

PACIFIC GAS AND ELECTRIC COMPANY  
NUCLEAR PLANT OPERATIONS

ANNUAL SUMMARY REPORT ON  
MONITORING AND REPORTING PROGRAM AT  
DIABLO CANYON POWER PLANT  
DURING 1983

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## OVERVIEW

This annual summary report follows the format used in our routine quarterly monitoring reports.

During 1983 discharges were made from all discharge paths except 001-C, 001-E, 001-G, 001-I, 001-K, and 001-L.

Appendix 1 contains a list of non-routine reports sent to staff during 1983.

## SUMMARY OF MONITORING PROGRAM RESULTS

### A. Monitoring of Plant Influent and Effluent

Appendix 2 contains a summary of the monthly volumes from discharge pathways and both tabular and graphical summaries of the monitoring results previously reported in monthly reports.

### B. Monitoring of Receiving Waters

#### 1. Ecological Studies at Diablo Canyon

Studies by the California Department of Fish and Game terminated June 30, 1983. Other studies in accordance with the Thermal Effects Monitoring Program (Provision D.7a) continue. The annual report of the TEMP program is submitted with this package (Appendix 3). In the future the TEMP report will be forwarded under separate cover from the NPDES reports.

#### 2. Sediment Analysis

Annual sediment samples were collected on October 7, 1983. Results of analysis were presented in the December report.

#### 3. Aerial Photography of Kelp Beds

Aerial photography (infrared film type 2443) of kelp beds in the vicinity of Diablo Canyon were taken March 9, June 3 and October 3, 1983. Color transparencies of the photos were submitted to staff in the respective routine reports.

#### 4. Surface Water Temperature

These measurements are not scheduled for monitoring until after plant commercial operation begins.

#### 5. Stratified Water Temperatures

These measurements are not scheduled for monitoring until after plant commercial operation begins.

#### 6. pH and Dissolved Oxygen of Receiving Waters

Results of pH and Dissolved Oxygen monitoring in the receiving waters were submitted to staff in the routine reports.



7. Incident Light Measurements

Subsurface light measurements are not scheduled for monitoring until after commercial operation begins.

8. Environmental Radiological Monitoring Program

Monthly radiological determinations (gamma isotopic) on seawater and bullkelp, and quarterly samples on black abalone, red abalone, perch, rockfish and mussels continued, and results are contained in the routine reports.

9. In situ Bioassay

Results of Mussel Watch will be reported to the Board in the California Department of Fish and Game periodic report for this program. Two periodic samplings of mussels occurred in 1983, May 5, and October 5. Mussel transplants occurred on May 5, August 18, and December 16, 1983.





APPENDIX 1

Non-Routine Reports



PACIFIC GAS AND ELECTRIC COMPANY  
DEPARTMENT OF NUCLEAR PLANT OPERATIONS  
DIABLO CANYON POWER PLANT

Non-Routine Reports Sent to California Regional Water  
Quality Control Board - Central Coast Region During 1983

Date

Subject

May 9, 1983

Overflow of Leachfield



## APPENDIX 2

### Summaries of Influent and Effluent Monitoring



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SYSTEM: Intake/Drains  
UNIT: Common System  
POINT: Intake Cove

Parameter:	pH	Turbidity	NonFiltRes	Grease/Oil	Cu
High Limit:					
Low Limit:					
Units:		NTU	mg/l	mg/l	ppm
1/ 3/83 09:00	8.10	.78	3.70	3.00	.001
2/ 3/83 09:04	7.80	8.70			.001
3/10/83 08:54	8.10	5.40	23.20		.002
4/ 4/83 09:15	7.70	1.50		3.00	.001
5/ 2/83 17:00	8.10	.68			.002
5/23/83 22:40					.001
6/ 1/83 08:25	7.90	1.50			.002
7/ 1/83 08:45	7.80	1.50	11.10	3.00	.001
8/ 4/83 09:00	7.90	1.40			.002
9/ 1/83 08:30	8.10	.82			.001
10/ 6/83 08:58	8.20	8.80	9.00	3.00	.001
10/19/83 08:15					.001
11/ 2/83 09:21	8.10	1.40			
12/ 5/83 11:10	8.10				.002
12/17/83 17:45		.62			

SYSTEM: Intake/Drains  
UNIT: Common System  
POINT: Intake Cove

Parameter:	Zn	Total Cr	Ni	NH3 as N	Cadmium
High Limit:					
Low Limit:					
Units:	ppm	ppm	ppm	ppm	ppm
1/ 3/83 09:00	.034	.001	.002	.062	
2/ 3/83 09:04	.042	.001	.003		
3/10/83 08:54	.021	.002	.004	.047	
4/ 4/83 09:15	.049	.001	.002	.066	
4/27/83 16:20	.029				
5/ 2/83 17:00	.027	.005	.003		
5/23/83 22:40		.002	.001		
6/ 1/83 08:25	.029	.001	.002	.030	
7/ 1/83 08:45	.015	.001	.001	.058	
8/ 4/83 09:00	.052	.004	.001		
9/ 1/83 08:30	.012		.001		
9/ 7/83 08:40		.003			
10/ 6/83 08:58	.002	.001	.001	.016	.001
10/19/83 08:15	.009		.001		.001
11/ 5/83 10:25		.001		.010	
12/ 5/83 11:10	.004		.005		





SYSTEM:

Intake/Drains

UNIT:

Common System

POINT:

Intake Cove

Parameter:	Lead	Arsenic	Mercury	Silver	Cyanide
High Limit:					
Low Limit:					
Units:	ppm	ppm	ppm	ppm	mg/l
5/23/83 22:40	<	.001			
10/ 6/83 08:58	<	.001	<	.00020	
10/19/83 08:15		.001		<	.00100
					<

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SYSTEM: Outfall  
UNIT: Common System  
POINT: Discharge 001

Parameter:	Cl Residual	pH	Turbidity	NonFil Res	Grease/Oil
High Limit:	.1	9.00			10.0
Low Limit:		6.00			
Units:	mg/l		NTU	mg/l	mg/l
1/ 3/83 09:09		8.20	.78	3.40	< 3.0
2/ 3/83 09:13		7.90	7.20	16.90	< 3.0
3/10/83 09:03		8.10	8.70	16.30	< 3.0
4/ 4/83 09:24		7.70	1.60		< 3.0
5/ 2/83 17:09		8.10	.73		< 3.0
6/ 1/83 08:34		7.90	1.00		< 3.0
7/ 1/83 08:54		7.80	.70	12.20	< 3.0
8/ 4/83 09:09		7.90	.90	13.00	< 3.0
9/ 1/83 08:40		8.10	.51		< 3.0
10/ 6/83 09:07		8.20	7.30	15.40	< 3.0
11/ 2/83 09:32		8.10	1.50	11.10	< 3.0
12/ 5/83 11:15		8.10			
12/17/83 17:49			.44	1.00	< 3.0

SYSTEM: Outfall  
UNIT: Common System  
POINT: Discharge 001

Parameter:	Cu	Zn	Total Cr	Ni	NH3 as N
High Limit:	.020	.080	.010	.080	.100
Low Limit:					
Units:	mg/l	mg/l	mg/l	mg/l	mg/l
1/ 3/83 09:09	< .001	.031	< .001	.003	.020
2/ 3/83 09:13	.001	.027	< .001	.003	.033
3/10/83 09:03	.002	.008	.002	.004	.056
4/ 4/83 09:24	.001	.049	.001	.002	.049
4/27/83 16:29		.037			
5/ 2/83 17:09	.005	.025	.005	.007	< .020
5/23/83 22:49	.004	.028	.002	.002	
6/ 1/83 08:34	.003	.008		.003	.032
7/ 1/83 08:54	< .001	.016	< .001	.001	.043
8/ 4/83 09:09	.001	.034	.007	.001	
8/31/83 05:10					.091
9/ 1/83 08:40	.001	.020		.001	.065
9/ 7/83 08:47			.001		
10/ 6/83 09:07	.002	.006	.003	.001	.020
10/19/83 08:30	.001	.036		.002	
11/ 2/83 09:32	< .001	.025	< .001	.001	.015
12/ 5/83 11:15	.002	.016	< .001	.020	.030



SYSTEM: Outfall  
UNIT: Common System  
POINT: Discharge 001

Parameter:	Boron	Dissolve O	Titanium	Hydrazine	Arsenic
High Limit:					.028
Low Limit:					
Units:	ms/l	ms/l	ms/l	ms/l	ms/l
1/ 3/83 09:09	4.5	8.2		< .004	.019
2/ 3/83 09:13	4.3	8.2		< .002	
3/10/83 09:03	7.0	8.5		.005	
4/ 4/83 09:24	6.5	7.8		< .003	
5/ 2/83 17:09	4.4	8.2		.044	
6/ 1/83 08:34	3.6	8.8		< .004	
7/ 1/83 08:54	2.4	8.4	< .010	< .004	
8/ 4/83 09:09	3.9	7.8		< .010	
8/17/83 18:10				.014	
9/ 1/83 08:40	4.2	8.0		< .004	
10/ 6/83 09:07	1.4	7.7		< .002	
10/19/83 08:30		<	.010	<	.001
11/ 2/83 09:32	6.5	7.9	< .010	< .020	
12/ 5/83 11:15	6.2	8.4		< .001	

SYSTEM: Outfall  
UNIT: Common System  
POINT: Discharge 001

Parameter:	Cadmium	Lead	Mercury	Silver	Cyanide
High Limit:	.015	.008	.00056	.00160	.025
Low Limit:					
Units:	ms/l	ms/l	ms/l	ms/l	ms/l
1/ 3/83 09:09		.001	.00020	.00020	
4/ 7/83 12:00	.001	.002			
5/23/83 22:49		< .001			
7/ 1/83 08:54	< .001	.001	< .00020		
10/ 6/83 09:07	.005	< .001	< .00020		
10/19/83 08:30	< .001	.003		< .00100	< .020

SYSTEM: Outfall  
UNIT: Common System  
POINT: Discharge 001

Parameter:	TCP	PCB	PHEN COMPS	
High Limit:	.00200		.025	
Low Limit:				
Units:	ms/l	ms/l	ms/l	
1/ 3/83 09:09		< .0010		
10/19/83 08:30	< .00075	< .0003	< .005	



SYSTEM: Make Up Demineralizer  
UNIT: Common System  
POINT: Resenerant Discharge 001C

Parameter:	Grease/Oil	NonFiltRes			
High Limit:	15.00	100.00			
Low Limit:					
Units:	ms/l	ms/l			
5/11/83 13:40	7.00	1.00			





SYSTEM:  
UNIT:  
POINT:

Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D  
Common System  
Floor Drain Receiver

Parameter:	Li	Boron	N2H4		
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM		
1/18/83 08:15	.002	3.80	.064		
1/29/83 03:05	.002	425.00	.010		
2/ 8/83 08:45	.004	250.00	.005		
2/22/83 08:25	.003	70.00	.005		
2/27/83 08:23	.004	35.00	.005		
3/ 9/83 21:55	.011	76.00	.003		
3/19/83 11:15	.002	20.00	.098		
3/27/83 07:30	.008	45.00	.030		
4/ 3/83 07:25	.003	70.00	.020		
4/ 8/83 08:40	.002	34.00	.300		
4/13/83 16:30	.004	10.00	.066		
4/17/83 07:10	.003	20.00	.011		
4/21/83 08:20	.004	10.00	.015		
4/26/83 07:15	.005	17.00	.016		
5/ 4/83 22:00	.003	34.00	.004		
5/ 9/83 20:32	.003	44.00	.002		
5/12/83 18:50	.005	45.00	.008		
5/20/83 08:10	.001	64.00	.004		
5/28/83 03:30	.005	18.00	.005		
6/ 9/83 10:20		68.00	.004		
6/14/83 21:15	.005	16.00	.065		
6/24/83 08:20	.010	1.00	.024		
7/ 2/83 06:15	.004	4.00	.800		
7/ 8/83 10:05	.001	.53	.180		
7/ 9/83 21:30	.003	137.00	.085		
7/16/83 00:50	.001	1,900.00	.140		
7/19/83 19:00	.003	56.00	.180		
7/22/83 08:05	.001	75.00	.010		
7/23/83 21:00	.003	10.00	.042		
7/24/83 18:00	.005	10.00	.040		
7/27/83 08:40	.005	10.00	.019		



SYSTEM: Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D  
 UNIT: Common System  
 POINT: Floor Drain Receiver

Parameter:	Li	Boron	N2H4		
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM		
8/ 1/83 13:30	.020	115.00	.040		
8/ 2/83 02:15	.009	5.00	7.200		
8/ 5/83 06:40	.608	10.00	6.200		
8/ 8/83 06:05	.493	15.00	3.200		
8/10/83 02:15	.565	36.00	.500		
8/12/83 03:15	.458	11.00	.150		
8/14/83 20:40	.364	6.00	.075		
8/17/83 12:40	.234	4.20	.300		
8/19/83 00:45	.114	7.00	.022		
8/23/83 00:45	.301	3.00 <	1.000		
8/29/83 03:30	.247	5.50	.035		
9/ 6/83 23:20	.165	15.00 <	1.000		
9/ 8/83 18:50	.039	9.60	.170		
9/10/83 14:55	.007	4.40	.010		
9/13/83 08:20	.011	21.00 <	.002		
9/16/83 09:00	.009	12.00 <	.002		
9/23/83 05:30	.016	575.00	14.000		
9/27/83 05:15	.010	185.00 <	1.000		
9/30/83 05:05	.019	2,440.00	9.000		
10/ 1/83 15:45 <	.001	860.00 <	.003		
10/ 6/83 13:00	.009	135.00	20.000		
10/ 9/83 14:50	.007	28.00	4.000		
10/10/83 04:14 <	.004	2.00	12.000		
10/18/83 21:00 <	.004	240.00	.400		
10/31/83 08:30	.005	.40	.550		
11/ 7/83 08:58 <	.001	120.00	.210		
11/ 9/83 03:29	.005	1,000.00	.085		
11/10/83 12:30	.003	1,090.00	.220		
11/14/83 12:45	.002	800.00	.054		
11/21/83 09:20	.006	182.00	1.400		
11/27/83 10:20	.004	50.00	.850		
12/ 7/83 17:03	.003	92.00	.110		
12/21/83 09:35	.037	400.00	.420		
12/27/83 06:30	.011	32.00	13.000		



SYSTEM: Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D  
 UNIT: Common System  
 POINT: Equipment Drain Receiver

Parameter:	Li	Boron	N2H4		
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM		
2/10/83 11:10	.011	315.00	<	.002	
2/25/83 12:35	.007	2.00		.005	
2/27/83 08:28	.004	550.00	<	.004	
3/25/83 10:05	.004	302.00	<	.002	
4/ 3/83 08:20	<.001	940.00		.014	
4/26/83 10:10	.003	630.00		.012	
6/11/83 07:45	<.003	318.00	<	.004	
7/17/83 19:45	.003	1,030.00		.094	
7/19/83 01:10	.001	430.00		.063	
7/21/83 05:10	.004	90.00		.040	
7/22/83 08:10	<.001	73.00		.040	
7/23/83 10:00	.002	10.00		.025	
7/30/83 15:30	.003	1.20		.062	
8/ 2/83 02:15	.008	5.00		.210	
8/14/83 01:30	.006	7.00		.060	
8/24/83 10:17	.290	5.00		.028	
8/25/83 05:30	.147	1.00		.010	
9/ 2/83 08:52	.157	91.00		.003	
9/ 8/83 09:37	.060	280.00		.025	
9/ 9/83 19:05	.048	31.00	<	.010	
9/12/83 06:45	.017	11.80		.019	
9/23/83 23:40	.010	79.00		.023	
10/ 2/83 10:30	.013	5,650.00		3.400	
10/14/83 04:14	.005	950.00		.100	
10/28/83 08:30	.005	2.00		18.000	
11/ 7/83 10:10	.011	840.00		.008	
11/ 8/83 16:25	.011	800.00		.130	
11/10/83 21:15	.007	545.00		.490	
11/14/83 12:50	.002	1,170.00		.120	
11/26/83 19:06	<.005	1,900.00		.010	
12/ 5/83 10:20	.007	1,370.00	<	.001	
12/22/83 10:28	.528	19.00		.004	



SYSTEM:

Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D

UNIT:

Common System

POINT:

Chem Drain Tank

Parameter:	Li	Boron	N2H4		
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM		
1/ 5/83 09:00	.003	100.00	.005		
1/20/83 08:35	.002	98.00	.003		
1/28/83 02:35	.006	16.00	.110		
2/ 9/83 08:50	.005	165.00	.110		
2/23/83 17:22	.001	50.00	.150		
2/27/83 06:10	.006	20.00	.010		
3/ 9/83 21:41	.003	63.00	.640		
3/11/83 18:35	.005	7.00	.003		
3/24/83 04:50	.006	70.00	.026		
3/31/83 13:25	.006	34.00	.150		
4/ 8/83 08:50	.005	27.00	6.500		
4/16/83 10:33	.006		11.200		
4/18/83 18:00	.010	42.00	2.200		
4/28/83 08:50	.012	58.00	.022		
5/12/83 14:24	.006	32.00	.006		
5/18/83 08:15	.009	21.00	.023		
6/ 2/83 11:05	.011	.50	.004		
6/13/83 21:30	.005	6.00	.054		
7/ 5/83 12:50	.009	25.00	.060		
7/19/83 19:01	.004	22.00	.026		
7/31/83 08:20	.005	1.20	.095		
8/ 9/83 10:30	2.367	36.00	148.000		
8/17/83 12:35	.036	4.00	16.800		
8/26/83 03:10	.012	1.00	.006		
9/ 8/83 01:20	.181	116.00	3.500		
9/14/83 02:30	.016	9.30	.058		
9/26/83 11:10	.025	6.50	710.000		
10/ 5/83 20:24	.006	22.00	.450		
10/11/83 19:05	.007	190.00	26.000		
10/24/83 02:12	.006	6.00	13.000		
11/ 7/83 09:00	.001	98.00	.540		
11/14/83 11:30	.002	970.00	.210		
11/27/83 13:15	.013	170.00	.420		
12/ 1/83 17:25	.005	275.00	.081		
12/ 7/83 09:50	.648	160.00	.004		
12/10/83 11:00	.064	230.00	22.000		
12/16/83 08:35	.261	250.00	.330		
12/22/83 05:45	.085	1,640.00	70.000		
12/30/83 22:30	.059	200.00	1.040		





SYSTEM: Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D  
 UNIT: Common System  
 POINT: Laundry/Hot Shower Tank

Parameter:	Li	Boron	N2H4		
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM		
1/ 4/83 08:30	.005	.08	<	.004	
1/ 7/83 08:40	.009	2.30		.560	
1/12/83 10:00	.005	<	.50	.010	
1/20/83 08:33	.002	5.00	<	.003	
2/25/83 03:30	.007	2.00		.005	
5/15/83 15:13	.006	<	1.00	.044	
7/ 1/83 19:20	.004	2.00	<	.004	
10/26/83 06:40	.004	1.00		.028	

SYSTEM: Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D  
 UNIT: Common System  
 POINT: Quarterly LRW Composite (001D)

Parameter:	Pb	Zn	Cr	Cd	Ni	
High Limit:						
Low Limit:						
Units:	PPM	PPM	PPM	PPM	PPM	
1/ 4/83 00:00	.013	.538		.006	.003	.019
4/ 4/83 00:00	.054	.954		.063	.002	.036
7/ 4/83 00:00	.046	.494		.086	.008	.079
10/ 4/83 00:00	.007	.672		.161	.002	.018

SYSTEM: Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D  
 UNIT: Common System  
 POINT: Quarterly LRW Composite (001D)

Parameter:	Cu	Hg	As		
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM		
1/ 4/83 00:00	.013	.005	.008		
4/ 4/83 00:00	.024	.020	.013		
7/ 4/83 00:00	.047	.002	.017		
10/ 4/83 00:00	.030	<	.001	<	



SYSTEM: Waste Pond and O.W.S.-Turbine Bld. Sump 001F  
 UNIT: Common System  
 POINT: O.W.S./Turb. Bld. Sump 001F

Parameter:	Cu	Fe	NonFiltRes	Grease/Oil	Cd
High Limit:	1.000	1.000	30.00	15.00	
Low Limit:					
Units:	mg/l	mg/l	mg/l	mg/l	mg/l
1/ 5/83 17:48			6.00		
1/27/83 12:00			10.00	< 3.00	
2/ 7/83 18:57			8.00	< 3.00	
2/ 8/83 00:00	.016				.001
4/ 1/83 00:00	.009		7.00	9.00	.001
4/12/83 12:00			8.00	< 3.00	
4/20/83 12:00			18.00	< 3.00	
5/ 3/83 12:00			4.00	< 3.00	
6/10/83 10:30				4.00	
6/10/83 20:20			21.00	5.00	
6/14/83 17:30				4.00	
6/22/83 22:10				4.00	
7/ 4/83 00:00	.057				.009
7/ 8/83 18:30			36.00	8.00	008
7/11/83 08:40				4.00	
7/13/83 03:15			8.00		
7/30/83 12:00			<	3.00	
7/31/83 00:00			13.00		
8/ 4/83 13:00			55.00	35.00	008
8/ 5/83 12:00			54.00	22.00	008
8/ 9/83 18:00			21.00	10.00	
8/ 9/83 23:00			3.00		
8/15/83 08:30			18.00	5.00	
8/16/83 04:40				7.00	
8/17/83 14:50			4.00		
8/17/83 18:10			8.00		
8/25/83 00:00				12.00	
8/26/83 09:00			9.00	< 3.00	
8/30/83 08:15			26.00	31.00	008
8/30/83 12:30			20.00	22.00	008
8/31/83 03:30			<	3.00	
9/ 1/83 09:00			16.00	4.00	
9/ 9/83 08:30			12.00	< 3.00	
9/15/83 18:30			15.00	4.00	
10/ 4/83 00:00	.015				.009
10/26/83 08:10			14.00	< 3.00	
11/23/83 16:45			10.00	< 3.00	
12/ 9/83 10:25			< 3.00	5.00	



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SYSTEM:  
UNIT:  
POINT:

Condensate/Seawater Evap. Demin. Regenerant(001H)  
Common System  
Hi Conductivity Tank

Parameter:	PH	SP. Cond.	NFR	G & O
High Limit:			30.0	15.0
Low Limit:				
Units:		umhos/cm	mg/l	mg/l
2/19/83 13:00	7.60	150	9.0	
2/21/83 14:00	8.00	14,000	15.0	
2/22/83 01:20	7.90	15,000	20.0	
2/24/83 09:10	7.50	15,600	24.0	
2/25/83 22:46	8.00	11,350		
2/27/83 03:00	8.00	14,100		
2/28/83 01:10	8.00	14,500		
3/ 1/83 08:20	8.40	17,000		
3/ 3/83 10:45	7.50	17,400	21.0	
3/ 4/83 13:10	9.60	5,000		
3/22/83 13:00	7.40	2,100		
4/ 7/83 15:25	6.60	11,250	4.0 <	3.0
4/ 8/83 23:18	7.10	17,000		
4/28/83 17:15	6.50	2,000		
5/ 2/83 22:50	7.00	16,700		
5/ 3/83 17:05	9.40	5,300		
5/ 4/83 07:30	6.70	2,600		
5/ 5/83 14:00	10.00	17,200		
5/ 6/83 04:25	7.60	6,700		
5/ 6/83 23:10	7.50	2,500	3.0	
5/ 7/83 17:05	7.60	1,150		
5/ 8/83 21:30	9.40	16,400		
5/10/83 07:00	9.50	4,200		
5/10/83 17:45	8.30	5,300		
5/11/83 18:31	10.30	1,300		
5/12/83 03:10	9.70	550		
5/12/83 21:30	9.80	10,450		
5/17/83 14:34	9.20	11,580		
5/20/83 15:40	6.90	20,000		
6/ 1/83 08:40	10.90	20,000		
6/ 9/83 23:30	10.10	18,000	13.0	
7/11/83 18:47	3.70	29 <	1.0	
7/13/83 03:15	5.00	265 <	1.0 <	3.0
7/15/83 01:15	8.80	15,600		
7/15/83 23:32	7.10	8,000		
7/16/83 17:50	6.70	5,340		
7/20/83 05:40	8.30	16,600		
7/25/83 16:45	8.30	16,000		
7/26/83 20:15	8.70	15,500		
7/28/83 08:35	8.60	17,000		
8/22/83 08:10	8.70	6,700	38.0 <	3.0
9/27/83 08:19	8.10	1,710	18.0 <	3.0
10/ 6/83 00:00	7.40	16,000		
10/ 7/83 00:00			8.2 <	3.0
10/ 8/83 20:54	7.60	17,600		
12/ 1/83 00:00	7.70	11,200	25.0 <	3.0
12/28/83 13:15	7.70	13,980		

005



SYSTEM: Waste Pond and O.W.S.-Turbine Bld. Sump 001F  
 UNIT: Common System  
 POINT: O.W.S./Turb. Bld. Sump 001F Composite

Parameter:	Cr	Zn	Pb	Hg	Ni
High Limit:					
Low Limit:					
Units:	mg/l	mg/l	mg/l	mg/l	mg/l
2/ 8/83 00:00	<.001	.056	.032	<.00010	.003
4/ 1/83 00:00	.002	.061	.028	.00400	.022
7/ 4/83 00:00	.073	.250	.087	<.00100	.084
10/ 4/83 00:00	.014	.064	.007	<.00020	.050

SYSTEM: Waste Pond and O.W.S.-Turbine Bld. Sump 001F  
 UNIT: Common System  
 POINT: O.W.S./Turb. Bld. Sump 001F Composite

Parameter:	As				
High Limit:					
Low Limit:					
Units:	mg/l				
2/ 8/83 00:00	.000				
4/ 1/83 00:00	<.001				
7/ 4/83 00:00	.002				
10/ 4/83 00:00	.001				





SYSTEM: Condensate/Seawater Evap. Demin. Regenerant(001H)  
 UNIT: Common System  
 POINT: DISCHARGE 001H COMP.ANALYSIS

Parameter:	Cd	Cr	Cu	Pb	Hg
High Limit:					
Low Limit:					
Units:	PPM	PPM	PPM	PPM	PPM
4/ 1/83 00:00	.018	.100	.056	.152	.00100
7/ 4/83 00:00	.020	.109	.048	.135	.00500
10/ 4/83 00:00	.011	.022	.016	.051	.00020

SYSTEM: Condensate/Seawater Evap. Demin. Regenerant(001H)  
 UNIT: Common System  
 POINT: DISCHARGE 001H COMP.ANALYSIS

Parameter:	Ni	As	Zn	
High Limit:				
Low Limit:				
Units:	PPM	PPM	PPM	
4/ 1/83 00:00	.132	.00300	.049	
7/ 4/83 00:00	.100	.00200	.090	
10/ 4/83 00:00	.105	.00050	.120	



SYSTEM:  
UNIT:  
POINT:

Condensate/Seawater Evap. Demin. Regenerant(001H)  
Common System  
Low Conductivity Tank

Parameter:	PH	SP. Cond.	NFR	G & O
High Limit:			30.0	15.0
Low Limit:				
Units:		umhos/cm	ms/l	ms/l
1/21/83 09:30	6.80	2.42	1.0	3.0
3/ 4/83 07:00	10.00	60.00		
5/23/83 14:30	2.10	2,590.00		



SYSTEM: Outfall  
UNIT: Common System  
POINT: Cond.PP Overboard DISCH 001J

Parameter:	NFR	G&O			
High Limit:	30.0	15.0			
Low Limit:					
Units:	mg/l	mg/l			
12/15/83 16:30	4.0	3.0			



SYSTEM: Intake/Drains  
UNIT: Common System  
POINT: Intake Building Floor Drain 002

Parameter:	Grease&Oil				
High Limit:	15.0				
Low Limit:					
Units:	mg/l				
1/20/83 12:00	< 3.0				
4/12/83 12:00	< 3.0				
7/14/83 15:00	< 3.0				
10/20/83 09:00	< 3.0				





SYSTEM: Intake/Drains  
 UNIT: Common System  
 POINT: Yard Storm Drains 005

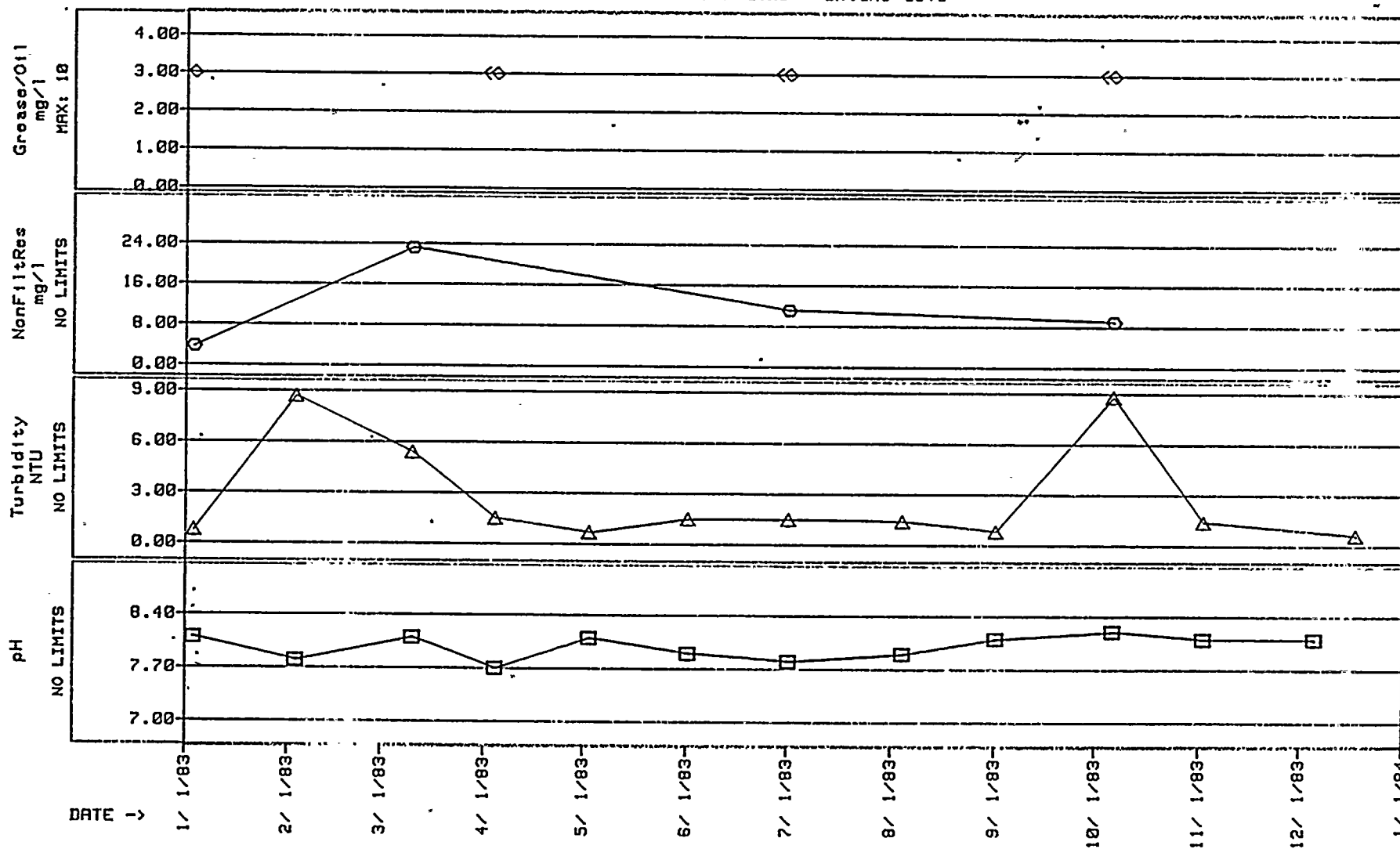
Parameter:	Grease/Oil	TCP	PCB		
High Limit:	5.00				
Low Limit:					
Units:	ms/l	ms/l	ms/l		
1/21/83 20:10	< 3.00				
4/19/83 14:30	< 3.00				
8/19/83 04:30	5.00				
9/30/83 12:15	< 3.00	< .00105	< .00030		
10/31/83 20:30	< 3.00				
11/23/83 20:15	< 3.00				
12/ 9/83 08:45		< .00060	< .00030		



# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Intake/Drains - Intake Cove

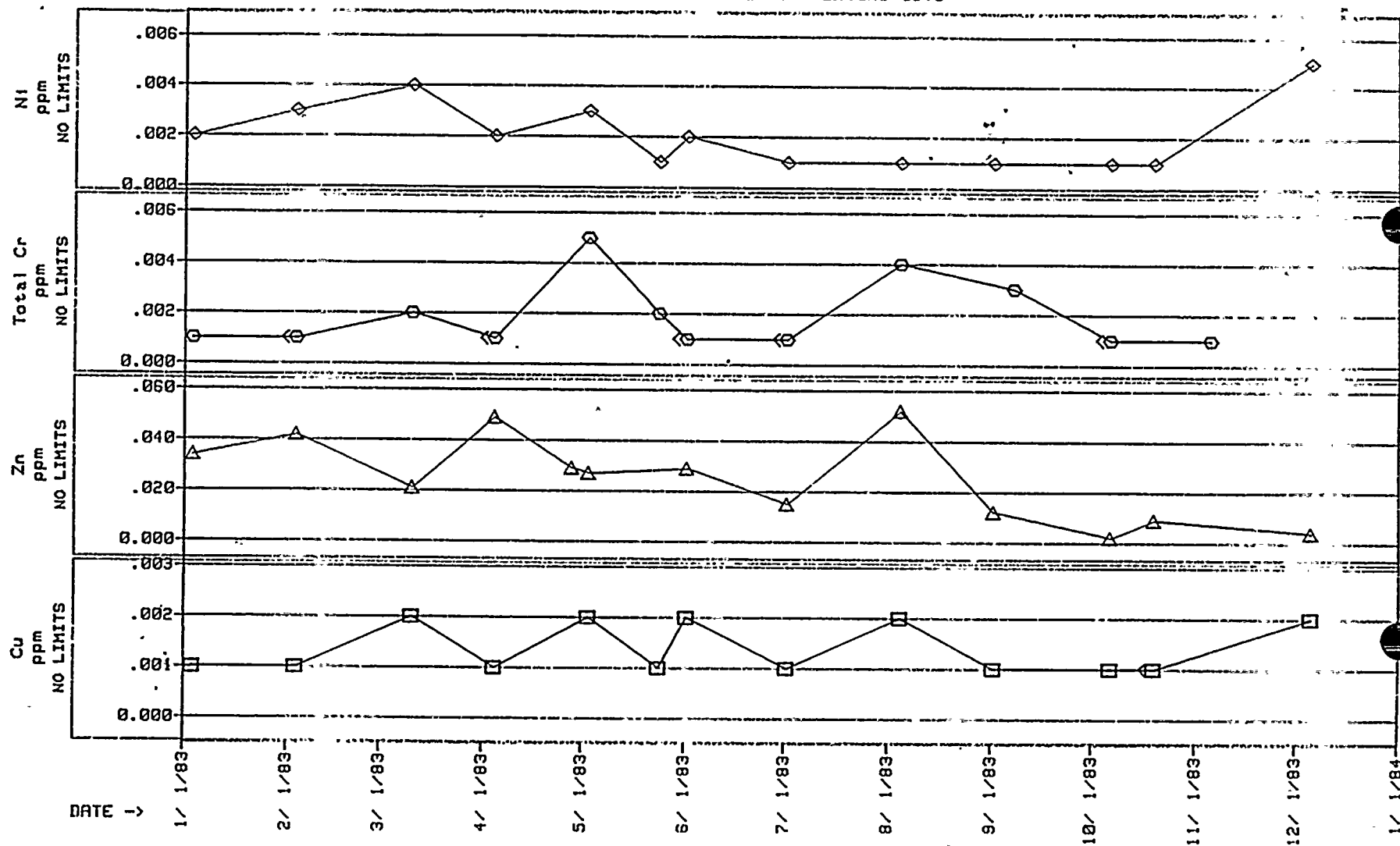




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Intake/Drains - Intake Cove

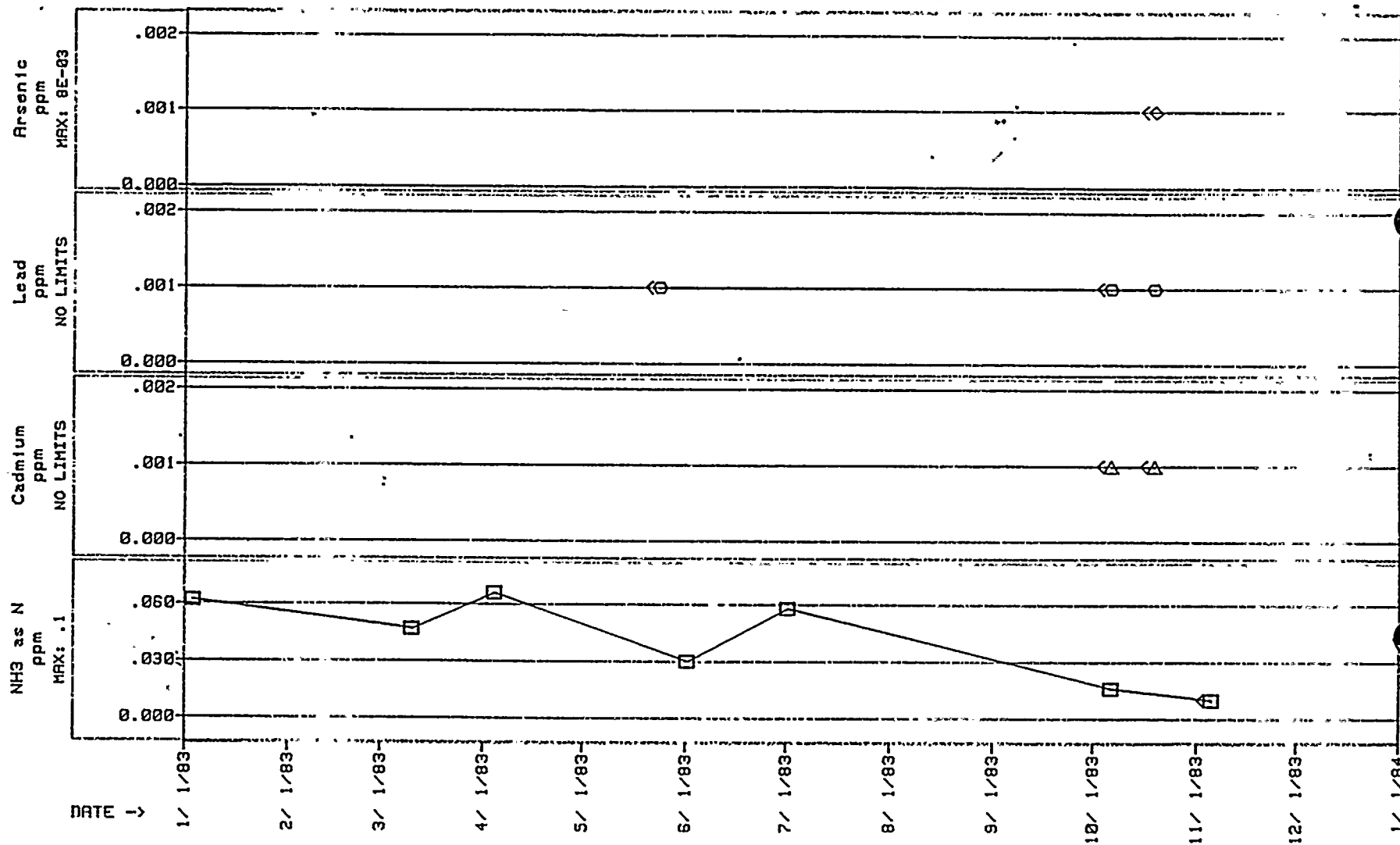




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Intake/Drains - Intake Cove



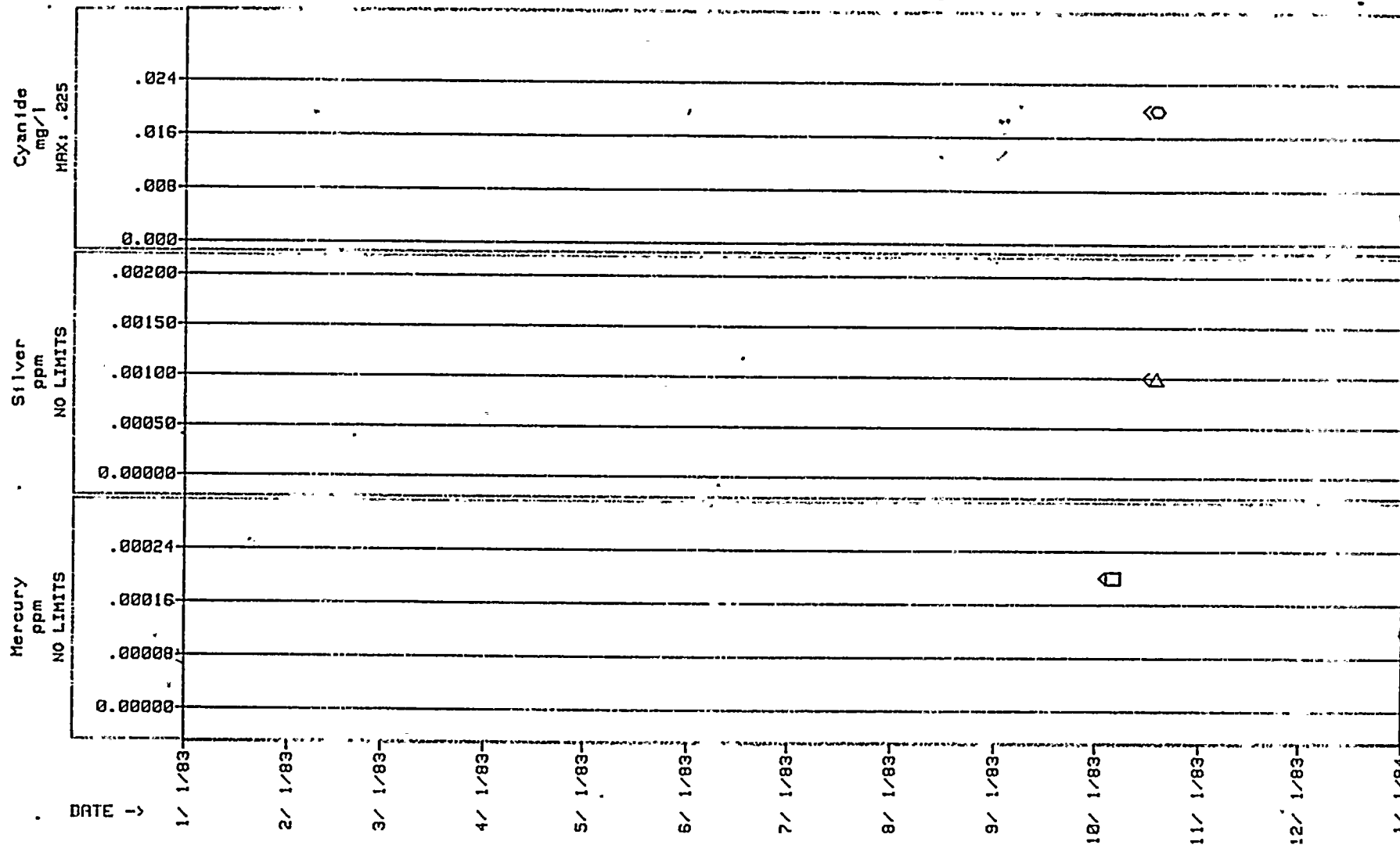




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Intake/Drains - Intake Cove

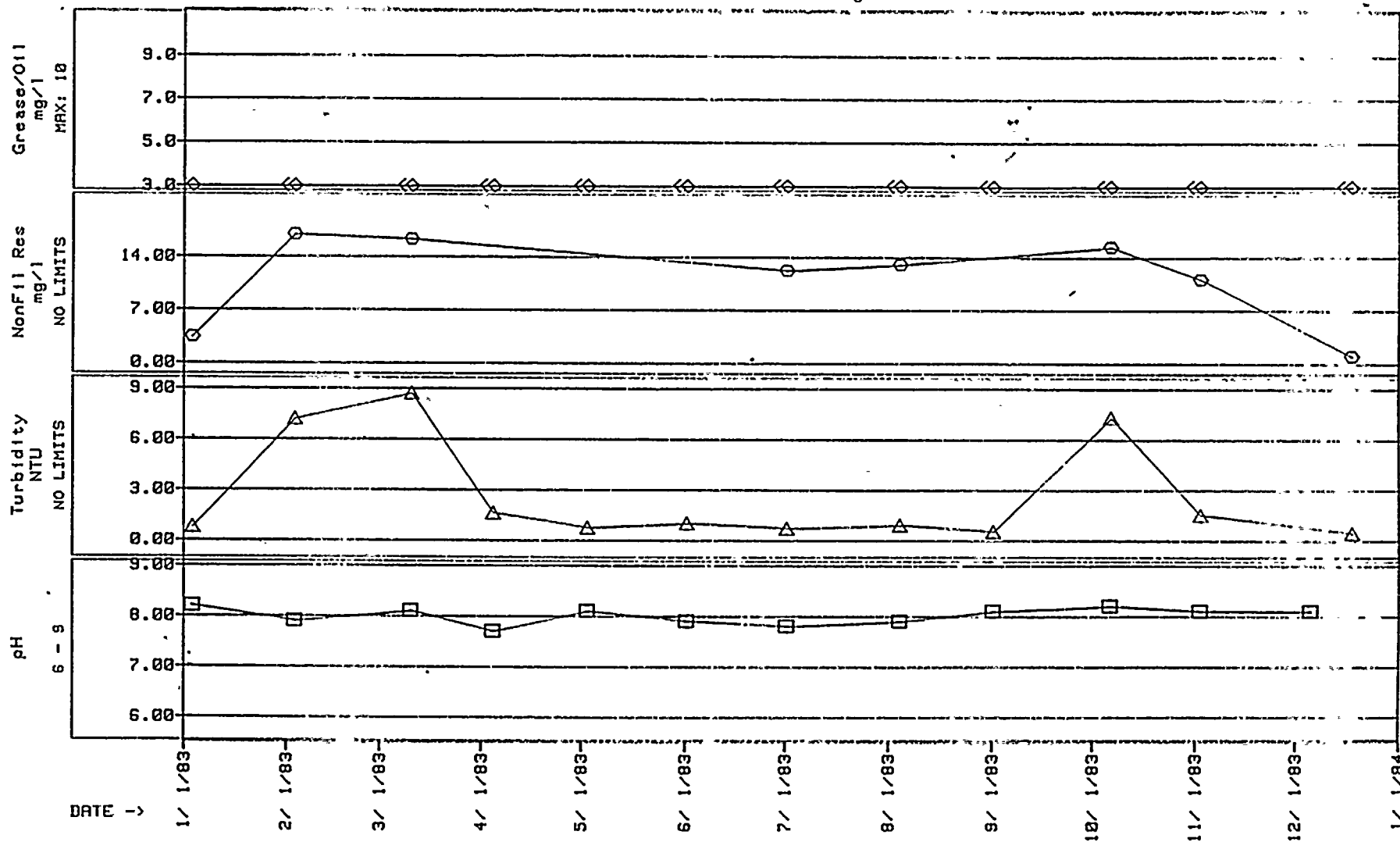




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Outfall - Discharge 001

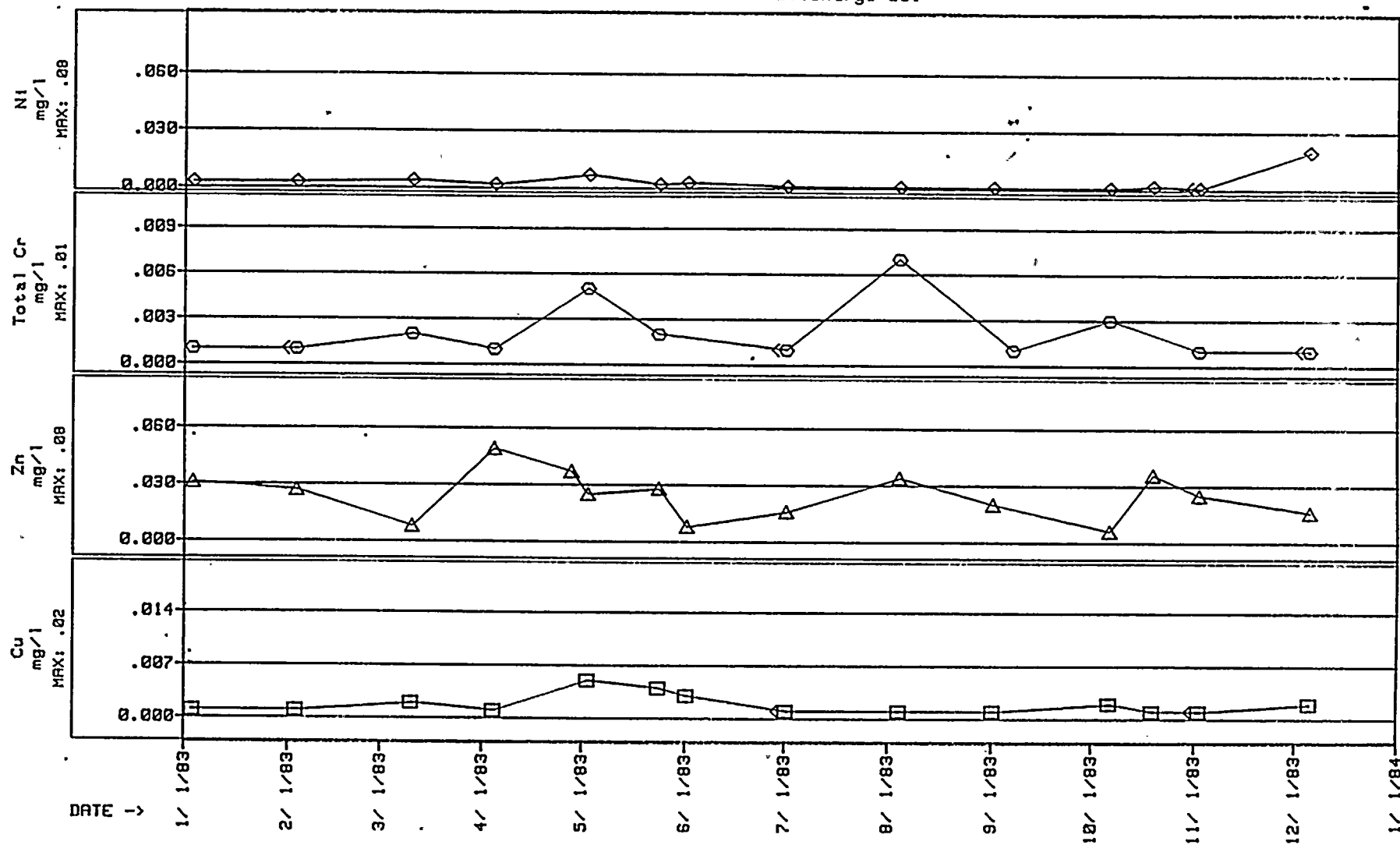




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Outfall - Discharge 001

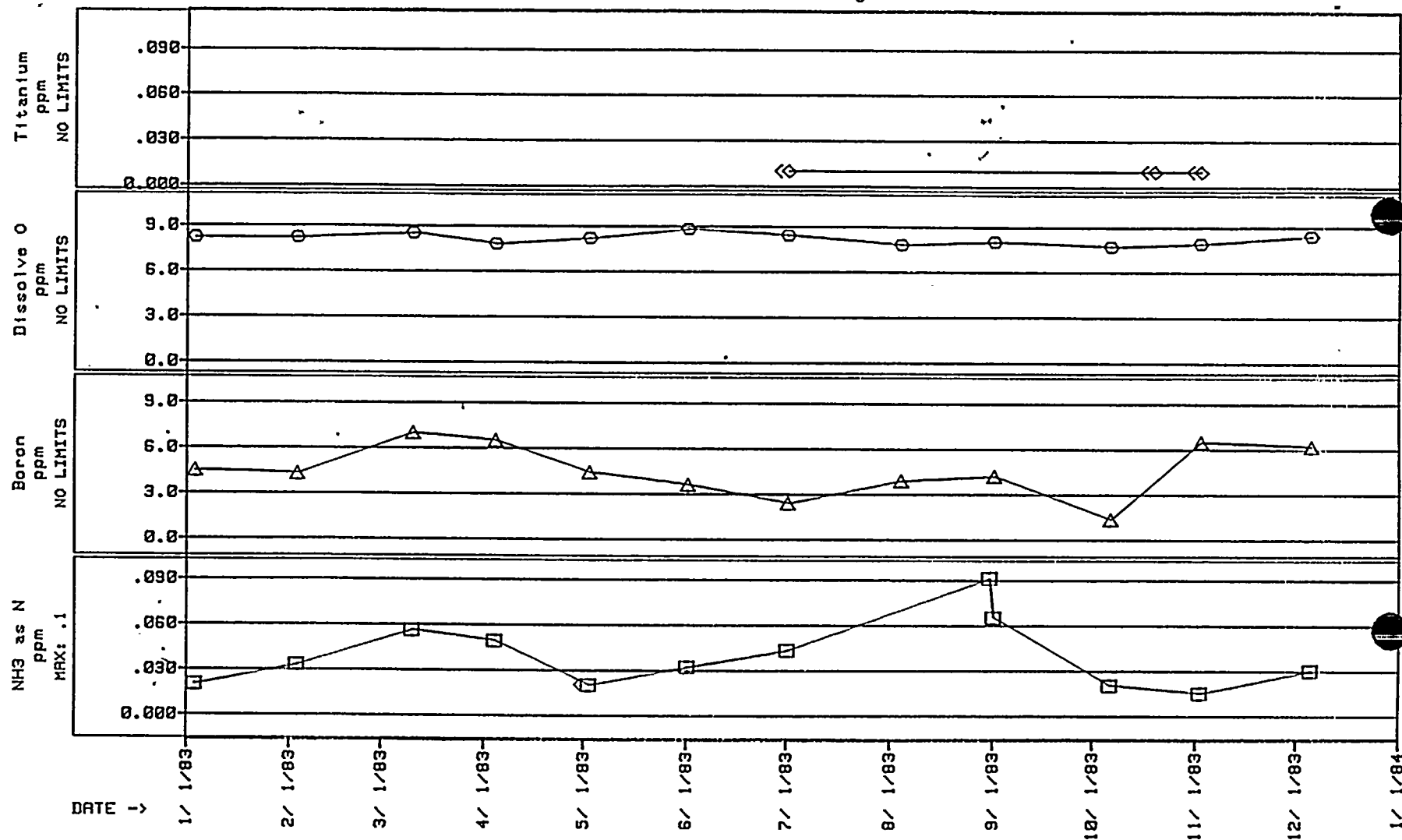




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Outfall - Discharge 001



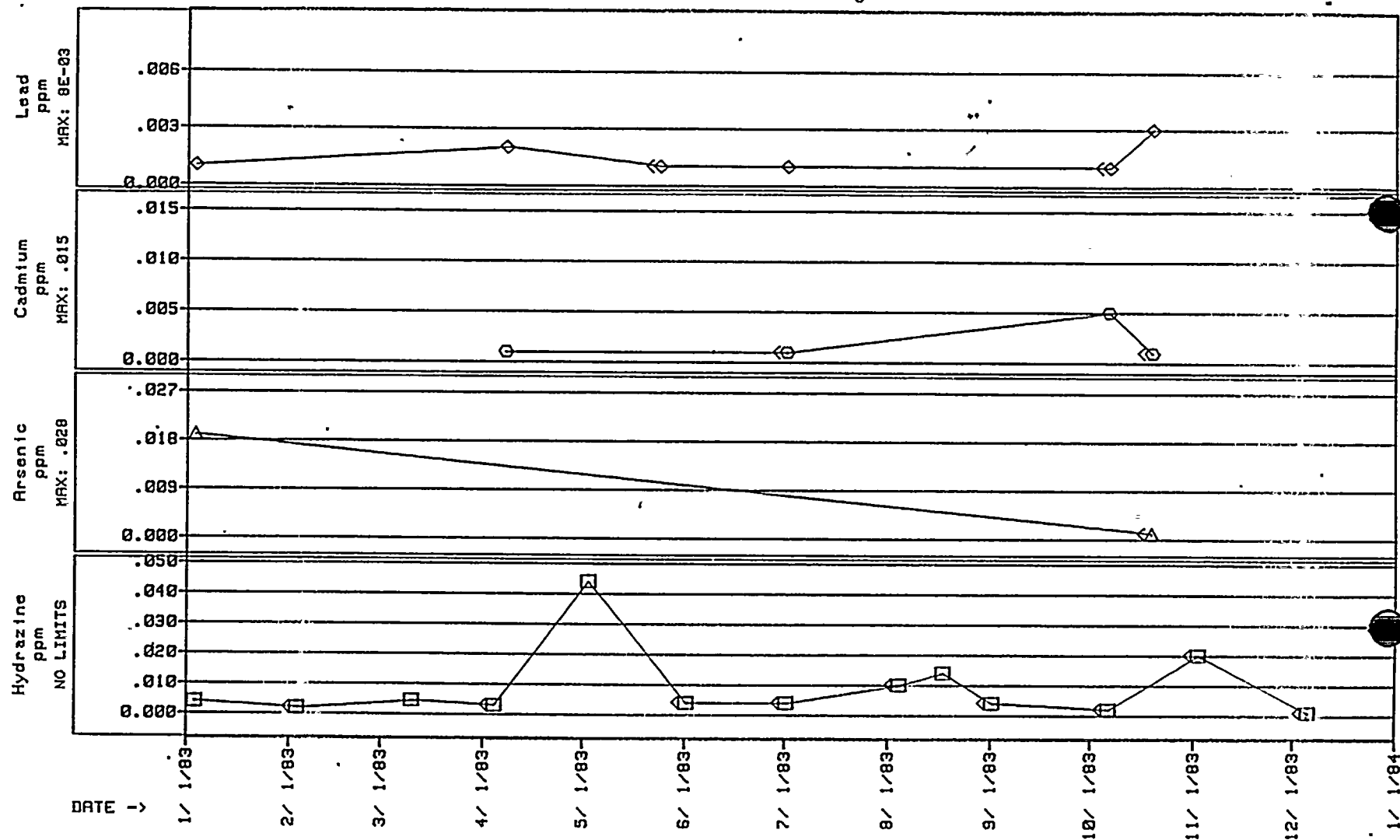




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Outfall - Discharge 001

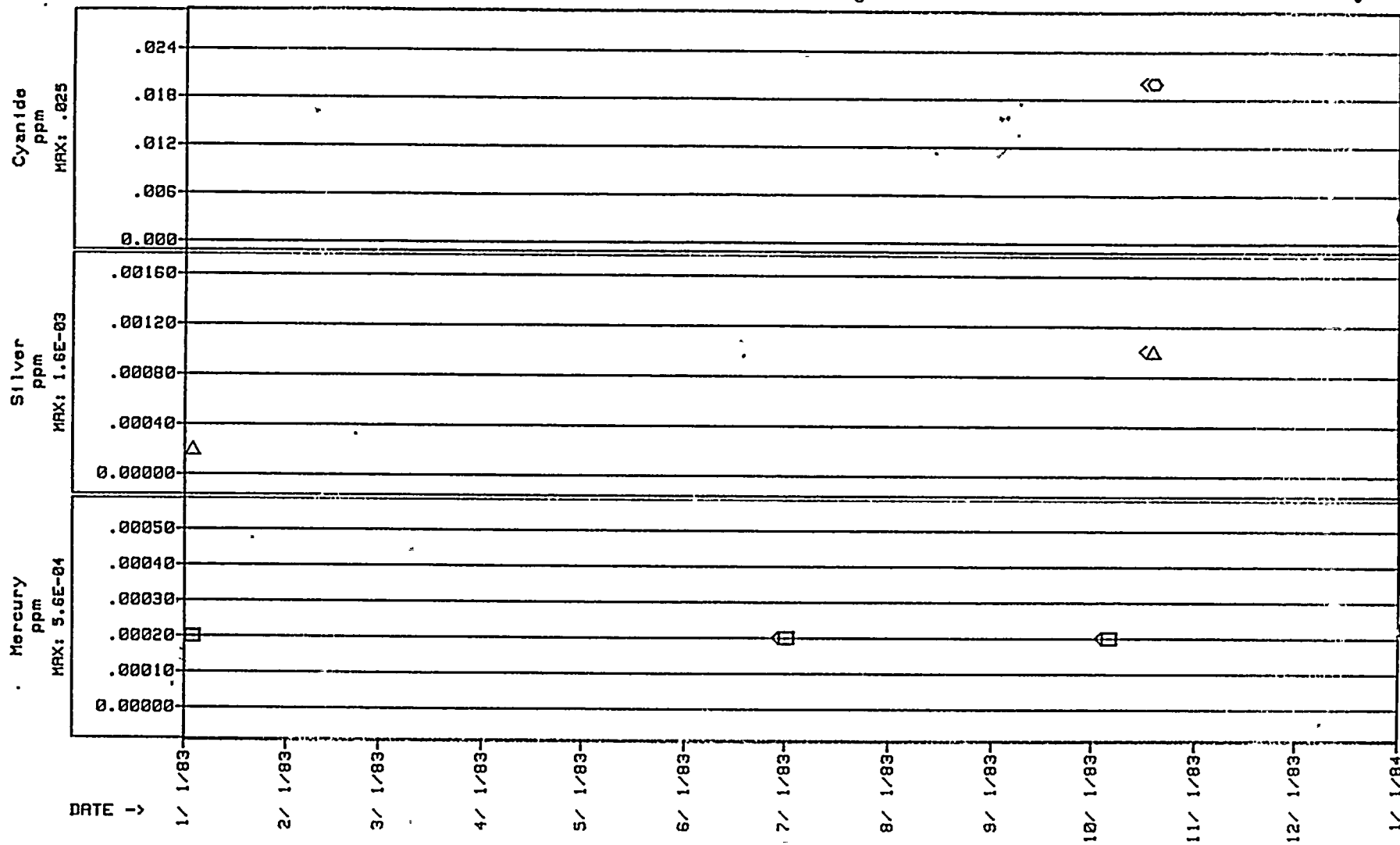




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Outfall - Discharge 001

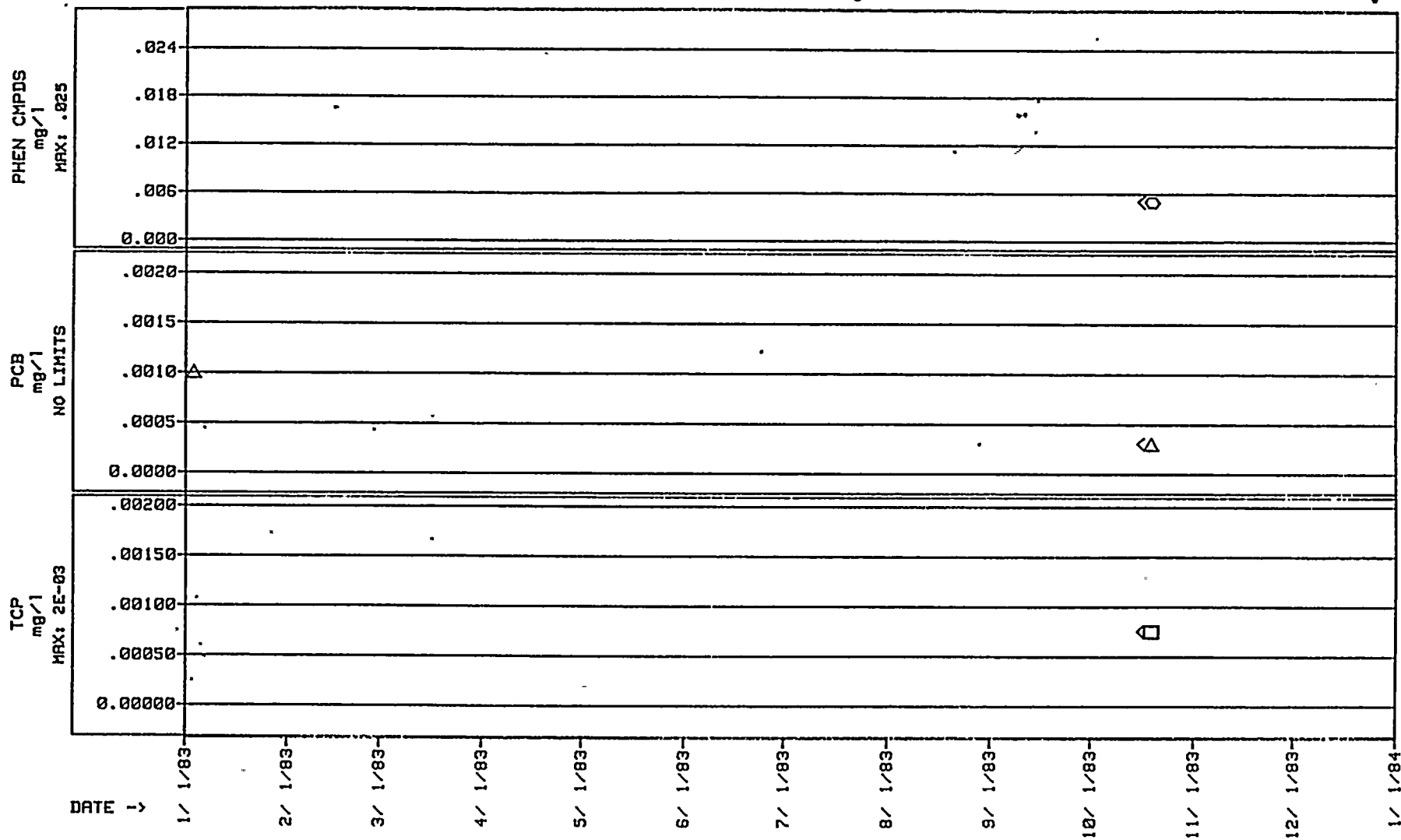




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Outfall - Discharge 001

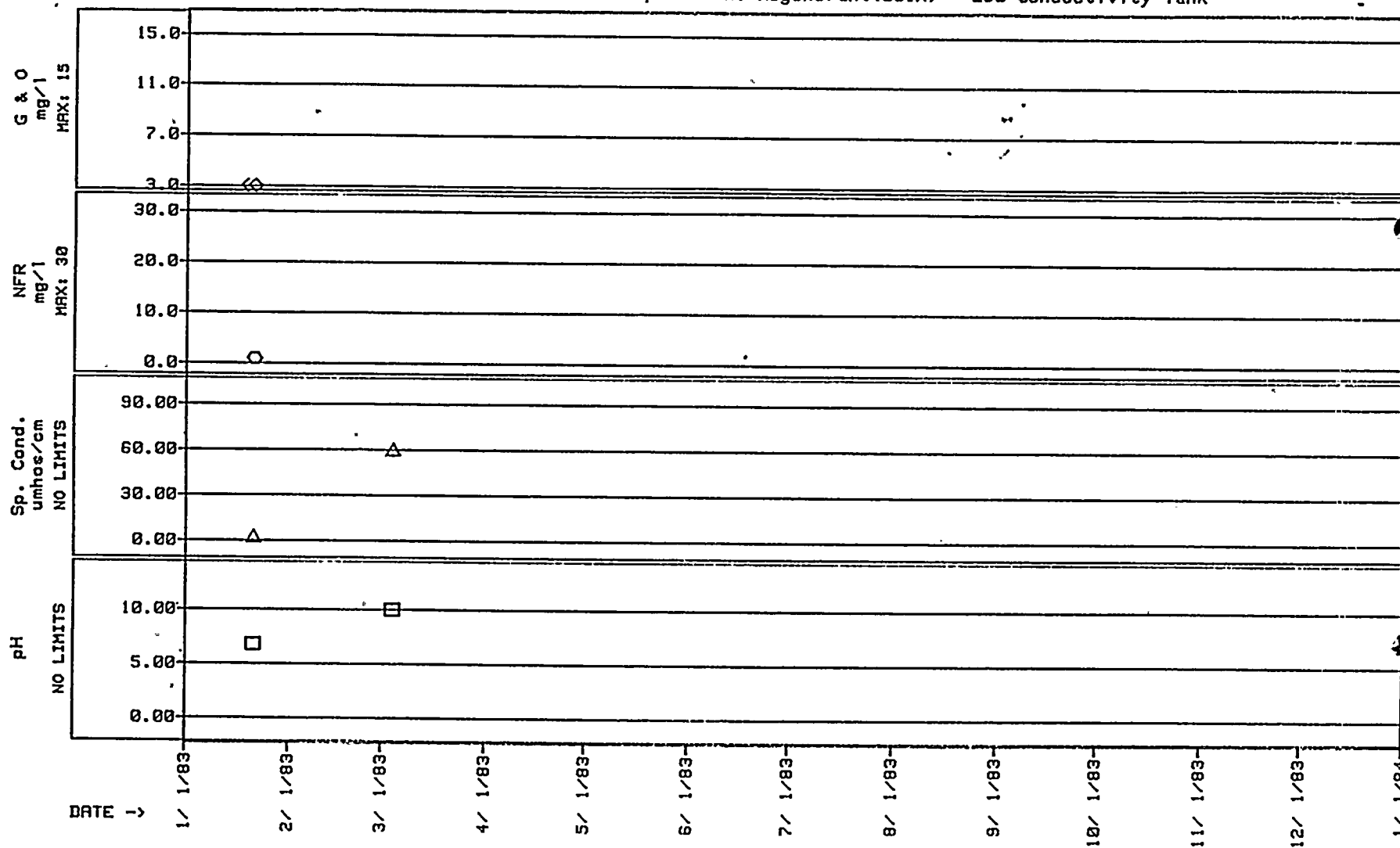




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Condensate/Seawater Evap. Demin. Regenerant(001H) - Low Conductivity Tank





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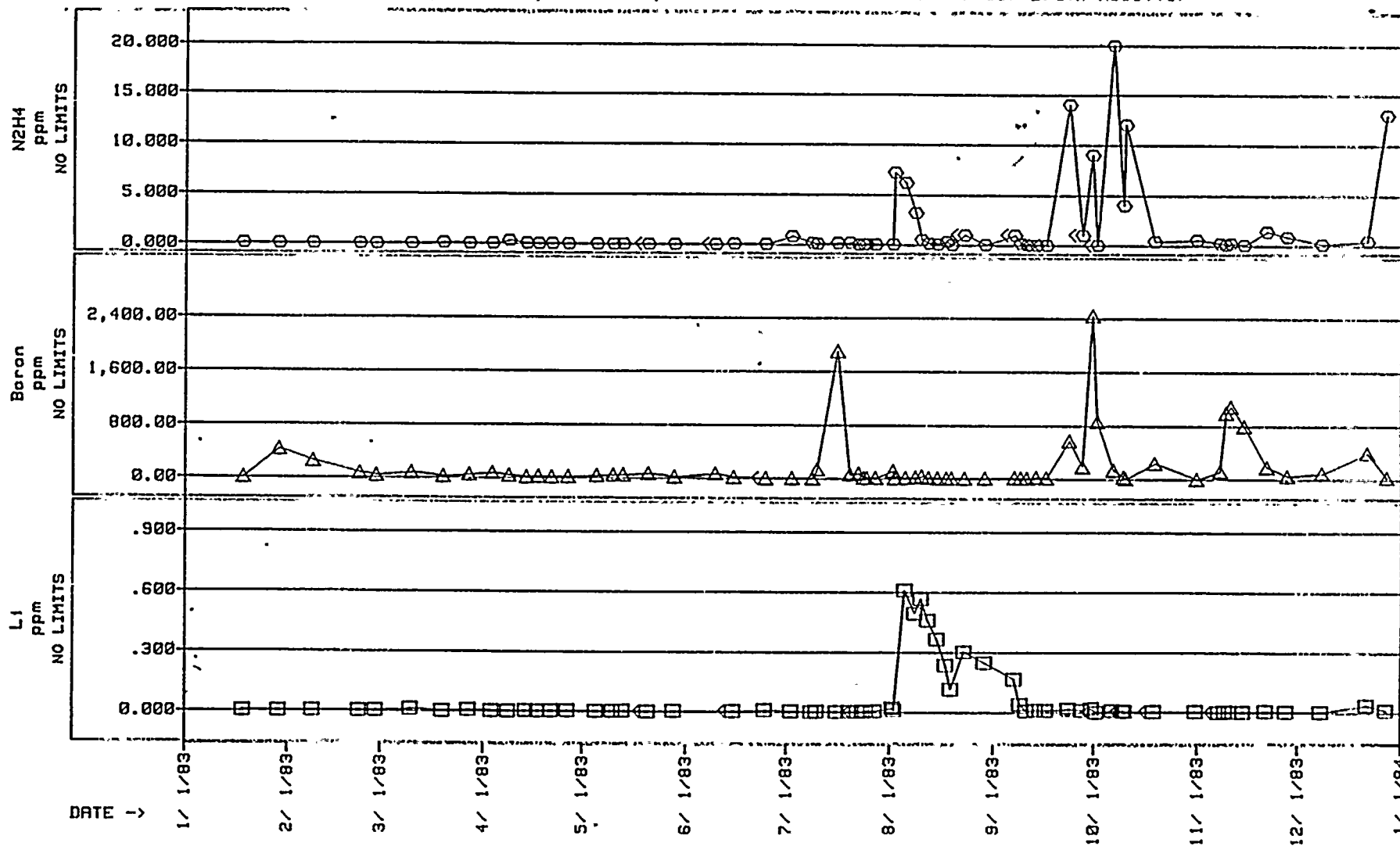
17



# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D - Floor Drain Receiver

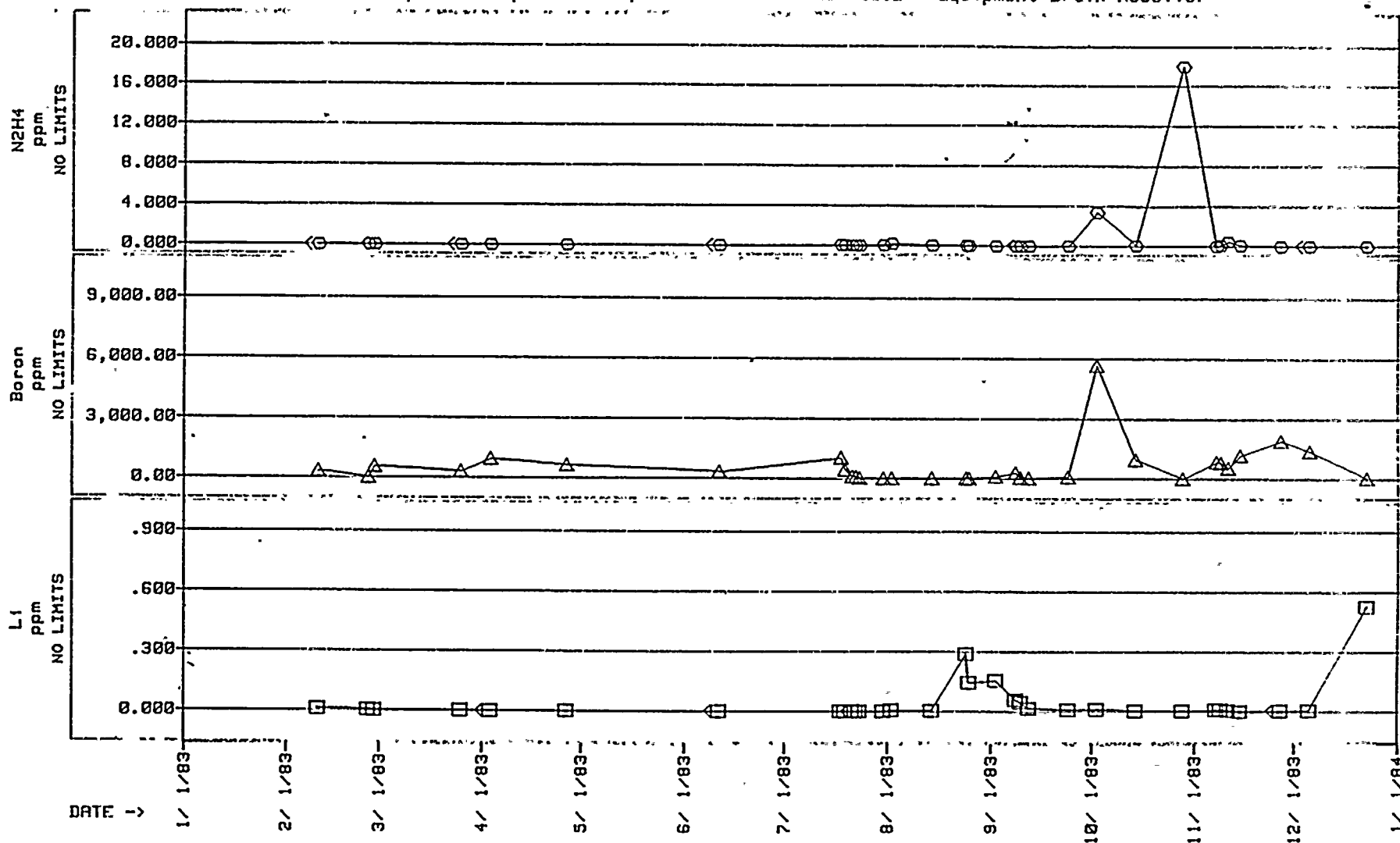




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D - Equipment Drain Receiver

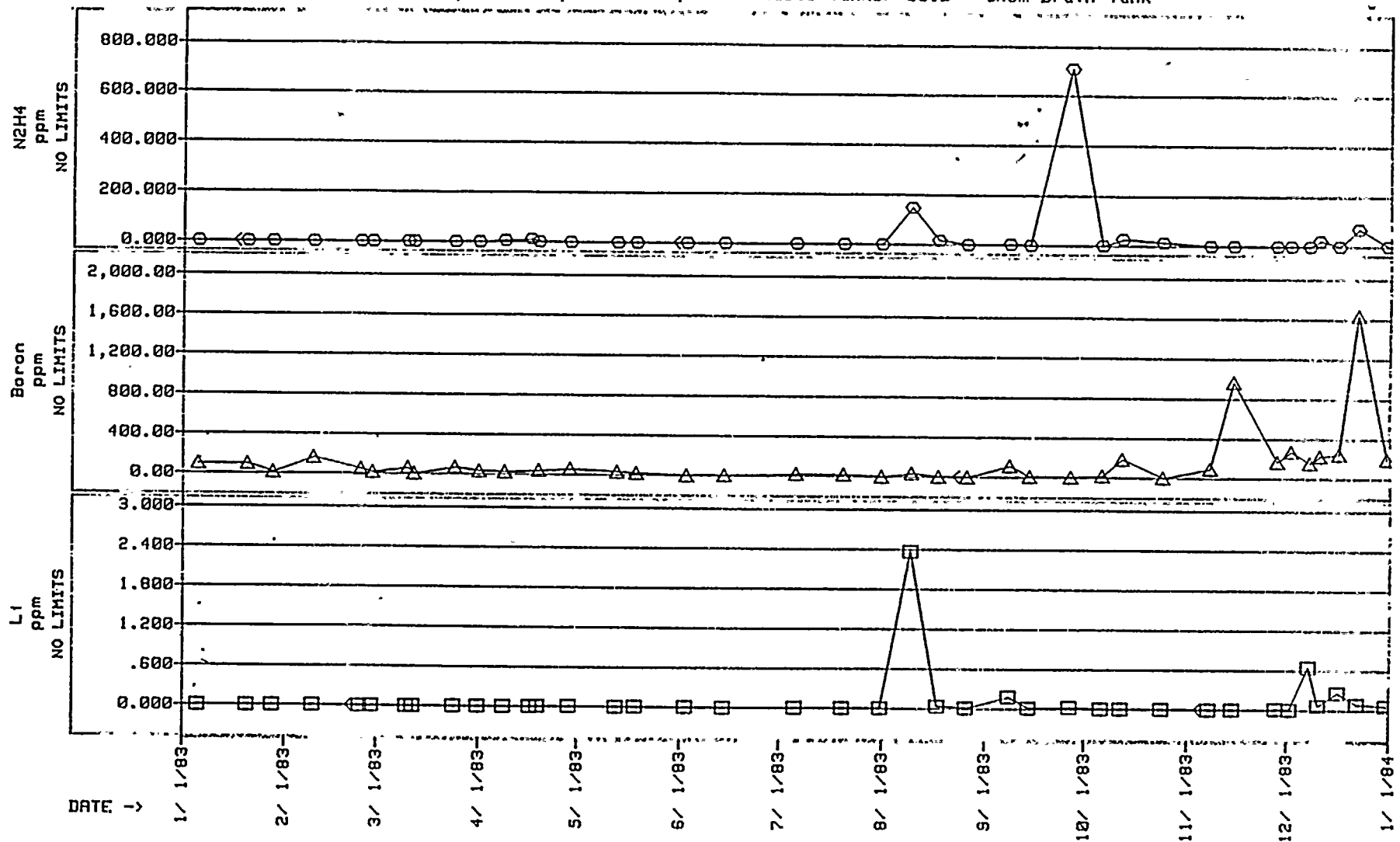




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D - Chem Drain Tank

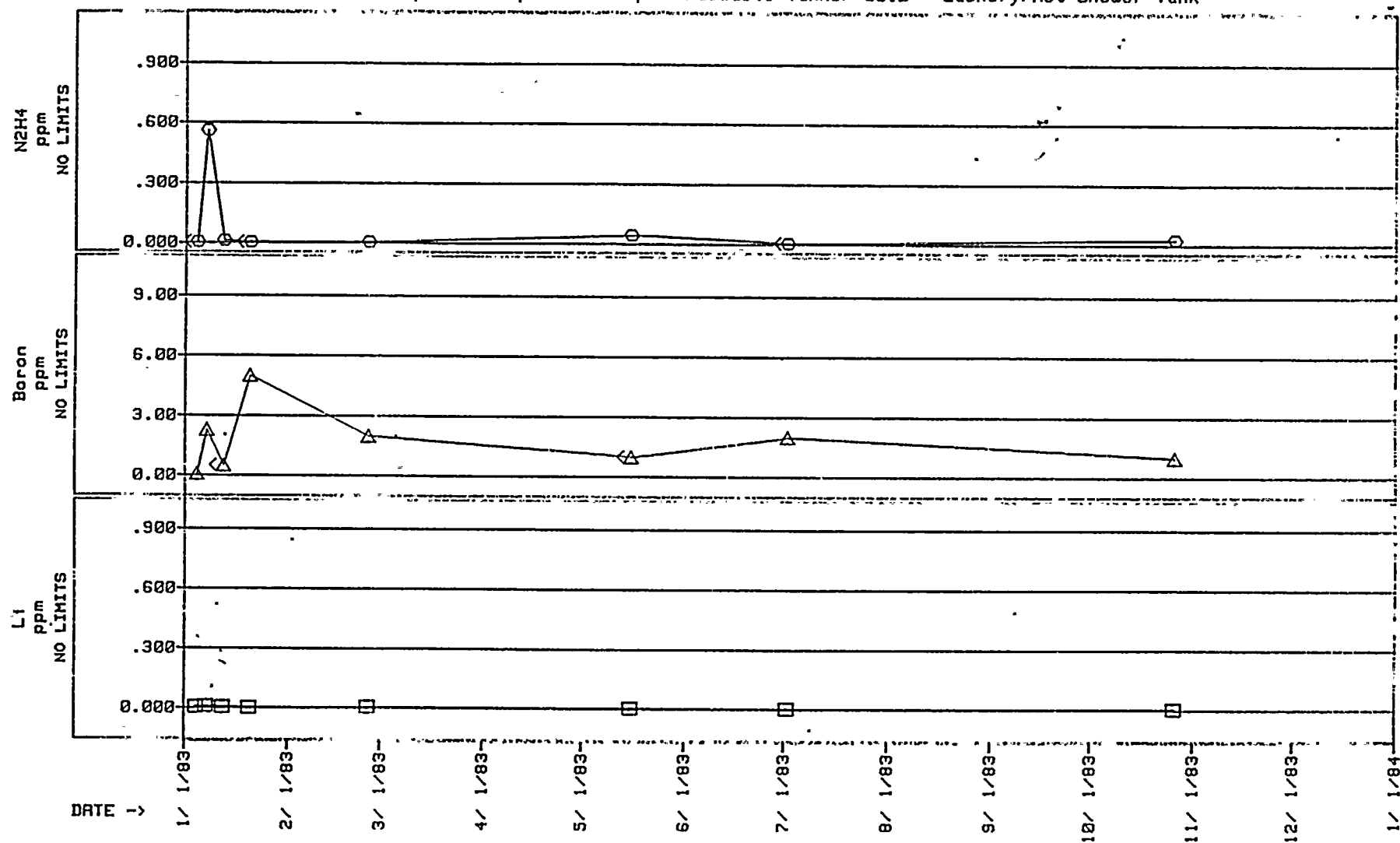




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D - Laundry/Hot Shower Tank



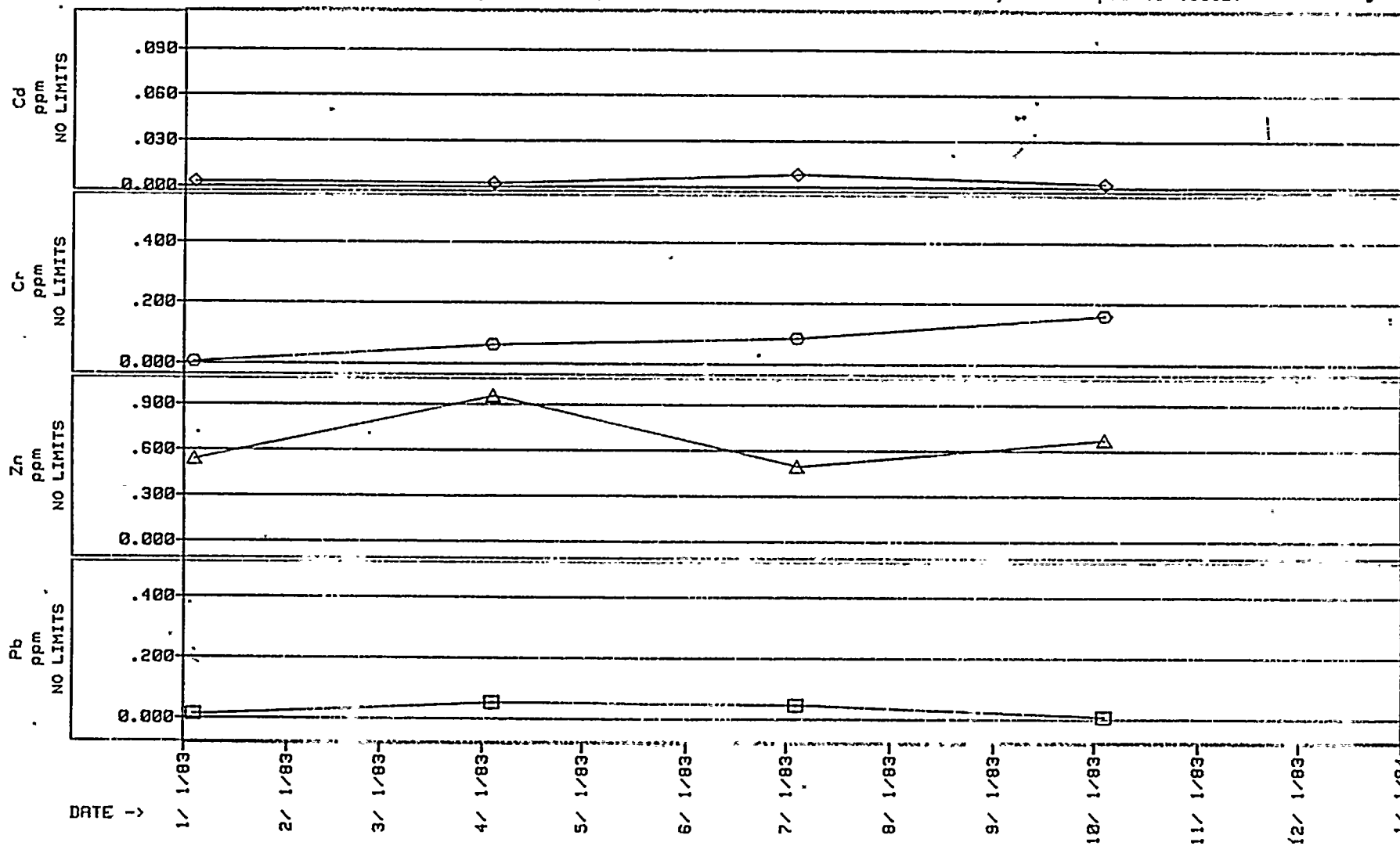




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D - Quarterly LRW Composite (001D)



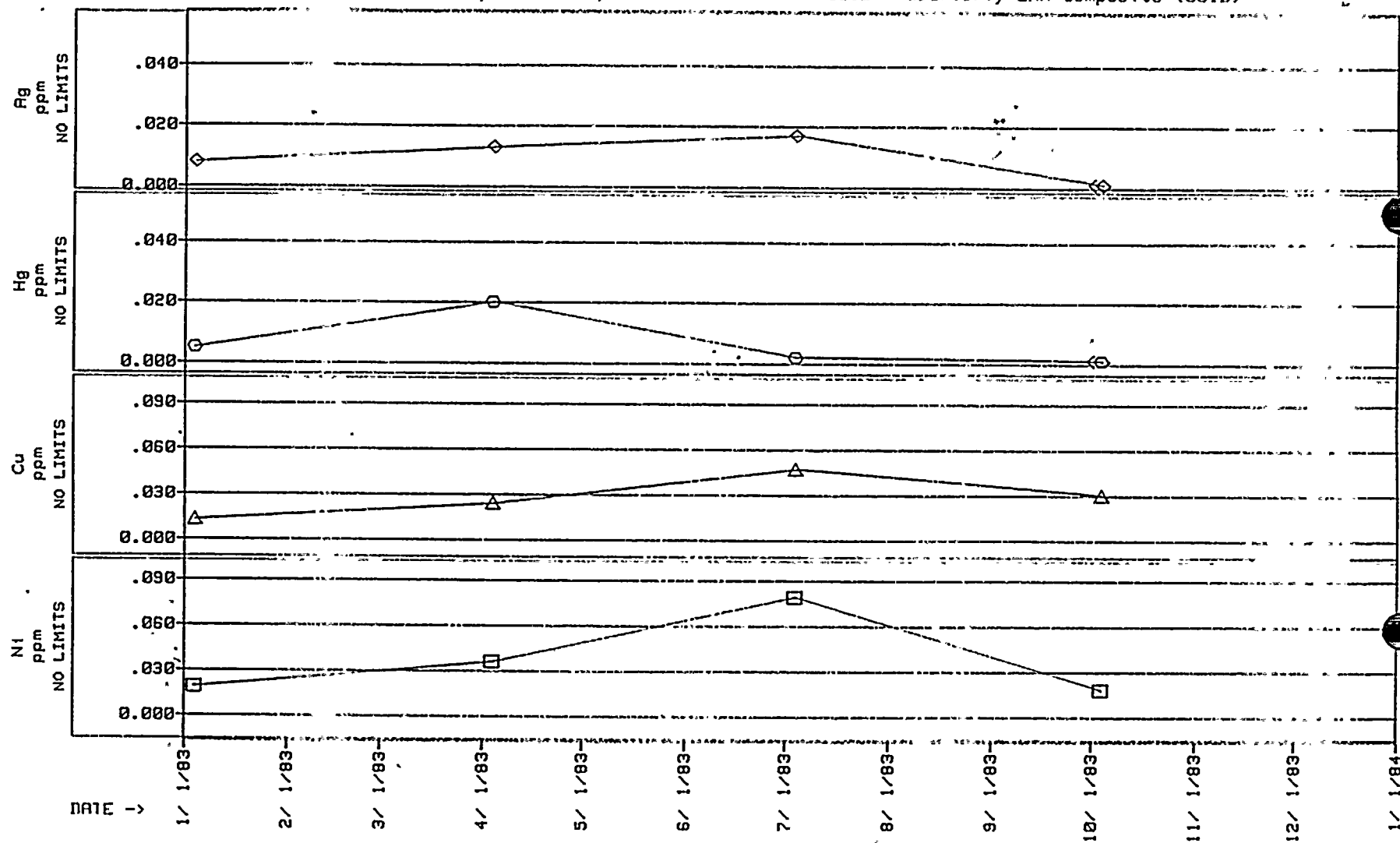


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# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Liquid Holdup Tanks/Liquid Radwaste Tanks/ 001D - Quarterly LRW Composite (001D)



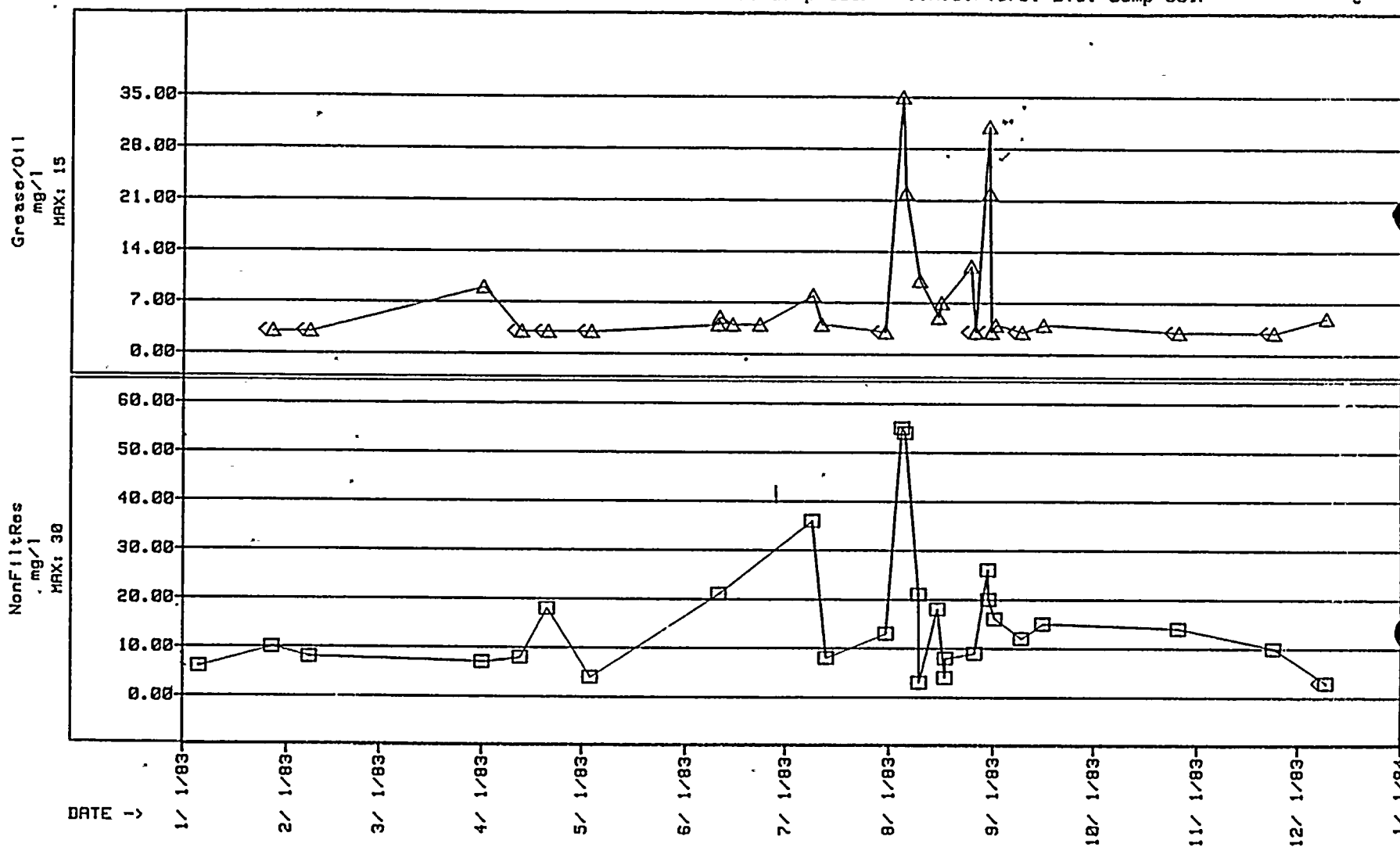


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Waste Pond and O.W.S.-Turbine Bld. Sump 001F - O.W.S./Turb. Bld. Sump 001F



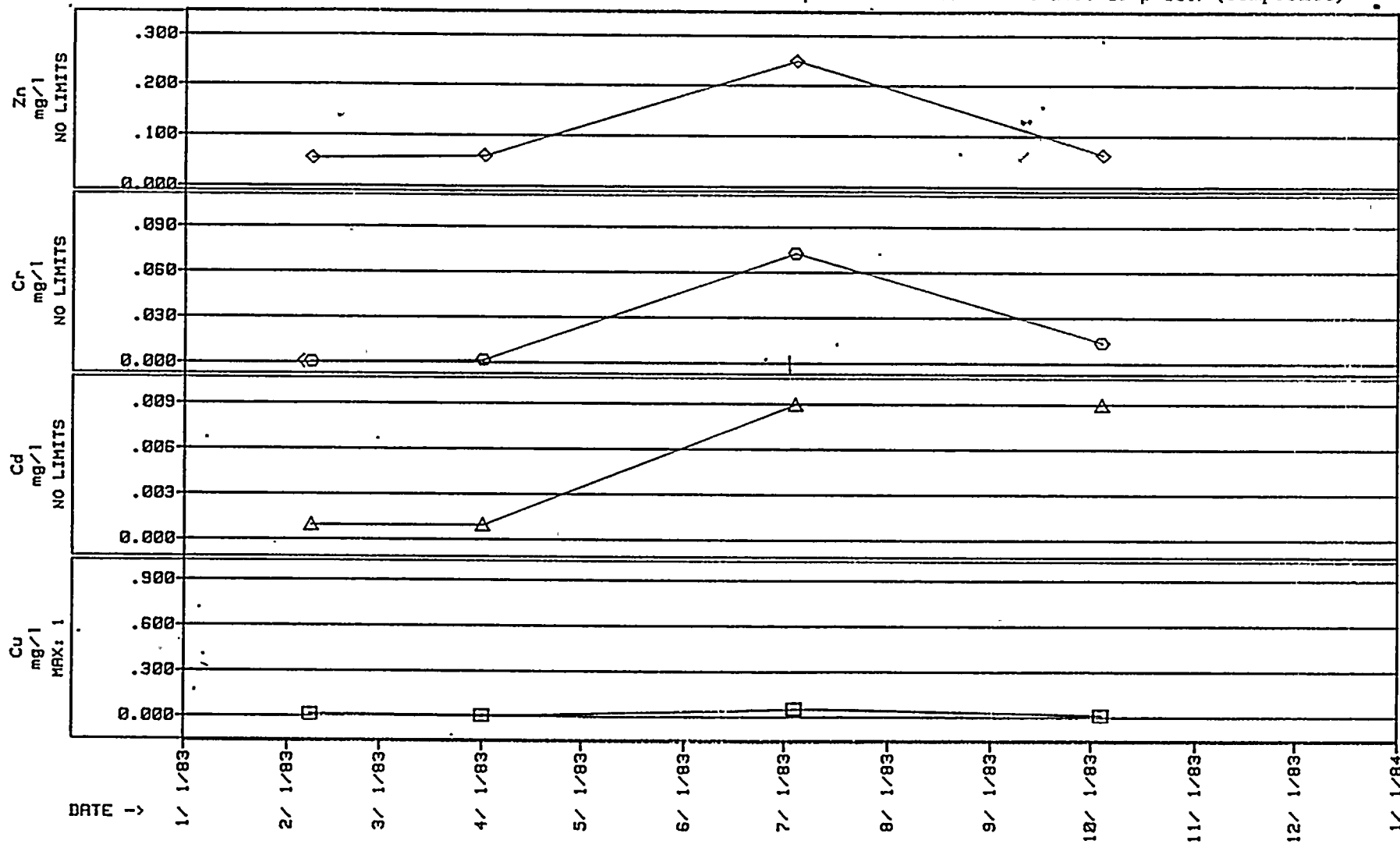


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# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Waste Pond and O.W.S.-Turbine Bld. Sump 001F - O.W.S./Turb. Bld. Sump 001F (Composite)



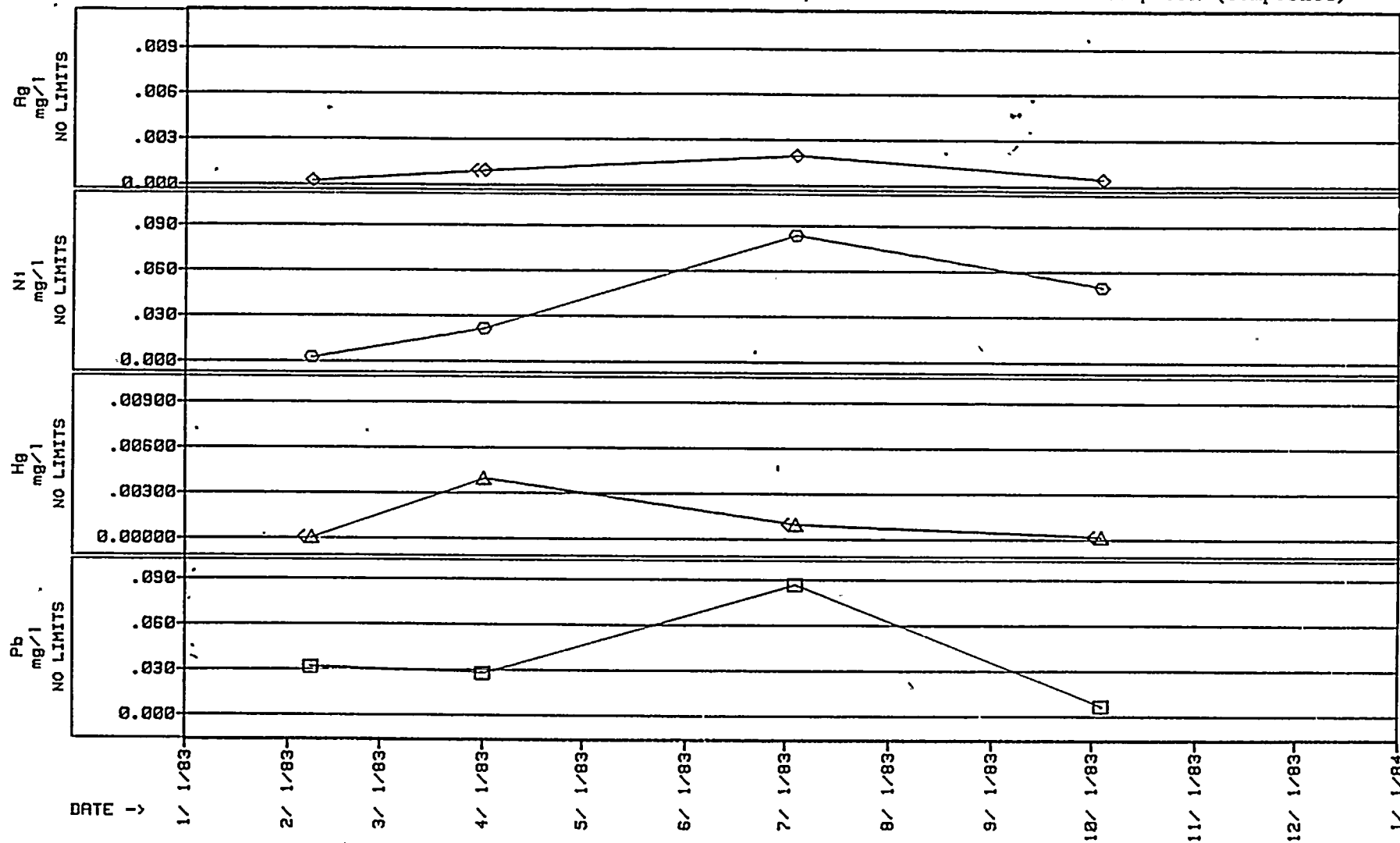




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Waste Pond and O.W.S.-Turbine Bld. Sump 001F - O.W.S./Turb. Bld. Sump 001F (Composite)



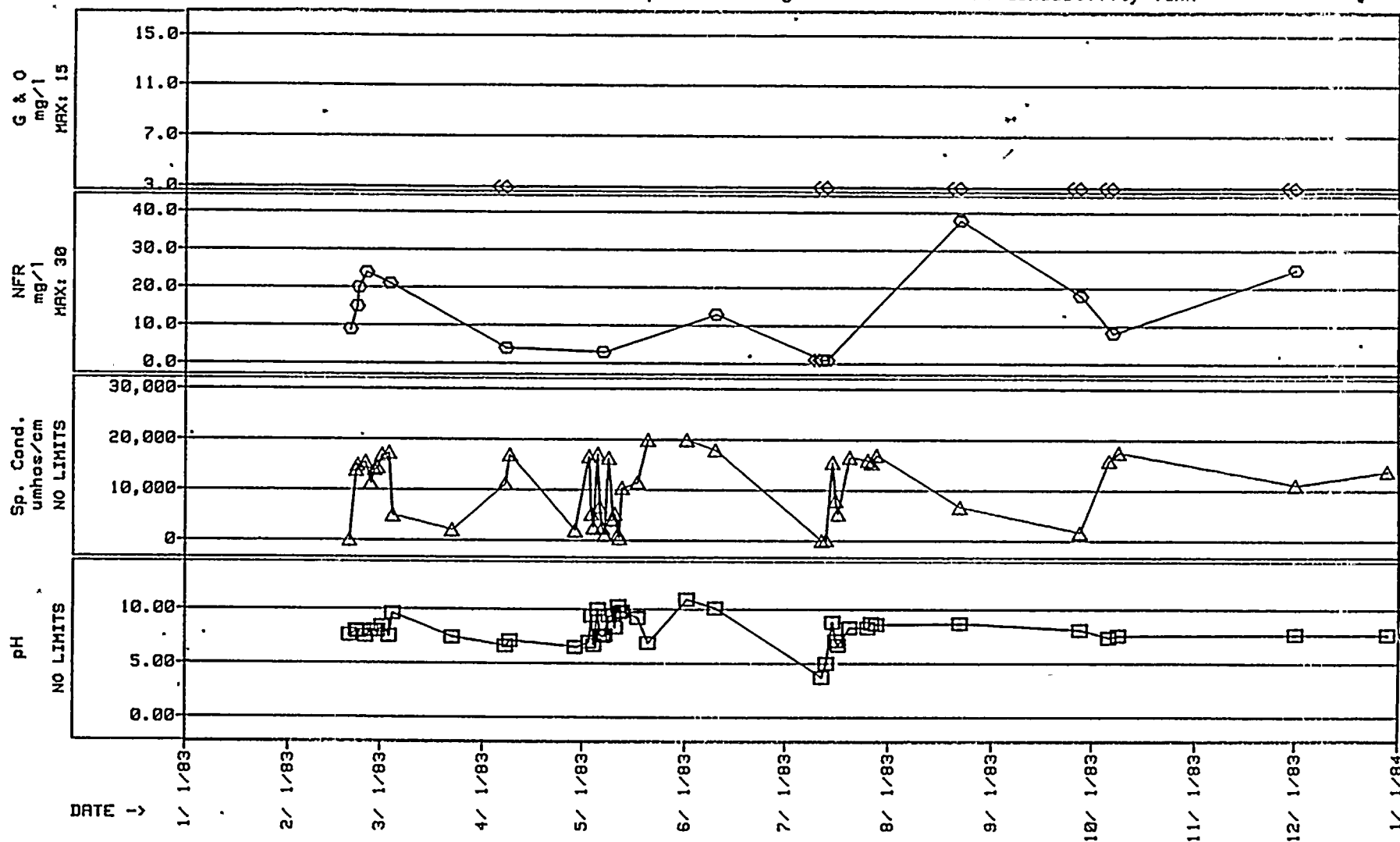


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# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Condensate/Seawater Evap. Demin. Regenerant(001H) - HI Conductivity Tank

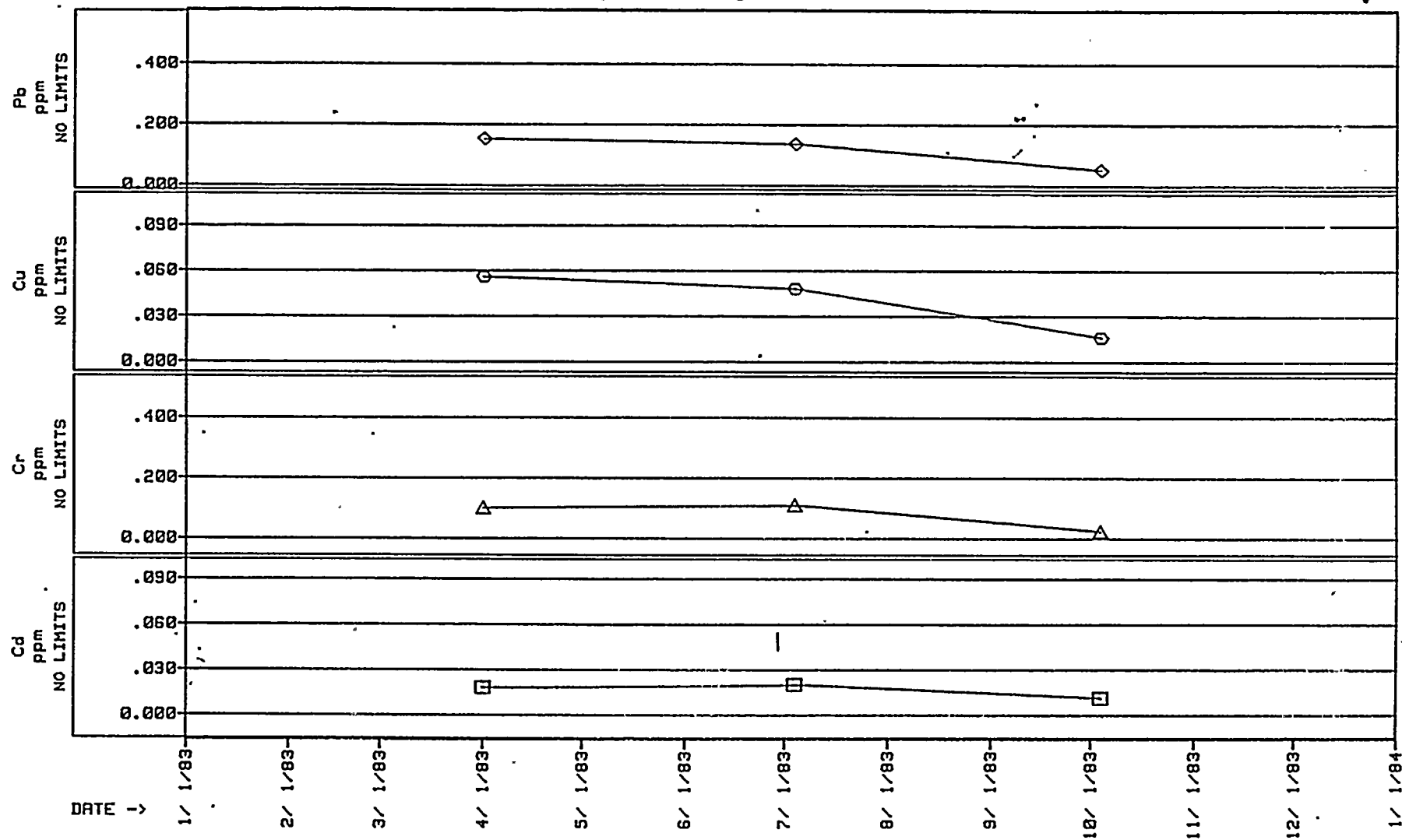




# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Condensate/Seawater Evap. Demin. Regenerant(001H) - DISCHARGE 001H COMP.ANALYSIS





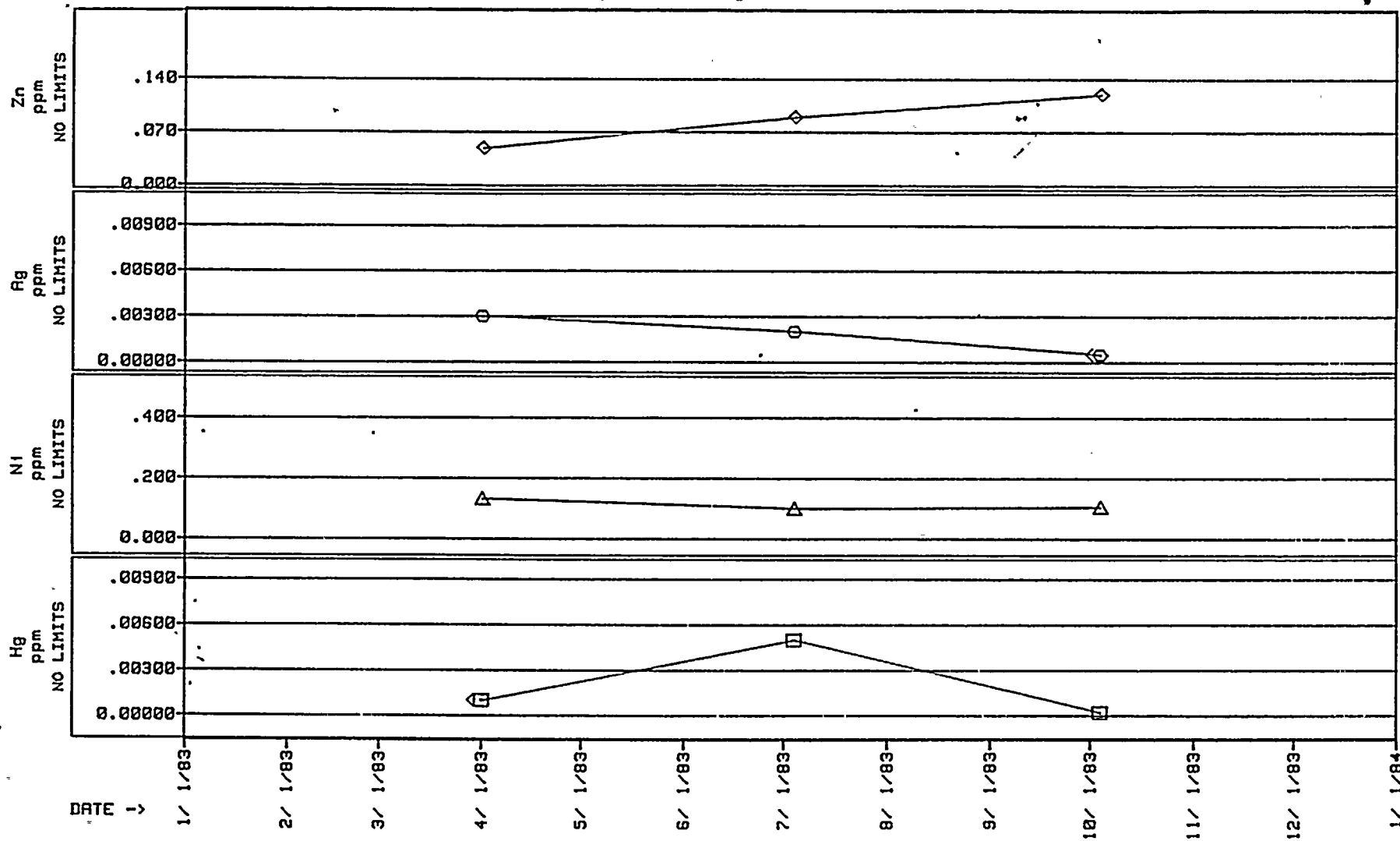
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# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

### Condensate/Seawater Evap. Domin. Regenerant(001H) - DISCHARGE 001H COMP.ANALYSIS





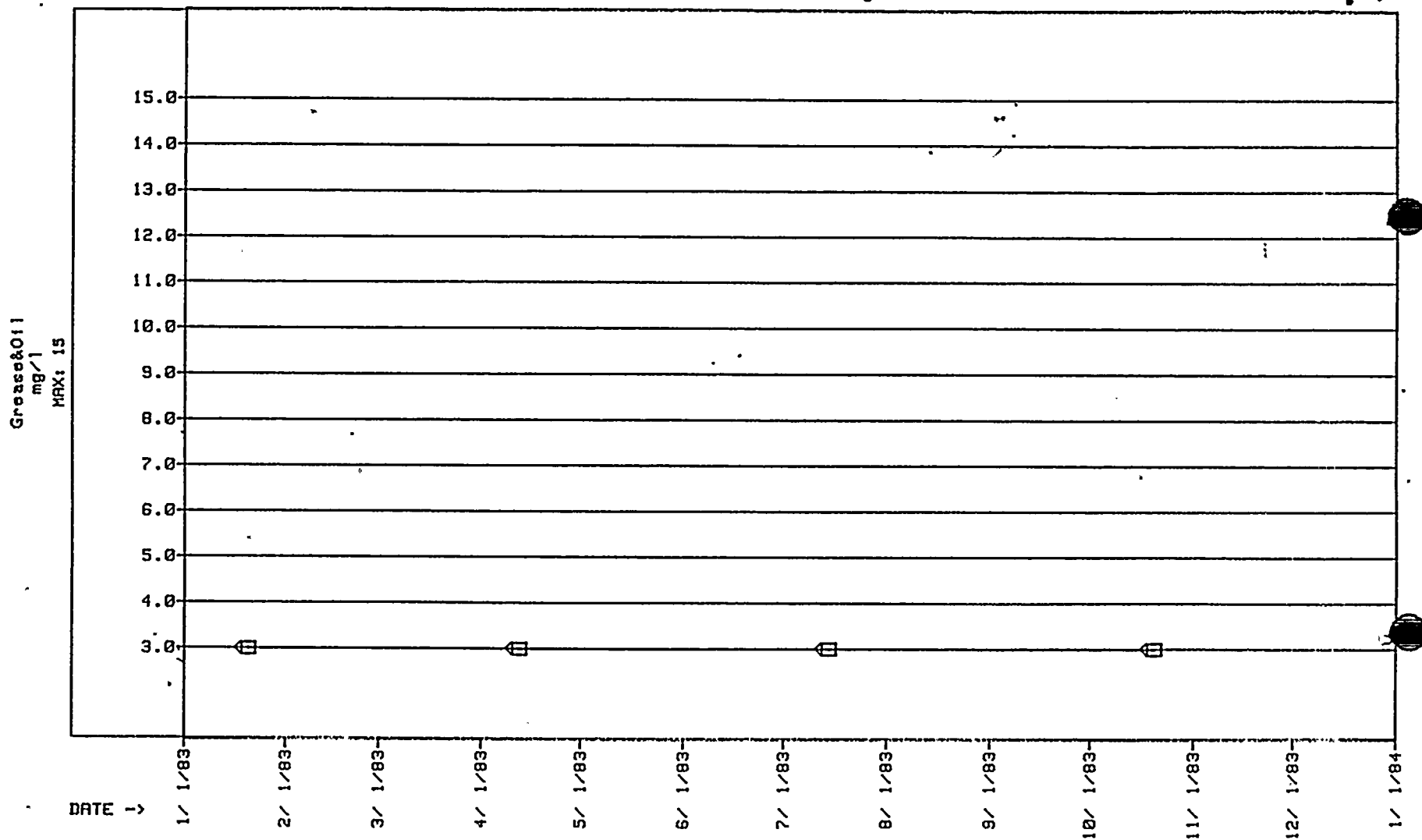
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11-11-11



PG&E

NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Intake/Drains - Intake Building Floor Drain 002



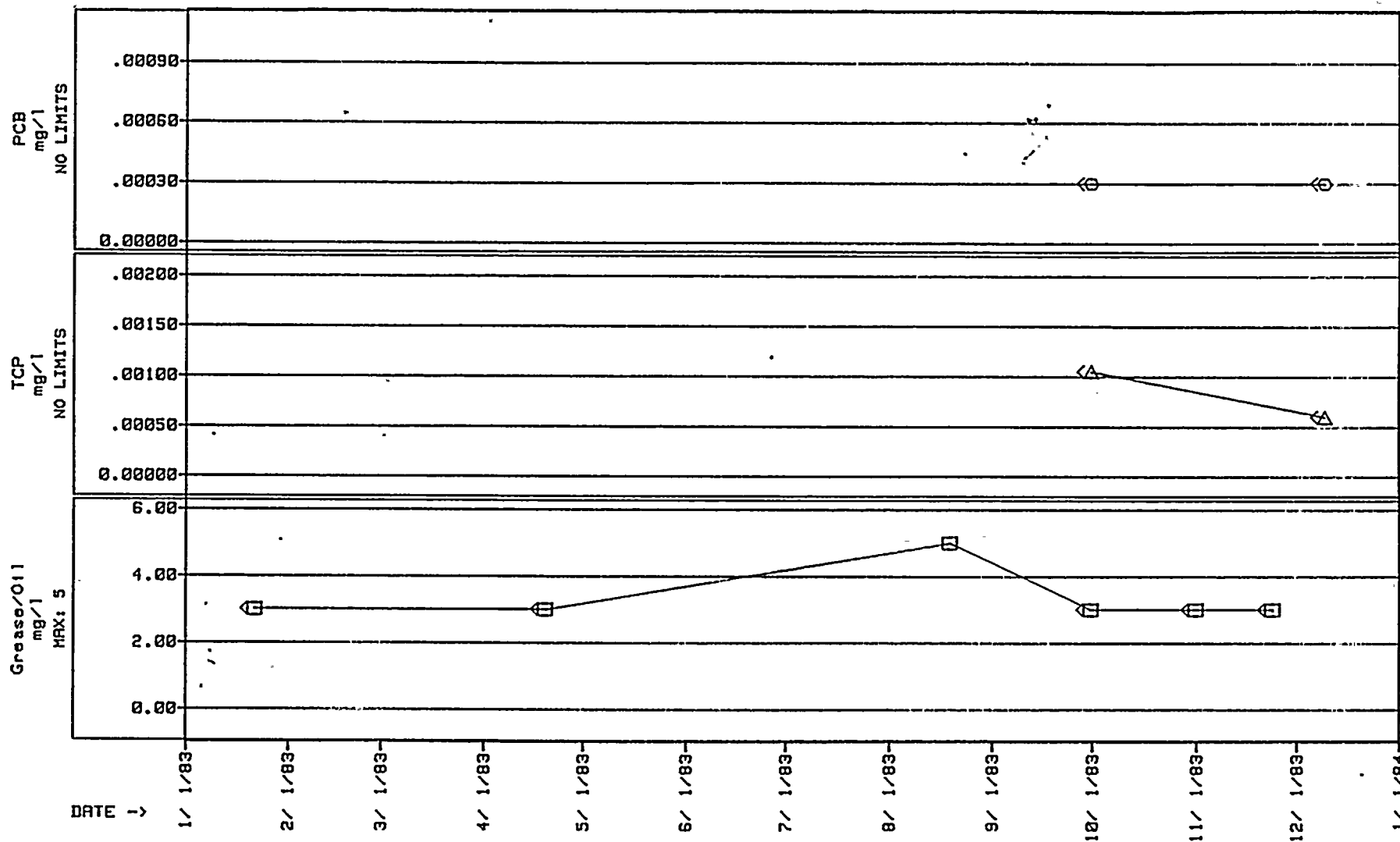


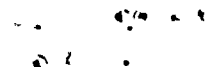
10/10/10

# PG&E

## NUCLEAR PLANT OPERATIONS - DIABLO CANYON POWER PLANT

Intake/Drains - Yard Storm Drains 005





APPENDIX 3

Thermal Effects Monitoring Program  
1983 Annual Report

