

ATMOSPHERIC MODELING STUDIES

WASHINGTON WORKS

NEAREST LUBECK NEIGHBOR ANNUAL EXPOSURE IS CA. 0.03 UG/M3 (10% CEG)
ASSUMING 85% UTILITY/90% EFFICIENCY OF FINE POWDER DRIER SCRUBBER.

DORDRECHT

NEAREST NEIGHBOR ANNUAL EXPOSURE IS CA. 0.03 UG/M3 WITH NO SCRUBBER
IN PLACE.

SHIMIZU

NEAREST NEIGHBOR ANNUAL EXPOSURE IS CA. 0.05 UG/M3 WITH SCRUBBER IN
OPERATION.

C:SLG
1/2/92

RJZ010047

EID935502

C-8 STRATEGIES

- I. WE WILL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS GOVERNING THE USE AND DISPOSAL OF C-8.
- II. WE WILL CONTROL C-8 EXPOSURE TO PERSONNEL BY BEING IN FULL COMPLIANCE WITH THE AEL (0.01 MG/M3) FOR EMPLOYEES AND WITH THE CEG (0.0003 MG/M3 IN AIR, AND 1 PPB IN DRINKING WATER) FOR THE GENERAL PUBLIC.
- III. WE WILL COMMUNICATE C-8 INFORMATION TO EMPLOYEES AS DETERMINED BY SPD & SITE MANAGEMENT AND TO THE GENERAL PUBLIC AS DETERMINED BY SPD & SITE MANAGEMENT WITH THE ADVICE OF CORPORATE EXTERNAL AFFAIRS AND LEGAL.
- IV. WE WILL CONTINUE TO USE C-8 FOR THE MANUFACTURE OF FLUOROPOLYMERS. WE WILL CONTINUE TO REDUCE C-8 EMISSIONS TO THE ENVIRONMENT BY UTILIZING GOOD MANAGEMENT PRACTICES AS REQUIRED BY CORPORATE POLICY.

EID935503

RJZD10048

GLOBAL C-8 USERS

<u>SITE</u>	<u>AMOUNT - LBS</u>
WASHINGTON WORKS	71,100
DORDRECHT WORKS	31,400
SHIMIZU	15,950
CHAMBERS WORKS	2,000
SPRUANCE	1,500
PARLIN	2,500
U.S. MAJOR CUSTOMERS	6,150
NON-U.S. MAJOR CUSTOMERS	4,060

RJZ010049

EID935504

WASHINGTON WORKS

C-8 MASS BALANCE (LBS)

1991 EST.

PURCHASED 71,100

DISPOSAL

WATER -	OHIO RIVER	20,410
	DELAWARE RIVER	11,250

AIR	-	OHIO RIVER VALLEY	4,590
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LAND	-	LETART	3,700
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PRODUCT -	DISPERSIONS	11,000
	FINE POWDER	50

TOTAL	63,000
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RECOVERED OR DESTROYED

FP DRIERS	7,500
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FEP OVENS	600
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TOTAL	8,100
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% OF FEED	11.4
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EID935505

DORDRECHT WORK
C-8 MASS BALANCE (LBS)
1990 EST.

<u>PURCHASED</u>	<u>31,400</u>
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DISPOSAL

WATER	- MERWEDE RIVER	21,200
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AIR	-	7,100
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LAND	- DORDRECHT MUNICIPAL DISPOSAL AREA	400
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PRODUCT - DISPERSIONS	2,300
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TOTAL	31,000
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RECOVERED OR DESTROYED

FEP OVENS	400
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% OF FEED	1.2
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RJZ010051

EID935506

SHIMIZU WORKS
C-8 MASS BALANCE (LBS)
1990 ACTUAL

<u>PURCHASED</u>	<u>15,950</u>
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DISPOSAL

WATER - SUGURA BAY	12,800
AIR	500
LAND	10
PRODUCT	1,700

TOTAL	15,000

RECOVERED OR DESTROYED

INCINERATOR - SUPERNATE	950
1/2 OF FEED	6.0

RJZ010052

EID935507

OTHER C-8 MASS BALANCES

CHAMBERS WORKS

1560 LBS TO DELAWARE RIVER
350 LBS TO AIR
90 LBS TO PRODUCT

SPRUANCE

1500 LBS TO JAMES RIVER

PARLIN

2500 LBS TO OTHER CUSTOMERS

RJZ010053

EID935508

A Community Exposure Guideline ("CEG") is an exposure guideline established by Haskell Laboratory. The CEG assumes a 24-hour lifetime exposure by all, including the most sensitive individuals, in an exposed community population. Exposure above the CEG will not necessarily result in any adverse effects. Where data indicates that the CEG may be approached or exceeded, Haskell, the appropriate Business and Legal will evaluate, what action, if any should be taken. It is the Company's intent to maintain exposure below the CEG.

RJZ010054

EID935509

GLOBAL C-8 ISSUES

WASHINGTON WORKS

- LAB DISCUSSION
- C-8 LEVELS IN AIR - RESOLVED
- OHIO & DELAWARE RIVER
- GROUNDWATER
- LANDFILL - LETART & DRY RUN

DORDRECHT WORKS

- C-8 LEVELS IN AIR - RESOLVED
- MERWEDE RIVER
- LANDFILL

SHIMIZU WORKS

- SUGURA BAY

CHAMBERS WORKS

- RECOVERY IN PACT UNIT

SPRUANCE

- JAMES RIVER

MAJOR CUSTOMERS

- AWARENESS OF HAZARD

RJZ010055

EID935510

C-8 ANALYTICAL PROGRAM

	METHOD	ACCURACY	DETECTION LIMIT	COST/ SAMPLE	LAB EPA RECOGNIZED
EXP. STA.	DERIVITIZE GC	3 σ 1.4 PPB	1 PPB	> \$350	NO
CH2MHILL	EXTRACTION DERIVITIZE GC	3 σ .0066 PPB	0.1 PPB	\$350	YES
WASHINGTON WORKS	DERIVITIZE/GC	-	1/2 PPM	-	NO

PREFERRED LAB - CH2MHILL - ROUTINE C-8 SAMPLES

EXP. STA. - NEW PROCEDURES

EID935511

RIZ010056

FINE POWDER DRIER VENT SCRUBBER

1991 STATUS

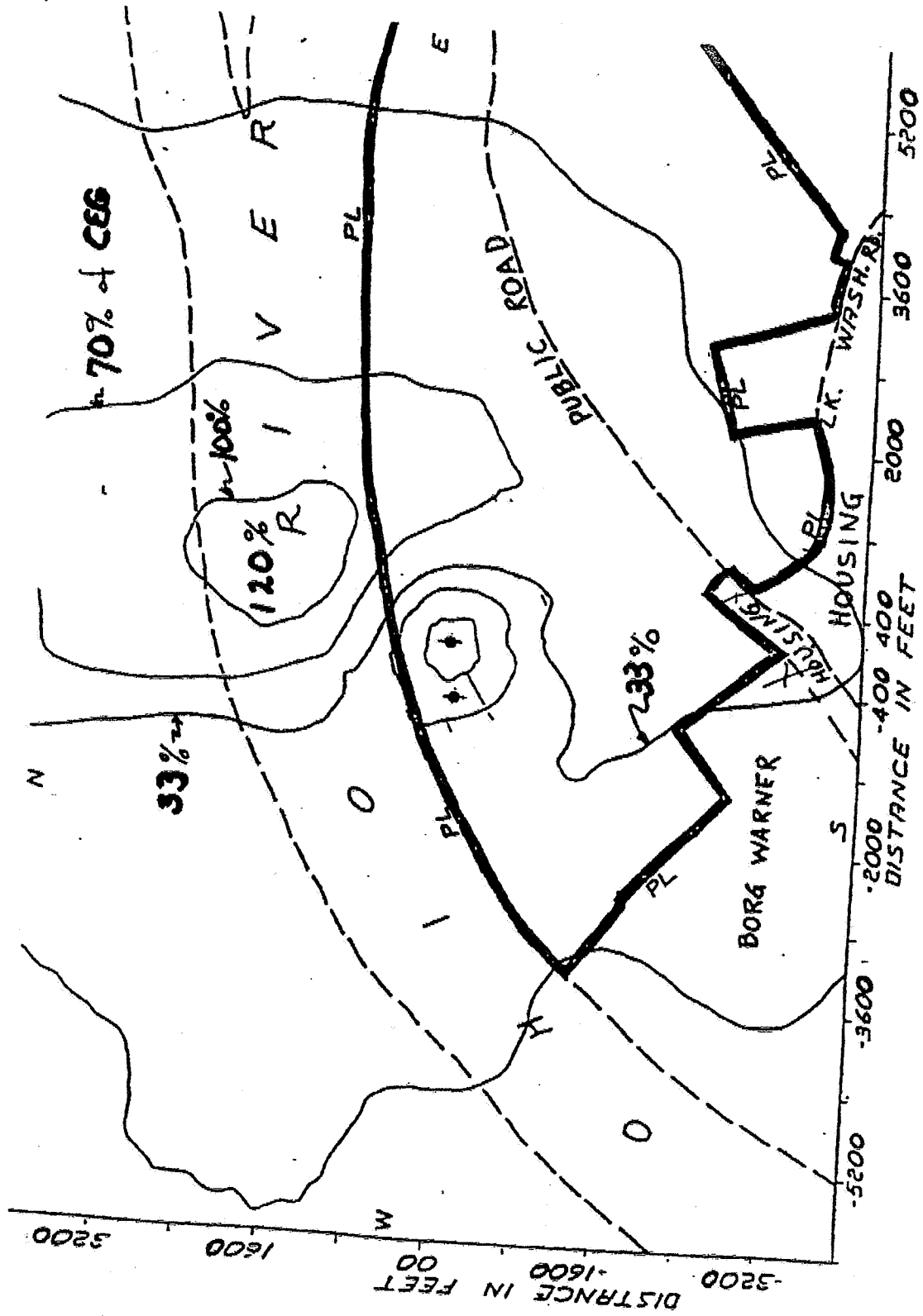
	STATUS 12/91	PROJECT OBJECTIVES
SCRUBBER EFFICIENCY	90	90
SYSTEM UTILITY	92	95
1991 RECOVERED C-8	7800 (60%)	13,000

SYSTEM START-UP - 3/90

RJZ010057

EID935512

WILKINSON WORKS C-B ANNUAL MEAN CONCENTRATION CASE 1



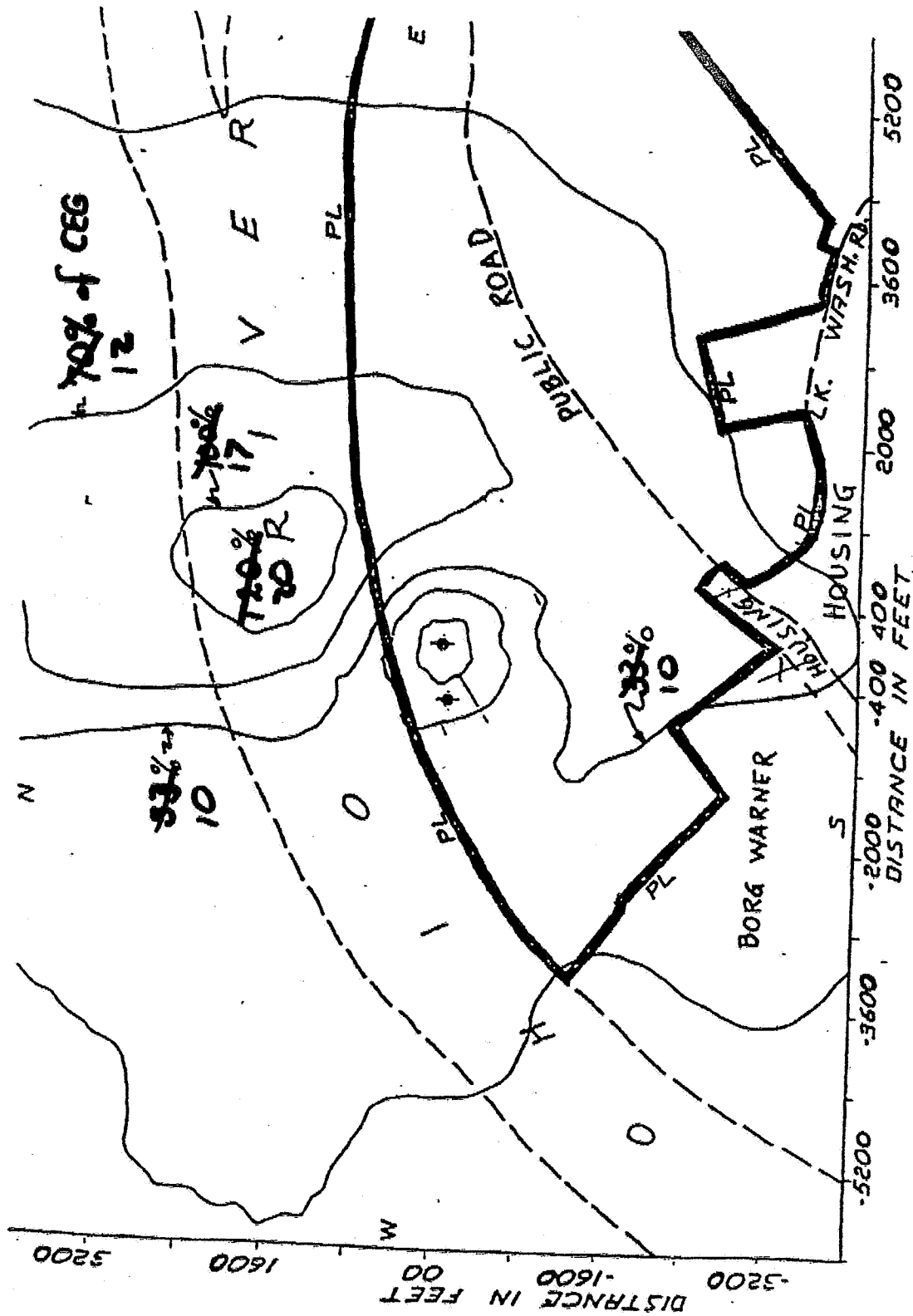
EID935513

RJZ010058

W. HINGTON WORKS C-8 ANNUAL MEAN CONCENTRATION
CASE 1

W. H

A37TEWED



EID935514

RJ2010059

WASHINGTON WORKS

C-8 IN WATER

SOURCES

LBS/YR

OHIO RIVER

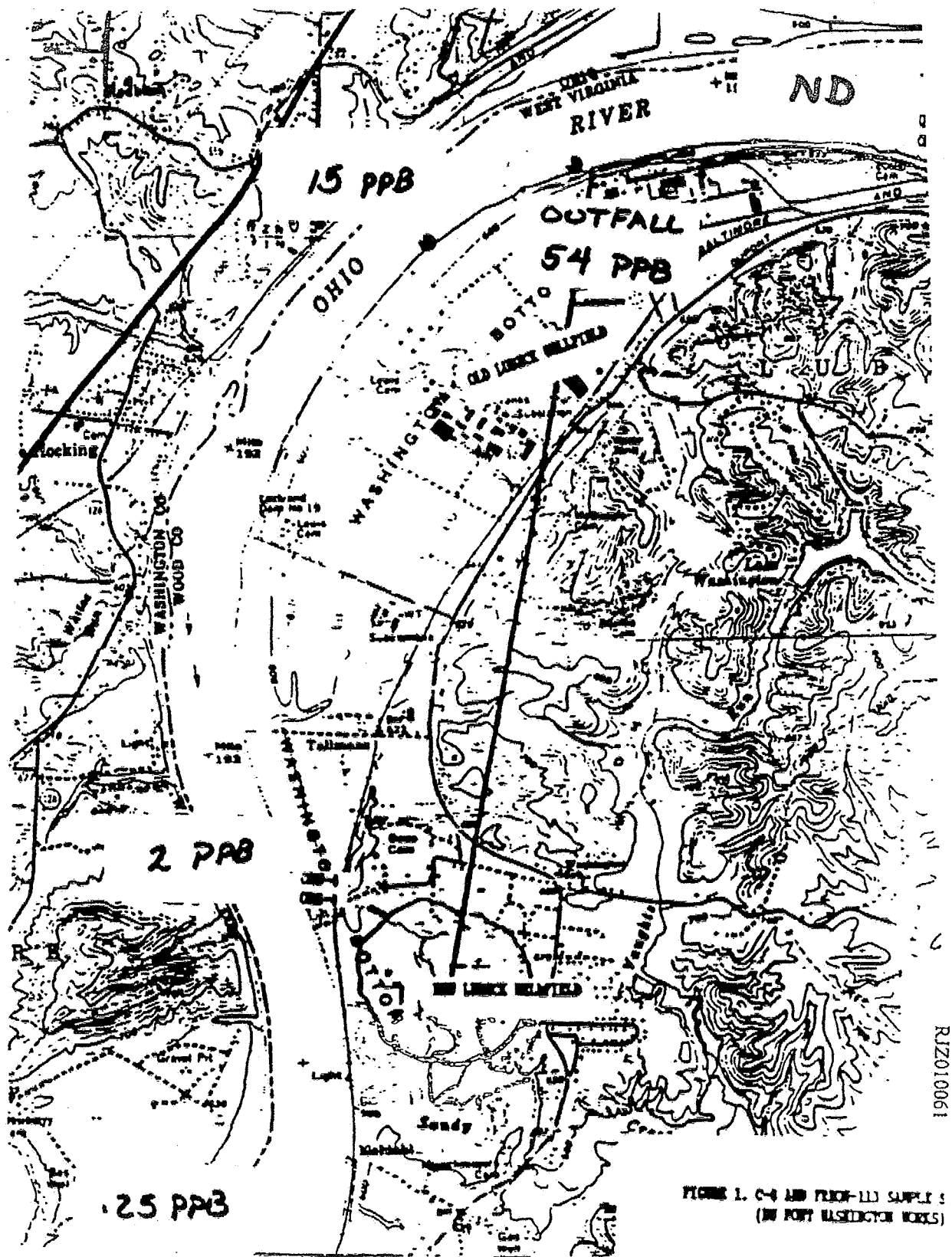
GRANULAR	160
FINE POWDER/DISPERSION	2,850
FEP	17,400
TOTAL	20,410

DELAWARE RIVER

DISPERSION SUPERNATE	11,250
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CALCULATED ANNUAL AUC - .6 PPB

EID935516

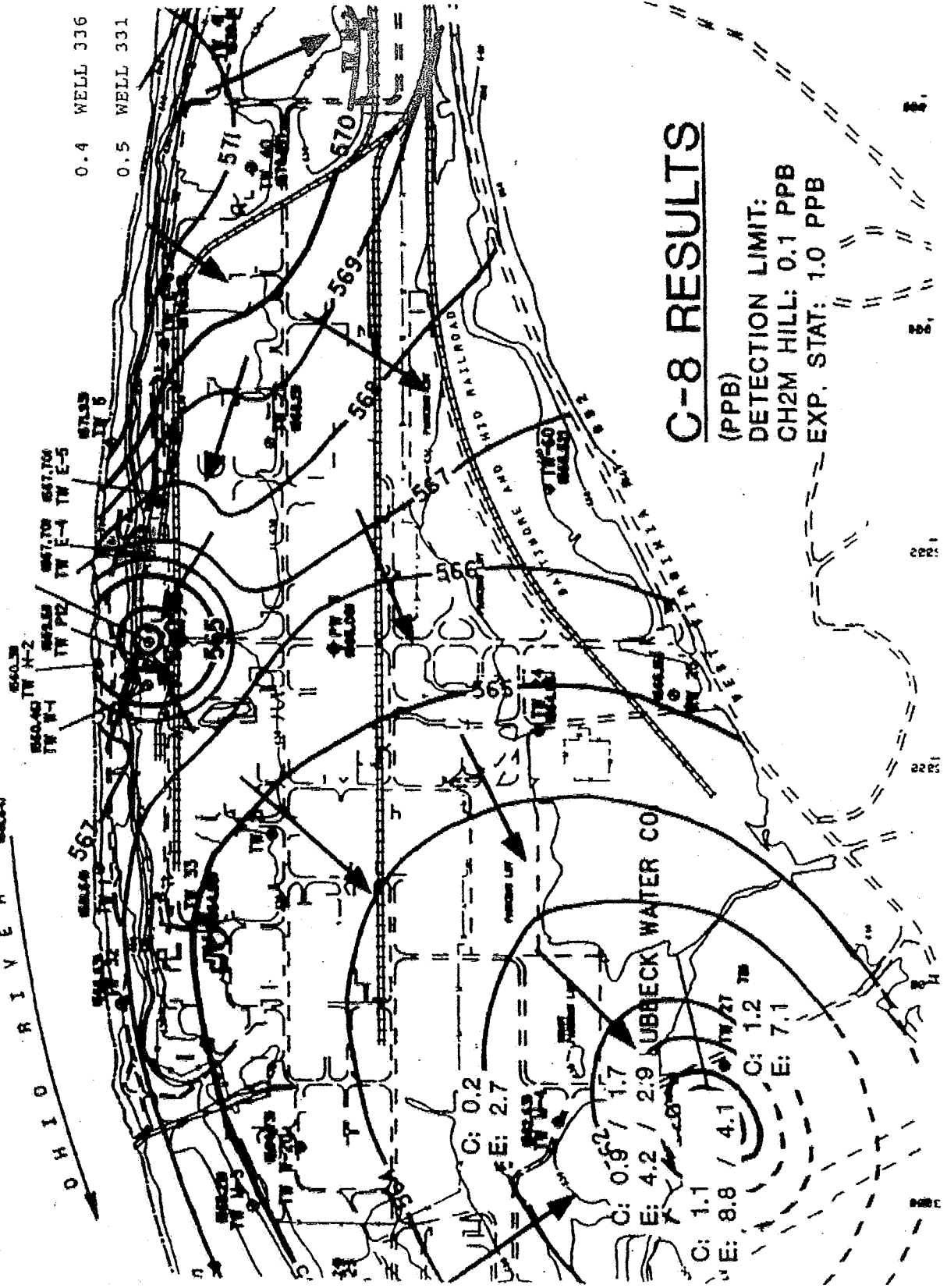
WASHINGTON WORKS
C-8 IN WATER PROGRAMS

<u>PROGRAM</u>	<u>STATUS</u>	<u>EST. COMP.</u>
CAPTURE FEP DRIER VENT (11,000 LBS/YR)	BASIC DATA DEVELOPMENT	3Q '92
DETERMINE CHAMBERS WORKS PACT PROCESS MASS BALANCE	IN PROGRESS	1Q '92
RECOVER C-8 FROM PTFE SUPERNATE (10,000 LBS/YR)	CONCEPT STAGE	GOAL-1994
REPLACE C-8 IN FEP WITH TBSA	25% COMPLETE	UNKNOWN

RJZ010063

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O H I O R I V E R

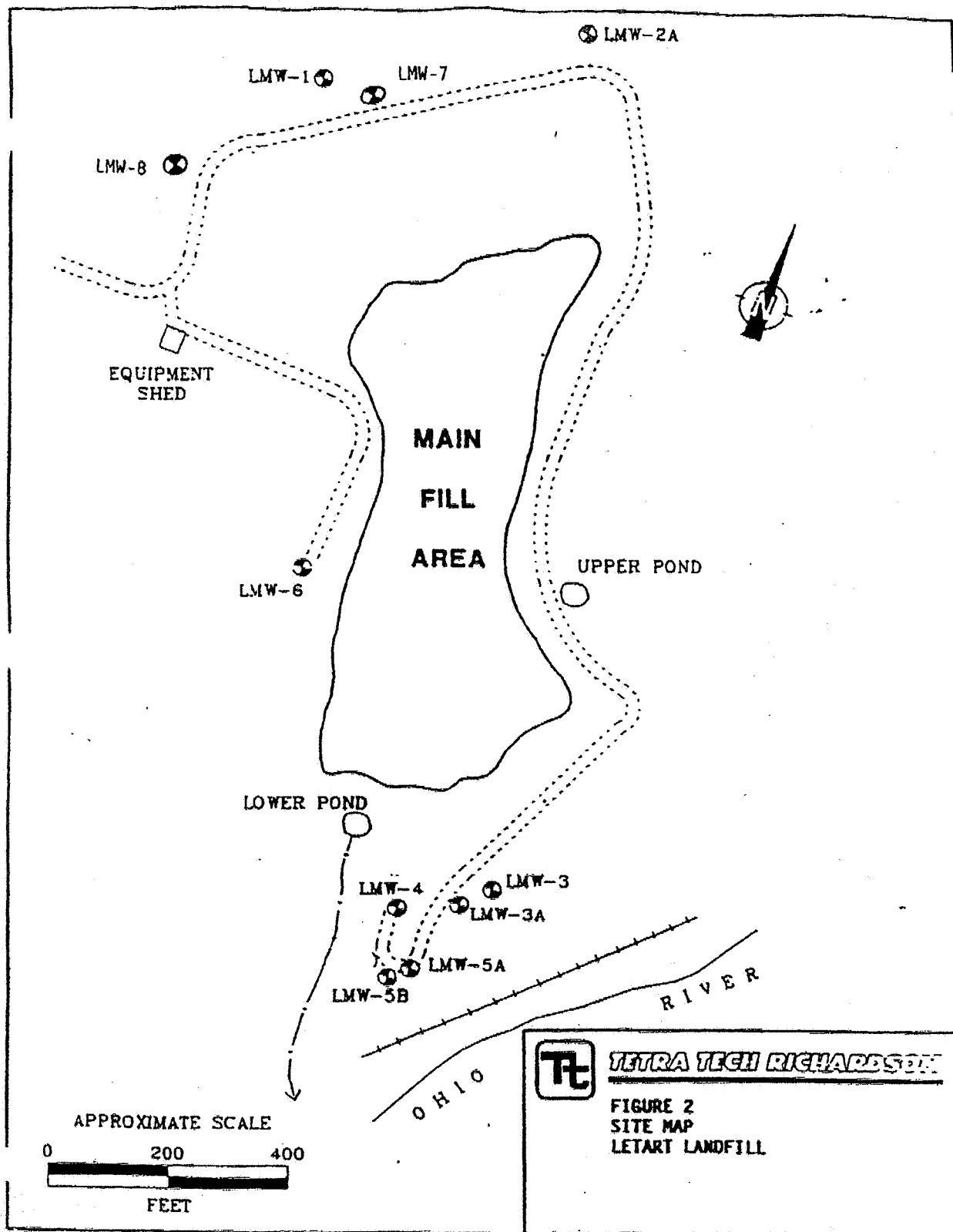


C-8 RESULTS

(PPB)
DETECTION LIMIT:
CH2M HILL: 0.1 PPB
EXP. STAT: 1.0 PPB

C: 0.2
E: 2.7
C: 0.9 / 1.7
E: 4.2 / 2.9
C: 1.1
E: 8.8 / 4.1
C: 1.2
E: 7.1

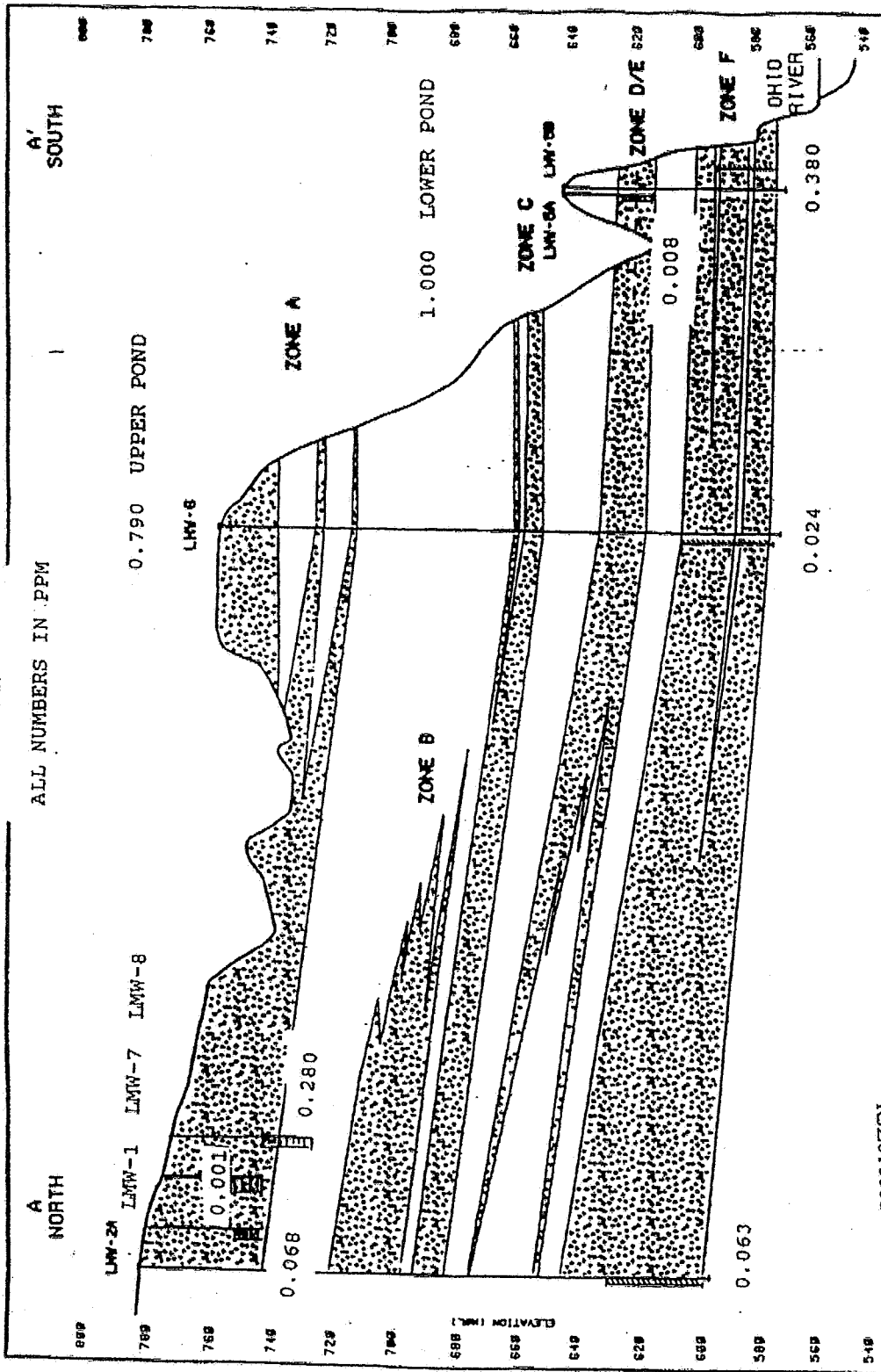
WUBBECK WATER CO



RJZ010067

C-8 RESULT

ALL NUMBERS IN PPM

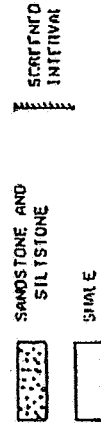


890010ZTR

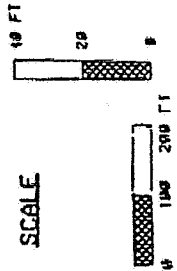
GEOLOGICAL CROSS-SECTION A - A'

LETART LANDFILL
DUPONT WASHINGTON WORKS
PARKERSBURG, WEST VIRGINIA

LEGEND



SCALE

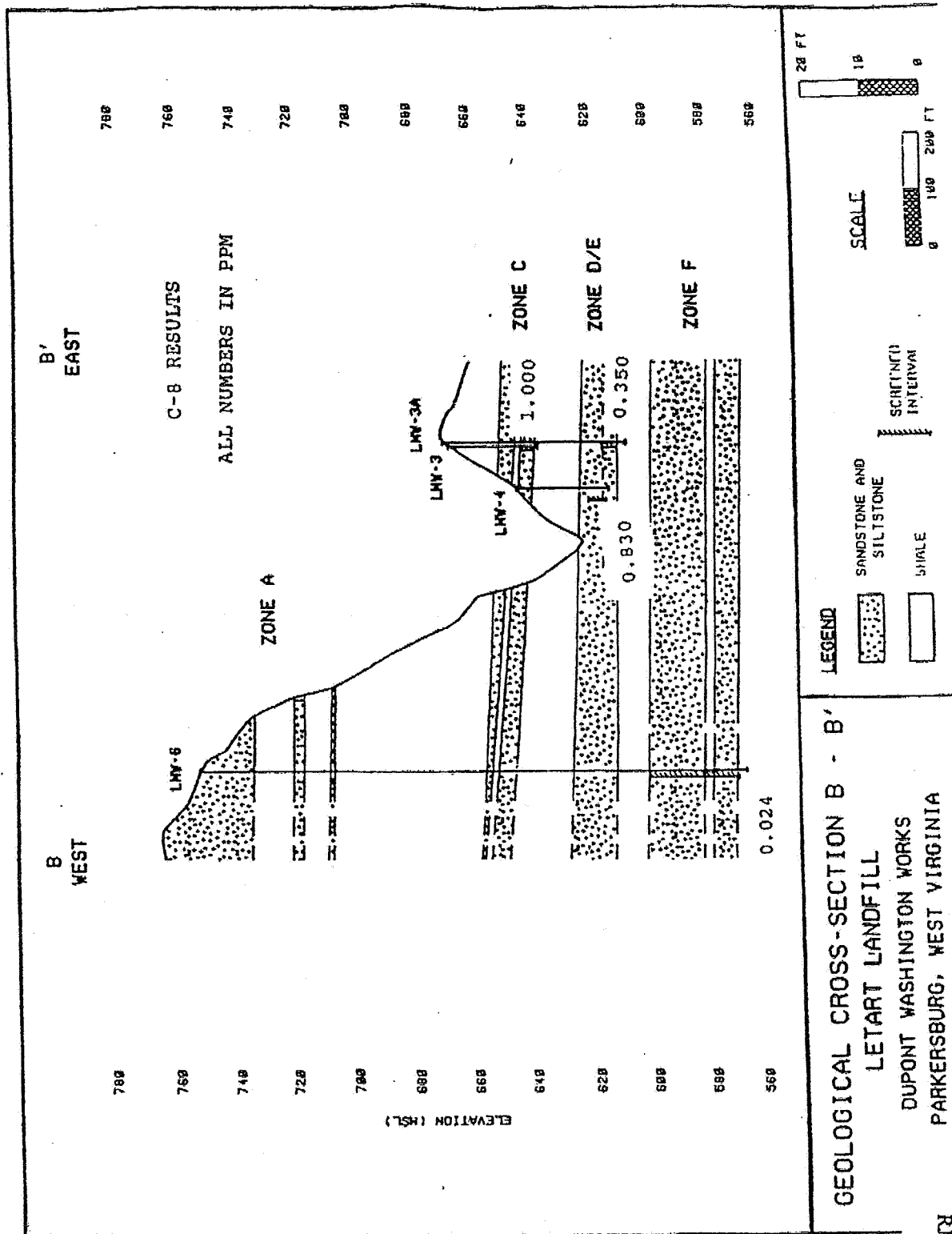


NOT: "ZERO" IS NOT "ZERO" AS A "ZERO" IS NOT "ZERO".

SECTION 1110

SECTION 1110

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LETART LANDFILL STRATEGY

- 1) SUBMIT COMPLIANCE SCHEDULE TO DNR IN 1QR
1992 TO ALLOW CONTINUED OPERATION THROUGH
NOVEMBER 1, 1992
- 2) EVALUATE COMPLIANCE SCHEDULE OPTIONS:
 - CONTEST LINER EQUIVALENCY DECISION;
REQUEST WAIVER
 - DECIDE SIGNIFICANCE OF C-8 PRESENCE
IN ZONE F
 - RETROFIT LANDFILL
 - DECIDE COST EFFECTIVENESS FOR 3000
TON/YR WASTE
 - CLOSE LANDFILL
 - OTHER TEFLON* WASTE MANAGEMENT OPTIONS
AVAILABLE
 - DISPOSAL AT OTHER LANDFILLS
 - WASTE MINIMIZATION
 - SCRAP RECOVERY

RJZ010070

EID935524

PROGRESS AND PROGRAMS

1) TECHNOLOGY STUDIES

- LITERATURE SURVEY COMPLETED
 - BIODEGRADATION NOT EFFECTIVE
 - INCINERATION
 - CARBON ADSORPTION
 - ION EXCHANGE
- ELECTRO-CHEMICAL DESTRUCTION
 - U OF D

2) DRY RUN LANDFILL

- SLUDGE ENCAPSULATED
- SAMPLES 1092

3) SITE REMEDIATION

- PUMP TO CONTAIN

RJZ010071

E1D935525

COMMUNICATIONS

1) NEW WELL FIELD RESULTS

- LPSD (DONE)
- RESAMPLE AFTER WELLS ARE ON LINE (1092)

2) VI REPORT RESULTS

- EPA (REGION III), WV-DNR, LPSD, LOCAL MEDIA
- DUE 4/6/92

3) LETART RESULTS

- WV-DNR
- COMPLIANCE SCHEDULE (1092)

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OTHER GLOBAL C-8 PROGRAMS

- DORDRECHT
 - C-8 IN AIR SCRUBBER - SCOPE DEV.
 - MERWEDE RIVER ANALYSIS
- SHIMIZU
 - C-8 SCRUBBER ON LINE
 - SUGURA BAY ANALYSIS
- CHAMBERS WORKS
 - WASTE WATER TREATMENT ANALYSIS
- SPRUANCE
 - JAMES RIVER ANALYSIS
- CUSTOMERS
 - NEW MSDS ISSUED

RJZ010073

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