051543

Environmental Restoration Contractor **ERC Team**

Meeting Minutes

0049946

Job No. 22192
Written Response Required? NO
Closes CCN: N/A
OU: 200-ZP-2; 200-ZP-1
TSD: N/A
ERA: CCl4
Subject Code: 4170; 8220; 8960

SUBJECT 200 AREA UNIT MANAGER MEETING

TO Distribution

FROM V. J. Rohay VJR 10/2/97

DATE October 2, 1997

ATTENDEES

D. A. Faulk B5-01
L. M. Johnson H9-03
A. J. Knepp H0-19
W. J. McMahon H9-03
V. J. Rohay H9-02
M. H. Sturges H9-01
A. C. Tortoso H0-12

DISTRIBUTION

Attendees
M. A. Buckmaster H0-19
R. L. Jackson H9-02
M. C. Kelly H9-01
L. C. Swanson H9-02
P. B. Tolley H9-03
Document and Information Services H0-09

NOV 1998 RECEIVED EDMC

A 200 Area Unit Manager Meeting was held on September 19, 1997, in conference room 2C58 at 3350 George Washington Way. The agenda is included as Attachment 1.

200-ZP-2 Soil Vapor Extraction Systems

Rebound Study Update and Operational Status

Soil gas monitoring for the carbon tetrachloride rebound study began on 11/4/96 and was completed on 7/10/97. V. J. Rohay provided graphs illustrating the maximum carbon tetrachloride rebound concentration and the baseline concentration prior to the rebound study for the vapor extraction wells (Attachment 2). The vertical profile indicates that remaining carbon tetrachloride is associated with the lower-permeability silt and Plio-Pleistocene "caliche" layers.

Full-scale soil vapor extraction (SVE) operations began 7/18/97. All of the wells which were on-line in November 1996 prior to initiating the rebound study were placed on-line in July 1997 to facilitate comparison of inlet concentrations before and after the rebound study. V. J. Rohay provided graphs comparing the carbon tetrachloride concentration data collected using the SVE systems after the rebound study to previous SVE and rebound study data. Comparison of the daily average carbon tetrachloride concentrations in the extracted soil vapor since 7/18/97 to the entire record of daily concentrations measured at each of the SVE systems shows that concentrations increased to levels last measured at times ranging from September 1995 to February 1996 (Attachment 3). The figures also show the July 1997 concentrations are decreasing faster than the equivalent concentrations did in the past. Graphs of carbon tetrachloride concentrations before, during, and after the rebound study in selected wells open above the Plio-Pleistocene layer (zone 3) and above the groundwater (zone 6) were provided to illustrate the concentration trends for individual wells (Attachment 4). Graphs comparing the actual mass of carbon tetrachloride extracted since

7/18/97 to the mass removal projected for the period of the rebound study if the SVE systems had continued operating indicate that after rebound, the SVE systems extracted approximately 25% of the mass that would have been removed in approximately 10% of the time the systems were off-line (Attachment 5).

Discussion of Path Forward

Following a discussion of the purpose and goals of the Expedited Response Action and options for future operation of the SVE systems at 200-ZP-2, meeting participants agreed that:

- We need to establish criteria to refine the general goals currently in the ERA Action Memorandum, and we need to agree on the goals for the project.
- Once the goals for the project have been agreed to, we can discuss the path forward.

200-ZP-1 Pump and Treat System

A. J. Knepp provided an update on the 200-ZP-1 pump-and-treat remediation (Attachment 6). As of September 1997, the 200-ZP-1 treatment system has removed 733 kg of carbon tetrachloride and treated 231 million liters (61 million gallons) of water. The combined average carbon tetrachloride concentration from the six on-line extraction wells was 3,500 ppb on 9/11/97.

D. A. Faulk requested that a capture zone analysis for the 200-ZP-1 extraction wells be provided in six months.

ATTACHMENT 1

200 AREA UNIT MANAGER MEETING
AGENDA
September 19, 1997

200-ZP-2 SVE SYSTEM

- Rebound Study Update
- Operational Status
- Discussion of Path Forward

200-ZP-1 PUMP AND TREAT SYSTEM

- Operational Status and Monitoring Results

ERA PURPOSE

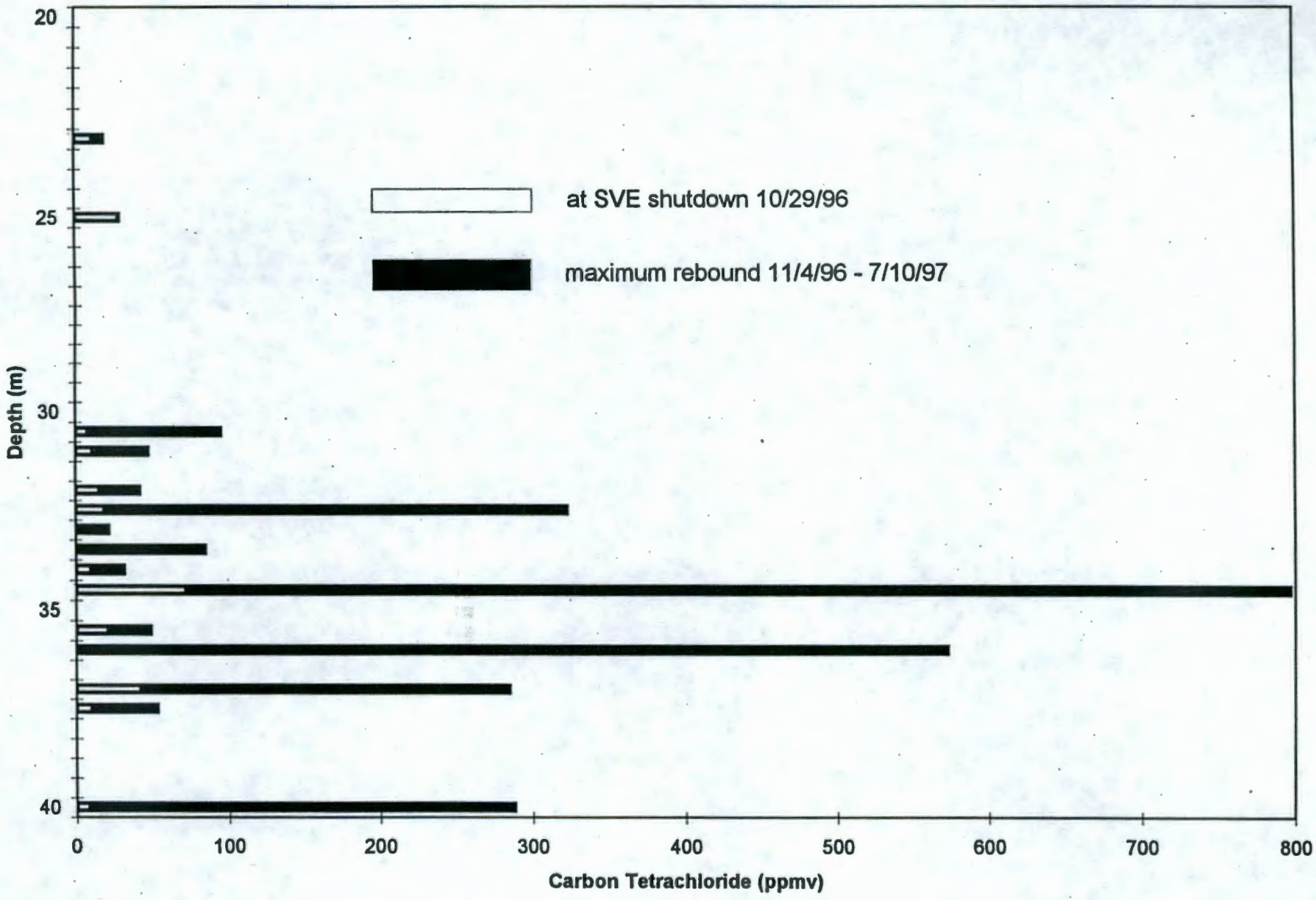
The 200-ZP-2 ERA is operated under an action memorandum which states:

"The purpose of this action memorandum is to mitigate the threat to site workers, public health, and the environment caused by the migration of carbon tetrachloride vapors through the soil column and into the groundwater. The action is an interim action taken to reduce the mass of carbon tetrachloride in the soil column beneath the 200 West Area pending final cleanup activities associated with the 200-ZP-2 Operable Unit."

PURPOSES OF THIS DISCUSSION

- Discuss how the 200-ZP-2 performance has or has not satisfied the purpose of the ERA
- Discuss the criteria for concluding the ERA
- Discuss the Path Forward
- Seek consensus on near-term and long-term approach

ATTACHMENT 2


at SVE shutdown 10/29/96
maximum rebound 11/4/96 - 7/10/97
Depth (m)
20
25
30
35
40
0
100
200
300
400
500
600
700
800
Carbon Tetrachloride (ppmv)

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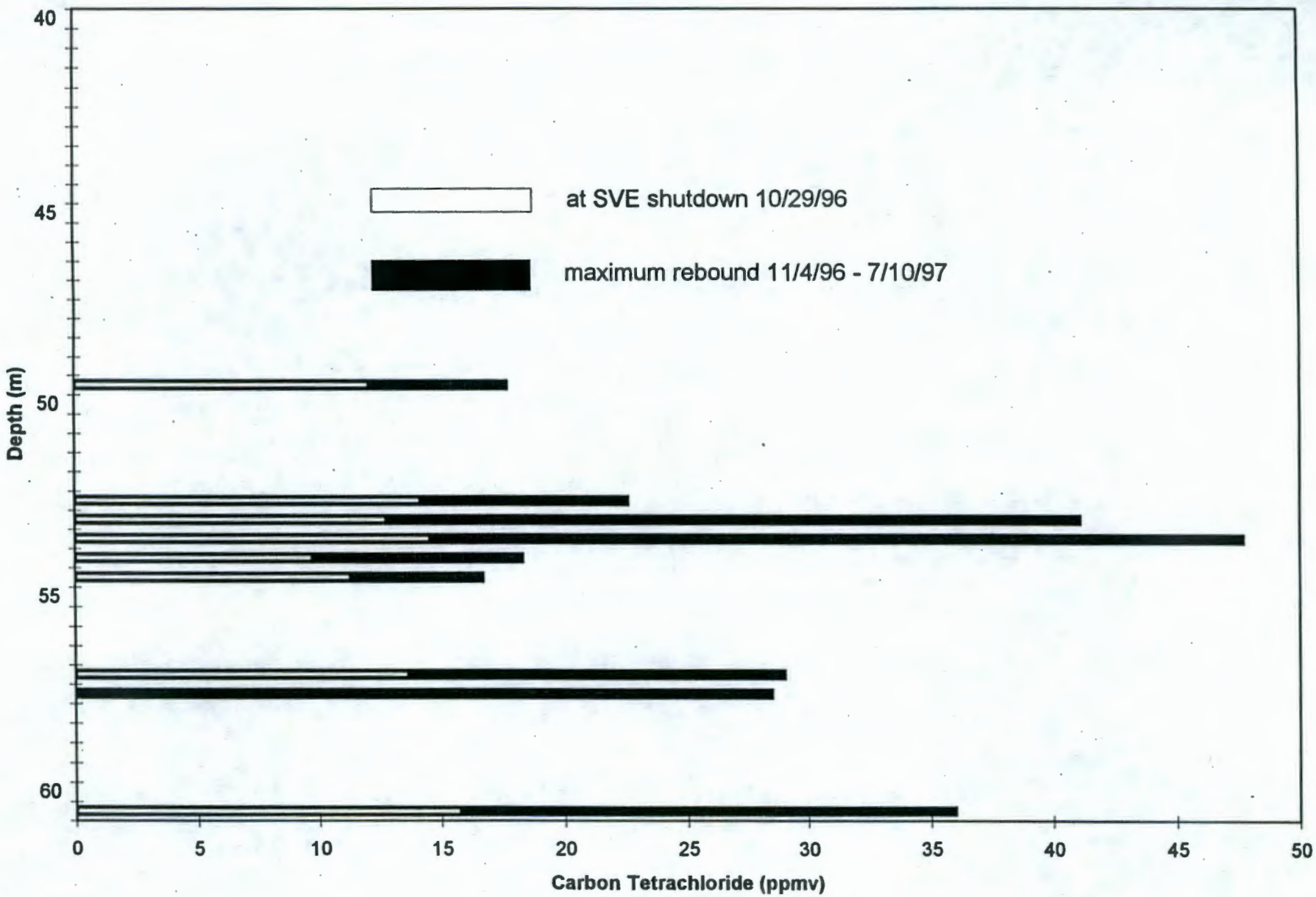
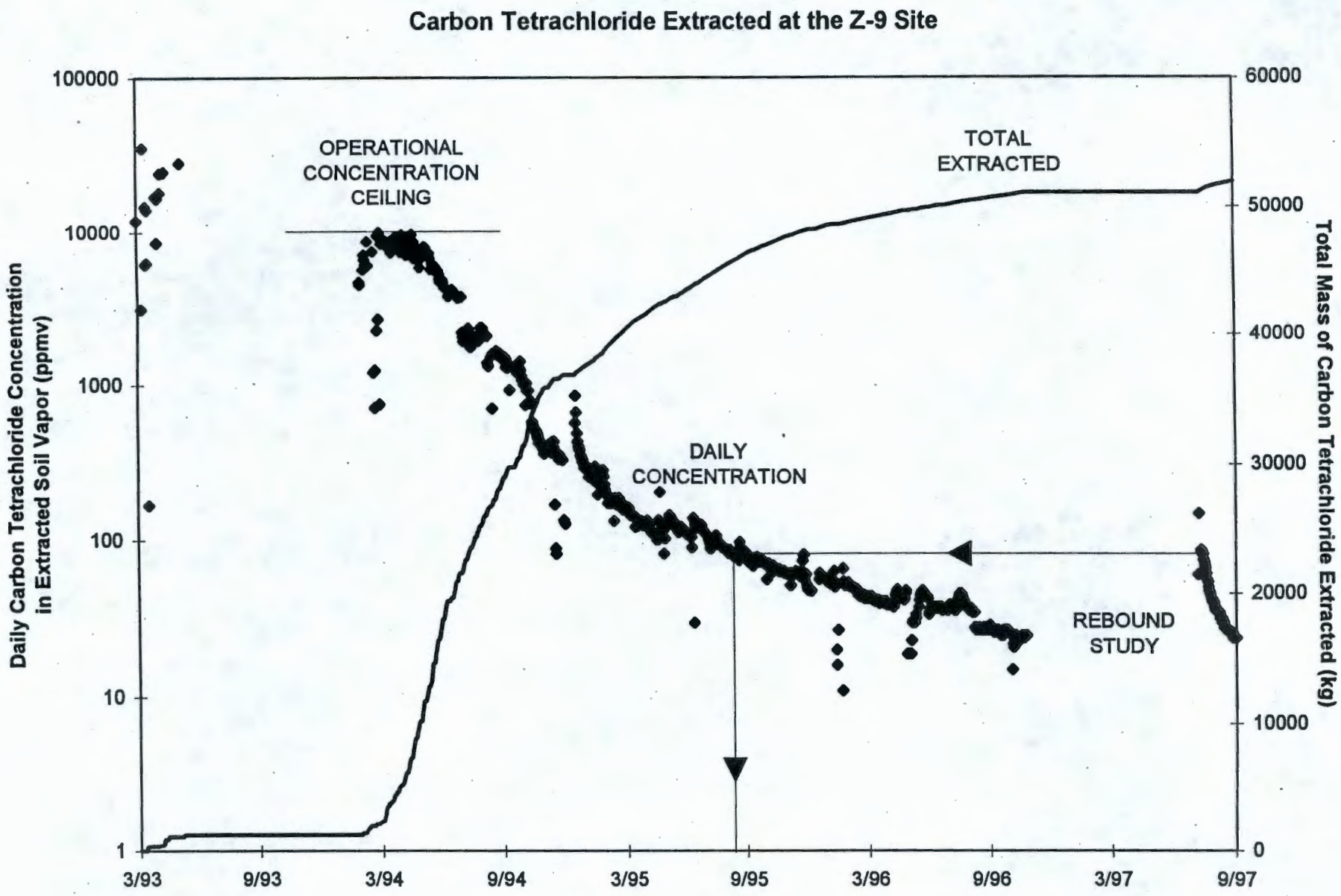
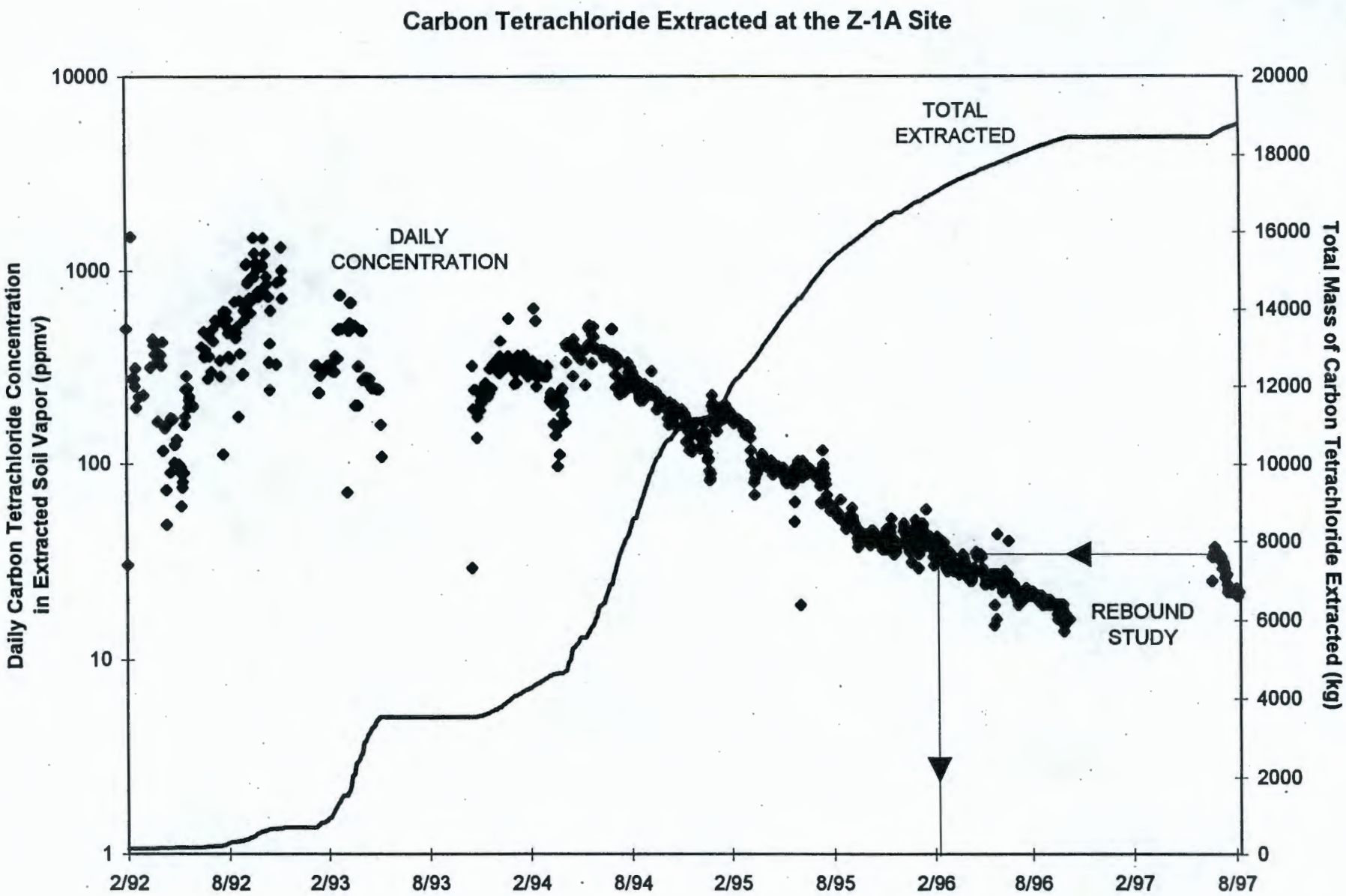
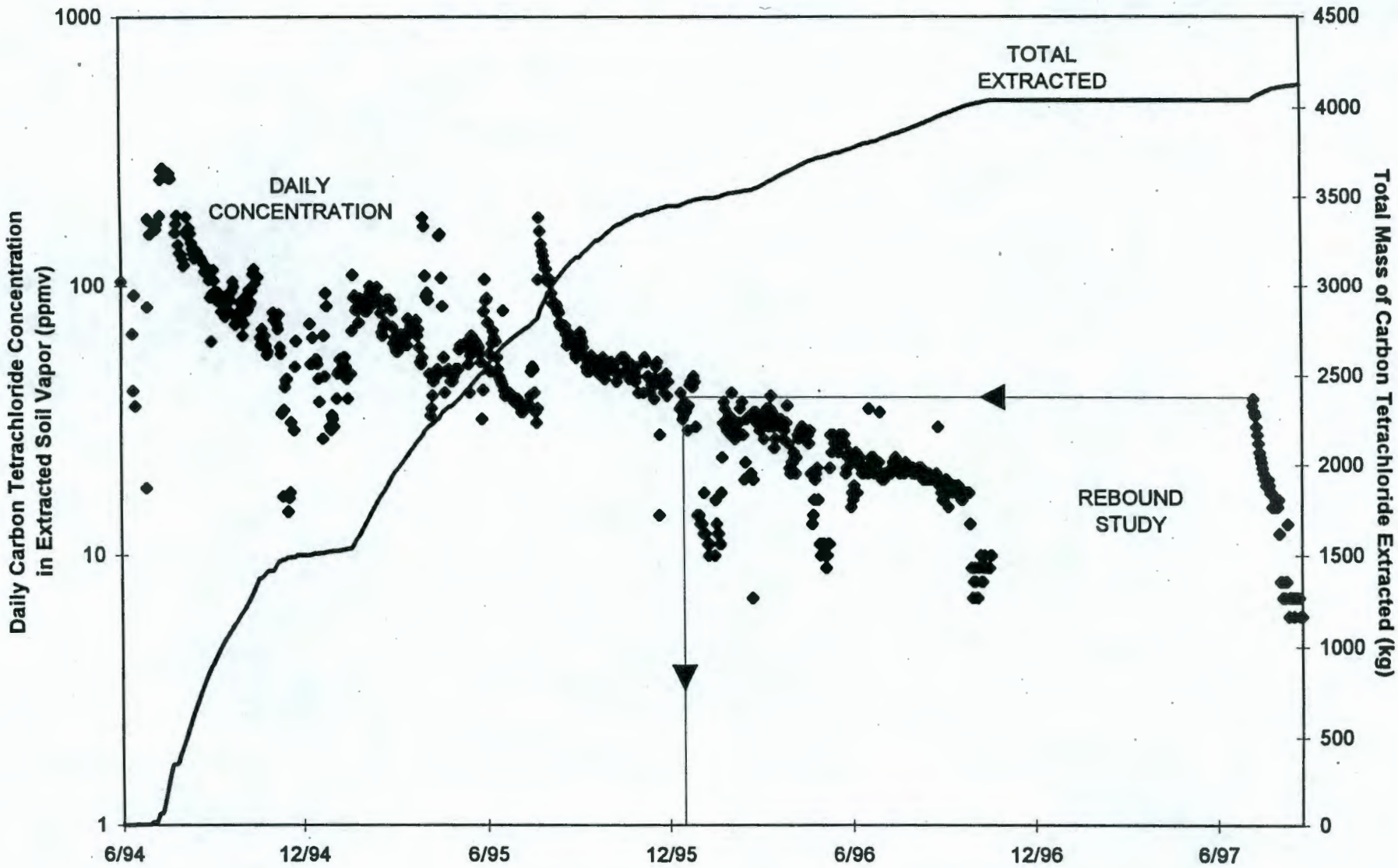

at SVE shutdown 10/29/96
maximum rebound 11/4/96 - 7/10/97
Depth (m)
40
45
50
55
60
0
5
10
15
20
25
30
35
40
45
50
Carbon Tetrachloride (ppmv)

ATTACHMENT 3

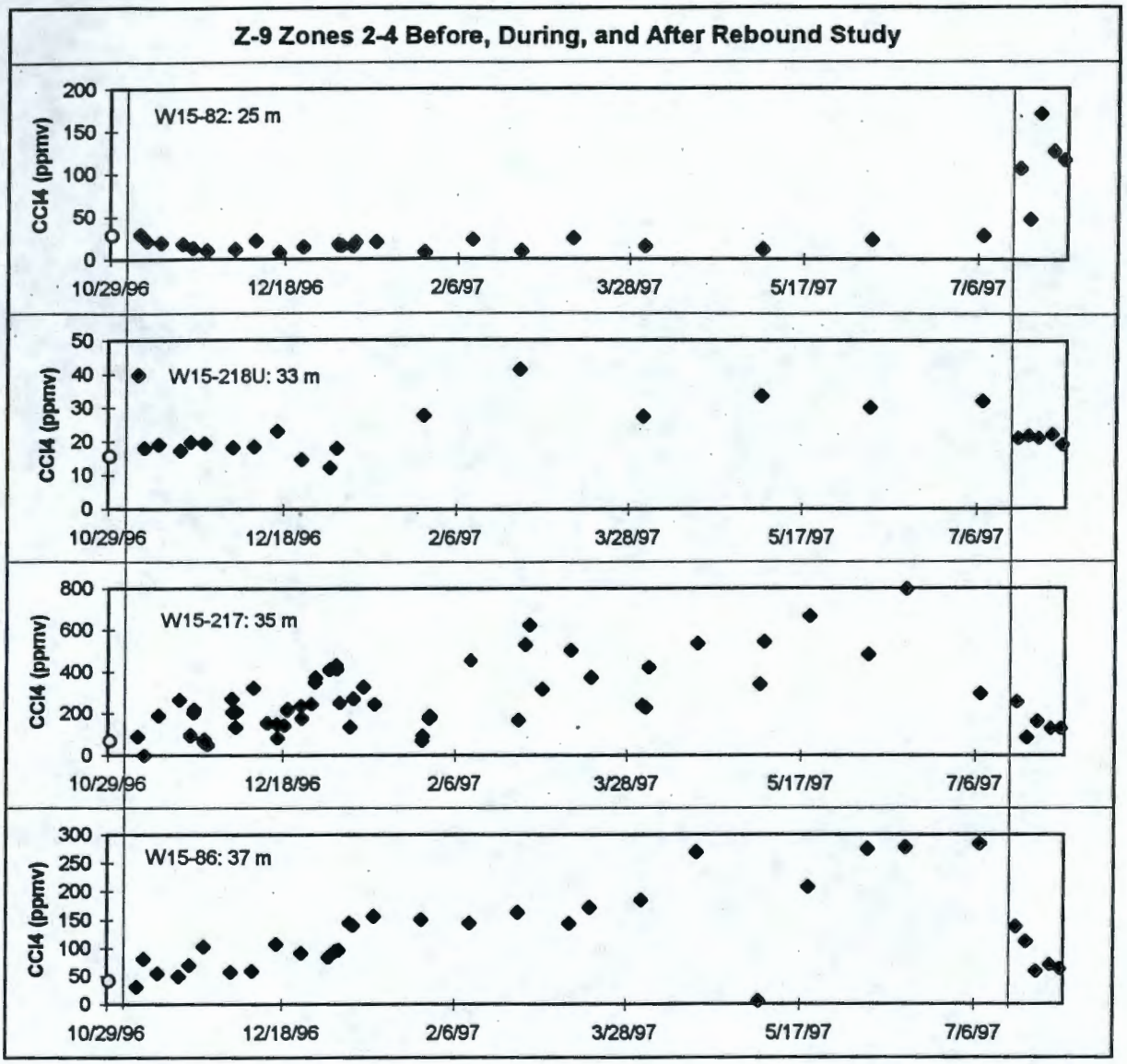

Carbon Tetrachloride Extracted at the Z-9 Site
Daily Carbon Tetrachloride Concentration in Extracted Soil Vapor (ppmv)
Total Mass of Carbon Tetrachloride Extracted (kg)
100000
10000
1000
100
10
1
60000
50000
40000
30000
20000
10000
0
3/93
9/93
3/94
9/94
3/95
9/95
3/96
9/96
3/97
9/97
OPERATIONAL CONCENTRATION CEILING
TOTAL EXTRACTED
DAILY CONCENTRATION
REBOUND STUDY

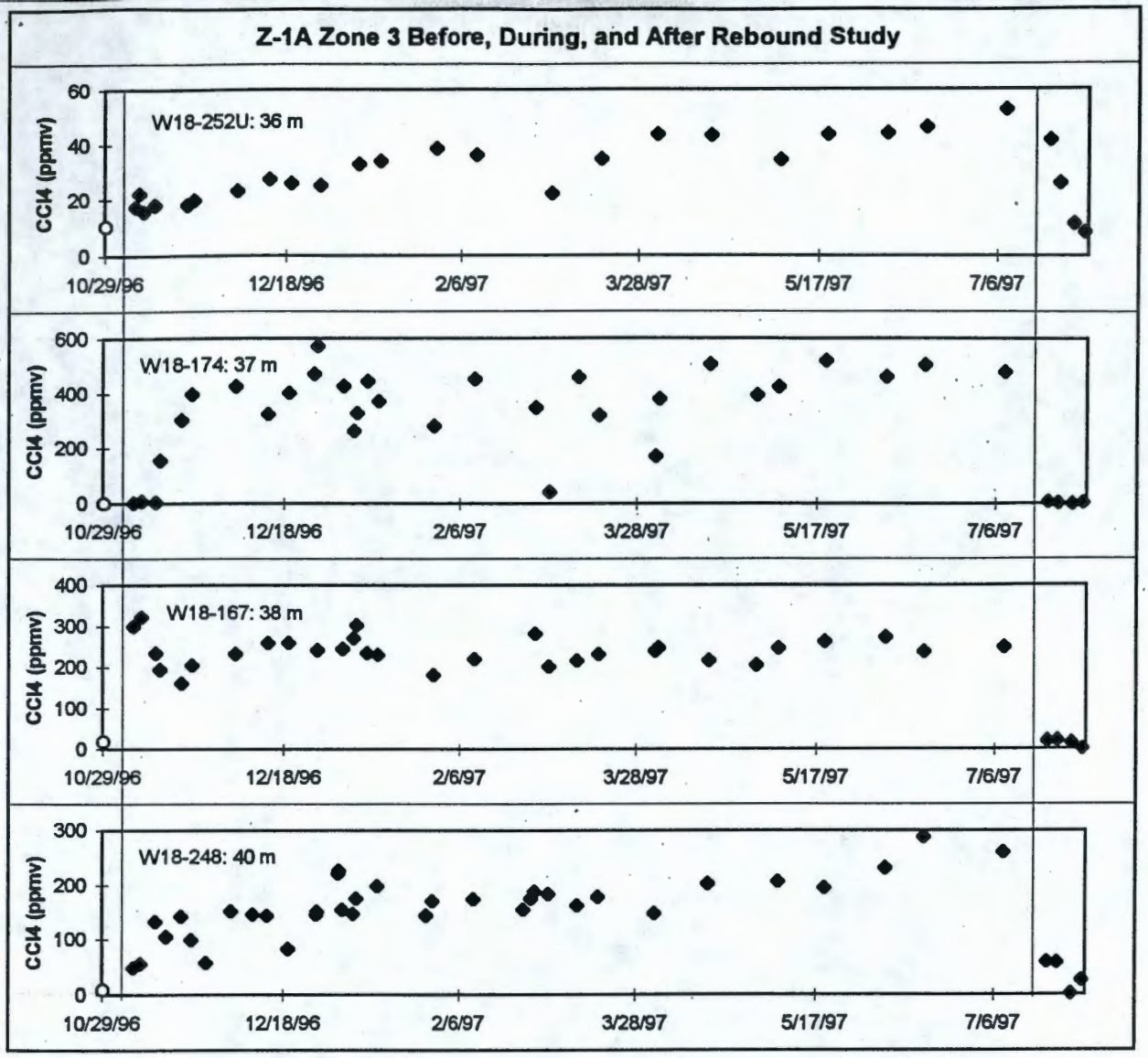

Carbon Tetrachloride Extracted at the Z-1A Site
Daily Carbon Tetrachloride Concentration in Extracted Soil Vapor (ppmv)
Total Mass of Carbon Tetrachloride Extracted (kg)
10000
1000
100
10
1
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
2/92
8/92
2/93
8/93
2/94
8/94
2/95
8/95
2/96
8/96
2/97
8/97
DAILY CONCENTRATION
TOTAL EXTRACTED
REBOUND STUDY

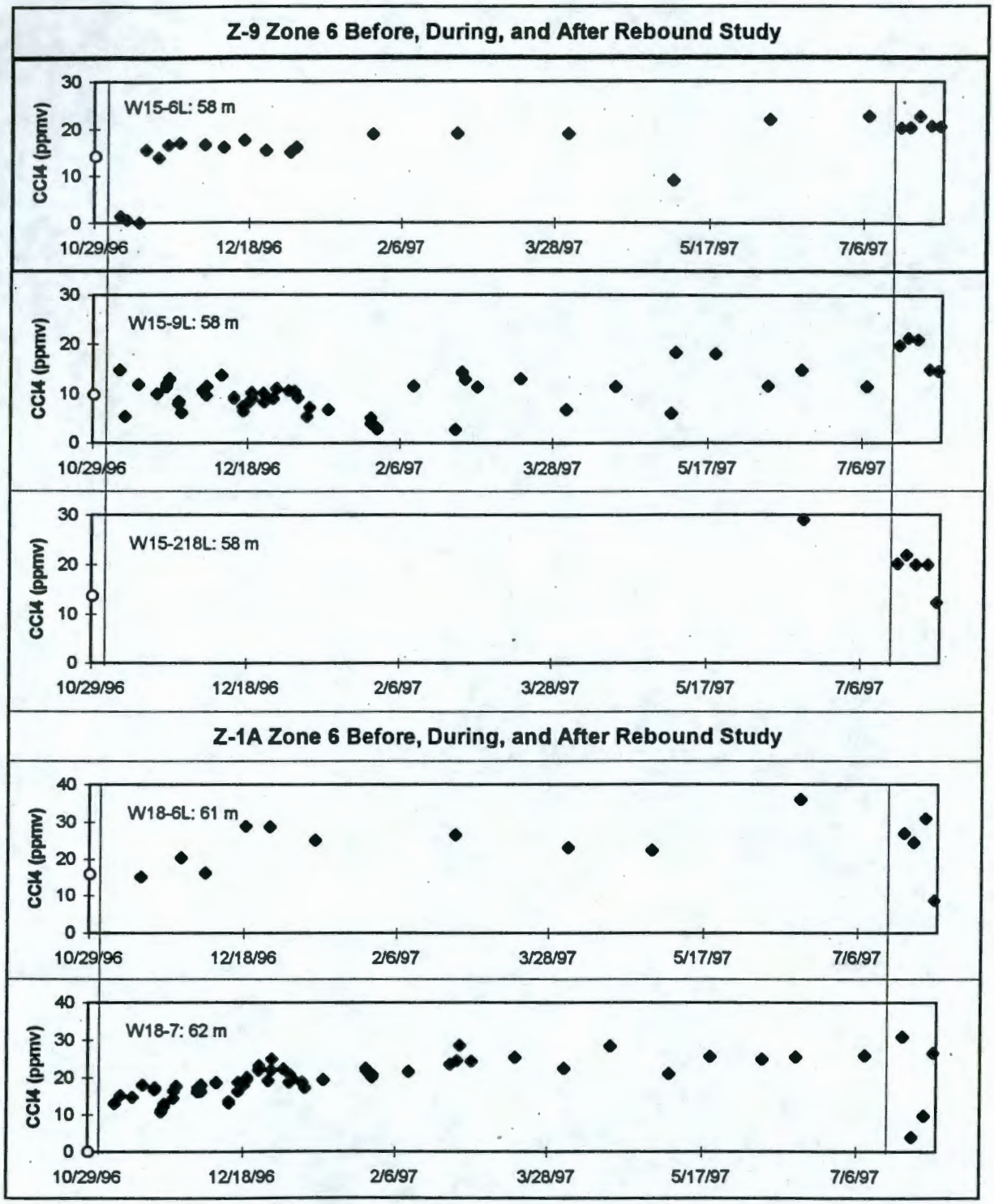
Carbon Tetrachloride Extracted at the Z-18 Site



ATTACHMENT 4

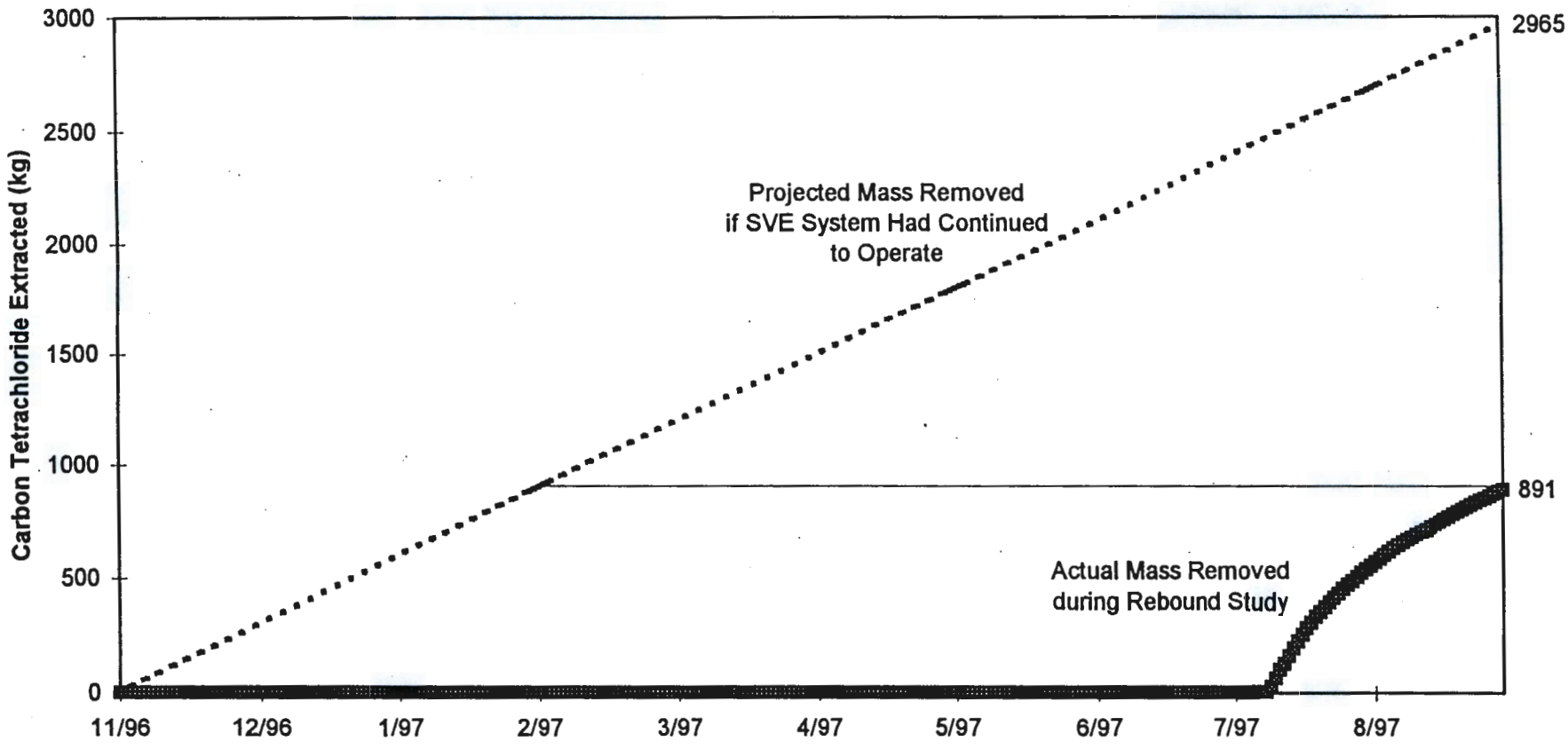

Z-9 Zones 2-4 Before, During, and After Rebound Study
W15-82: 25 m
W15-218U: 33 m
W15-217: 35 m
W15-86: 37 m
CCl4 (ppmv)
10/29/96
12/18/96
2/6/97
3/28/97
5/17/97
7/6/97


Z-1A Zone 3 Before, During, and After Rebound Study
W18-252U: 36 m
W18-174: 37 m
W18-167: 38 m
W18-248: 40 m
CCl4 (ppmv)
10/29/96
12/18/96
2/6/97
3/28/97
5/17/97
7/6/97

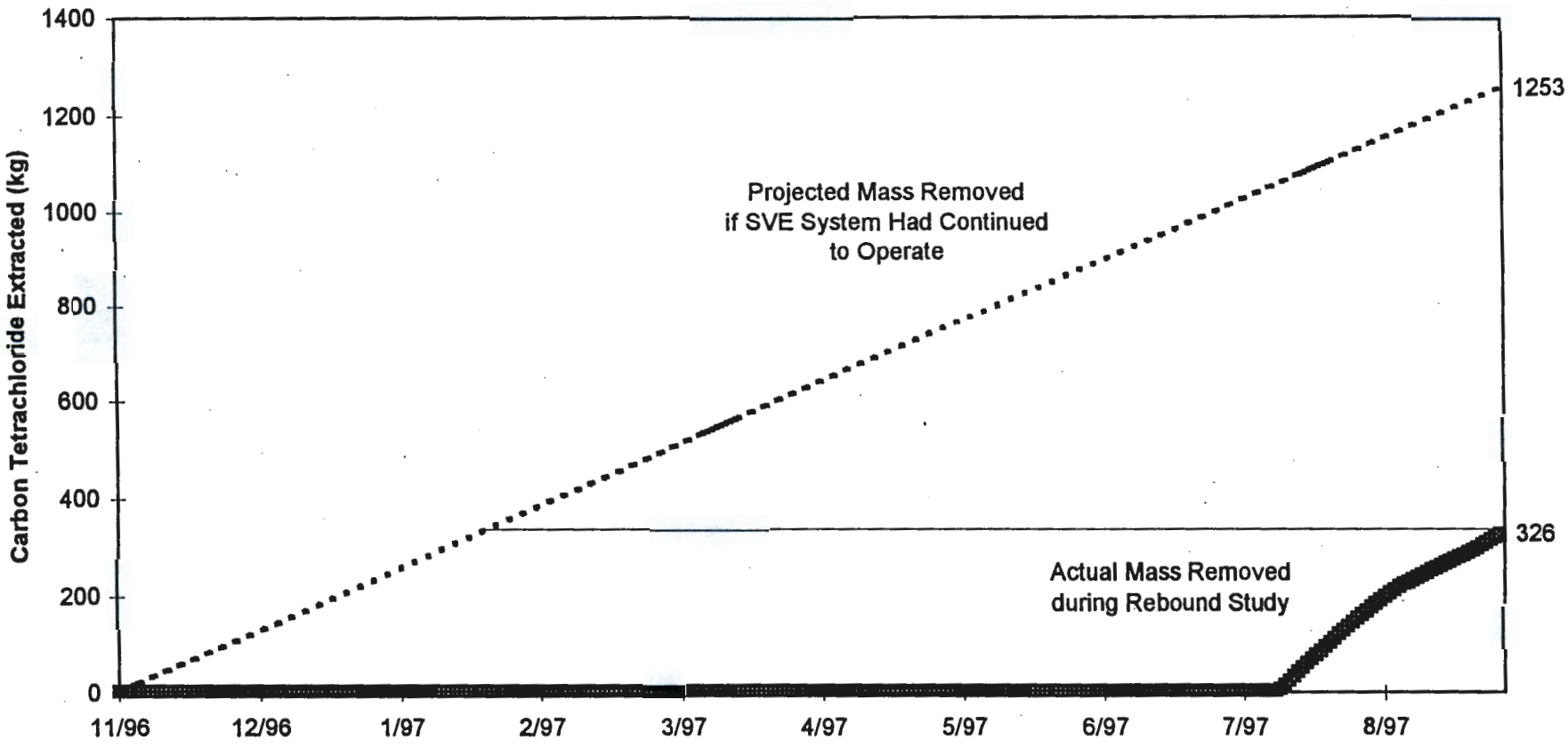

Z-9 Zone 6 Before, During, and After Rebound Study
W15-6L: 58 m
W15-9L: 58 m
W15-218L: 58 m
CCl4 (ppmv)
10/29/96
12/18/96
2/6/97
3/28/97
5/17/97
7/6/97
Z-1A Zone 6 Before, During, and After Rebound Study
W18-6L: 61 m
W18-7: 62 m

ATTACHMENT 5

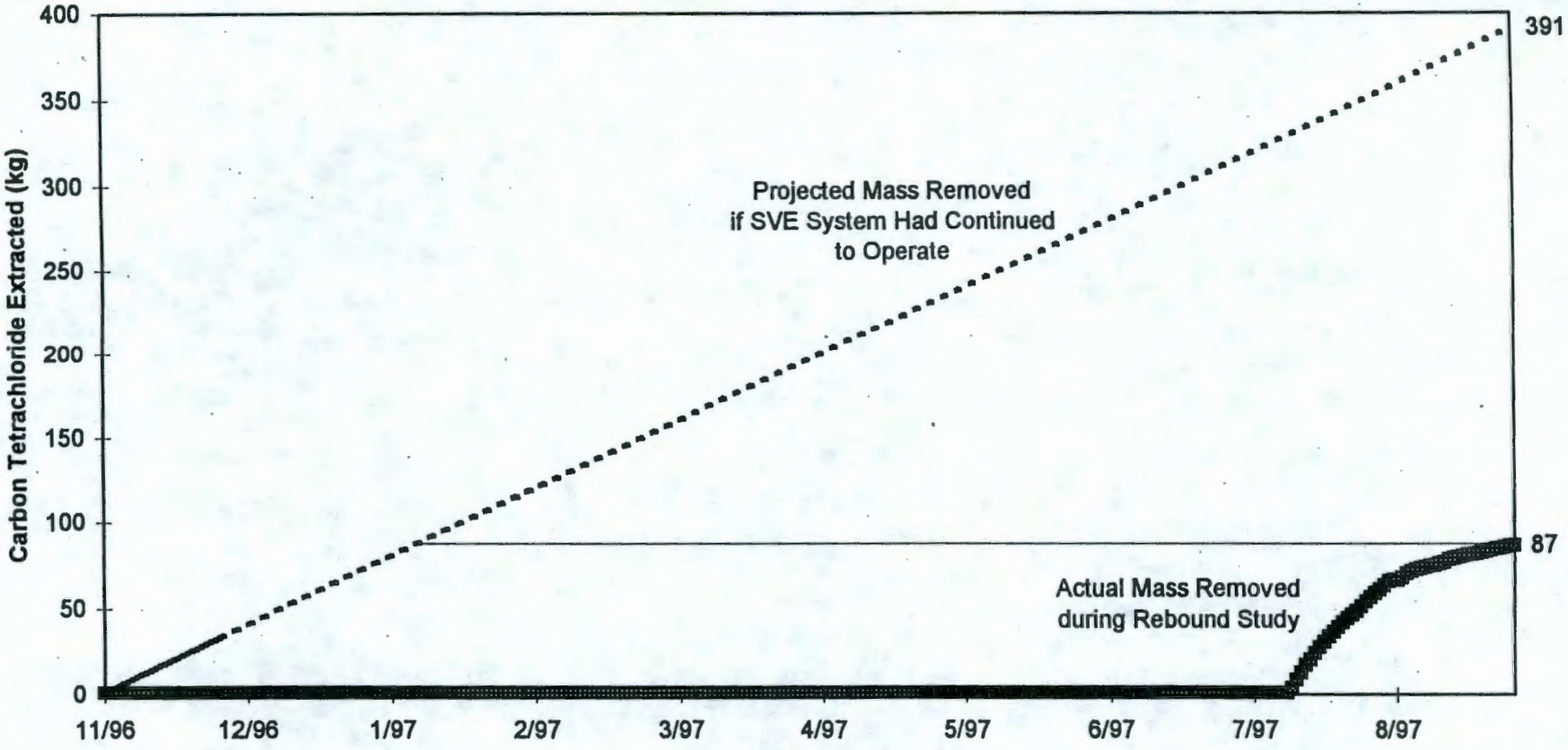
Carbon Tetrachloride Extracted at Z-9 Site 11/4/96 - 9/7/97



Carbon Tetrachloride Extracted at Z-1A Site 11/4/96 - 9/4/97



Carbon Tetrachloride Extracted at Z-18 Site 11/4/96 - 9/4/97



ATTACHMENT 6

200-ZP-1
WEEKLY OPERATION SUMMARY

Sys. Time (hrs)	Avg. Flow gpm	Avg. Flow gpm	Avg. Flow gpm	Avg. Flow gpm	Avg. Flow gpm	Avg. Flow gpm	Weekly Process (gals)	Avg. RH (%)	Avg. Air flow (cfm)	Avg Air Temp (F)	CCl_4 Wk. kg/ (lbs)	Sys. Avail Wk. Total (%)	Sys. Avail POC Total (%)	Sys. Avail PTD Total (%)	CCl_4 PTD Total kg/ (lbs)	Grndwater Treated PTD Total (gals)
168	E01 21.2	E02 33.9	E03 86.2	E04 22.8	E05 6.6	E06 18.7	1,909,152	6.2	574	71.3	25.4/ (55.9)	100	90.8	84.9	732.9/ (1612.3)	60,958,821

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200-ZP-1
WEEKLY SAMPLING SUMMARY

Smpl Date	WE01 W15-33 Conc. (ppb)	WE02 W15-34 Conc. (ppb)	WE03 W15-35 Conc. (ppb)	WE04 W15-32 Conc. (ppb)	WE05 W15-36 Conc. (ppb)	WE06 W15-37 Conc. (ppb)	T-01 Ext Tank Conc. (ppb)	V-01 Stripper Conc. (ppb)	T-02 Inj Tank Conc. (ppb)	H-01 Inf. Vapor Conc. (ppm)	A-3 Eff. Vapor Conc. (ppm)
9-11-97	5700 CCl4 24 TCM 10 TCE	3400 CCl4 14 TCM 11 TCE	3800 CCl4 24 TCM 5.8 TCE	6700 CCl4 42 TCM 4.7 TCE	3100 CCl4 29 TCM 12 TCE	350 CCl4 20 TCM <2 TCE	3500 CCl4 20 TCM 6.7 TCE	<2 CCl4 <2 TCM <2 TCE	<2 CCl4 <2 TCM <2 TCE	22	<1

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