CHOLLAS CREEK WATER QUALITY SAMPLING 1999-2000 WET-WEATHER SEASON

Prepared for

City-of San-Diego
Environmental Protection Division,
Environmental Services-Department
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URS Project No. 589553054F.00

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URS

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SCOPE OF WORK

URS Corporation (URS), under contract to the City of San Diego, conducted two rounds of wetweather sampling for organophosphate pesticides (diazinon and chlorpyrifos) and metals in the Chollas Creek Watershed. URS' portion of the project was funded by the City of San Diego to provide technical input for developing Total Maximum Daily Loads (TMDLs) for pesticides and metals in Chollas Creek. The San Diego Regional Water Quality Control Board (RWQCB) is in the process of developing the TMDLs, which are scheduled to be finalized by the end of this year. Five sampling sites along the North and South Forks of Chollas Creek were designated for sampling through discussions with the City, the Port of San Diego, the RWQCB, and the Southern California Coastal Water Research Program (SCCWRP) in December 1999. The sampling was conducted on February 12 and 21, 2000, at three sites along branches of the main Chollas Channel and three sites along the south branch of Chollas Creek while rainstorms passed through the San Diego area. The samples were to be analyzed for the parameters listed in Table 1. In addition, Caltrans conducted sampling at a sixth location on Chollas Creek.

Table 1
ANALYSES AND LABORATORIES (1)

Analysis	Diazinon Chlorpyrifos	Physical and Chemical Constituents Total and Dissolved Metals	Toxicity Tests Using Ceriodaphnia dubia and Hyalella azteca
Laboratory	Aqua-Science	Babcock Laboratories	Ogden Environmental
	17 Arboretum Dr.	6100 Quail Valley Ct.	5510 Morehouse Dr.
	Davis, CA 95616	Riverside, CA 92507	San Diego, CA 92121
	(530) 753-5456	(909) 653-3351	(858) 458-9111
	Contact: Jeff Miller	Contact: Cindy Moore	Contact: Marilyn Schwartz

Laboratories used for composite samples from SD(8)2, SD(8)3, SD(8)5, and SD(8)6. Samples for SD(8)1 and SD(8)4 were analyzed as part of the San Diego Storm Water Monitoring Program and Caltrans Monitoring, respectively. SD(8)1 samples were analyzed by D-TEK, APPL, and MBC, for metals and nutrients, pesticides, and toxicity, respectively. SD(8)4 samples were analyzed by Pat-Chem Laboratories (PCL).

SAMPLE COLLECTION

Flow-weighted composite samples were collected using automated samplers on February 12 and 21, 2000, by URS field personnel at the three sites on the main channel and two sites on the south tributary of Chollas Creek (Figure 1). The third south Chollas Creek site (SD(8)4) was sampled on February 12 and 23, 2000, by Caltrans. The hydrological requirements were that the storm events generate at least 0.1 inches of rainfall within the watershed, were preceded by at least 72 hours of dry weather, and the forecasted storm volume was within 50% of the average storm volume and duration for the region. The sampling sites are as follows:

- SD(8)1 Main Chollas Channel A mass loading station for the San Diego Storm Water Monitoring Project, SD(8)1 is located in a concrete-lined channel at the end of Durant Street.
- SD(8)2 Wabash Avenue (I-15) Branch of the Main Chollas Channel This is a City of San Diego field screening site and is located just north of the SR 94 and I-15 interchange. The site is a natural channel which follows next to !-15 through the I-805 interchange where it splits and follows each freeway up to approximately Landis Street.

- SD(8)3 Home Avenue Branch of the Main Chollas Channel This is a City of San Diego field screening site and is located next to the San Diego Police Department Canine Training Field. It is a channelized portion of the creek with a natural bottom.
- SD(8)4 South Branch of Chollas Creek (Caltrans monitoring site) This is a City of San Diego field screening site and is located at the 38th Street bridge over Chollas Creek just north of Beta Street. It is a channelized portion of the creek with a natural bottom and is just upstream of the South Branch confluence with the Main Chollas Creek Channel.
- SD(8)5 Federal Boulevard Branch of South Chollas Creek This site is located where the creek crosses Federal Blvd., next to SR 94 and discharges from Lemon Grove and La Mesa.
- SD(8)6 Jamacha Road Branch of South Chollas Creek This site is just downstream from a City of San Diego field screening site located along a natural stream within a residential area. The site is located south of Jamacha Road at the 69th Street crossing of Chollas Creek.

The flow-weighted samples were collected following the storm and stored on ice during transportation from the monitoring locations. The samples were delivered to the Environmental Engineering Lab (EEL) at the RWQCB for compositing prior to shipment to the analytical labs (except for SD(8)1 which went to D-TEK for compositing and to the San Diego Storm Water Monitoring Program Laboratories for analysis). Water samples for toxicity tests using Ceriodaphnia dubia and Hyalella azteca were delivered on the same day to Odgen Environmental (toxicity samples for SD(8)1 were shipped to MBC). Water samples for general constituents and metals, and pesticides analyses from SD(8)2, SD(8)3, SD(8)5, and SD(8)6 were shipped via Federal Express for next day delivery in styrofoam coolers packed with Blue Ice to Babcock Laboratories and Aqua-Science, respectively. Water samples from SD(8)1 were analyzed by the laboratories under contract with the San Diego Storm Water Monitoring Program (D-TEK, APPL, and MBC). Water samples for SD(8)4 were collected by Caltrans and delivered to Pat-Chem Laboratories for analysis.

HYDROLOGY

The storm event requirements were that the storm events generate at least 0.1 inches of rainfall within the watershed, were preceded by at least 72 hours of dry weather, and the forecasted storm volume was within +/- 50% of the average storm volume and duration for the region. The hydrographs for February 12 and 21 flows at the sampling stations are provided in Appendix A for all stations except SD(8)4 which was monitored by Caltrans. The hydrologic data from SD(8)4 are also provided in Appendix A. Note that the second storm monitored by Caltrans occurred on February 23, 2000, rather than February 21, 2000 at the other five sampling sites.

RESULTS

Physical, Chemical, and Metals Constituents

A large suite of constituents was analyzed for in the composite samples from Chollas Creek. The results from the three analytical laboratories were compiled and are presented in Tables 2 and 3. Table 2 presents the physical and general constituents, as well as the nutrients. Table 3 presents the total and dissolved metals results for the six sampling locations. The following subsections describe the range of values for each of the analyses. Quality assurance/quality control protocols (QA/QC) were followed by the laboratories to reduce the potential for contamination, as well as to validate the findings. The laboratory reports for sampling stations SD(8)2, SD(8)3, SD(8)5, and SD(8)6 are provided in Appendix B.

General

The pH was measured for eight samples and ranged from 6.9 to 8.3. Specific conductance (conductivity) was measured for seven samples and ranged from 140 to 510 umho/cm.

Results for turbidity from eight samples ranged from 27 to 310 NTU.

Results for TSS ranged from 22 to 946 mg/l. Results for TDS at mass loading stations ranged from 100 to 320 mg/l.

COD is measured over 24 hours and represents the oxygen consumed in the breakdown of chemical constituents during that time period. Results for COD ranged from 36 to 104 mg/l.

Oil and grease results were detected in four of the eight samples analyzed and ranged from 1.92 to 19 mg/l. Surfactants (MBAS) were detected in five of the six samples analyzed and ranged from 0.05 to 0.35 mg/l.

Total hardness ranged from 36.0 to 120.0 mg/l CaCO3. Calcium and magnesium were detected in all samples analyzed in concentrations ranging from 10 to 26 μ g/l and 3.0 to,13.0 μ g/l, respectively.

Nutrients

Total Kjeldahl nitrogen (TKN) ranged from 1.2 to 3.1 mg/l. Nitrate concentrations ranged from 0.4 to 3.22 mg/l. Nitrite was detected in three of the eight samples, in concentrations ranging from 0.05 to 0.09 mg/l. Ammonia (reported as nitrogen) was detected in seven of the twelve samples from mass loading stations in concentrations ranging from 0.08 to 3.6 mg/l. Total phosphorus was detected in all of the samples in concentrations ranging from 0.33 to 4 mg/l, and dissolved phosphorus was also detected in all eight samples analyzed in concentrations ranging from 0.26 to 0.38 mg/l.

Table 2. Physical and General Constituents, Chollas Creek Water Monitoring

	Units	February 12, 2000					February 21, 2000 (1)						
Constituent		SD(8)1	SD(8)2	SD(8)3	SD(8)4	SD(8)5	SD(8)6	SD(8)1	SD(8)2	SD(8)3	SD(8)4	SD(8)5	SD(8)6
Physical/General	* *			· I		·					. 		
рН	s.u.	7.52	8.3	8.1	7.7	7.5	7.4	6.9	N/A	N/A	8	N/A	N/A
Specific Conductance	umho/cm	186	N/A	N/A	234	N/A	N/A	187	190	140	202	220	510
TDS	mg/l	120	140	100	190	220	310	111	140	110	232	180	320
TSS	mg/l	457	220	270	946	520	170	62	110	110	416	280	22
Turbidity	NTU	50	120	81	157	240	68	27	N/A	N/A	310	N/A	N/A
COD	mg/l	41	N/A	N/A	N/A	N/A	N/A	104	96	78	N/A	85	36
Oil & Grease	mg/l	1.92	N/A	N/A	19	N/A	N/A	2.04	<5	<5	7	<5	<5
MBAS	mg/l	0.35	0.05	0.11	N/A	<0.05	0.11	0.22	N/A	N/A	N/A	N/A	N/A
Total Hardness	mg/l	40.9	58	54	N/A	100	120	35.1	47	36	N/A	63	100
Ca	mg/l	N/A	13	14	N/A	21	26	N/A	12	10	N/A	14	24
Mg	mg/l	N/A	6	5	N/A	12	13	N/A	4	3	N/A	7	11
Nutrients		*				· · · · · · · · · · · · · · · · · · ·				<u> </u>			
NH4-N	mg/l	1.65	0.3	0.5	0.13	0.4	0.3	<0.10	<0.1	<0.1	0.08	<0.1	<0.1
NO3-N	mg/l	3.22	1.3	0.9	0.67	1.1	1	1.04	N/A	N/A	0.4	N/A	N/A
NO2-N	mg/l	0.086	<0.1	<0.1	0.09	<0.1	<0.1	<0.05	N/A	N/A	0.05	N/A	N/A
TKN	mg/l	2.98	2.3	2.6	N/A	2.6	2	3.1	2	1.9	N/A	1.4	1.2
Dis P	mg/l	0.33	0.38	0.36	0.3	0.37	0.34	0.26	N/A	N/A	0.35	N/A	N/A
TP	mg/l	0.46	0.66	1,2	0.85	0.95	4	0.33	0.53	0.57	0.44	0.58	0.37
Pesticides							•						1
Diazinon	ug/l	0.27 (4)	N/A (3)	N/A (3)	<1	N/A (3)	0.3376	0.35 (5)	0.0337	0.0955	<1	N/A (2)	0.0509
Chlorpyrifos	ug/l	<0.5	N/A (3)	N/A (3)	<1	N/A (3)	0.0717	<0.5	0.0433	0.0429	<1	N/A (2)	0.034

⁽¹⁾ SD(8)4 sampled on February 23, 2000.

Note that detection limits varied between the laboratories. Non-detects are reported as less than the reporting limit. N/A - not analyzed.

⁽²⁾ SD(8)5 sample broke inside cooler during delivery to Aqua-Science

⁽³⁾ Sample not forwarded to Aqua-Science by EEL.

⁽⁴⁾ Below quantification level. Value is estimated.

⁽⁵⁾ Difference between primary and confirmation columns is greater than 40%.

Total Metals

Total antimony was not detected in any samples. Total chromium was detected in two of the twelve samples analyzed and was reported at levels of 17.0 and 23.0 μ g/l. Total arsenic was detected in three samples in concentrations of 7, 11.0 and 11.0 μ g/l. Total cadmium was also detected in three samples in concentrations of 0.7, 1.3 and 2.0 μ g/l. Copper was detected in all but one of the samples analyzed in concentrations ranging from 16 to 68 μ g/l. Lead was detected all but two samples in concentrations ranging from 15.0 to 83.0 μ g/l. Nickel was detected in two of the twelve samples at 10.3 and 18.3 μ g/l. Selenium was also detected in two samples at 6.0 and 8.0 μ g/l. Zinc was detected in all samples in concentrations ranging from 10.0 to 370.0 μ g/l. In general, more total metal constituents were detected above the reporting limits at the SD(8)4 station than at the other stations.

Dissolved Metals

Antimony was not detected in the dissolved form in any of the samples. Dissolved arsenic and dissolved cadmium were detected in one sample in concentrations of 5.0 and 0.3 μ g/l, respectively. Dissolved chromium was detected in two samples in concentrations of 2.1 and 9.0 μ g/l. Dissolved lead was also detected during both sampling events at station SD(8)4 in concentrations of 3.6 and 10.5 μ g/l. Dissolved copper was detected in four samples in concentrations ranging from 5.3 to 37.0 μ g/l one Dissolved nickel was detected in two samples in concentrations of 5.0 and 6.1 μ g/l. Dissolved zinc was detected in all twelve samples in concentrations ranging from 5.0 to 19.0 μ g/l. Dissolved selenium was detected in two samples in concentrations of 6.0 and 8.0 μ g/l. In general, more dissolved metal constituents were detected above the reporting limits at the SD(8)4 station than at the other stations.

Diazinon & Chlorpyrifos

The organophosphate pesticides, diazinon and chlorpyrifos were analyzed in three of the six February 12 samples and five of the six February 21 samples (Table 2). Aqua-Science did not receive the composited sample water from the analytical laboratory (EEL) for SD(8)2, SD(8)3, and SD(8)5 from the February 12 storm event. In addition, the SD(8)5 sample from February 21 broke within the cooler during transportation to the analytical lab. Of the samples analyzed, diazinon ranged from non-detect to 0.35 μ g/l, and chlorpyrifos ranged from non-detect to 0.072 μ g/l. Note that laboratory reporting limits varied between the studies, and that these ranges may be misleading considering the range in the reporting limits. Specifically, the reporting limit of 1.0 μ g/l used by Caltrans' contract laboratory is above the detection level for diazinon and chlorpyrifos commonly observed in urban runoff. QA/QC was followed by the laboratories to prohibit contamination, as well as to validate the findings. The laboratory reports for sampling stations SD(8)2, SD(8)3, SD(8)5, and SD(8)6 are provided in Appendix C.

Table 3. Total and Dissolved Metals, Chollas Creek Water Quality Monitoring

	February 12, 2000							February 21, 2000 (1)				
	SD(8)1	SD(8)2	SD(8)3	SD(8)4	SD(8)5	SD(8)6	SD(8)1	SD(8)2	SD(8)3	SD(8)4	SD(8)5	SD(8)6
Total Me	tals											
. An	<1.5	<10	<10	<1	<10	<10	<1.5	<10	<10	<1	<10	<10
As	<1.0	<5	<5	N/A	11	<5	7	<5	<5	N/A	11	<5
Cd	<0.25	. <2	<2	1.3	<2	<2	2	<2	<2	0.7	<2	<2
Cr	<5.0	<20	<20	23	<20	<20	<5.0	<20	<20	17	<20	<20
Cu	29	68	68	33	43	23	16	23	19	19	27	>10
Pb	15	34	52	83	76	16	<1.0	23	19	25.9	35	>10
Ni	<5.0	<20	<20	18.3	<20	<20	<5.0	<20	<20	10.3	<20	<20
Se	<1.0	<5	<5	<2	<5	6	<1.0	<5	<5	<2	<5	8
Zn	96	160	300	327	370	100	50	180	160	81	10	54
Dissolve	d Metals											
An	<1.5	<10	<10	<1	<10	<10	<1.5	<10	<10	<1	<10	<10
As	<1.0	<5	<5	N/A	<5	<5	5	<5	<5	N/A	<5	<5
Cd	<0.25	<2	<2	<0.2	<2	<2	<0.25	<2	<2	. 0.3	<2	<2
Cr	<5.0	<20	<20	2.1	<20	<20	<5.0	<20	<20	9	<20	<20
Cu	<5.0	37	<10	5.3	<10	<10	<5.0	11	<10	9.6	<10	<10
Pb	<1.0	<10	<10	3.6	<10	<10	<1.0	<10	<10	10.5	<10	<10
Ni	<5.0	<20	<20	5	<20	<20	<5.0	<20	<20	6.1	<20	<20
Se	<1.0	<5	<5	<2	<5	6	<1.0	<5	<5	<2	<5	8
Zn	19	45	20	16.8	45	20	28	67	57	42	10	30

⁽¹⁾ SD(8)4 sampled on February 23, 2000.

Note that detection limits varied between the laboratories. Non-detects are reported as less than the reporting limit. N/A - not analyzed.

Chollas Creek Water Quality Sampling 1999-2000 Wet-Weather Season

Toxicity Tests with Hyalella azteca and Ceriodaphnia dubia

Toxicity tests on the February 12 and 21 water samples were conducted using the freshwater flea, *Ceriodaphni dubia*, and the amphipod, *Hyalella azteca* (Table 4). An exception to this protocol was the use of the flathead minnow, *Pimephales promelas*, in place of the amphipod by Caltrans for SD(8)4. In addition, no toxicity tests were performed for February 12 water samples from sampling stations SD(8)4 and SD(8)5. Amphipod bioassays for SD(8)2, SD(8)3, SD(8)5, and SD(8)6 indicated measurable toxicity in the water samples from both sampling events. All water quality measurements recorded during the 96-hour exposure were within the range defined as acceptable by the test protocol and mean control survival exceeded the ASTM control survival acceptability criterion of 90 percent. Detailed information on the toxicity tests for sampling stations SD(8)2, SD(8)3, SD(8)5, and SD(8)6, can be found in the Ogden Environmental Supplemental Storm Water Toxicity Monitoring of Chollas Creek 1999-2000 Wet-Season dated June 2000. Likewise, detailed information on the toxicity tests for sampling station SD(8)1 can be found in the 1999-2000 City of San Diego and Co-Permittee NPDES Storm Water Monitoring Program Report prepared by URS, dated August 2000.

Chollas Creek Water Quality Sampling 1999-2000 Wet-Weather Season

Table 4. Toxicity Testing, Chollas Creek Water Quality Monitoring

		96 hour			LT50 hours			7 day	
Sample	Mean % Survival Control	Mean % Survival (in 100% Sample)	LC50 (% Sample)	LOEC (% Sample)		LC50 (%sample)	NOEC Survival (%sample)	NOEC Repro/Growth (%sample)	TUc Survival/ Sublethal
Ceriodaphni	a - February 12, 2000		l	·					
sd(8)1	N/A	N/A	>100	N/A	168	78.5	67	44	1.49/2.27
sd(8)2	100	100	>100	>100	N/A	N/A	N/A	N/A	N/A
sd(8)3	100	65	>100	>100	N/A	N/A	N/A	N/A	N/A
sd(8)4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sd(8)5 ⁽⁴⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sd(8)6	100	80	>100	. >100	N/A	N/A	N/A	. N/A	N/A
Ceriodaphni	a - February 21, 2000	(1)							
sd(8)1	N/A	N/A	>100	N/A	>192	>100	100	100	1/1
sd(8)2	100	100	>100	>100	N/A	N/A	N/A	N/A	N/A
sd(8)3	100	100	>100	>100	N/A	N/A	N/A	N/A	N/A
sd(8)4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sd(8)5	100	100	>100	>100	N/A	N/A	N/A	. N/A	N/A
sd(8)6	95	100	>100	>100	N/A	N/A	N/A	N/A	N/A
Hyalella - Fe	bruary 12, 2000 ⁽²⁾						·		
sd(8)1	N/A	N/A	>100	N/A	125	81.8	100	100 ⁽³⁾	1/1 (3)
sd(8)2	94	8	49	<50	N/A	N/A	N/A	N/A	N/A
sd(8)3	94	4	30	<50	N/A	N/A	N/A	N/A	N/A
sd(8)5 ⁽⁴⁾	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sd(8)6	94	34	74	<50	N/A	N/A	N/A	N/A	N/A
Hyalella - Fe	bruary 21, 2000								
sd(8)1	N/A	N/A	>100	N/A	>168	>100	100	100 (3)	1/1 (3)
sd(8)2	98	12	65	<50	N/A	N/A	N/A	N/A	N/A
sd(8)3	98	10	34	<50	N/A	N/A	N/A	N/A	N/A
sd(8)5	98	32	77	<50	N/A	N/A	N/A	N/A	N/A
sd(8)6	98	52	>100	<50	N/A	N/A	N/A	N/A	N/A
Pimephales	promelas - February 2	23, 2000 (2)							
sd(8)4	N/A	N/A	>100	N/A	N/A	N/A	100 (5)	100 (5)	1/1 (5)

⁽¹⁾ SD(8)4 sample taken during February 23, 2000 storm

⁽²⁾ Caltrans used Pimelas promelas in place of Hyalella for SD(8)4. There were no February 12, 2000 toxicity tests for SD(8)4.

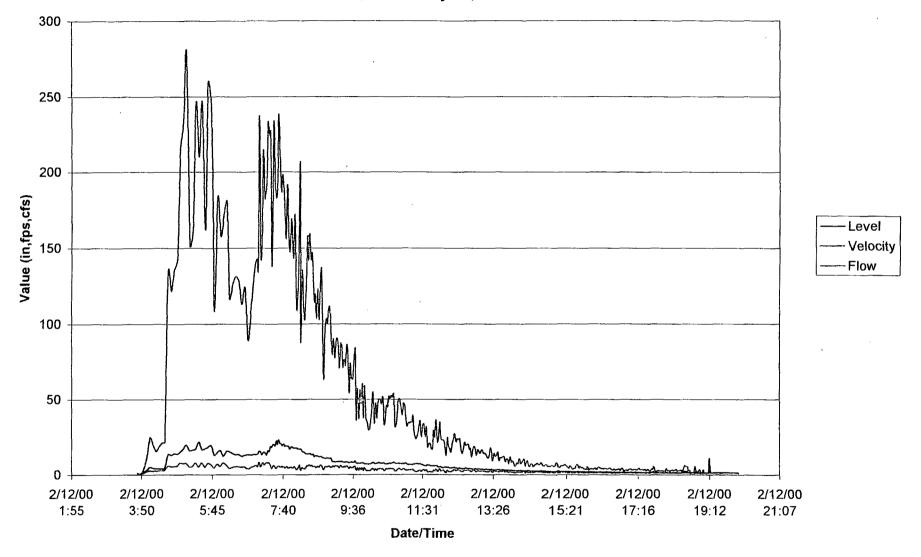
⁽³⁾ Results qualified as estimates. Some dilution results were identified as outliers and were not included in the calculation.

⁽⁴⁾ No SD(8)5 samples were delivered to lab for toxicity testing from the February 12 storm event.

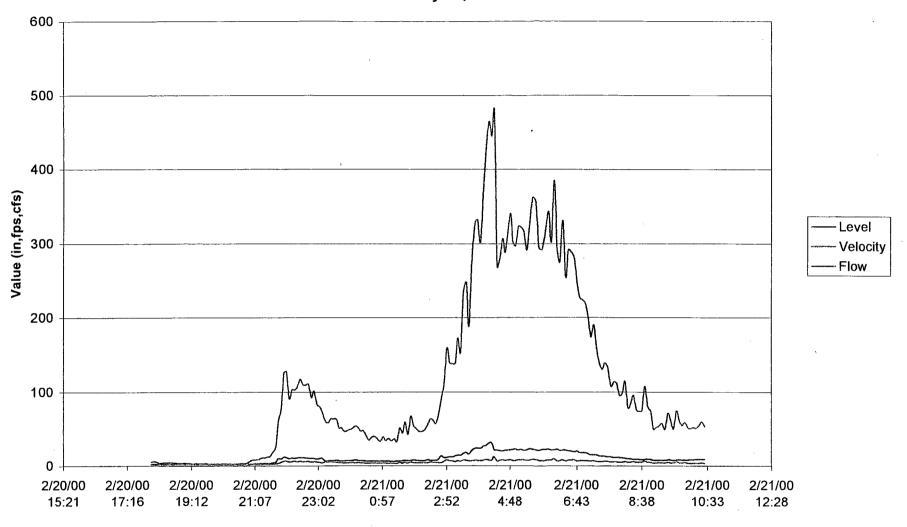
^{(5) 96-}toxicity test.

NOEC = No Observed Effect Concentration. LOEC = Lowest Observed Effect Concentration. LT50 = Time for 50% mortality in 100% sample. LC50 = Concentration for 50% mortality. TUc = Chronic Toxicity Units, which equal 100/NOEC. Tuc of 1 indicates no toxicity observed.

SD(8)1 Main Chollas Channel February 12, 2000

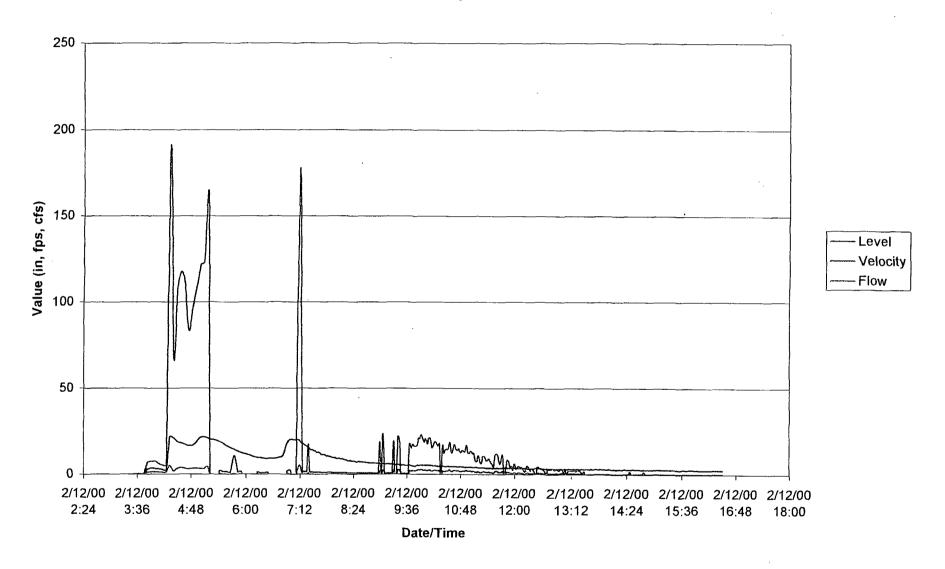


SD(8)1 Main Chollas Channel February 20, 2000

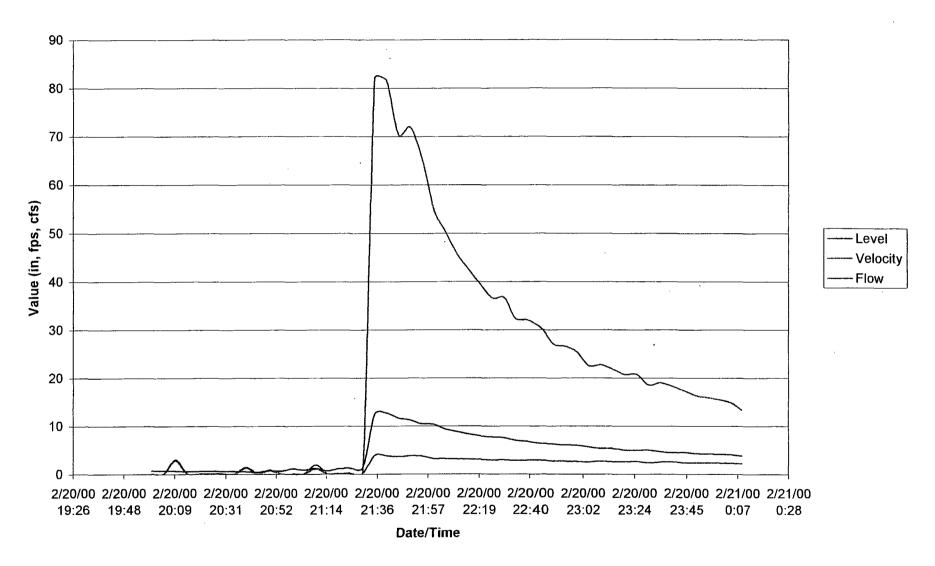


Date/Time

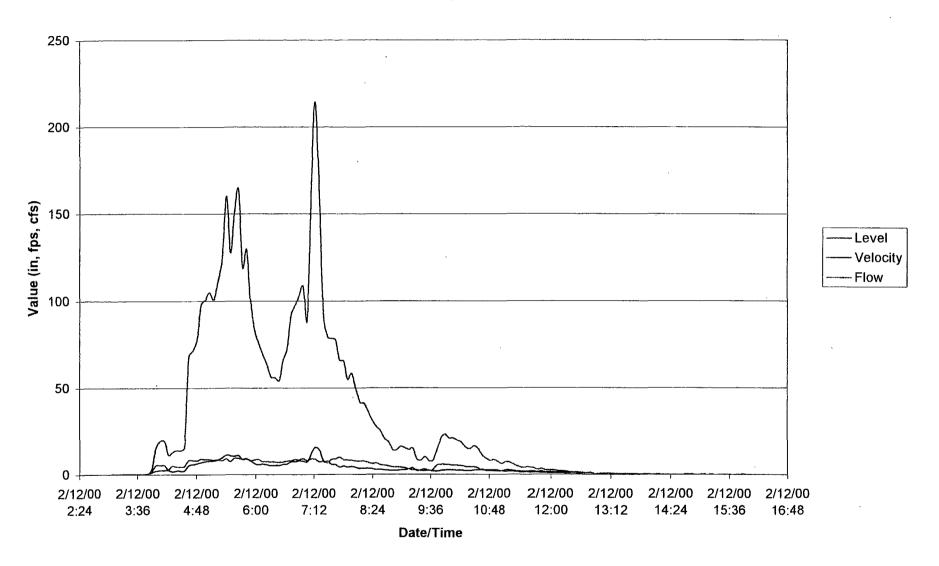
SD(8)2 Wabash/l-15 February 12, 2000



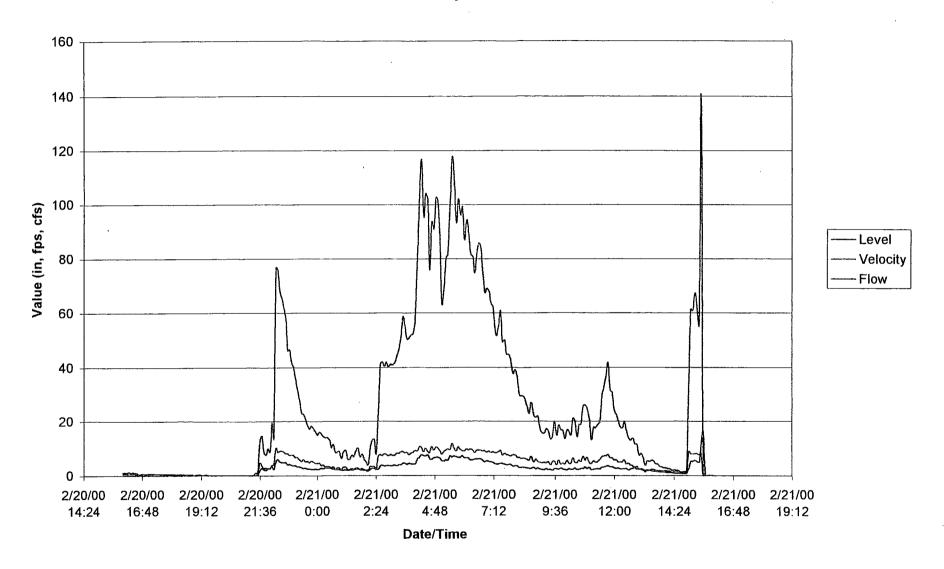
SD(8)2 Wabash/l-15 February 20, 2000



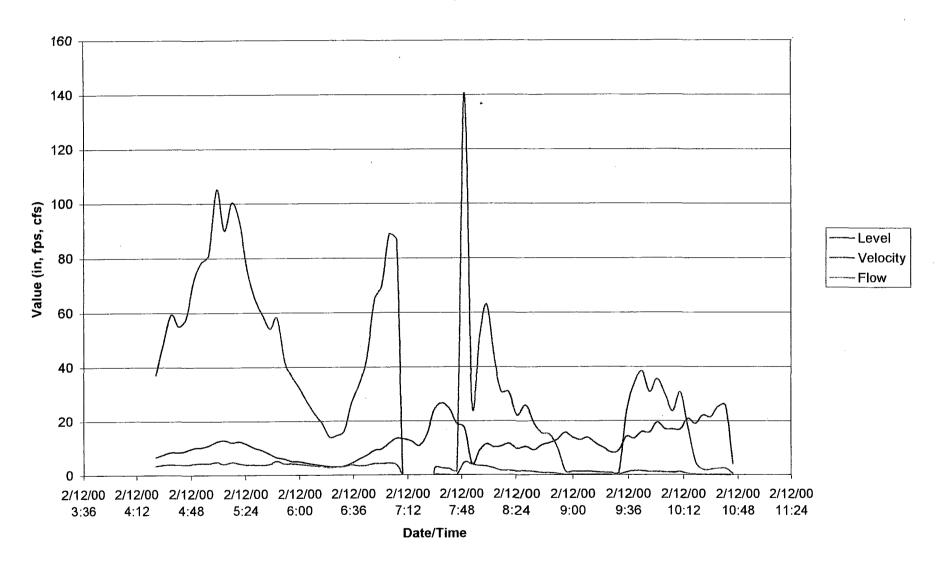
SD(8)3 Federal/Home February 12, 2000



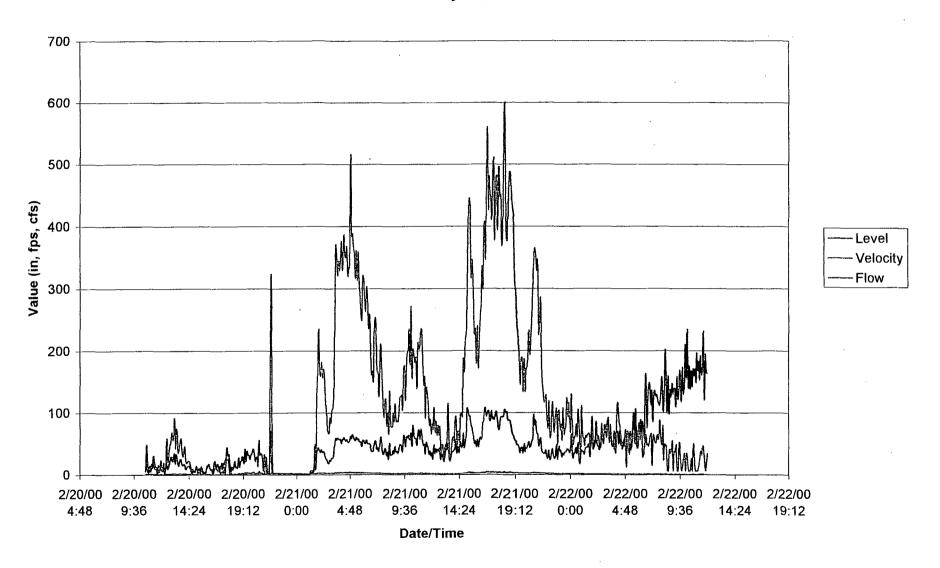
SD(8)3 Federal/Home February 20, 2000



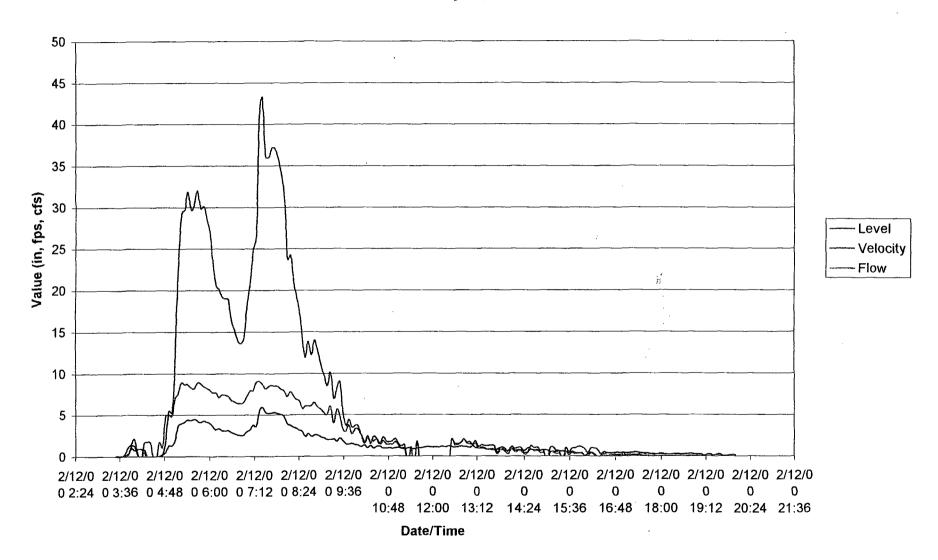
SD(8)5 Federal/94 February 12, 2000



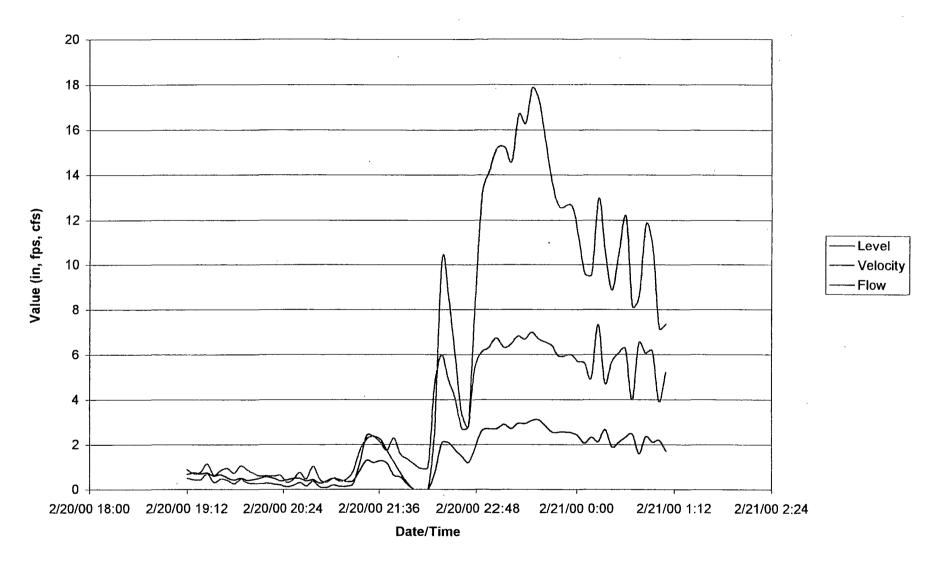
SD(8)5 Federal/94 February 20, 2000



SD(8)6 69th February 12, 2000



SD(8)6 69th February 20, 2000



SD(8)4 South Branch Hydrological Data (Caltrans)

Chollas Creek South Fork Storm 2/12/2000 Field Data Log Summary

Measurement	Sample	Depth	Flow Rate	pH	Temperature (°C)	Conductivity/(µmhos/cm)
Number	Time,	(inches)	(cfs)			
理论处于起射型进步的			建筑、建筑、建筑	PIC TRANSPORT		
(Interest States	0420	17.5	913	7:354 型建设	14.7	460
2	0440	19.75	1066	7.32	15:0]站。14-509223	月80亿年,1867年,1867年
	0500	20.5	1145	7.29	14.74	270层分配工厂区分配的工作工作。
4	0520	22.0	1226	7:312025433	14:50% 图象	350点。据1957年1954年1
5年11年11年11年1	0540	23.0	1308日 中国	7.58	15:01	430
6	0600	20:00	1066	7.68	15:62美元公司	250 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
745537453753	0620	16.0	765	7.53四年	15.31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	260年 2001 2012 201
87.44	10640疑问法	16.0	765	7.6加州温泉	16:3	240)
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216 (1964)	1100	8.0	264	7:71	16:91	300)

Chollas Creek South Fork Storm 2/23/2000 Field Data Log Summary

Measurement	Sample 3		Flow Rate	pH	Temperature (°C)	Conductivity (µmhos/cm)
, Number	Time.	(inches)	(cfs)			
此為是是理解是到	1615	0:25 恒三级	250至12亿亿円	8.63	16.5	1510) 30.00
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5000	1735	18:07:55	913 487	7.72	15:6 沙 二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二	410 43 43 44 45 45 45 45
6Less Parallel		24:0	1391(7.5)	7.92	16:07至4350是74592	270世纪显然为心理工作。
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80.200	1835	19:0%。代学	989	8.06	14.7/97/2019	17.0 Table 20 Table 2
9	1855	16:0	765 (30) (30)	8.04	14:2/6/2015年19	130442.7577.7577.54
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12多、2000年	1955	5.06元 美洲	125	7.86	13.8	17090月日間、地方的電腦



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 853-1662 e-mail: esbsales@aol.com

www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego Diane S. Welch 9771 Claremont Mesa Blvd.,Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #81

Site: URSGWC

Description: Delevan >

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-001

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 1025

Submitted By: Courier

Date: 02/15/00

Time: 1045

Calcium 11. mg/L EPA 200.7 1. 0.0 Magnesium 6. mg/L EPA 200.7 1. 0.0 Ammonia-Nitrogen 0.3 mg/L SM4500-NH3 H 0.1 0.0 Nitrate-Nitrogen 1.2 mg/L EPA 300.0 0.2 0.0 pH 8.3 units EPA 150.1 1. 0.0 Total Dissolved Solids 140 mg/L EPA 160.1 10 0.0 Total Suspended Solids 220 mg/L EPA 160.2 5 0.0 MBAS 0.05 mg/L EPA 425.1 0.05 0.0 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 0.0 Total Phosphorus 0.66 mg/L SM 4500-PB4E 0.05 0.0 Mitrite-Nitrogen ND mg/L EPA 354.1 0.1 0.0	0218/LT 0218/LT 0218/LT 0218/KS
Magnesium 6. mg/L EPA 200.7 1. 0.0 Ammonia-Nitrogen 0.3 mg/L SM4500-NH3 H 0.1 0.8 Nitrate-Nitrogen 1.2 mg/L EPA 300.0 0.2 0.0 pH 8.3 units KPA 150.1 1. 0.0 Total Dissolved Solids 140 mg/L EPA 160.1 10 0.0 MEAS 0.05 mg/L EPA 425.1 0.05 0.0 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 0.0 Total Phosphorus 0.66 mg/L SM 4500-PB4E 0.05 0.0 Nitrite-Nitrogen ND mg/L EPA 154.1 0.1 0.0	0218/LT
Magnesium 6. mg/L EPA 200.7 1. 0.0 Ammonia-Nitrogen 0.3 mg/L SM4500-NH3 H 0.1 0.8 Nitrate-Nitrogen 1.2 mg/L EPA 300.0 0.2 0.0 pH 8.3 units KPA 150.1 1. 0.0 Total Dissolved Solids 140 mg/L EPA 160.1 10 0.0 MEAS 0.05 mg/L EPA 425.1 0.05 0.0 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 0.0 Total Phosphorus 0.66 mg/L SM 4500-PB4E 0.05 0.0 Nitrite-Nitrogen ND mg/L EPA 154.1 0.1 0.0	
Nitrate-Nitrogen 1.2 mg/L EPA 300.0 0.2 00 pH 8.3 units KPA 150.1 1. 00 Total Dissolved Solids 140 mg/L EPA 160.1 10 00 Total Suspended Solids 220 mg/L EPA 160.2 5. 00 MEAS 0.05 mg/L EPA 425.1 0.05 00 Total Dissolved Phosphorus 0.38 mg/L SM 4500.PE 0.05 00 Total Phosphorus 0.66 mg/L SM 4500.PB4E 0.05 00 Nitrite-Nitrogen ND mg/L EPA 154.1 0.1 00	0218/XS
Total Suspended Solids 220 mg/L EPA 160.2 5. 00 MBAS 0.05 mg/L EPA 425.1 0.05 00 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 00 Total Phosphorus 0.66 mg/L SM 4500-PB4E 0.05 00 Nitrite-Nitrogen ND mg/L EPA 354.1 0.1 00	and the services of the servic
Total Suspended Solids 220 mg/L EPA 160 2 5 00 MBAS 0.05 mg/L EPA 425.1 0.05 00 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 00 Total Phosphorus 0.66 mg/L SM 4500-PB4E 0.05 00 Mitrite-Nitrogen ND mg/L EPA 354.1 0.1 00	0215/KOS
Total Suspended Solids 220 mg/L EPA 160 2 5 00 MBAS 0.05 mg/L EPA 425.1 0.05 00 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 00 Total Phosphorus 0.66 mg/L SM 4500-PB4E 0.05 00 Mitrite-Nitrogen ND mg/L EPA 354.1 0.1 00	0215/00
Total Suspended Solids 220 mg/L EPA 160 2 5.000 MBAS 0.05 mg/L EPA 425.1 0.05 00 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 00 Total Phosphorus 0.66 mg/L SM 4500-PE4E 0.05 00 Nitrite-Nitrogen ND mg/L EPA 354 1 0.1 00	0218/SF
MBAS 0.05 mg/L EPA 425.1 0.05 0.05 Total Dissolved Phosphorus 0.38 mg/L SM 4500-PE 0.05 0.05 Total Phosphorus 0.66 mg/L SM 4500-PE4E 0.05 0.0 Nitrite-Nitrogen ND mg/L EPA 354.1 0.1 0.0	0218/SL
Total Dissolved Phosphorus 0.38 mg/L SM 4500 PE 0.05 00 Total Phosphorus 0.66 mg/L SM 4500 PE4E 0.05 00 Nitrite-Nitrogen ND mg/L EPA 354 1 0.1 00	0216/CW
Total Phosphorus 0.66 mg/L 8M 4500-PB4E 0.05 00 Mitrite-Nitrogen ND mg/L EPA 354.1 0.1 00	0215/RK
Nitrite-Nitrogen ND mg/L EPA 354 1 0:1 00 Kieldah) Nitrogen 2 3 mg/L EPA 351 2 0 1 00	0215/RK
Kieldah) Nitrogen 2.3 mg/T. EDB 351.7 0.1 0.0	0215/TF
TO DEFE STATE OF THE CO. A. S.	0221/TF
	0216/LA
Antimony ND ug/L EPA 200.8 10 00	0221/DA
Argenic ND ug/L BPA 200 8 5 00	0221/DA
Cadmium ND ug/L EPA 200.8 2. 00	0221/DA
	0221/UA
	0221/DA
Lead 34. tg/L EPA 200 6 10 00	0221/DA
Nickel ND ug/L EPA 200.8 20 00	0221/DA
Selenium ND ug/L EPA 200 8 5. 00	
Zinc 160 ug/L EPA 200.8 10 00	0221/DA

ND = None detected at RL (Reporting Limit). RL units same as result.

CC:

E. A. Babcock & Sons Inc.

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Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1862 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #81 DISSOLVED

Site: Description:

URSGWC Delevan

50(8)2

Matrix:

wastewater

Page: 1 of 1 Lab No.: 165635-002

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 1025

Submitted By: Courier

Date: 02/15/00

Time: 1045

Constituent	Result		Method	RL	Date / Analyst
Antimony	ND 1	ug/L	EPA 200.8	10	000221/DA
Arsenic	ND i	ug/L	EPA 200.8	5.	000221/DA
Cadmium	NTD 1	ug/L	EPA 200.8	2.	000221/DA
Total Chromium	ND :	og/L	EPA 200.8	70.	
Copper	37.	ug/L	EPA 200.8	10	000221/DA
Lead	ND 9	ug/L	EPA 200.8		
Nickel	ND	ug/L	EPA 200.8	20	000221/DA
Selenium	ND ND	ug/L	EPA 200.8	5	000221/DA
Zinc	45.	ug/L	EPA 200.8	10	000221/DA

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered prior to metals analysis.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 e-mail: esbsales@aol.com www.babcockdabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.:

DELEVAN

SD(8)2

Site:

Description: Stormwater

Matrix:

wastewater

Page: 1 of 1 Lab No.: L65995-003

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 0725

Submitted By: UPS
Date: 02/23/00

Time: 0915

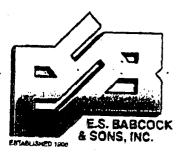
Constituent	Result	Method	RL	Date / Analyst
Total Hardness	47. mg		3.	000229/LT
Calcium	12. mg	/L EPA 200.7	1.	000229/LT
Magnesium	4. πg	/L EPA 200.7	1.	000229/LT
Ammonia-Nitrogen	pm dki	/L SM4500-NH3 H	2,0	000225/KS
Specific Conductance	190 um	no/cm EPA 120.1	1.0	000223/DU
Total Dissolved Solids	140 mg	/L 29A 160.1	10	000225/BW
Total Suspended Solids	110 mg	registration in the contract of	5.	000228/KMS
+Chemical Oxygen Demand	96_ mg		10	000227/ROS
f Oil & Greaße	ND mg		5.	000304/JKB
Total Phosphorus	0.59 mg		0.05	-000225/RK
Kjeldahl Nitrogen	2.0 mg		0.1	000301/BW
Antimony	ND vg		20	000228/LT
Arsenic	ND ug		5.	000228/LT
Cadmium	ND ug	Carriana de la carria de la composición de la composición de la Composición de la carriada de la Composición d	2	000228/LT
Total Chromium	ND ug		20	000228/LT
Copper	23. Ug	ACC TO CONTRACT AND A	10	= 000228/LT
Lead	23. ug		10	000228/LT
Nickel	MD na	and a contract of the second transfer of the contract of the c	26	000228/LT
Selenium	N D ug.		5.	000228/LT
21pc	180 na		10	000228/LT

ND = None detected at RL (Reporting Limit). RL units same as result.

cc:

Inc.

(7(0)2



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 492 Riverside, CA 92502-0432 PH (909) 659-3351 FAX (909) 859-1662 e-mail: esbsales@aoi.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.:

DELEVAN 50(8)2

Site:

Description: Stormw

Stormwater-Dissolved

Matrix:

wastewater

Page: 1 of 1 Lab No.: L65995-007

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 0725

Submitted By: UPS

Date: 02/23/00

Time: 0915

Constituent	Result	Method	RL	Date / Analyst
Antimony		ug/L EPA 200.8	10	000228/LT
Armen1c	MD	ug/L EPA 200.8		000228/LT
Cadmium	ND 1	ug/L EPA 200.8	2.	000228/LT
Total-Chromium	ND	ug/L PPA 200.8	20	000228/17
Copper	11.	ug/L EPA 200.8	10	000228/LT
Lead	ND.	1g/L EPA 200.8	10	000228/11
Nickel		ug/L EPA 200.8	20	000228/LT
Selenium			5.	000228/E/T
Zinc		ug/L BPA 200.8	10	000228/LT

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered for dissolved metals.

cc:

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E. Babcock Agons Inc.



Environmental Laboratory Certification #1156 8100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #82

UREGWC Site:

Federal @ Home 5Description:

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-003

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 0905

Submitted By: Courier

Date: 02/15/00

Time: 1045

Constituent	Reault	Method	RL	Date / Analyst
Total Hardness	54.	mg/L EPA 200.7	3.	000218/LT
Calcium	14.	mg/l EPA 200.7		000218/LT
Magnesium	5.	mg/L EPA 200.7	L.	000218/LT
Ammonia-Nitrogen	0.5	mg/L SM4500-NH3 H	The second secon	
Nitrate-Nitrogen	0.9	mg/L EPA 300.0	0.2	000215/KOS
PH	8.1	units EPA 150.1	1	000215/DU
Total Dissolved Solids	100	mg/L EPA 160.1	10	000218/SF
Total Suspended Solids	270	mg/L EPA 160.2	5.	000218/SL
MBAS	0.11	mg/L EPA 425.1	0.05	000216/CW
Total Dissolved Phosphorus	0.36	mg/L SM 4500-PE	0.05	000215/RK
Total Phosphorus	1.2	mg/L SM 4500-PB4E	0.05	000215/RK
	เก็ก	mg/L EPA 354.1	0.1	000215/18
Nitrite-Nitrogen	2.6	mg/L EPA 351.2	0.1	000221/TF
Kjeldahl Nitrogen		WTO EPA 180.1	0,05	000216/LA
Purbidity			10	000221/DA
Antimony	ND	en en en en en Etale, en en el esta en el esta esta manta en arrección en en en en el fest Mathet Material de	10	000221/DA
Argenic	MD	ug/L EPA 200.8		
Cadmium	ND	ug/L EPA 200.8	Z.	000221/DA
Total Chromium	ND	ug/L EPA 200.8	20	000221/DA
Copper	68.	ug/L EPA 200.8	10	000221/DA
Lead	52,	ug/L EPA 200.8	10	000221/DA
Nickel	ND	ug/L EPA 200.8	20	000221/DA
Selenium	/ ND	ug/L EPA 200.8	5.	000221/DA
Zinc	300	ug/L EPA 200.8	10	000221/DA

ND = None detected at RL (Reporting Limit). RL units same as result.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1682 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

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Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #82 DISSOLVED

Site: URSGWC

Description: Federal @ Home

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-004

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 0905

Submitted By: Courier
Date: 02/15/00
Time: 1045

Constituent	Result	Method	RL	Date / Analyst
Antimony	ND ug		10	000221/DA
Araenic	ND ug	/L EPA 200.8	5.	000221/DA
Cadmium	ND ug	/L EPA 200.8	2.	000221/DA
Total Chromium	MD na	/L BPA 200.8	20	000221/DA
Copper	ND ua	/L EPA 200.8	10	000221/DA
Lead	ยน อน	/L EPA 200.8	10	000221/DA
Nickel	MD rd		20	000221/DA
Selanium	ND ng	/L EPA 200 8	5:	000221/DA
Zinc	20. ug		10	000221/DA

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered prior to metals analysis.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0492 PH (909) 663-3351 FAX (909) 653-1662 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

FEDERAL @ HOME SD(B)3 Client I.D.:

Site:

Description: Stormwater

Matrix:

wastewater

Page: 1 of 1 Lab No.: L65995-002

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 1650

Submitted By: UPS
Date: 02/23/00
Time: 0915

Constituent	Result	Method	RL	Date / Analyst
Total Hardness	36. mg/	L EPA 200.7	3.	000229/LT
Calcium	10. mg/	L EPA 200.7	1.	000229/LT
Magnesium	3. mg/	L EPA 200.7	1.	000229/LT
Ammonia-Nitrogen	ND reg/	L SM4500-NH3 H	D'.1	000225/KS
Specific Conductance		o/cm EPA 120.1	1.0	000223/DU
Total Dissolved Solids	110 mg/	L PPA 160-1	10	000225/BW
Total Suspended Solids	110 mg/	L EPA 160.2	5.	000228/XMS
Chemical Oxygen Demand	78 mg/		10	2 000227/KOS
Oil & Grease	ND mg/		5.	000304/JKB
Total Phosphorus	6.57 mg/		0.05	000225/RE
Kjeldahl Nitrogen	1.9 mg/		0.1	000301/BW
Antimony	ND 49/		18	000228/LT
Arsenic	ND ug/		5.	000228/LT
Cadmium	ND ug/		7	900228/LT
Total Chromium	ND ug/		20	000228/LT
Copper			10	000228/LT
Lead	19. ug/		10	000228/LT
Nickel :	ND vg/	landid der stiller kritiger in der men bestellt det er ett bestellt in det en de stelle der bestellt. Det i 19	20	000228/LT
Selenium	ND ug/	বিবিধান কৰে। বিৰুদ্ধি ৰ পৰি বিধাৰ উল্লেখ্য নিজ্ঞানীয়ে জন্ম কৰিবলৈ এটি বিভাগে বিধাৰ কৰি কৰে। বিৰুদ্ধি বিধাৰ কৰ	5.	000228/LT
%lna	160 ug/		10	060228/17

ND = None detected at RL (Reporting Limit). RL units same as result.

cc:

Inc.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 853-1662 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.:

FEDERAL @ HOME SD (8)3

Site: Description:

Stormwater-Dissolved

Matrix:

wastewater

Page: 1 of 1 Lab No.: L65995-006

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 1650

Submitted By: UPS

Date: 02/23/00

Time: 0915

Constituent	Result	Method	RL	Date / Analyst
Antimony	ND ug/L	EPA 200.8	10	000228/LT
Armenic	MD ug/L	EPA 200.8	5,	000228/LT
Cadmium	ND ug/L	EPA 200.8	2.	000228/LT
Motal Coronium	ND ug/L	EPA 200 8	20	000228/LT
Copper	ND ug/L	EPA 200.8	10	000228/LT
Lead	ND ug/L	EPA 200 8	20	000228/LT
Nickel	ND ug/L	EPA 200.8	20	000228/LT
Selenium		BPA 200 8	5	000228/LT
Zinc	57. ug/L	EPA 200.8	10	000228/LT

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered for dissolved metals.



Environmental Laboratory Certification #1158 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 452 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1862 9-mail: estsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #83

Site: URSGWC

Description: Federal @ 94 55/8)5

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-005

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 1045

Submitted By: Courier

Date: 02/15/00

Time: 1045

Constituent	Result	Method	RL	Date / Analyst
Total Hardness	100 mg/:		3.	000218/LT
Calcium			12.	000218/LT
Magnesium	12. mg/:	L EPA 200.7	1.	000218/LT
Ammonia-Nitrogen	D.4 mg/,	L SM4500-NH3 H	:0:1	000218/KS
Nitrate-Nitrogen	1.1 mg/:	L EPA 300.0	0.2	000215/KOS
	7.5 uni	te era 150.1	1	000215/00
Total Dissolved Sollds	220 ma/	L EPA 160.1	10	000218/SF
Total Suspended Solids	520 mg/	L EPA 160.2	5.	000218/61
MBAS	ND mg/	L EPA 425.1	0,05	000216/CW
Total Dissolved Phosphorus	0.37 mg/		0.05	
Total Phosphorus	0.95 mg/		0.05	000215/RK
Nitrite-Nitrogen	MD mg/	EPA 354 1	0,1	
Kieldahl Nitrogen	2.6 mg/	Methanican paragraphs to the contract to a con-	0.1	000221/TF
Kjeldahl Nitrogen Turbinity	240 NTO			
Antimony	ND ug/		10	000221/DA
Argenic		organism and account to the control of the control		000221/DA
Cadmium	ND ug/		2	000221/DA
Total Chromium	พื้น นั้น		าราช ก ับแก	000221/DA
Copper	43. ug/	alter at de la comité de l'activité à la fortable de la place de la construit de paracelles et l'	10	000221/DA
Lead				000221/DA
Nickel	76 ug/	endedering and interesting for the following and a second school and in the con-	20	the first transfer and the effect of the property of the contract of the contr
	ND ug/1		20 1989 - 4 - W ORLDWAYS	000221/DA
Selenium	ND na\			090351\DY
Zinc	370 ug/1	EPA 200.8	10	000221/DA

ND = None detected at RL (Reporting Limit). RL units same as result.

cc:.

E. Babcock & Sons Inc.

4-19/15



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #83 DISSOLVED

Site: URSGWC

Description: Federal @ 94

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-006

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 1045

Submitted By: Courier
Date: 02/15/00
Time: 1045

Constituent	Result	Method	<u>rt</u>	Date / Analyst
Antimony		J/L EPA 200.8	10	000221/DA
Arsenic	ND us	y/L EPA 200.8	5.	000221/DA
Cadmium	ND ug	7/L EPA 200.8	2.	000221/DA
Total Cironium	ND w	7/L EPA 200.8	20	000221/DA
Copper	ND uc	/L EPA 200.8	10	000221/DA
Lead	NO u	J/L EPA 200.8	10	000221/DA
Nickel	ND u	/L EPA 200.8	20	000221/DA
selenium		/L BPA 200.8	5,	000221/DA
Zinc		/L EPA 200.8	10	000221/DA

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered prior to metals analysis.



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3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

FEDERAL @ 94TH SD(8)5 Client I.D.:

Description: Stormwater

Matrix: wastewater

Page: 1 of 1 Lab No.: L65995-001

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 1330

Submitted By: UPS

Date: 02/23/00

Inc.

Time: 0915

Constituent	Result	Method	RL	Date / Analyst
Total Rardness	63. mg	/L EPA 200.7	3.	000229/LT
Calcium	14, mg	/L EPA 200.7	1.	. 000229/LT
Magnesium	7. m g	/L EPA 200.7	1.	000229/LT
Ammonia-Nitrogen	ND mg	// EM4500-NH3 H	1.0	000225/KS
Specific Conductance	220 um	tho/cm EPA 120.1	1.0	000223/DU
Total Dissolved Solids	100 mg	/L EPA 160:1	30	000225/BW
Total Suspended Solids	280 mg	/L EPA 160.2	5.	000228/KMS
Chemical Oxygen Demand	85. reg	/L EPA 410.4	10	000227/ROS
Oil & Grease	ND mg	/L EPA 1664	5.	000304/JKB
Total Phosphorys	0.50 mg	/L SM 4500-PB42	0:05	000225/RK
Kjeldahl Nitrogen		/L EPA 351.2	0.1	000301/BW
Ant mony		/L 2PA 200 8	10	000228/LT
Arsenic		/L EPA 200.8	5.	000228/LT
Cadmium		/L EPA 200.8	2	- 000228/LT
	ND ug	/L EPA 200.8	20	000228/LT
Total Chromium Copper	27. ug	/L EPA 200.8	10	000228/LT
Lead		/L EPA 200.8	10	000228/LT
Nickel			20	
Selenium		/L EPA 200.8	5.	000228/LT
Zino	inter de tre-ce, ade pero, a los contides bantinos trapecialidades bios billate de referede abstitutivido.	/L EPA 200.8	TO	T4\8520G0

ND = None detected at RL (Reporting Limit). RL units same as result.

cc:

57/(9)5



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 e-mail: esbsales@aol.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.:

FEDERAL @ 94TH

SD(8)5

Site:

Description:

Stormwater-Dissolved

Matrix:

wastewater

Page: 1 of 1 Lab No.: L65995-005

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 1330

Submitted By: UPS

Date: 02/23/00

Time: 0915

Constituent	Result	Method	RL	Date / Analyst
Antimony	ND	ug/L EPA 200.8	10	000228/LT
Argenic	ND	Ng/L EPA 200:8	5,	000228/LT
Cadmium	ND	ug/L EPA 200.8	2.	000228/LT
Total Chromium	ND "	ug/L EPA 200 8	20	000228/UT
Copper	ND	ug/L EPA 200.8	10	000228/LT
Lead	ND .	ug/L EPA 200.8	10	000228/IA
Nickel	ND	ug/L EPA 200.8	20	000228/LT
Selepium		ug/L EPA 200.8	- 5°	000228/LT
Zinc	32.	ug/L EPA 200.8	10	000228/LT

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered for dissolved metals.

cc:

47(0)5

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Environmental Laboratory Certification #1166 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 e-mail: esbsales@aol.com www.babcocklabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: SAMPLE #84

Site: URSGWC

Description: 69th

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-007

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 1055

Submitted By: Courier

Date: 02/15/00 Time: 1045

Constituent	Result	Method	RL	Date / Analyst
Total Hardness	120 mg	g/L EPA 200.7	3.	000218/LT
Calcium	26 mg	J/L BPA 200.7		000218/LT
Magnesium	13. mo	7/L EPA 200.7	1.	000218/LT
Ammonia-Nitrogen	0.3 m	1/L SM4500-NH9 H	0.1	000518\K2
Nitrate-Nitrogen	1. mg	7/L EPA 300.0	0.2	000215/KOB
P4	7.4 ບາ	nits EPA 150.1	1	000215/DU
Total Dissolved Solids	310 mg	J/L EPA 160.1	10	000218/SF
Total Suspended Solids	170 m	J/L EPA 160:2	5.	000218/8L
MBAS	0.11 mg	I/L EPA 425.1	0.05	000216/CW
Total Dissolved Phosphor	ua 0.34 m		0:05	000216/RK
Total Phosphorus		J/L SM 4500-PB4E	0.05	000216/RK
Nitrite-Nitrogen	ND m	J/L EPA 354.1	<u>ው.</u> ግ	000215/TF
Kieldahl Nitrogen	2.0 mg	J/L EPA 351.2	0.1	000221/TF
Kjeldahl Nitrogen Turbidity	58. N	FO BPA 180.1	0.05	00021671A
Antimony	ND uc	y/L EPA 200.8	10	000221/DA
Arsenic		/L EPA 200.8		000221/DA
Cadmium		J/L EPA 200.8	2 -	000221/DA
Total Chromium	ND W	/L EPA 200.8	2015 Act 1	000221/DA
	23. ug	J/L EPA 200.8	10	000221/DA
Copper		/L EPA 200.8	10	000221/DA
Lend		Series in Lander (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1975) (1	20	000221/DA
Nickel		The control of the co		000221/DA
Selenium	in the Color of t	NG A TOP TO THE CONTRACT AND A SECOND ASSESSMENT OF THE TOP TO THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF	10	000221/DA
Zinc	100 u g	g/L EPA 200.8	10	UUUZZI/DM

ND = None detected at RL (Reporting Limit). RL units same as result.

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Inc.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (809) 653-3351 FAX (909) 653-1662 e-mail: esbsales @ aol.com www.babcockiabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

SAMPLE #84 DISSOLVED Client I.D.:

Site:

URSGWC Description: 69th

50(8)6

Matrix: wastewater

Page: 1 of 1 Lab No.: L65635-008

Date Reported: 02/23/00

Collected By:

Date: 02/12/00

Time: 1055

Submitted By: Courier
Date: 02/15/00
Time: 1045

Constituent	Result	Method	RL	Date / Analyst
Antimony	ND ug/I	nem contrator policie (1911 - 1915 M.C. 1900) (1900	10	000221/DA
Arbenic Cadmium	ND ug/I	EPA 200.6	2.	000221/DA
Total Chromium Copper	ND ug/I	EPA 200.8 EPA 200.8	10	000221/DA
Lead Nickel	ND ug/I ND ug/I	. EPA 200.8	20	000221/DA
Selanium Zinc	6. ug/I 20. ug/I		5, 10	000221/DA 000221/DA

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered prior to metals analysis.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 e-mail: esbasies @ aoi.com www.babcockiabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.: 69TH

Site:

Description: Stormwater

Matrix:

wastewater

SD(8)6

Page: 1 of 1 Lab No.: L65995-004

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 1335

Submitted By: UPS

Date: 02/23/00

Time: 0915

Completent	B = m. 1 6	ter shoul	ne	Date /
Constituent	Result	Method	RL	Analyst
Total Hardness	100 mg/L	EPA 200.7	3.	000229/LT
Calcium	24. mg/L	EPA 200.7	1.	000229/LT
Magnesium	11. mg/L	EPA 200.7	1.	000229/LT
Ammonia-Nitrogen	ND mg/L	SM4500-NH3 H	0.1	000225/KS
Specific Conductance	510 umbo	cm EPA 120.1	1.0	000223/DU
Total Dissolved Solids	320 mg/L	ZPA 160.1	10	D00225/BW
Total Suspended Solids	22. mg/L	EPA 160.2	5.	000228/KMS
Chemical Oxygen Demand	36. mg/L	EPA 410.4	2.5	000227/K08
Oil & Grease	ND mg/L	EPA 1664	5.	000304/JKB
Total Phosphorus	0.37 mg/L	SM 4500-PB4E	-0.05	000225/RK
Kjeldahl Nitrogen	1.2 mg/L	EPA 351.2	0.1	000301/BW
Antimony	ND ug/L	RPA 200_B	10	000228/LT
Arsenic	ND ug/L	BPA 200.8	5.	000228/LT
Cadmium	ND ug/L	EPA 200:8	2.	000228/LT
Total Chromium Copper	ND ug/L	EPA 200.8	20	000228/LT
Concer	MD 'U₫/L	EPA 200 8	10	000Z28/DT
Lead	ND ug/L	EPA 200.8	10	000228/LT
Nickel	ND ug/L	EPA 200 8	20	000228/LT
Selenium	8. ug/L	BPA 200.8	5.	000228/LT
Zinc	56. ug/L	BPA 200.8	10	000228/ET

ND - None detected at RL (Reporting Limit). RL units same as result.

cc:

E. Babcook & Sons Inc.



Environmental Laboratory Certification #1156 6100 Quali Valley Court Riverside, CA 92507-0704 P.O. Box 432 Riverside, CA 92502-0432 PH (909) 653-3351 FAX (909) 653-1662 9-mail: esbsales@aol.com www.babcockdabs.com

3117-1 Client:

Calif. Reg. WQCB, San Diego

Diane S. Welch

9771 Claremont Mesa Blvd., Ste A

San Diego, CA 92124-1324

Client I.D.:

69TH

SD(e)6

Site: Description:

Stormwater-Dissolved

Matrix:

wastewater

Page: 1 of 1 Lab No.: 165995-008

Date Reported: 03/08/00

Collected By:

Date: 02/21/00

Time: 1335

Submitted By: UPS

Date: 02/23/00

Time: 0915

Constituent	Result	Method	RL	Date / Analyst
Antimony	ND ug/L	EPA 200.8	10	000228/LT
Ardenic	ND ug/l	EPA 200.8	5	000238/17
Cadmium	ND ug/L	EPA 200.6	2.	000228/LT
Fotal Ciromium	ND ug/L	EBY 500'8	≥0	000228/LT
Copper	ND ug/L	EPA 200.6	10	000228/LT
bead	ND ug/L	EPA 300.8	10	000228/LT
Nickel	ND ug/L	EPA 200.8	20	000228/LT
Selenium :	8 vig/L	EPA 200.8	5.	000228/LT
Zinc	30. ug/L	EPA 200.8	10	000228/LT

ND = None detected at RL (Reporting Limit). RL units same as result. Sample filtered for dissolved metals.

4

cc:

E. Babcock & Sons Inc.

Storm Water Quality Data

					SAMPLE	DATE	·		
STATION	METHOD	PARAMETER	UNITS		2/12/00		2/20/00		3/5/00
		GRAB SAMPLES							
		GENERAL/PHYSICAL/ORGANIC							
SD8		Field pH	UNITS		7.9		8.6		8.3
SD8	EPA 413.2	OIL AND GREASE	MG/L		1.92		2.04		1.48
SD8	SM 2510-B	ELECTRICAL CONDUCTIVITY	UMHOS/CM		186		187		185
		BACTERIOLOGICAL							
SD8	SM 9223	TOTAL COLIFORM	MPN/100ML		500	_	1600	>	1.600
SD8	SM 9221	FECAL COLIFORM	MPN/100ML	-	2.0	>	1600	>	1600 1600
SD8	SM 9230	FECAL STREPTOCOCCI	MPN/100ML		2.0	>	1600	2	1600
	-	•							
		COMPOSITE SAMPLES INORGANIC - WET CHEM							
SD8	SM 4500 NH ₃ -C	AMMONIA AS NITROGEN	MG/L		1.65	<	.1		0.21
SD8	SM 5210-B	BOD	MG/L		7.8		2.54		6.1
SD8	SM 5220-C	CHEMICAL OXYGEN DEMAND	MG/L		41		104		57.0
SD8	SM 4500 P-E	DISSOLVED PHOSPHOROUS	MG/L		0.33		.26		0.22
SD8	SM 4500 P-E	TOTAL PHOSPHORUS	MG/L		0.46		.33		0.6
SD8	SM 4500 NO ₃ -E	NITRATE-N	MG/L		3.22		1.04		3.10
SD8	SM 4500 NO ₂ -B	NITRITE-N	MG/L		0.086	<	.05	<	0.05
SD8	SM 4500 H-B	рН	UNITS		7.52		6.9	·	7.2
SD8	SM 2340-B	TOTAL HARDNESS	MG CaCO3/L		40.9		35.1		45.5
SD8	SM 4500 NH ₃ -C	TOTAL KJELDAHL NITROGEN	MG/L		2.98		3.1		2.36
SD8	SM 2540-C	TOTAL DISSOLVED SOLIDS	MG/L		120		111		140
SD8	SM 2540-D	TOTAL SUSPENDED SOLIDS	MG/L		457		62.0		200
SD8	SM 2130 B	TURBIDITY	NTU		50.0		27.0		38.0
SD8	SM 5540-C	SURFACTANTS (MBAS)	MG/L		0.35		0.22		0.13
		INORGANIC - TOTAL METALS							
SD8	EPA 200.7	ANTIMONY	MG/L	<	0.0015	~	.0015	~	0.0015
SD8	EPA 206.2	ARSENIC	MG/L		0.0013	•	0.007		0.005
SD8	EPA 200.7	CADMIUM	MG/L		0.00025		0.002	<	0.00025
SD8	EPA 200.7	CHROMIUM	MG/L		0.005	<	0.005		0.005
SD8	EPA 200.7	COPPER	MG/L		0.029	•	0.016		0.014
SD8	EPA 200.7	LEAD	MG/L		0.015	<	0.001	<	0.001
SD8	EPA 200.7	NICKEL	MG/L	<	0.005		0.005		0.005
SD8	EPA 270.2	SELENIUM	MG/L	<	0.001	<	0.001		100.0
SD8	EPA 200.7	ZINC	MG/L		0.096		0.05		0.08
		INORGANIC - DISSOLVED METAL	s						
SD8	EPA 200.7	ANTIMONY	MG/L	<	0.0015	<	0.0015	-	0.0015
SD8	EPA 206.2	ARSENIC	MG/L		0.001		0.005		0.0013
SD8	EPA 200.7	CADMIUM	MG/L		0.00025	<	0.00025		0.00025
SD8	EPA 200.7	CHROMIUM	MG/L		0.005		0.005		0.005
SD8	EPA 200.7	COPPER	MG/L		0.005		0.005 -		0.005
SD8	EPA 200.7	LEAD	MG/L		0.001		0.001		0.001
SD8	EPA 200.7	NICKEL	MG/L		0.005		0.005		0.005
SD8	EPA 270.2	SELENIUM	MG/L		0.001		0.001		0.001
SD8	EPA 200.7	ZINC	MG/L		0.019		0.028	,	800.0
		ORGANOPHOSPHATE PESTICIDE	S						
SD8	EPA 8141	DIAZINON	UG/L		0.27*		0.35**		0.20**
SD8	EPA 8141	CHLORPYRIFOS	UG/L	<	0.50	<	0.50		0.20
		s below quantification limit				`			V. V T

^{*} indicates an estimated value that is below quantification limit.

^{**} indicates the percent difference between primary and confirmation columns is greater than 40%.

SD(8)4 - South B	ranch (Calt	rans Monito	ring)
Constituent	Reporting	2/12/00	2/23/00
		Market Park	
Total Metals			Harman Control
Antimony		Established Strategy	ASSESSMENT OF THE PARTY OF THE
		<打造 及海水區	≤1 (2)21(2)3
大型 Zinc		327	81622364
Total Nickel			10.3
Aluminum		17,300	13,800,
BASS TO SECURITOR		24,100 完成線	14,700
Lead		83 (4.37)	25:9J
Manganese		541第6年	235
Cadmium		1.3/2000 (3)	0.7
Copper Copper		33	1.9片地區與第
Thallium		S1 公司的	< 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1
Selenium		<.2	< 2 盆海湖空港
Silver		0.37	<0.2機能
Chromium		23 增加 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	17起种植物组
Mercury Mercury	0.2 ug/l	< 0.2位 地區	0:3 数 % 经
Dissolved Metals		机构的数据的证据	於兩個問題的
计算编码设置 Antimony	1:0:ug/l/// / / / / / / / / / / / / / / / / /	<11 (C) PARTITIONS	< 14 日本
I Zinc	1.0 ug/l	16.8	42 4
Nickel	2.0 ug/l	5) Marine 14 (18)	6.184
Aluminum Aluminum	25.0 ug/l	3,020	7,460
	20.0 ug/l		6,800
Lead		3.6	10.5J
Manganese.		49	77 4 36666
Cadmium		< 0.2 →	0.3
Copper		designation of the second seco	9.6
Thallum			<1.82.752
Selenium			≤2 00000
Silver	0.2.00/(%)	< 0.2	< 0.2 ₩
Chromium	1:0:ug/less/sec		9 77 9 74 14
Mercury	つついて行うない		0.3
Conventionals/	THE WAS THE RESIDENCE OF THE PARTY OF THE PA	Maria Barana and American	STICE STICES
Nutrients		Maria de la compansión de	
Ammonia as N	0.01mg/k-2/2/2	01378	0:08
Nitrate as N			0:4
Nitrite as N			0.05
Dissolved Phosphorus		1 1997 C. Atlanta and Alley Sales Sales A	0.35
Total Phosphorus	0.002 mg/13 day	The Walter State of the State o	0.44
Orthophosphate as P	0.002 mg/	THE R. P. LEWIS CO. LEWIS	0:29 to
WERE AND TUrbidity			310
Total Dissolved Solids			232
Total Suspended		THE COUNTY OF THE PARTY OF THE	416 公司
		540	
Conductivity	tumbo/cm	234	202
	0.1 units	THE PARTY OF THE P	4 38 34 54
		Partition of the partition of the same of	84444
Total Cyanide	U.UUS mg/I	< 0.005	< 0.005
Hydrocarbons	用的数据的 如明显的位		
Oll& Grease		19 - 6 - 3	7.有国际影响。
Microbiological		阿特尔罗斯	La Martiel III
Total Collform	2 MPN/100m	>160,000 金額	>160,000
Fecal Coliforn	2 MPN/100ml	>160,000	160,000
Minerals		的學術學	語語問題
Fluoride	0.02 mg/l	0:18	0:1%的路路
		斯拉名的	2011年
Organics		建筑建筑建筑	西南州南部
2-Chlorophenol	10/ug/l	<10 // // //	<10%。
Phenol	10 ug/l	<10. A	<10
2-Methylphenol	10 ug/l	<10	<10
4-Methylphenol	10 ug/1	<10編集 前導	<10 開新
A Property of the American Street of the Company of	10 ug/h-8/2-19-4		<10
2.4-Dichlorophenol			
2,4-Dichlorophenol		<10	<10点
	10 ug/l	<10	

2.4.6-Trichlorophenol		Take the transfer of the state	A CONTRACT OF THE PARTY OF THE PARTY OF
2.4.6-Trichlorophenol		Septimization of the second	and kind t
TRACTICAL ESTERANDA MARKATAN	10 ug/l	<10 · · · · · · · · · ·	<10 m
#Z;4;5=Tricilloroprierio	10:ug/\#\#	<101	<10%
2:4-Dinitrophenol		<10 // Sec. 19	<10 x x x x x x
4-Nitropheno	10.ug/l	<103.5	<10
1) 4:6-Dinitro-2	10 ug/l	<10%	<10
methylphenol			
Pentachlorophenol		<10) - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	<10
Benzo(a)pyrene	2:ug/l/ ////	<:2	< 2個 数 4 2
Hexachlorobenzene	2/ug/l	<12	< 2
Benzo(a)anthracene	2(ug/l : 1881)	5,2,599,6852(F)	<2@1000;
Chrysene Chrysene		<,2(1)	<2 miles
bis(2-ethylhexyl) phthalate	2 ug/l	<2 	< 2
Pesticides; Herbicides			
23.7.8-TCDD		<1	<1,000,000
Glyphosate		≺5	<5 (4-66)
Thiobencarb		< 0.5	< 0.5
Bromacil		ব	<1 (A)
Diazinon		લ	<10,000
Chlorpyrifos	1:0 ug/l	<1% projections	<1,000
	1.0 ug/l	6.6	3.5
#益母 Bloassay		real and the end.	
Ceriodaphrila dubla NOEC Survival		<u> </u>	100.00%
Tuc Surviva	NA	NA III	
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·····································	NA	NASTREMENT	>100.00%
Survival	NA LANGUE	NA	≥100.00% ≥100.00%
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NOEC Reproduction Tuc Reproduction LC25 Reproduction LC50 Reproduction Rimephales promelas NOEC Surviva			<pre>>100.00% >100.00% 100.00% 1.00 >100.00% >100.00% 100.00%</pre>
NOEC Reproduction Tuc Reproduction LIC25 Reproduction LIC35 Reproduction LIC30 Reproduction Pimephales promelas NOEC Surviva			≥100:00% ≥100:00% 100:00% 1:00 ≥100:00% ≥100:00% 100:00% 100:00%
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NOEC Reproduction Tuc Reproduction Tuc Reproduction IC25 Reproduction IC50 Reproduction Pimephales promelas NOEC Surviva Tuc Surviva LC25 Surviva	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5 5 5 5 5 5 5 5 5 5	<pre>>100:00% >100:00% 100:00% 1:00 >100:00% >100:00% 100:00% 1:00:00% >100:00% >100:00% >100:00%</pre>
NOEC Reproduction Tuc Reproduction Tuc Reproduction IC25 Reproduction IC50 Reproduction Pimephales promelas NOEC Surviva Tuc Surviva LC50 Surviva NOEC Growth			<pre>>100:00% >100:00% 100:00% 1:00 >100:00% >100:00% 100:00% -100:00% >100:00% >100:00%</pre>
NOEC Reproduction Tuc Reproduction Tuc Reproduction IC25 Reproduction IC50 Reproduction Pimephales promelas NOEC Surviva LC25 Surviva LC25 Surviva LC50 Surviva NOEC Growth			<pre>>100:00% >100:00% 100:00% 1:00 >100:00% 100:00% 100:00% 1:00 >100:00% 100:00% 100:00% 100:00% 100:00% 100:00%</pre>
NOEC Reproduction Tuc Reproduction Tuc Reproduction IC25 Reproduction IC50 Reproduction Pimephales promelas NOEC Surviva Tuc Surviva LC50 Surviva NOEC Growth			<pre>>100:00% >100:00% 100:00% 1:00 >100:00% >100:00% 100:00% -100:00% >100:00% >100:00%</pre>

The medians presented above have been evaluated by using a value of $\frac{1}{2}$ the reporting limit for all data reported as equal to or less than the reporting limit_

Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

Client: Woodward Clyde

Project: Woodward 00-01

Type of ELISA: Diazinon

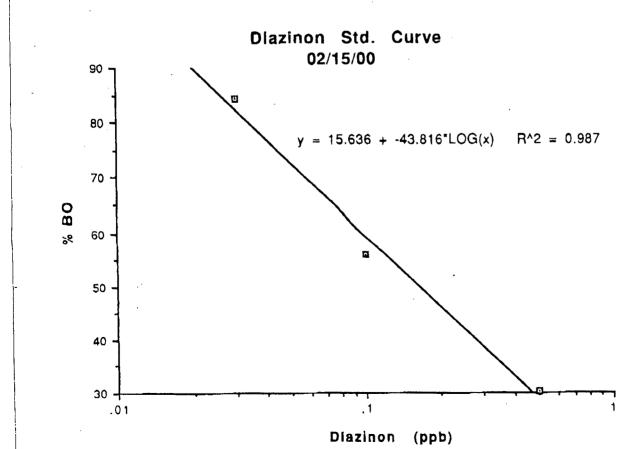
Source: Beacon Analytical

Model: Insite™ Plate Kit

Lot No.: #32849

Date: 2/15/00

STANDARD CURVE	Avg.%Bo	Log ppb	Diazinon (ppb)
0.03 ppb	84.4	-1.5685	0.0270
0.10 ppb	56.0	-0.9203	0.1201
0.50 ppb	30.3	-0.3351	0.4622



Mr 2/15/00

Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

SAMPLE ID	Avg.%Bo	Log ppb	Diazinon (ppb)
E-STD .	40.7	-0.5723	0.2678
SD 8 (4) 2/12/00 @ 100% SD (8) 6	36.3	-0.4716	0.3376
SD 8 2/12/00 @ 100%	39.7	-0.5494	0.2822
SD 5 2/12/00 @ 100% ,	41.4	-0.5889	0.2577
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Environmental Toxicology Consultants

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Date:	2/15/00	0			Веа∞п А	naylitcal	19		
					Diazinon				
Client:	USR Woo	dward Clyde)		Lot #328	49			,
					Exp. 4/01				
Type of EL	ISA:	Diazinon					 .		
A1/A2	Ultrapure	control			B1/B2	E-STD			
A3/A4	0.03 ppb	Diazinon c	alibrator		B3/B4	SD8 (4)	······································		
A5/A6	0.1 ppb [Diazinon cal	librator		B5/B6	SD8		<u> </u>	
A7/A8	0.5 ppb (Diazinon cal	librator_		B7/B8	SD5			
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	O.D.	Avg. O.D.	% CV_	<u>%B</u> o		O.D	Avg. O.D.	% CV	<u>%Bo</u>
<u>A1</u>	1.278	1.247	3.57	100.00	B1	0.505	0.508	0.70	40.71
A 2	1.215	41 -			B2	0.510			
A3	1.102	1.052	6.79	84.36	B3	0.470	0.453	_5.4 <u>7</u>	<u>3</u> 6.30
- A4	1.001			· · · · · · · · · · · · · · · · · · ·	B4	0.435			
_A5	0.680	0.698	3.55	55.96	B5	0.507	0.495	3.43	39.71
A6	0.715				B6	0.483			
A7	0.37 <u>9</u>	0.378	0.37	30,32	B7	0. <u>534</u>	0.517	4.79	41.44
A8	0.377				B8	0.499			
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Study Dire	ector:				Date:	2/20/00			
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Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

Client: Woodward Clyde

Project: Woodward 00-01

Type of ELISA: Chlorpyrifos

Source: Beacon Analytical

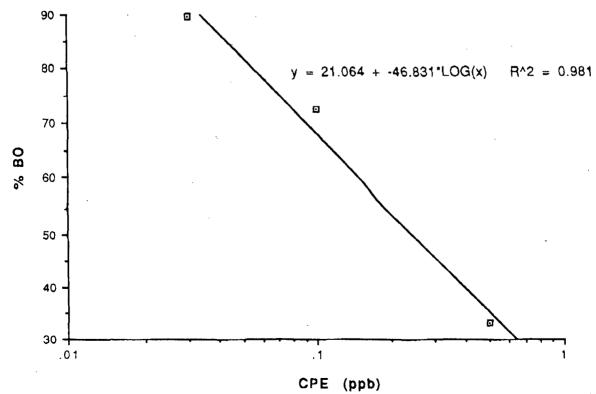
Model: Insite™ Plate Kit

Lot No.: #12499

Date: 2/15/00

STANDARD CURVE	Avg.%Bo	Log ppb	Chlorpyrifos (ppb)
0.03 ppb	89.7	-1.4660	0.0342
0.10 ppb	72.6	-1.0994	0.0795
0.50 ppb	33.2	-0.2585	0.5514

Chlorpyrifos Std. Curve 02/15/00



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Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

SAMPLE ID	Avg.%Bo	Log ppb	Chiorpyrifos (ppb)
E-STD	49.3	-0.6029	0.2495
SD 8 (4) 2/12/00 @ 100% SN 8 6	74.7	-1.1447	0.0717
SD 8 2/12/00 @ 100%	75.1	-1.1532	0.0703
SD 5 2/12/00 @ 100% ,	72.6	-1.0994	0.0795
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Enzyme-L	inked imn	nunosorba	nt Assa	y Record	Control Control		***************************************		Company of the Compan		
Date:	2/15/00	0			Beacon Anaylitcal						
					Chlorpyrifos						
Client:	USR Woo	dward Clyde	9		Lot #12499						
······					Exp. 6/00	Exp. 6/00					
Type of EL	ISA:	Chlorpyrif	os,ethyl	(CPE)					<u></u>		
		- · · 		•							
A1/A2	<u> Ultrapure</u>				B1/B2	E-STD			<u> </u>		
A3/ <u>A4</u>		CPE calibra		······································	B3/B4	_SD8 <u>(4)</u>					
A5/A6		PE calibrat			B5/B6_	SD8					
<u>A</u> 7/A8	0.5 ppb C	CPE calibrat	or		B7/B8	SD5					
		· · · · · · ·									
	O.D.	Avg. O.D.	% CV	 %Во		O.D.	Avg. O.D.	% CV	%Bo		
A 1	1.256	1.250	0.74	100.00	B1	0.596	0.616	4.59	49.30		
A 2	1.243		-		B2	0.636					
АЗ	1.109	1.121	1.51	89.72	В3	0.943	0.933	1.52	74.67		
A4	1.133				84	0.923					
A5	0.900	0.907	1.01	72.55	B5	0.921	0.938	2.56	75.07		
A 6	0.913				B6	0.955					
Α7	0.393	0.415	7.34	33.17	B7	0.878	0.907	4.45	72.55		
A8	0.436				B8	0.935					
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Study Director:				Date:	2/20	00					

Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

Client: SWQCB

Project: Chollas Ck. 00-01

Type of ELISA: Chiorpyrifos (CPE)

Source: Beacon Analytical

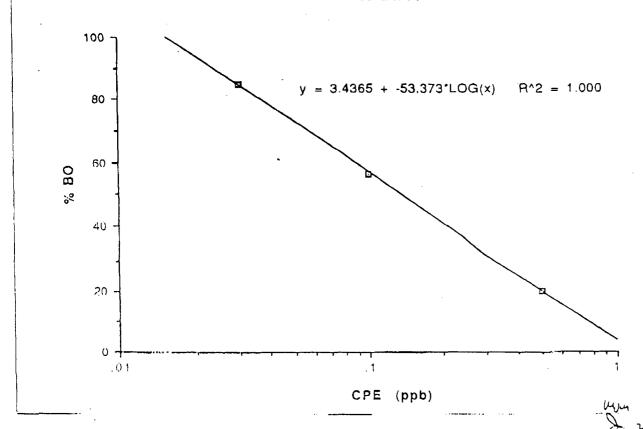
Model: Insite™ Plate Kit

Lot No.: #42849

Date: 2/26/00

STANDARD CURVE	Avg.%Bo	Log ppb	CPE (ppb)
0.03 ppb	85.0	-1.5286	0.0296
0.10 ppb	56.3	-0.9901	0.1023
0.50 ppb	19.7	-0.3053	0.4951

Chlorpyrifos Std Curve 02/26/00



Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

SAMPLE ID	Avg.%Bo	Log ppb	CPE (ppb)	
E-STD	51.8	-0.9063	0.1241	
Chollas Ck. 02/21/00 @ Delevan 403	76.2	-1.3637	0.0433	
Chollas Ck. 02/21/00 Federal @ Home 3783	76.4	-1.3678	0.0429	
Chollas Ck. 02/21/00 @ 69th	81.8	-1.4684	0.0340	
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Environmental Toxicology Consultants

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Date:	2/26/00	0			Beacon	Anaylitcal			
					Chlorpyri			.,	
Client:	SRWQCB		• ••		Lot #20				•
			••		Exp. 7/0	1	· • •		
Type of EL	ISA:	Chlorpyrif	os,ethyl	(CPE)					
		j							
A1/A2	Ultrapure	control			B1/B2	E-STD			
A3/A4	0.03 ppb	CPE calibra	ator		B3/B4	Chollas Cl	k02/21/00 @	Delevan	
A5/A6	0.1 ppb C	PE calibrate	or	-	B5/B6	Chollas Cl	k02/21/00 F	ederal @ F	łome
A7/A8	0.5 ppb C	PE calibrate	or	······································	B7/B8	Chollas Cl	k02/21/00 @	69th	
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	<u>O.D.</u>	Avg. O.D.	% CV	%Bo	10 110	O.D.	Avg. O.D.	% CV	%Во
<u>A1</u>	<u>1.714</u>	1.655	5.04_	100.00	B1	0.860	0.858	0.41	51.81
<u>A</u> 2	1.596				B2	0.855			
A3	1.323	1.407	8.44	85.02	B3	1.284	1.262	2.52	76.22
A4	1.491				B4	1.239	• .		
A.5	0.987	0.932	8.43	56.28	B5	1.264	1.265	0.11	76.44
A6	0.876	·	=		B6	1.266			
A7	0.310	0.327	7.15	19.73	B7	1.246	1.354	11.28	81.81
<u>A8</u>	0.343				B8	1.462			
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Study Director:

Environmental Toxicology Consultants

Enzyme-Linked Immunosorbant Assay (ELISA) Results

Client: SWQCB

Project: Chollas Ck. 00-01

Type of ELISA: Diazinon

Source: Beacon Analytical

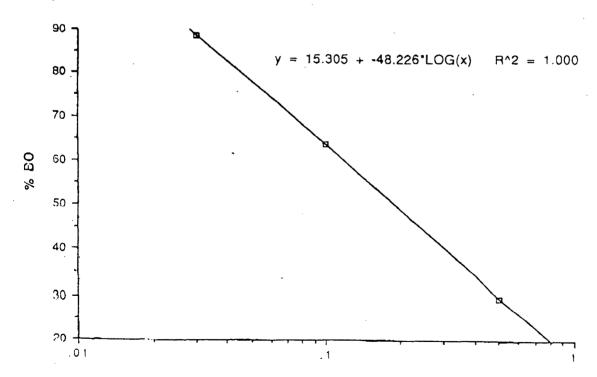
Model: Insite™ Plate Kit

Lot No.: #32849

Date: 02/26/2000

STANDARD CURVE	Avg.%Bo	Log ppb	Diazinon (ppb)	
0.03 ppb	88.7	-1.5217	0.0301	
0.10 ppb	63.6	-1.0021	0.0995	
0.50 ppb	29.8	-0.3001	0.5010	

Diazinon Std Curve



Diazinon (ppb)

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Environmental Toxicology Consultants

Enzyme-Linked immunosorbant Assay (ELISA) Results

SAMPLE ID	Avg.%Bo	Log ppb	Diazinon (ppb)
ESTD	38.5	-0.4810	0.3304
Chollas Ck. 02/21/00 @ Delevan (\sqrt{8}) \big2	86.3	-1.4725	0.0337
Chollas Ck. 02/21/00 Federal @ Home CD(8)?	64.5	-1.0199	0.0955
Chollas Ck. 02/21/00 @ 69th (DA)6	77.7	-1.2936	0.0509
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Environmental Toxicology Consultants

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Date: 2/26/00					Beacon A	Beacon Anaylitcal						
					Diazinon							
Client:	SWOCB				Lot #328	49						
					Exp. 4/0							
Type of El	JSA:	Diazinon		· · · · · · · · · · · · · · · · · · ·								
		, i		and the state of t								
A1/A2	Ultrapure	control	•••		B1/B2 E-STD							
A3/A4	0.03 ppb	Diazinon c	alibrator		B3/B4	Chollas Ci	c 02/21/00 @	Delevan				
A5/A6	_0.1 ppb [Diazinon cal	ibrator		B5/B6	Chollas Cl	k 02/21/00 Fe	deral @ H	оте			
A7/A8	0.5 ppb (Diazinon cal	librator		B7/B8	Chollas Ci	k. 02/21/00 @	691h				
· · · · · · · · · · · · · · · · · · ·	O,D,	Avg. O.D.	% CV	%Во		O.D.	Avg. O.D.	% CV	%Bo			
A1	1.327	1.327	0.05	100.00	B1	0.532	0.511	5.81	38.52			
A2	1.326				B2	0.490						
A3	1.174	1.177	0.30	88,69	В3	1.178	1.145	4.08	86.32			
A4	1.179			166 (16 <u>- 17 - 17 - 17 - 17 - 17 - 17 - 17 - 1</u>	B4	1,112						
A5	0.834	0.844	1.68	63.63	B5	0.874	0.856	3.06	64.49			
. A6	0.854				В6	0.837						
A7	0.399	0.395	1.43	29.78	B7	0.997	1.031	4.60	77.69			
A 8	0.391				B8	1.064	ang mangang mangang mangan sa ka					
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Study Director:

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