San Diego R der 9-9

From: "Hiram Sarabia" <hsarabia@sdbaykeeper.org>
To: <colek@rb9.swrcb.ca.gov>
Date: 7/30/01 5:23PM
Subject: 303(d)

286

Keri,

Thank you for including these materials to the existing list of documents being reviewed for the San Diego River 303(d) evaluation.

Below is a brief summary of independent and in-house lab water quality analyses results for samples taken at four monitoring sites along the San Diego River. Two of the sites listed here (i.e., Forrester Creek and Mission Dam) have been sampled in the past by the Padre Dam Municipal Water District.

The first item (Table 1), shows values of interest from the EnvironMatrix lab report I submitted to you. The fourth column on the table lists the date of the lab report from which the results were taken. I have also attached bacterial data (Table 2) that BayKeeper generated from samples collected from these four sites.

I hope that these data can be of support to existing materials, please contact me if you have any comments or questions, thank you.

Hiram Sarabia
San Diego BayKeeper
Citizen Water Monitoring Program

CC: "Bruce Reznik" <breznik@sdbaykeeper.org>

EnviroMatrix Analytical, Inc.

May 18, 2001

San Diego Baykeepers
Attn.: Hiram Sarabia
2924 Emerson St., Suite 220
San Diego, California 92106

Project Name/No.: None
Laboratory Log No.: 1223-01
Date Received: 05/08/01
Sample Matrix: Two water samples
PO No.: Verbal per Hiram Sarabia

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

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

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

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

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

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

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

for **Janis Columbo**
Vice President/Laboratory Director

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

ANALYSIS RESULTS - TPH EXTENDED RANGE
BY ASTM D2887

CLIENT: SAN DIEGO BAYKEEPERS

PROJECT NAME/No.: NONE
PTAS LOG #: METHOD BLANK
CLIENT SAMPLE ID: N/A
DILUTION FACTOR: 1

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 05/10/01
DATE ANALYZED: 05/10/01
MATRIX: WATER

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
C7 ≤ HC < C8	1.0	ND
C8 ≤ HC < C9	1.0	ND
C9 ≤ HC < C10	1.0	ND
C10 ≤ HC < C11	1.0	ND
C11 ≤ HC < C12	1.0	ND
C12 ≤ HC < C14	1.0	ND
C14 ≤ HC < C16	1.0	ND
C16 ≤ HC < C18	1.0	ND
C18 ≤ HC < C20	1.0	ND
C20 ≤ HC < C24	1.0	ND
C24 ≤ HC < C28	1.0	ND
C28 ≤ HC < C32	1.0	ND
C32 ≤ HC < C36	1.0	ND
C36 ≤ HC < C40	1.0	ND
C40 ≤ HC < C42	1.0	ND
TOTAL HC	15	ND

TPH IDENTIFICATION: NONE

HC = HYDROCARBON
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RANGE	% RECOVERY
1-BROMO-4-FLUOROBENZENE	77-135	112

ANALYSIS RESULTS - TPH EXTENDED RANGE

BY ASTM D2887

CLIENT: SAN DIEGO BAYKEEPERS

PROJECT NAME/No.: NONE
PTAS LOG #: 1223-01-1
CLIENT SAMPLE ID: SDR30
DILUTION FACTOR: 1

DATE SAMPLED: 05/08/01
DATE RECEIVED: 05/08/01
DATE EXTRACTED: 05/10/01
DATE ANALYZED: 05/10/01
MATRIX: WATER

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
C7 ≤ HC < C8	1.0	ND
C8 ≤ HC < C9	1.0	ND
C9 ≤ HC < C10	1.0	ND
C10 ≤ HC < C11	1.0	ND
C11 ≤ HC < C12	1.0	ND
C12 ≤ HC < C14	1.0	ND
C14 ≤ HC < C16	1.0	ND
C16 ≤ HC < C18	1.0	ND
C18 ≤ HC < C20	1.0	ND
C20 ≤ HC < C24	1.0	ND
C24 ≤ HC < C28	1.0	ND
C28 ≤ HC < C32	1.0	ND
C32 ≤ HC < C36	1.0	ND
C36 ≤ HC < C40	1.0	ND
C40 ≤ HC < C42	1.0	ND
TOTAL HC	15	ND

TPH IDENTIFICATION: NONE

HC = HYDROCARBON
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RANGE	% RECOVERY
1-BROMO-4-FLUOROBENZENE	77-135	98

ANALYSIS RESULTS - TPH EXTENDED RANGE
BY ASTM D2887

CLIENT: SAN DIEGO BAYKEEPERS

PROJECT NAME/No.: NONE
PTAS LOG #: 1223-01-2
CLIENT SAMPLE ID: SDR40
DILUTION FACTOR: 1

DATE SAMPLED: 05/08/01
DATE RECEIVED: 05/08/01
DATE EXTRACTED: 05/10/01
DATE ANALYZED: 05/10/01
MATRIX: WATER

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
C7 ≤ HC < C8	1.0	ND
C8 ≤ HC < C9	1.0	ND
C9 ≤ HC < C10	1.0	ND
C10 ≤ HC < C11	1.0	ND
C11 ≤ HC < C12	1.0	ND
C12 ≤ HC < C14	1.0	ND
C14 ≤ HC < C16	1.0	ND
C16 ≤ HC < C18	1.0	ND
C18 ≤ HC < C20	1.0	ND
C20 ≤ HC < C24	1.0	ND
C24 ≤ HC < C28	1.0	ND
C28 ≤ HC < C32	1.0	ND
C32 ≤ HC < C36	1.0	ND
C36 ≤ HC < C40	1.0	ND
C40 ≤ HC < C42	1.0	ND
TOTAL HC	15	ND

TPH IDENTIFICATION: NONE

HC = HYDROCARBON
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RANGE	% RECOVERY
1-BROMO-4-FLUOROBENZENE	77-135	98

ANALYSIS RESULTS
TOTAL COLIFORM BY MTF

CLIENT: SAN DIEGO BAYKEEPERS

PROJECT NAME/No.:	NONE		
ANALYTE:	TOTAL COLIFORM	DATE/TIME RECEIVED:	05/08/01 @ 1655
PREP./ANALYSIS METHODS:	SMEWW 9221 B	DATE/TIME STARTED:	05/08/01 @ 1710
MATRIX:	WASTEWATER	DATE/TIME COMPLETED:	05/12/01 @ 1550

SAMPLE ID	EMA LOG #	DATE/TIME SAMPLED	TEST RESULTS MPN/100 ML
SDR 30	1223-01-1	05/08/01 @ 1550	240
SDR 40	1223-01-2	05/08/01 @ 1505	500

MPN = MOST PROBABLE NUMBER INDEX PER 100 ML SAMPLE

ANALYSIS RESULTS
FECAL COLIFORM BY MTF

CLIENT: SAN DIEGO BAYKEEPERS

PROJECT NAME/No.: NONE

ANALYTE:	FECAL COLIFORM	DATE/TIME RECEIVED:	05/08/01 @ 1655
PREP./ANALYSIS METHODS:	SMEWW 9221 E	DATE/TIME STARTED:	05/08/01 @ 1710
MATRIX:	WATER	DATE/TIME COMPLETED:	05/11/01 @ 1402

SAMPLE ID	EMA LOG #	DATE/TIME SAMPLED	TEST RESULTS MPN/100 ML
SDR 30	1223-01-1	05/08/01 @ 1550	240
SDR 40	1223-01-2	05/08/01 @ 1505	300

MPN = MOST PROBABLE NUMBER INDEX PER 100 ML SAMPLE

ANALYSIS RESULTS

CLIENT: SAN DIEGO BAYKEEPERS

		DATE SAMPLED:	05/08/01
PROJECT NAME/No.: NONE		DATE RECEIVED:	05/08/01
EMA LOG #: 1223-01-1		DATE ANALYZED:	05/08/01
SAMPLE ID: SDR 30		MATRIX:	WATER

ANALYTE	PREP./ANALYSIS METHODS	REPORTING LIMITS	DF	RESULTS	UNITS
NITRATE AS N	SMEWW 4500 NO3 E	0.1	1	1.5	MG/L

DF = DILUTION FACTOR

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

ANALYSIS RESULTS

CLIENT: SAN DIEGO BAYKEEPERS

		DATE SAMPLED:	05/08/01
PROJECT NAME/No.: NONE		DATE RECEIVED:	05/08/01
EMA LOG #: 1223-01-2		DATE ANALYZED:	05/08-09/01
SAMPLE ID: SDR 40		MATRIX:	WATER

ANALYTE	PREP./ANALYSIS METHODS	REPORTING LIMITS	DF	RESULTS	UNITS
pH	EPA 150.1	0.1	1	7.8	pH UNITS
TDS	SMEWW 2540 C	20	1	1,090	MG/L
NITRATE AS N	SMEWW 4500 NO3 E	0.1	1	ND	MG/L

DF = DILUTION FACTOR

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

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

QA/QC REPORT					
METHOD: TPH-ASTM D2887 DATE ANALYZED: 05/10/01 QA/QC SAMPLE: EMA 1223-01-BLANK				ACCEPTABLE LCS/LCSD CRITERIA	ACCEPTABLE RPD CRITERIA
SPIKED ANALYTE	LCS % R	LCSD % R	RPD	%	%
DIESEL	120	123	2	75-125	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY

LCSD % R = LABORATORY CONTROL SAMPLE DUPLICATE PERCENT RECOVERY

RPD = RELATIVE PERCENT DIFFERENCE

QA/QC REPORT			
QA/QC SAMPLE:	NSI 3162		
DATE ANALYZED:	05/08/01		
SPIKED ANALYTE	TV	DV	AR
pH	5.00	4.99	4.90-5.10

QA/QC REPORT			
QA/QC SAMPLE:	ERA 99102		
DATE ANALYZED:	05/09/01		
SPIKED ANALYTE	TV	DV	%R
TDS	263	260	99

QA/QC REPORT						
DATE ANALYZED:	05/08/01				ACCEPTABLE LCS,MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
NITRATE AS N	104	92	92	0	80-120	< 20

TV = TRUE VALUE
DV = DETERMINED VALUE
AR = ACCEPTABLE RANGE
% R = PERCENT RECOVERY
LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY
MS % R = MATRIX SPIKE PERCENT RECOVERY
MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY
RPD = RELATIVE PERCENT DIFFERENCE

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

5.10

MAY 3 '01 16:30

4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

PTAS LOG #: 1223-01

PTAS DATE/TIME STAMP

Client: San Diego Bay Keeper

Address: 2924 Emerson St. #210

San Diego, CA 92106

Attn: Hiam Saxhia Phone: (619) 758-7742

Sampled by: Hiam Saxhia Fax: (619) 758-7740

Billing Address: Same as above

Project: PO #:

REQUESTED ANALYSIS

PTAS ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) #	Container(s) Type*	418.1 (TRPH)	Oil & Grease 413.1___ 413.2___	TPH (8015B) Gas___ Diesel___	TPH-Extended 8015B___ ASTM D2887	602 / 8020 BTXE___ MTBE___	601 / 8010 (Purgeable Halocarbons)	608 / 8081 (Pesticides)	608 / 8082 (PCB's)	624 / 8260 (Volatile Organics)	625 / 8270 (Semi Volatile Organics)	TTLC Metals (CAC Title 22)	STLC Metals (CAC Title 22)	TCLP (RCRA) Metals___ Organics___	Cd Cr Cu Pb Ni Ag Zn	pH EC TSS (TDS)	Total Coliform	Fecal Coliform							
1	SDR50	5/8	3:29	H2O	5	P/G				X												X	X							
2	SDR40	5/8	3:05	H2O	6	V				X												X	X	X						
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														

*Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)

Tamper-Proof Seals Intact: Yes No N/A

Correct Containers: Yes No

Sample(s): Cold Ambient Warm

VOAs w/ZHS: Yes No N/A

All Samples Properly Preserved: Yes No N/A

Disposal: N/C (aqueous) *PTAS (@$5.00/sample) Return Hold

Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day Normal

Comments: Fax Rush

RELINQUISHED BY	DATE/TIME	RECEIVED BY
Signature: Hiam Saxhia	5/8/01	Signature:
Print: Hiam Saxhia	4:55 pm	Print: A. Gann
Company: San Diego Bay Keeper		Company: EMA
Signature:		Signature:
Print:		Print:
Company:		Company:
Signature:		Signature:
Print:		Print:
Company:		Company:

* PTAS reserves the right to return samples that do not match our waste profile. White - PTAS Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

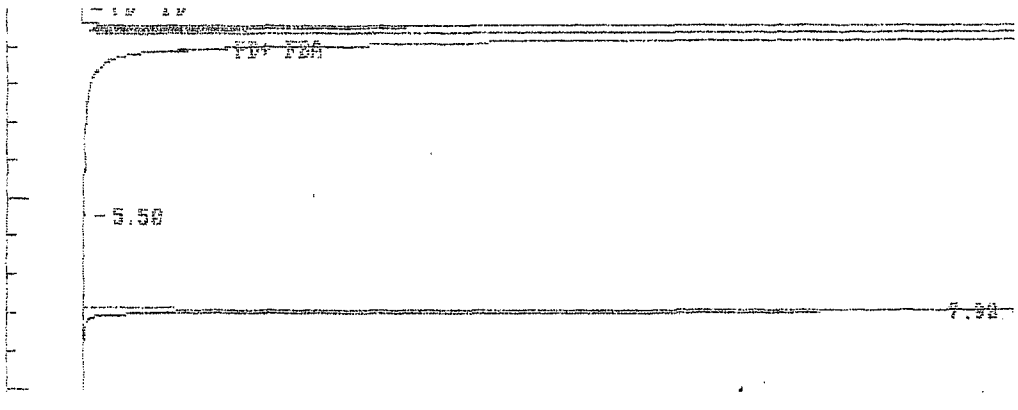
AREA PERCENT REPORT

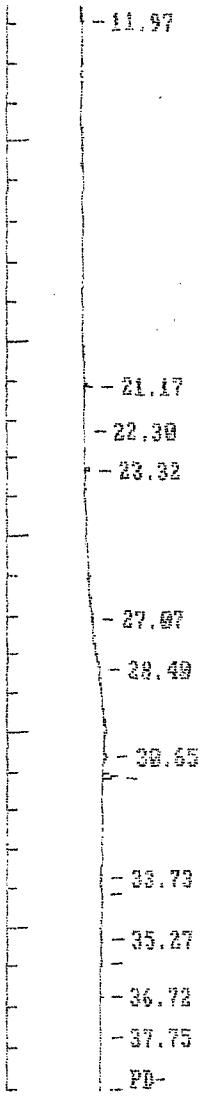
********** 05-13-2001 17:14:51 Version 5.1 **********
* Sample Name: 1223-1C Data File: E:0510E12 *
* Date: 05-10-1901 22:40:01 Method: C:TPHNEW *
* Interface: 5 Cycle#: 12 Operator CK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 1 Threshold: .01 Area Threshold: 50 *
****
Starting Delay: 0.00 Run Time: 39.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
2	5.500	1448	0.1493	1	153	0.157	9.5
5	7.983	921307	95.0026	1	219461	100.000	4.2
8	11.967	2931	0.3022	1	363	0.318	8.1
29	21.167	7113	0.7335	1	1766	0.772	4.0
32	22.300	1321	0.1362	1	109	0.143	12.1
34	23.317	4057	0.4183	1	979	0.440	4.1
49	27.067	2727	0.2812	1	265	0.296	10.3
53	28.400	1352	0.1394	1	87	0.147	15.5
60	30.650	3124	0.3221	1	599	0.339	5.2
61	31.133	13865	1.4297	1	2645	1.505	5.2
66	33.733	1065	0.1098	1	146	0.116	7.3
67	34.167	2096	0.2161	1	103	0.228	20.3
69	35.267	2758	0.2843	1	281	0.299	9.8
70	35.900	1117	0.1152	1	96	0.121	11.6
72	36.717	2140	0.2206	1	91	0.232	23.6
73	37.750	1351	0.1393	1	132	0.147	10.3

Total Area: 969771 Area Reject: 1000 One sample per 1.000 sec.

Data File = E:0510E12.PTS Printed on 05-13-2001 at 17:14:55
Start time: 0.00 min. Stop time: 39.00 min. Offset: 0 mv.
Full Range: 200 millivolts




11.97
21.17
22.30
23.32
27.07
28.49
30.65
33.73
35.27
36.72
37.75
PD

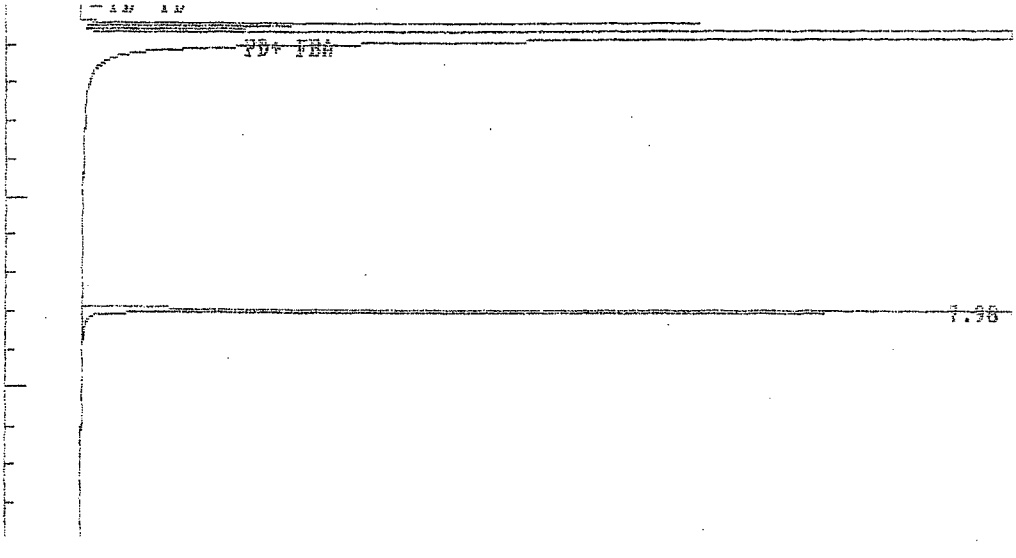
********** AREA PERCENT REPORT **********

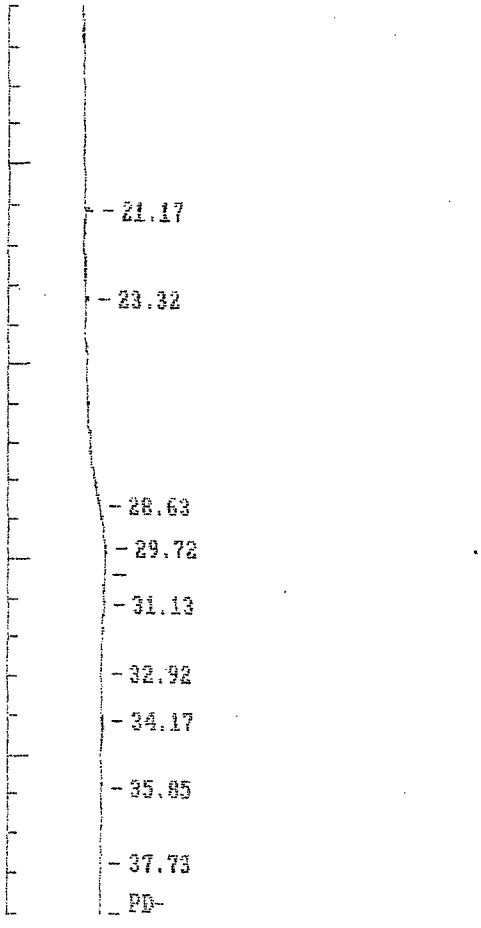
********** 05-13-2001 17:15:07 Version 5.1 **********
* Sample Name: 1223-2C Data File: E:0510E13 *
* Date: 05-10-1901 23:28:10 Method: C:TPHNEW *
* Interface: 5 Cycle#: 13 Operator CK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 1 Threshold: .01 Area Threshold: 50 *
****
Starting Delay: 0.00 Run Time: 39.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	7.983	922251	94.9315	1	217920	100.000	4.2
26	21.167	6075	0.6253	1	1597	0.659	3.8
32	23.317	3140	0.3232	1	784	0.340	4.0
48	28.633	5727	0.5895	1	430	0.621	13.3
50	29.717	14135	1.4549	1	764	1.533	18.5
51	30.450	6042	0.6219	1	278	0.655	21.7
52	31.133	1865	0.1920	1	275	0.202	6.8
54	32.917	3116	0.3207	1	166	0.338	18.8
56	34.167	4350	0.4477	1	225	0.472	19.4
59	35.850	3580	0.3685	1	157	0.388	22.8
61	37.733	1212	0.1248	1	88	0.131	13.8

Total Area: 971491 Area Reject: 1000 One sample per 1.000 sec.

Data File = E:0510E13.PTS Printed on 05-13-2001 at 17:15:10
Start time: 0.00 min. Stop time: 39.00 min. Offset: 0 mv.
Full Range: 200 millivolts




21.17
23.32
28.63
29.72
31.13
32.92
34.17
35.85
37.73
PD

EnviroMatrix Analytical, Inc.

May 22, 2001

San Diego Baykeepers
Attn.: Hiram Sarabia
2924 Emerson St., Suite 220
San Diego, California 92106

Project Name/No.: 303 (d)
Laboratory Log No.: 1239-01
Date Received: 05/09/01
Sample Matrix: Two water samples
PO No.: Verbal per Hiram Sarabia

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

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

Note: EPA 8140 analysis was performed by subcontract laboratory, results to follow.

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

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

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

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

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

Janis Columbo
Vice President/Laboratory Director

4340 Viewridge Avenue, Suite A • San Diego, California 92123 • (858) 560-7717 • Fax (858) 560-7763
Analytical Chemistry Laboratory

ANALYSIS RESULTS - EPA 8150

CHLORINATED HERBICIDES

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)
EMA LOG #: METHOD BLANK
SAMPLE ID: N/A
DILUTION FACTOR: 1

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE EXTRACTED: 05/14/01
DATE ANALYZED: 05/16/01
MATRIX: WATER
SAMPLE VOL./WT.: 1000 ML

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
2,4-D	1.2	ND
2,4-DB	0.91	ND
2,4,5-T	0.20	ND
2,4,5-TP (SILVEX)	0.17	ND
DALAPON	5.8	ND
DICAMBA	0.27	ND
DICHLOROPROP	0.65	ND
DINOSEB	0.07	ND
MCPA	249	ND
MCPP	192	ND

SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR THE ABOVE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
DCAA	42-135	117

ANALYSIS RESULTS - EPA 8150

CHLORINATED HERBICIDES

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)
EMA LOG #: 1239-01-1
SAMPLE ID: SDR10
DILUTION FACTOR: 10 *

DATE SAMPLED: 05/09/01
DATE RECEIVED: 05/09/01
DATE EXTRACTED: 05/14/01
DATE ANALYZED: 05/16/01
MATRIX: WATER
SAMPLE VOL./WT.: 1000 ML

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
2,4-D	12.0	ND
2,4-DB	9.1	ND
2,4,5-T	2.0	ND
2,4,5-TP (SILVEX)	1.7	ND
DALAPON	58	ND
DICAMBA	2.7	ND
DICHLOROPROP	6.5	ND
DINOSEB	0.7	ND
MCPA	2,490	ND
MCPP	1,920	ND

SECOND COLUMN CONFIRMATION PERFORMED ON ALL DETECTED ANALYTES.
ND = ANALYTE NOT DETECTED AT OR THE ABOVE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE SPIKE DATA	ACCEPTANCE CRITERIA	% RECOVERY
DCAA	42-135	72

* NOTE: SAMPLE DILUTION NECESSARY TO REDUCE INTERFERENCES FROM NON-TARGET ANALYTES.

QA/QC REPORT					
METHOD:	EPA 8150-WATER			ACCEPTABLE LCS, MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
DATE ANALYZED:	05/15-16/01				
QA/QC SAMPLE:	EMA 1239-01-BLANK				
SPIKED ANALYTE	LCS % R	MS % R	RPD	%	%
2,4-D	81	91	12	35-124	<30
2,4,5-T	63	56	12	40-139	<30
2,4,5-TP(SILVEX)	50	66	28	52-169	<30

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

ANALYSIS RESULTS - TPH EXTENDED RANGE
BY ASTM D2887

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)	DATE SAMPLED: N/A
PTAS LOG #: METHOD BLANK	DATE RECEIVED: N/A
CLIENT SAMPLE ID: N/A	DATE EXTRACTED: 05/10/01
DILUTION FACTOR: 1	DATE ANALYZED: 05/10/01
	MATRIX: WATER

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
C7 ≤ HC < C8	67	ND
C8 ≤ HC < C9	67	ND
C9 ≤ HC < C10	67	ND
C10 ≤ HC < C11	67	ND
C11 ≤ HC < C12	67	ND
C12 ≤ HC < C14	67	ND
C14 ≤ HC < C16	67	ND
C16 ≤ HC < C18	67	ND
C18 ≤ HC < C20	67	ND
C20 ≤ HC < C24	67	ND
C24 ≤ HC < C28	67	ND
C28 ≤ HC < C32	67	ND
C32 ≤ HC < C36	67	ND
C36 ≤ HC < C40	67	ND
C40 ≤ HC < C42	67	ND
TOTAL HC	67	ND

TPH IDENTIFICATION: NONE

HC = HYDROCARBON
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RANGE	% RECOVERY
1-BROMO-4-FLUOROBENZENE	77-135	112

ANALYSIS RESULTS - TPH EXTENDED RANGE
BY ASTM D2887

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)
PTAS LOG #: 1239-01-1
CLIENT SAMPLE ID: SDR10
DILUTION FACTOR: 1

DATE SAMPLED: 05/09/01
DATE RECEIVED: 05/09/01
DATE EXTRACTED: 05/10/01
DATE ANALYZED: 05/11/01
MATRIX: WATER

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
C7 ≤ HC < C8	67	ND
C8 ≤ HC < C9	67	ND
C9 ≤ HC < C10	67	ND
C10 ≤ HC < C11	67	ND
C11 ≤ HC < C12	67	ND
C12 ≤ HC < C14	67	ND
C14 ≤ HC < C16	67	ND
C16 ≤ HC < C18	67	ND
C18 ≤ HC < C20	67	ND
C20 ≤ HC < C24	67	ND
C24 ≤ HC < C28	67	ND
C28 ≤ HC < C32	67	ND
C32 ≤ HC < C36	67	ND
C36 ≤ HC < C40	67	ND
C40 ≤ HC < C42	67	ND
TOTAL HC	67	ND

TPH IDENTIFICATION: NONE

HC = HYDROCARBON
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RANGE	% RECOVERY
1-BROMO-4-FLUOROBENZENE	77-135	97

ANALYSIS RESULTS - TPH EXTENDED RANGE
BY ASTM D2887

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)	DATE SAMPLED: 05/09/01
PTAS LOG #: 1239-01-2	DATE RECEIVED: 05/09/01
CLIENT SAMPLE ID: SDR20	DATE EXTRACTED: 05/10/01
DILUTION FACTOR: 1	DATE ANALYZED: 05/11/01
	MATRIX: WATER

ANALYTE	REPORTING LIMITS PPB (UG/L)	RESULTS PPB (UG/L)
C7 ≤ HC < C8	67	ND
C8 ≤ HC < C9	67	ND
C9 ≤ HC < C10	67	ND
C10 ≤ HC < C11	67	ND
C11 ≤ HC < C12	67	ND
C12 ≤ HC < C14	67	ND
C14 ≤ HC < C16	67	ND
C16 ≤ HC < C18	67	ND
C18 ≤ HC < C20	67	ND
C20 ≤ HC < C24	67	ND
C24 ≤ HC < C28	67	ND
C28 ≤ HC < C32	67	ND
C32 ≤ HC < C36	67	ND
C36 ≤ HC < C40	67	ND
C40 ≤ HC < C42	67	ND
TOTAL HC	67	ND

TPH IDENTIFICATION: NONE

HC = HYDROCARBON
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

SURROGATE PARAMETER	ACCEPTABLE RANGE	% RECOVERY
1-BROMO-4-FLUOROBENZENE	77-135	91

QA/QC REPORT					
METHOD:	**TPH-ASTM D2887**			**ACCEPTABLE LCS/LCSD CRITERIA**	**ACCEPTABLE RPD CRITERIA**
DATE ANALYZED:	05/10/01				
QA/QC SAMPLE:	EMA 1239-01-BLANK				
SPIKED ANALYTE	**LCS % R**	**LCSD % R**	**RPD**	**%**	**%**
DIESEL	120	123	2	75-125	<30

LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY

LCSD % R = LABORATORY CONTROL SAMPLE DUPLICATE PERCENT RECOVERY

RPD = RELATIVE PERCENT DIFFERENCE

ANALYSIS RESULTS

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)
EMA LOG #: 1239-01-2
SAMPLE ID: SDR20

DATE SAMPLED: 05/09/01
DATE RECEIVED: 05/09/01
DATE DIGESTED: 05/11/01 *
DATE ANALYZED: 05/14/01
MATRIX: WATER

ANALYTE	PREP./ANALYSIS METHODS	REPORTING LIMITS	DF	RESULTS	UNITS
TDS	SMEWW 2540 C	20	1	1,529	MG/L
COPPER	EPA 3020/6020	0.006	1	ND	MG/L
ZINC	EPA 3020/6020	0.015	1	0.038	MG/L

DF = DILUTION FACTOR
ND = ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED REPORTING LIMIT
REPORTING LIMITS AND RESULTS HAVE BEEN ADJUSTED ACCORDINGLY TO ACCOUNT FOR DILUTION FACTOR.

* NOTE: APPLIES TO METALS ONLY.

ANALYSIS RESULTS

CLIENT: SAN DIEGO BAYKEEPER

PROJECT NAME/No.: 303 (D)
EMA LOG #: 1239-01-1
SAMPLE ID: SDR10

DATE SAMPLED: 05/09/01
DATE RECEIVED: 05/09/01
DATE ANALYZED: 05/14/01
MATRIX: WATER

ANALYTE	PREP./ANALYSIS METHODS	REPORTING LIMITS	DF	RESULTS	UNITS
TDS	SMEWW 2540 C	20	1	1,310	MG/L

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

QA/QC REPORT			
QA/QC SAMPLE:	ERA 99102		
DATE ANALYZED:	05/14/01		
SPIKED ANALYTE	TV	DV	%R
TSS	263	270	103

QA/QC REPORT						
DATE ANALYZED:	05/14/01				ACCEPTABLE LCS,MS/MSD CRITERIA	ACCEPTABLE RPD CRITERIA
SPIKED ANALYTE	LCS % R	MS % R	MSD % R	RPD	%	%
COPPER	102	95	97	2	75-125	< 20
ZINC	90	79	78	1	75-125	< 20

TV = TRUE VALUE
DV = DETERMINED VALUE
% R = PERCENT RECOVERY
LCS % R = LABORATORY CONTROL SAMPLE PERCENT RECOVERY
MS % R = MATRIX SPIKE PERCENT RECOVERY
MSD % R = MATRIX SPIKE DUPLICATE PERCENT RECOVERY
RPD = RELATIVE PERCENT DIFFERENCE

CHAIN-OF-CUSTODY RECORD

EnviroMatrix Analytical, Inc.

4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

MAY 9 '01 17:38

PTAS LOG #: 1239-01

PTAS DATE/TIME STAMP

Client: San Diego Boulevard
Address: 2974 Embarcadero St. 220

Attn: Hiram Saibia Phone: 619-758-7745
Sampled by: " " Fax: 619-758-7741
Billing Address: Same as above

Project: 303(d) PO #:

REQUESTED ANALYSIS

PTAS ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) # / Type*	418.1 (TRPH)	Oil & Grease 413.1__ 413.2__	TPH (8015B) Gas__ Diesel__	TPH-Extended 8015B __ ASTM D2887 __	602 / 8020 BTXE__ MTBE__	601 / 8010 (Purgeable Halocarbons)	608 / 8081 (Pesticides)	608 / 8082 (PCB's)	624 / 8260 (Volatile Organics)	625 / 8270 (Semi Volatile Organics)	TTLC Metals (CAC Title 22)	STLC Metals (CAC Title 22)	TCLP (RCRA) Metals__ Organics__	Cd Cr (Cu) Pb Ni Ag (Zn)	pH EC TSS	TDS		EPA 8140	EPA 8150				
1	SDB10	5/9/01	3:30	H_2O	6 PVG			X	X												X		X	X				
2	SDB20	5/9/01	4:30	H_2O	5 PG				X										X		X							
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												

*Container Types: B=Brass Tube, (V=VOA), (G=Glass), (P=Plastic), O=Other (list)

Tamper-Proof Seals Intact: Yes No (N/A) Correct Containers: (Yes) No
Sample(s): Cold (Ambient) Warm VOAs w/ZHS: (Yes) No N/A
All Samples Properly Preserved: (Yes) No N/A (while [illegible])
Disposal: (N/C (aqueous)) *PTAS (@$5.00/sample) Return Hold
Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day (Normal)
Comments:
Metals container / no [illegible]
will call Dan in [illegible] for
[illegible] limits.

RELINQUISHED BY		DATE/TIME	RECEIVED BY	
Signature	[signature]	5/9/01 5:15 pm	Signature	[signature]
Print	Hiram Saibia		Print	[illegible]
Company:	San Diego Baykeeper		Company:	EMA
Signature			Signature	
Print			Print	
Company:			Company:	
Signature			Signature	
Print			Print	
Company:			Company:	

* PTAS reserves the right to return samples that do not match our waste profile. White - PTAS Canary - Accounting Pink - Client (w/Report) Goldenrod - Client (Relinquish Samples)

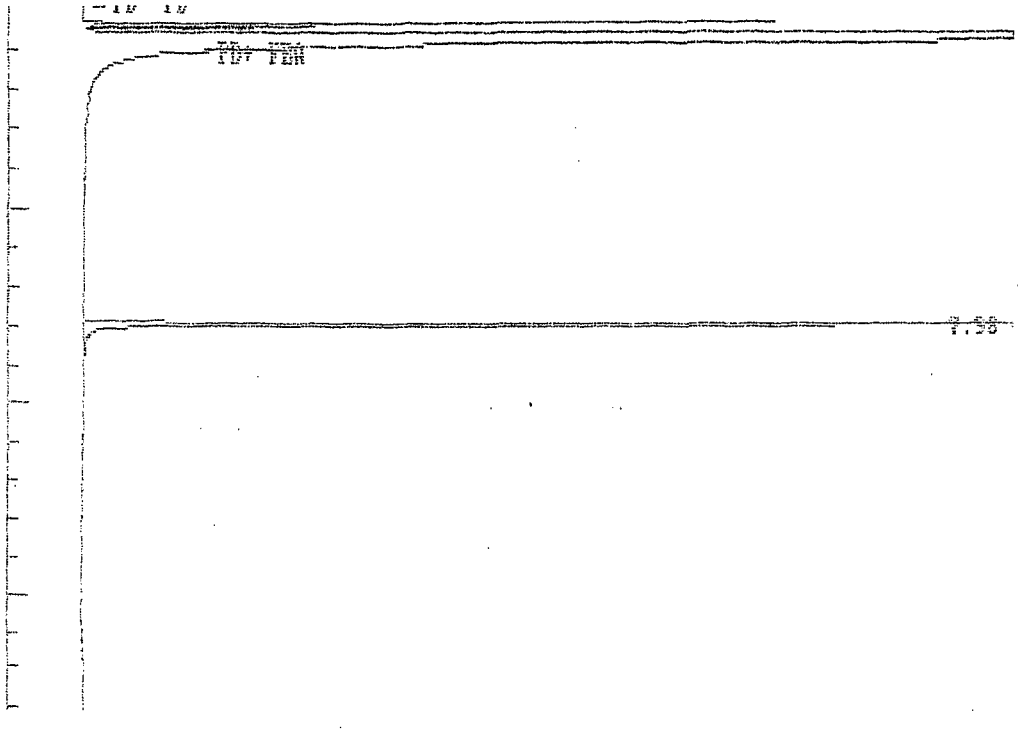
AREA PERCENT REPORT

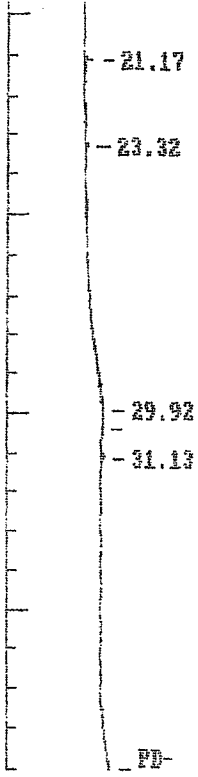
********** 05-13-2001 17:15:21 Version 5.1 **********
* Sample Name: 1239-1A Data File: E:0510E14 *
* Date: 05-11-1901 00:16:11 Method: C:TPHNEW *
* Interface: 5 Cycle#: 14 Operator CK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 1 Threshold: .01 Area Threshold: 50 *
****
Starting Delay: 0.00 Run Time: 39.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
3	7.983	911501	97.6938	1	214132	100.000	4.3
24	21.167	6623	0.7098	1	1587	0.727	4.2
28	23.317	3806	0.4079	1	790	0.417	4.8
43	29.917	6257	0.6706	1	195	0.686	32.1
44	30.400	2336	0.2504	1	92	0.256	25.3
45	31.133	2496	0.2675	1	467	0.274	5.3

Total Area: 933018 Area Reject: 1000 One sample per 1.000 sec.

Data File = E:0510E14.PTS Printed on 05-13-2001 at 17:15:25
Start time: 0.00 min. Stop time: 39.00 min. Offset: 0 mv.
Full Range: 200 millivolts




21.17
23.32
29.92
31.13
PD-

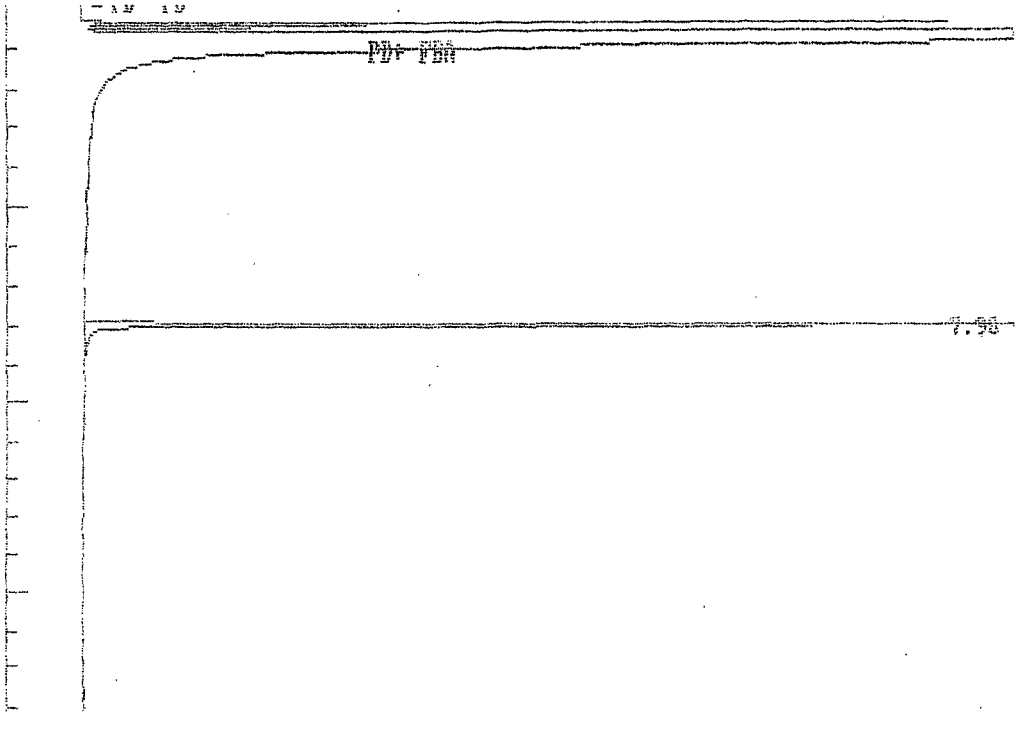
AREA PERCENT REPORT

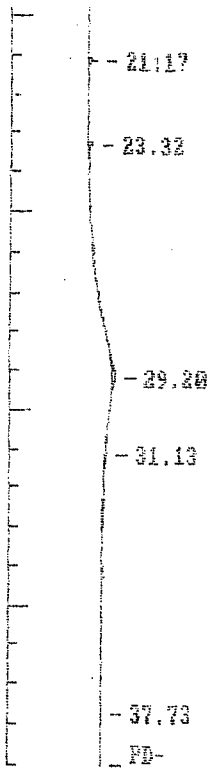
```
********** 05-13-2001 17:15:36 Version 5.1 **********
* Sample Name: 1239-2A                    Data File: E:0510E15      *
* Date: 05-11-1901 01:04:12 Method: C:TPHNEW                        *
* Interface: 5   Cycle#:  15   Operator CK  Channel#: 0   Vial#: N.A.  *
* Starting Peak Width:  1   Threshold: .01  Area Threshold: 50       *
*************************************************************
Starting Delay:    0.00                    Run Time:    39.00
```

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
3	7.983	853687	95.8089	1	199111	100.000	4.3
26	21.167	5911	0.6634	1	1547	0.692	3.8
32	23.317	3770	0.4231	1	824	0.442	4.6
44	29.200	22646	2.5415	1	742	2.653	30.5
46	31.133	2599	0.2917	1	529	0.304	4.9
55	37.733	2419	0.2715	1	94	0.283	25.7

Total Area: 891032 Area Reject: 1000 One sample per 1.000 sec.

Data File = E:0510E15.PTS Printed on 05-13-2001 at 17:15:39
Start time: 0.00 min. Stop time: 39.00 min. Offset: 0 mv.
Full Range: 200 millivolts




21.17
23.32
29.20
31.13
37.73
PD-