	5.000	4.345	87	4.095	82	50-135	36-149	6	0-25	
Gamma-BHC	5.000	3.981	80	3.757	75	50-135	36-149	6	0-25	
Dieldrin	5.000	4.412	88	4.196	84	50-135	36-149	5	0-25	
4,4'-DDD	5.000	4.543	91	4.309	86	50-135	36-149	5	0-25	
4,4'-DDE	5.000	4.525	91	4.276	86	50-135	36-149	6	0-25	
4,4'-DDT	5.000	4.162	83	3.937	79	50-135	36-149	6	0-25	
Endosulfan I	5.000	4.372	87	4.184	84	50-135	36-149	4	0-25	
Endosulfan II	5.000	4.164	83	4.058	81	50-135	36-149	3	0-25	
Endosulfan Sulfate	5.000	4.208	84	4.004	80	50-135	36-149	5	0-25	
Endrin	5.000	4.401	88	4.164	83	50-135	36-149	6	0-25	
Endrin Aldehyde	5.000	4.360	87	4.151	83	50-135	36-149	5	0-25	
Endrin Ketone	5.000	4.506	90	4.336	87	50-135	36-149	4	0-25	
Heptachlor	5.000	4.434	89	4.211	84	50-135	36-149	5	0-25	
Heptachlor Epoxide	5.000	4.193	84	3.982	80	50-135	36-149	5	0-25	
Methoxychlor	5.000	4.321	86	4.117	82	50-135	36-149	5	0-25	
Alpha Chlordane	5.000	4.258	85	4.075	82	50-135	36-149	4	0-25	
Gamma Chlordane	5.000	4.255	85	4.058	81	50-135	36-149	5	0-25	

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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-79	**Solid**	**GC/MS HHH**	**01/17/13**	**01/19/13**	**130117L09**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	23.16	93	24.69	99	50-125	38-138	6	0-30	
PCB018	25.00	22.97	92	23.13	93	50-125	38-138	1	0-30	
PCB028	25.00	22.59	90	23.13	93	50-125	38-138	2	0-30	
PCB044	25.00	23.24	93	24.63	99	50-125	38-138	6	0-30	
PCB052	25.00	22.21	89	22.82	91	50-125	38-138	3	0-30	
PCB066	25.00	20.26	81	24.40	98	50-125	38-138	19	0-30	
PCB077	25.00	19.07	76	24.61	98	50-125	38-138	25	0-30	
PCB101	25.00	20.16	81	24.91	100	50-125	38-138	21	0-30	
PCB105	25.00	18.39	74	24.16	97	50-125	38-138	27	0-30	
PCB118	25.00	21.43	86	27.94	112	50-125	38-138	26	0-30	
PCB126	25.00	17.42	70	22.95	92	50-125	38-138	27	0-30	
PCB128	25.00	18.11	72	24.32	97	50-125	38-138	29	0-30	
PCB153	25.00	17.64	71	23.52	94	50-125	38-138	29	0-30	
PCB170	25.00	20.48	82	21.54	86	50-125	38-138	5	0-30	
PCB180	25.00	19.15	77	25.42	102	50-125	38-138	28	0-30	
PCB187	25.00	18.33	73	24.74	99	50-125	38-138	30	0-30	
PCB195	25.00	22.59	90	23.29	93	50-125	38-138	3	0-30	
PCB206	25.00	23.31	93	22.52	90	50-125	38-138	3	0-30	
PCB209	25.00	21.66	87	20.77	83	50-125	38-138	4	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-80	**Solid**	**GC/MS HHH**	**01/17/13**	**01/19/13**	**130117L10**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	22.26	89	24.64	99	50-125	38-138	10	0-30	
PCB018	25.00	22.39	90	23.60	94	50-125	38-138	5	0-30	
PCB028	25.00	22.03	88	23.41	94	50-125	38-138	6	0-30	
PCB044	25.00	23.51	94	24.68	99	50-125	38-138	5	0-30	
PCB052	25.00	21.62	86	22.99	92	50-125	38-138	6	0-30	
PCB066	25.00	23.22	93	24.69	99	50-125	38-138	6	0-30	
PCB077	25.00	23.03	92	24.83	99	50-125	38-138	8	0-30	
PCB101	25.00	23.59	94	25.40	102	50-125	38-138	7	0-30	
PCB105	25.00	21.08	84	24.89	100	50-125	38-138	17	0-30	
PCB118	25.00	25.88	104	28.63	115	50-125	38-138	10	0-30	
PCB126	25.00	19.32	77	23.56	94	50-125	38-138	20	0-30	
PCB128	25.00	19.98	80	24.94	100	50-125	38-138	22	0-30	
PCB153	25.00	21.27	85	23.94	96	50-125	38-138	12	0-30	
PCB170	25.00	19.68	79	22.81	91	50-125	38-138	15	0-30	
PCB180	25.00	21.11	84	27.40	110	50-125	38-138	26	0-30	
PCB187	25.00	20.52	82	25.61	102	50-125	38-138	22	0-30	
PCB195	25.00	21.40	86	25.43	102	50-125	38-138	17	0-30	
PCB206	25.00	21.92	88	25.41	102	50-125	38-138	15	0-30	
PCB209	25.00	20.29	81	23.07	92	50-125	38-138	13	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

ANCHOR QEA, LLC
26300 La Alameda, Suite 240
Mission Viejo, CA 92691-8306

Date Received: N/A
Work Order No: 13-01-0633
Preparation: EPA 3545
Method: EPA 8270C SIM PCB Congeners

Project: Rhine Channel Confirmation Testing Program

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-341-81	**Solid**	**GC/MS HHH**	**01/01/95**	**01/21/13**	**130121L11**

Parameter	SPIKE ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
PCB008	25.00	23.68	95	24.80	99	50-125	38-138	5	0-30	
PCB018	25.00	23.95	96	24.08	96	50-125	38-138	1	0-30	
PCB028	25.00	24.07	96	24.24	97	50-125	38-138	1	0-30	
PCB044	25.00	24.58	98	25.44	102	50-125	38-138	3	0-30	
PCB052	25.00	23.29	93	23.51	94	50-125	38-138	1	0-30	
PCB066	25.00	21.20	85	25.79	103	50-125	38-138	20	0-30	
PCB077	25.00	19.76	79	25.65	103	50-125	38-138	26	0-30	
PCB101	25.00	20.78	83	25.97	104	50-125	38-138	22	0-30	
PCB105	25.00	18.85	75	25.17	101	50-125	38-138	29	0-30	
PCB118	25.00	22.19	89	29.07	116	50-125	38-138	27	0-30	
PCB126	25.00	17.84	71	23.11	92	50-125	38-138	26	0-30	
PCB128	25.00	18.30	73	24.06	96	50-125	38-138	27	0-30	
PCB153	25.00	17.72	71	23.82	95	50-125	38-138	29	0-30	
PCB170	25.00	20.99	84	22.60	90	50-125	38-138	7	0-30	
PCB180	25.00	18.89	76	23.97	96	50-125	38-138	24	0-30	
PCB187	25.00	18.09	72	24.43	98	50-125	38-138	30	0-30	
PCB195	25.00	22.54	90	24.06	96	50-125	38-138	7	0-30	
PCB206	25.00	23.24	93	23.76	95	50-125	38-138	2	0-30	
PCB209	25.00	21.09	84	21.57	86	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

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 13-01-0633

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.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (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.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

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

Return to Contents

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 01/11/13

PAGE: 1 OF 12

LABORATORY CLIENT: Anchor QEA

ADDRESS: 26300 La Alameda, Suite 240

CITY: Mission Viejo, CA 92691

TEL: 949.334.9632 | FAX: 949.334.9646 | E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Rhine Channel Confirmation Testing Program

PROJECT CONTACT: Chris Osuch

SAMPLER(S): (SIGNATURE) Tracy Schl

P.O. NO.:

QUOTE NO.:

LAB USE ONLY: 13-01-0633

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

Homogenize thoroughly prior to analysis.
Specific analytes, methods, and QA/QC in accordance with SAP and SAP Addendum
Lower MDL/RL is requested for selenium (see Danielle Gonsman).

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	SM 2540 B Total Solids	ASTM D4464 Grain Size	EPA 9060A TOC	EPA 6020/1631 As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn	EPA 8270C SIM PCB Congeners	EPA 8081A DDTs	GC/MS/MS Pyrethroids	MS/MSD
1	RC-01-SC_0.5-1.0	Rhine Channel	12/12/12	1512	Sed	1	X			X	X	X		
2	RC-02-SC_0.5-1.0	Rhine Channel	12/11/12	1052	Sed	1	X			X	X	X		
3	RC-03-SC_0.5-1.0	Rhine Channel	12/12/12	1608	Sed	1	X			X	X	X		
4	RC-04-SC_0.5-1.0	Rhine Channel	12/11/12	1144	Sed	1	X			X	X	X		
5	RC-05-SC_0.5-1.0	Rhine Channel	12/19/12	1120	Sed	1	X			X	X	X		
6	RC-06-SC_0.5-1.0	Rhine Channel	12/11/12	1319	Sed	1	X			X	X	X		
7	RC-07-SC_0.5-1.0	Rhine Channel	12/19/12	1023	Sed	1	X			X	X	X		
8	RC-08-SC_0.5-1.0	Rhine Channel	12/11/12	1450	Sed	1	X			X	X	X		
9	RC-09-SC_0.5-1.0	Rhine Channel	12/19/12	0926	Sed	1	X			X	X	X		
10	RC-010-SC_0.5-1.0	Rhine Channel	12/11/12	1558	Sed	1	X			X	X	X		
11	RC-011-SC_0.5-1.0	Rhine Channel	12/11/12	1647	Sed	1	X			X	X	X		

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Tracy Schl	[illegible]	1/11/13	1240
[illegible]	[illegible]	1/11/13	1440

Return to Contents

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 01/11/13

PAGE: 2 of 2

LABORATORY CLIENT: Anchor QEA

ADDRESS: 26300 La Alameda, Suite 240

CITY: Mission Viejo, CA 92691

TEL: 949.334.9632 | FAX: 949.334.9646 | E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Rhine Channel Confirmation Testing Program

PROJECT CONTACT: Chris Osuch

SAMPLER(S): (SIGNATURE)

P.O. NO.:

QUOTE NO.:

LAB USE ONLY: 01-0633

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

Homogenize thoroughly prior to analysis.
Specific analytes, methods, and QA/QC in accordance with SAP and SAP Addendum
Lower MDL/RL is requested for selenium (see Danielle Gonsman).

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	SM 2540 B Total Solids	ASTM D4464 Grain Size	EPA 9060A TOC	EPA 6020/1631 As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn	EPA 8270C SIM PCB Congeners	EPA 8081A DDTs	GC/MS/MS Pyrethroids	MS/MSD
12	RC-01-SC_1.0-1.5	Rhine Channel	12/12/12	1512	Sed	1	X			X	X	X		
13	RC-02-SC_1.0-1.5	Rhine Channel	12/11/12	1052	Sed	1	X			X	X	X		
14	RC-03-SC_1.0-1.5	Rhine Channel	12/12/12	1608	Sed	1	X			X	X	X		
15	RC-04-SC_1.0-1.5	Rhine Channel	12/11/12	1144	Sed	1	X			X	X	X		
16	RC-05-SC_1.0-1.5	Rhine Channel	12/19/12	1120	Sed	1	X			X	X	X		
17	RC-06-SC_1.0-1.5	Rhine Channel	12/11/12	1319	Sed	1	X			X	X	X		
18	RC-07-SC_1.0-1.5	Rhine Channel	12/19/12	1023	Sed	1	X			X	X	X		
19	RC-08-SC_1.0-1.5	Rhine Channel	12/11/12	1450	Sed	1	X			X	X	X		
20	RC-09-SC_1.0-1.5	Rhine Channel	12/19/12	0926	Sed	1	X			X	X	X		
21	RC-010-SC_1.0-1.5	Rhine Channel	12/11/12	1558	Sed	1	X			X	X	X		
22	RC-011-SC_1.0-1.5	Rhine Channel	12/11/12	1647	Sed	1	X			X	X	X		

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		1/11/13	1240
		1/11/13	1440

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-01-0633

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Anchor

DATE: 01/11/13

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.4 °C - 0.2 °C (CF) = 2.2 °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: AP

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: TS

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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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 ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** TS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

Return to Contents