

B. Heinze



DOW CHEMICAL U.S.A.

December 6, 1988

LOUISIANA DIVISION
P. O. BOX 150
PLAQUEMINE, LOUISIANA 70765-0150
504 389-8000

D. R. Branson
Building 1261
Midland

HEX WIPE SAMPLING LOCATIONS

Dear Mr. Banson:

A floor plan of the Louisiana Division Per-Tet Plant is attached along with a table of corresponding Hex Wipe Sampling data. The numbers on the Per-Tet Plant floor plan correspond with those on enclosed data table.

If I can be of further assistance, please contact me at (504)389-1817.

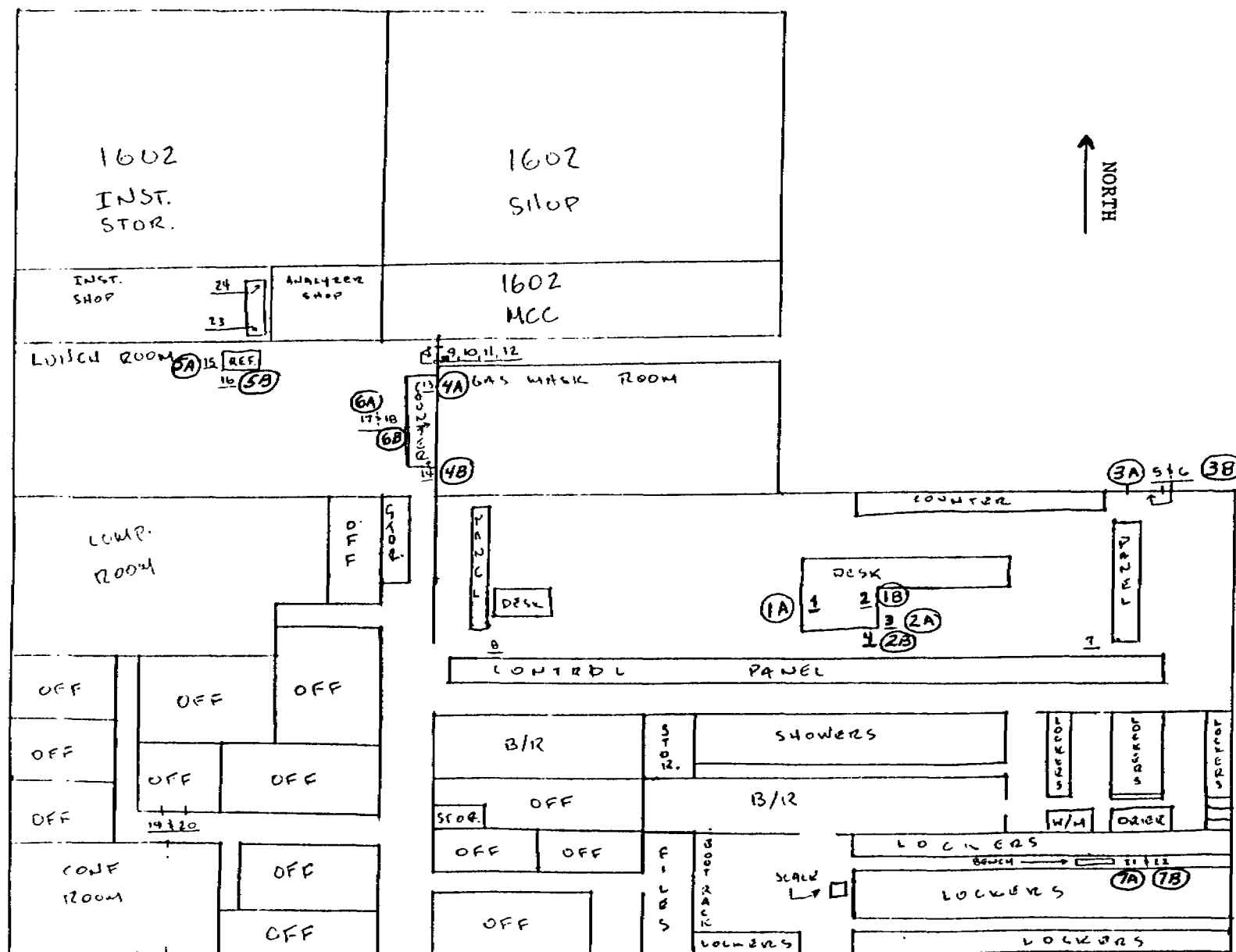
Bruce Heinze
Bruce Heinze
Industrial Hygiene

Enclosures

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DO A 116398
CONFIDENTIAL

SOLVENTS PLANT SURFACE WIPE LOCATIONS
LOUISIANA DIVISION
BUILDING 1601
DECEMBER 8, 1988



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ROUND ROBIN WIPE SAMPLING RESULTS
LOUISIANA DIVISION CHLORINATED SOLVENTS PLANT
RESULTS IN NANOGRAMS HEXACHLOROBENZENE PER WIPE

<u>SAMPLE</u>	<u>7/8/85</u>	<u>9/6/85</u>	<u>11/4/85</u>	<u>5/19/87</u>	<u>DESCRIPTION</u>
1	143	68	85	BLD <14	DESKTOP CENTER WESTSIDE
2	92	83	BLD <11	BLD <14	DESKTOP CENTER EASTSIDE
3	24	91	13	21	DESK TELEPHONE RECEIVER
4	37	39	16	29	PAGE TELEPHONE RECEIVER
5	<22	33	19	36	PUSHPLATE-BOTTOM SECTION
6	23	38	<11	108	PUSHPLATE-TOP SECTION
7	1555	6022	<11	372	FLOOR IN FRONT OF CONTROL PANEL-SOUTH WALL-EASTSIDE
8	5044	378	59	355	FLOOR IN FRONT OF CONTROL PANEL-SOUTH WALL-WESTSIDE
9	222	106	62	267	DOORFRAME OVER ENTRANCE- EAST DOOR-NORTH HALF
10	24	53	42	173	DOORFRAME OVER ENTRANCE- EAST DOOR-SOUTH HALF
11	5578	2511	<11	1849	FLOOR AT ENTRANCE-LEFT SIDE
12	6666	2778	63	348	FLOOR AT ENTRANCE-RIGHT SIDE
13	422	267	24	266	COUNTERTOP-RIGHT REAR OF COFFEE POT
14	124	222	44	470	COUNTERTOP-SOUTHEND-NEXT TO EDGE
15	BLD <22	BLD <22	BLD <11	15	REFRIGERATOR-WESTSIDE
16	BLD <22	BLD <22	BLD <11	155	REFRIGERATOR-HANDLE
17	BLD <22	38	BLD <11	48	MICROWAVE-OUTSIDE
18	BLD <22	BLD <22	BLD <11	33	MICROWAVE-INSIDE, LEFT

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ROUND ROBIN WIPE SAMPLING RESULTS
LOUISIANA DIVISION CHLORINATED SOLVENTS PLANT
RESULTS IN NANOGRAMS HEXACHLOROBENZENE PER WIPE
(Continued)

<u>SAMPLE</u>	<u>7/8/85</u>	<u>9/6/85</u>	<u>11/4/85</u>	<u>5/19/87</u>	<u>DESCRIPTION</u>
19	22	32	BLD <11	22	DOOR FRAME OVER OFFICE #5 LEFT SIDE
20	32	BLD <22	20	60	DOOR FRAME OVER OFFICE #5 RIGHT SIDE
21	5778	400	21	104	SITTING BENCH ON "OPERATION SIDE" NORTHWEST CORNER
22	844	1178	19	155	SITTING BENCH ON "OPERATION SIDE" SOUTHWEST CORNER
23	97	92	111	42	WORKBENCH-BESIDE VICE RIGHT SIDE
24	46	159	56	38	WORKBENCH-NORTHEAST CORNER
25	BLD <22	BLD <22	BLD <11	BLD <14	BLANK

BLD = BELOW LIMIT OF DETERMINATION

BL:sb
4/2/87
Updated 9/25/87

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DOW CHEMICAL U.S.A.
LOUISIANA DIVISION

ENVIRONMENTAL CONTROL

REPORT OF ANALYSIS

REFERENCE NO. 826DATE THIS REPORT 6/23/88

CHARGE _____

DEPT. SolventDATE SAMPLES COLLECTED 6/20/88SAMPLES Wipes Samples for Hexachlorobenzene (HCBZ)

ID	Concentration	(Total Nanograms)	REMARKS
	<u>6/20/88</u>	<u>5/19/87</u>	
	<u>HCBZ</u>	<u>HCBZ</u>	
# 1	<u>12</u>	<u>BLD</u>	
2	<u><10</u>	<u>BLD</u>	
	<u>LOQ</u>	<u><14</u>	
3	<u>45</u>	<u>21</u>	
4	<u>33</u>	<u>29</u>	
5	<u>ND</u>	<u>36</u>	
6	<u>ND</u>	<u>108</u>	
NEW 7	<u>ND</u>	<u>-</u>	
NEW 8	<u>ND</u>	<u>-</u>	
9	<u>148</u>	<u>267</u>	
10	<u>178</u>	<u>173</u>	
NEW 11	<u>424</u>	<u>-</u>	
NEW 12	<u>602</u>	<u>-</u>	
13	<u>27</u>	<u>266</u>	

METHOD Hexane Extraction
GC-ECDMLG SOLVENT 10LOQ BLD HCBZ:10 nanograms

*BLD BELOW LIMIT OF DETERMINATION

*WEIGHT/VOLUME: _____

VALUES REPORTED HAVE BEEN CORRECTED FOR INTERFERENCES

ND- None Detected

LOQ- Limit of Quantitation

REMARKS Refer To Data book 0188 P.P. 32-34 for Calculations
And Calibration. The Blank Was not subtracted out of
Samples. Samples were corrected for desorption efficiency.
% Recovery for HCBZ was 109.%BY Louise J. Almo

SIGNED

Tony WilkeDO A 116402
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LOUISIANA DIVISION

ENVIRONMENTAL CONTROL

REPORT OF ANALYSIS

REFERENCE NO. 826

DATE THIS REPORT 6/23/88

CHARGE _____

DEPT. Solvent

DATE SAMPLES COLLECTED 6/20/88

SAMPLES Wipes Samples for Hexachlorobenzene (HCBZ)

ID	Concentration (Total Nanograms)		REMARKS
	6-20-88	5-19-87	
	HCBZ	HCBZ	
# 14	68	470	
15	ND	15	
16	20	155	
17	ND	48	
18	14	33	
New 19	31	-	
New 20	16	-	
21	17	104	
22	11	155	
23	525	42	
24	43	38	
New 25	15	-	
New 26	13	-	

METHOD Hexane Extraction
GC-ECD

MLS SOLVENT 10

LOQ MINI-DETERMINATION HCBZ: 10 nanograms

*BLO BELOW LIMIT OF DETERMINATION

*WEIGHT/VOLUME: _____

VALUES REPORTED HAVE BEEN CORRECTED FOR INTERFERENCES

ND- None Detected

LOQ- Limit of Quantitation

REMARKS Refer To Data Book 0188 P.F. 32-34 for calculations
And Calibration. The Blank was not subtracted out of
samples. Samples were corrected for desorption efficiency.
% Recovery for HCBZ was 109%.

BY Louise J. Almo

SIGNED

Ferry With

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DOW CHEMICAL U S A
LOUISIANA DIVISION

ENVIRONMENTAL CONTROL

REFERENCE NO. 826

DATE THIS REPORT 6/23/88

CHARGE _____

REPORT OF ANALYSIS

DEPT Solvent

DATE SAMPLES COLLECTED 6/20/88

SAMPLES Wipes Samples for Hexachlorobenzene (HCBZ)

[illegible]

METHOD Hexane Extraction
GC-ECD

MLB SOLVENT 10

LOQ ~~LIMIT OF~~ DETERMINATION HC87:10 nanograms

*BLO BELOW LIMIT OF DETERMINATION

WEIGHT/VOLUME: _____

VALUES REPORTED HAVE BEEN CORRECTED FOR INTERFERENCES

ND- NAMP Detected

LOQ - Limit of Quantitation

REMARKS: Refer to Data book 0188 p.p. 32-34 for calculations and calibration. The Blank was not subtracted out of samples. Samples were corrected for desorption efficiency. % Recovery for HCBZ was 109%.

BY Louise J. Almo

SI NED _____

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LOUISIANA DIVISION

ENVIRONMENTAL CONTROL

REPORT OF ANALYSIS

REFERENCE NO. 873

DATE THIS REPORT 10-28-88

CHARGE _____

DEPT. Solvent

DATE SAMPLES COLLECTED 10-7-88

SAMPLES Wipe Samples For Hexachloro benzene (HCBZ)

ID	Concentration (Total nanograms)	REMARKS
	HCBZ	
#1	ND	
#2	ND	
#3	ND	
#4	ND	
#5	ND	
#6	46.6	
#7	ND	
#8	ND	
#9	49.7	
#10	46.0	
#11	ND	
#12	31.0	
#13	ND	

METHOD Hexane Extraction
GC:ECD

MLS SOLVENT 10

LOQ LIMIT OF DETERMINATION HCBZ 10 nanograms

*GLD BELOW LIMIT OF DETERMINATION

(WEIGHT/VOLUME) _____

VALUES REPORTED HAVE BEEN CORRECTED FOR INTERFERENCES

ND - None detected

LOQ - Limit of Quantitation

REMARKS Refer to databook 0188 p.p. 54 + 55

Description % recovery = 102%

Correction factor = 0.98 The above results were
corrected for desorption efficiency

BY Louise J. Adams

SIGNED Terry W. Smith

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LOUISIANA DIVISION

ENVIRONMENTAL CONTROL

REPORT OF ANALYSIS

REFERENCE NO. 873

DATE THIS REPORT 10-28-88

CHARGE _____

DEPT. Solvent

DATE SAMPLES COLLECTED 10-7-88

SAMPLES Wipe Samples For Hexachloro benzene (HCBZ)

ID	Concentration (Total nanograms)	REMARKS
	HCBZ	
#14	ND	
#15	ND	
#16	ND	
#17	ND	
#18	10.4	
#19	ND	
#20	ND	
#21	ND	
#22	ND	
#23	13.2	
#24	ND	
#25	ND	
#26	ND	

METHOD Hexane Extraction
GC: ECD

MLG SOLVENT 10

LOQ 10 nanograms

*OLD BELOW LIMIT OF DETERMINATION

(WEIGHT/VOLUME) _____

VALUES REPORTED HAVE BEEN CORRECTED FOR INTERFERENCES

ND - None detected

LOQ - Limit of Quantitation

REMARKS Refer to databook 0188 P.P. 54-55

DO A 116406
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BY Lance J. Almo

SI NED Terry W. Latta

SIGNED Terry W. Allen

DOW CHEMICAL LAB
SOLVENTS / EDC 1
HEX WIPE ROUND ROBIN SAMPLE POINTS

1. BUILDING 1601 - CONTROL ROOM, DESKTOP, CENTER, WEST SIDE.
2. BUILDING 1601 - CONTROL ROOM, DESKTOP, CENTER, EAST SIDE.
3. BUILDING 1601 - CONTROL ROOM, TELEPHONE RECEIVER (8622).
4. BUILDING 1601 - CONTROL ROOM, INTERCOM RECEIVER, ON POST.
5. BUILDING 1601 - CONTROL ROOM, NE DOOR PUSHPLATE, BOTTOM HALF.
6. BUILDING 1601 - CONTROL ROOM, NE DOOR PUSHPLATE, TOP HALF.
7. BUILDING 1617 - CONTROL ROOM, N DESKTOP, LEFT SIDE, IN FRONT OF CRT KEYBOARD.
8. BUILDING 1617 - CONTROL ROOM, N DESKTOP, RIGHT SIDE, IN FRONT OF CRT KEYBOARD.
9. BUILDING 1601 - LUNCH ROOM, NE DOOR, DOORFRAME TOP LEDGE, NORTH HALF.
10. BUILDING 1601 - LUNCH ROOM, NE DOOR, DOORFRAME TOP LEDGE, SOUTH HALF.
11. BUILDING 1617 - CONTROL ROOM, SE EXIT DOOR, FLOOR.
12. BUILDING 1617 - LUNCH ROOM, SE DOOR, FLOOR.
13. BUILDING 1601 - LUNCH ROOM, N END OF COUNTER TOP NEXT TO EDGE.
14. BUILDING 1601 - LUNCH ROOM, S END OF COUNTER TOP NEXT TO EDGE.
15. BUILDING 1601 - LUNCH ROOM, W SIDE REFRIGERATOR BY HANDLE.
16. BUILDING 1601 - LUNCH ROOM, REFRIGERATOR HANDLE.
17. BUILDING 1601 - LUNCH ROOM, N MICROWAVE ON COUNTER TOP, BY HANDLE.
18. BUILDING 1601 - LUNCH ROOM, N MICROWAVE ON COUNTER TOP, N INSIDE.
19. BUILDING 1601 - SECRETARY'S OFFICE, DESKTOP IN FRONT OF TERMINAL KEYBOARD.
20. BUILDING 1617 - PERMIT OFFICE, DESKTOP CENTER.
21. BUILDING 1601 - LOCKER ROOM, SITTING BENCH # 1, CENTER.
22. BUILDING 1601 - LOCKER ROOM, SITTING BENCH # 2, CENTER.
23. BUILDING 1602 - INSTRUMENT SHOP, WORKBENCH VISE, S SIDE.
24. BUILDING 1602 - INSTRUMENT SHOP, WORKBENCH NE SIDE.
25. BUILDING 1601 - CONTROL ROOM, MOD V DESKTOP, S CENTER.

- 26. BUILDING 1601 - CONTROL ROOM, MOD V DESKTOP, N CENTER.
- 27. BUILDING 1601 - LOCKER ROOM, WEIGH SCALE PLATFORM, TOP CENTER.
- 28. CONTROL BLANK.
- 29. CONTROL BLANK.

MB:3/90

DOW CHEMICAL LAD
SOLVENTS / EDC 1
HEX WIPE ROUND ROBIN SAMPLE RESULTS

=====													
: I.D. # :		HCBZ CONCENTRATION IN TOTAL NANOGRAMS											
=====													
:		10-07-88	06-20-88	05-19-87	11-04-85	09-06-85	07-08-85	:					
=====													
: LOG -->:		10	10	14	11	22	22	:					
=====													
: 1.	:	ND	:	12	:	LOG	:	85	:	68	:	143	:
: 2.	:	ND	:	LOG	:	LOG	:	LOG	:	83	:	92	:
: 3.	:	ND	:	45	:	21	:	13	:	91	:	24	:
: 4.	:	ND	:	33	:	29	:	16	:	39	:	37	:
: 5.	:	ND	:	ND	:	36	:	19	:	33	:	LOG	:
: 6.	:	47	:	ND	:	108	:	LOG	:	38	:	23	:
: 7.	:	ND	:	ND	:	*	:	*	:	*	:	*	:
: 8.	:	ND	:	ND	:	*	:	*	:	*	:	*	:
: 9.	:	50	:	148	:	267	:	62	:	106	:	222	:
: 10.	:	46	:	178	:	173	:	42	:	53	:	24	:
: 11.	:	ND	:	424	:	*	:	*	:	*	:	*	:
: 12.	:	31	:	602	:	*	:	*	:	*	:	*	:
: 13.	:	ND	:	27	:	266	:	24	:	267	:	422	:
: 14.	:	ND	:	68	:	470	:	44	:	222	:	124	:
: 15.	:	ND	:	ND	:	15	:	LOG	:	LOG	:	LOG	:
: 16.	:	ND	:	20	:	155	:	LOG	:	LOG	:	LOG	:
: 17.	:	ND	:	ND	:	48	:	LOG	:	38	:	LOG	:
: 18.	:	10	:	14	:	33	:	LOG	:	LOG	:	LOG	:
: 19.	:	ND	:	31	:	*	:	*	:	*	:	*	:
: 20.	:	ND	:	16	:	*	:	*	:	*	:	*	:
: 21.	:	ND	:	17	:	104	:	21	:	400	:	5778	:
: 22.	:	ND	:	11	:	155	:	19	:	1178	:	844	:
: 23.	:	13	:	525	:	42	:	111	:	92	:	97	:
: 24.	:	ND	:	43	:	38	:	56	:	159	:	46	:
: 25.	:	ND	:	15	:	*	:	*	:	*	:	*	:
: 26.	:	ND	:	13	:	*	:	*	:	*	:	*	:
: 27.	:	34	:	241	:	*	:	*	:	*	:	*	:
: 28.	:	ND	:	ND	:	ND	:	*	:	*	:	*	:
: 29.	:	ND	:	ND	:	ND	:	*	:	*	:	*	:
: 30.	:	ND	:	ND	:	ND	:	*	:	*	:	*	:
=====													

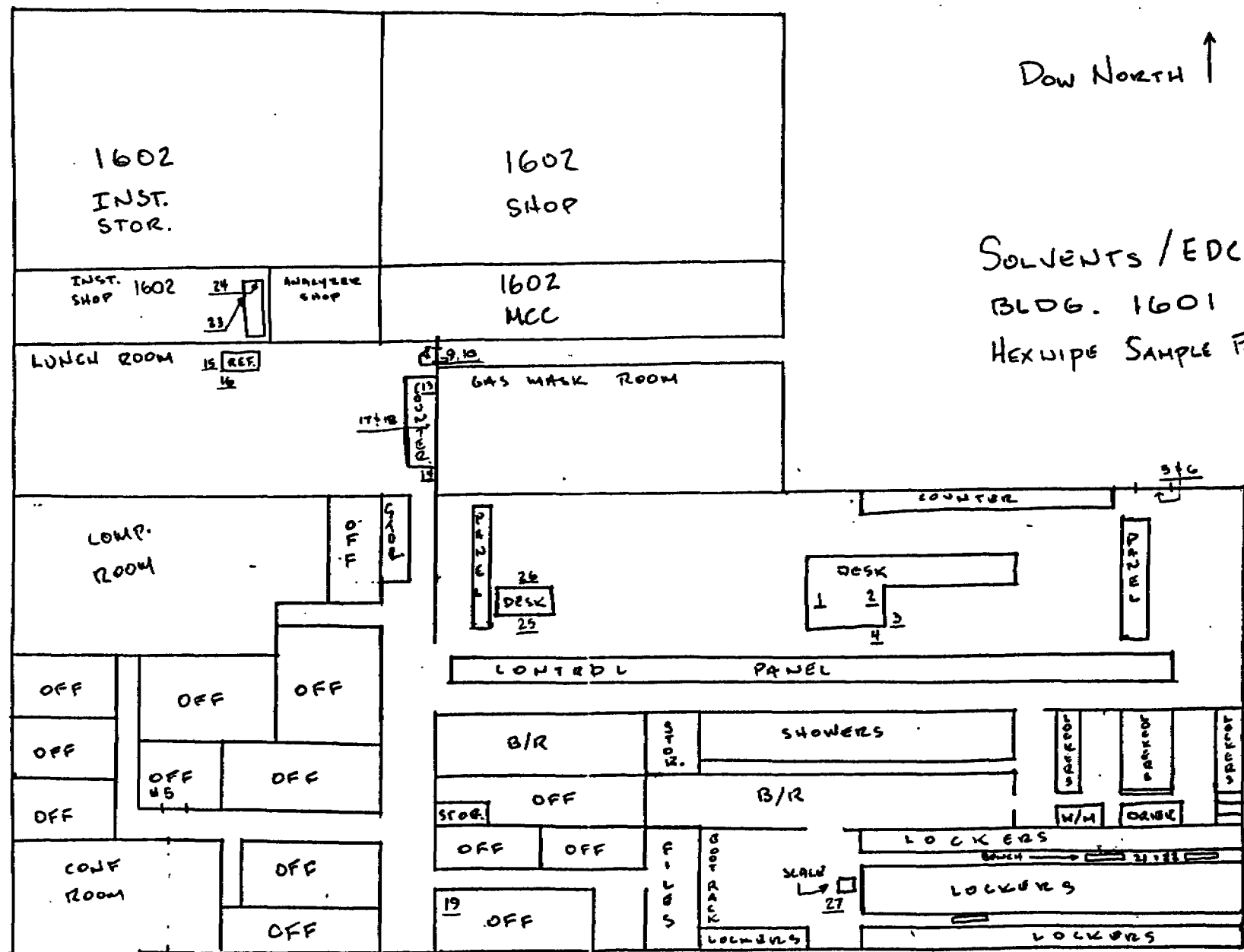
* SAMPLE POINT CHANGED / DELETED / ADDED IN 1988

ND - NONE DETECTED

LOG - LIMIT OF QUANTITATION (IN NANOGRAMS)

MB: 1/90

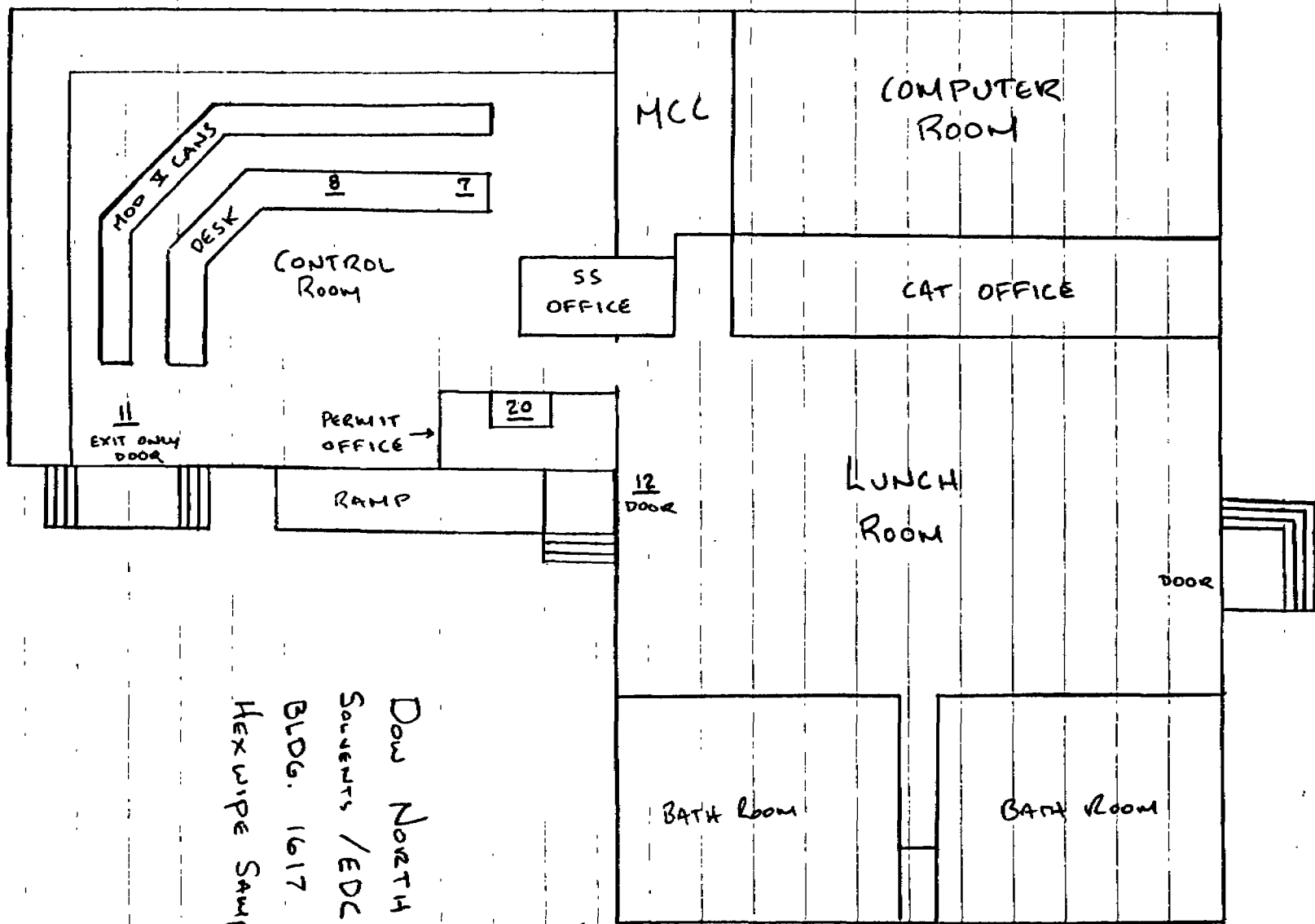
DO A 116410
CONFIDENTIAL



SOLVENTS / EDC 1
BLOG. 1601
HEXWIPE SAMPLE POINTS

DO A 116411
CONFIDENTIAL

MB: 11/27/80



Down NORTH ↓
 SOUTHERN / EDC 1
 BLDG. 1617
 Hexwipe Sample Points

DO A 116412
 CONFIDENTIAL

DO A 116413
CONFIDENTIAL

DO A 116415
CONFIDENTIAL

DO A 116417
CONFIDENTIAL

082

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.22	1230 01	
HCE	0.	2.62	865.01	
HCB0	0.	2.87	645 01	
HCBZ	0.	6.08	987 01	
TOTALS	0.		3727	

INJECT TIME 23:56:15
20H3110PM1

Blank Hexane

HEXES 23:56:15
FILE 1 METHOD 5. RUN 838 INDEX 5
ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
TOTALS	0.			

TT(3)=10
TT(3)=9

FI= 1. MN= 5.
NM = "HEXES"

CA= 0. RH= 838. IX= 6. PW= 1.
PT= 10. MA= 0. CZ= 3. SI= 0.

TT(1)= 0.1 TF(1)="PM1"
TT(2)= 0.2 TF(2)="H31"
TT(3)= 9. TF(3)="ER0"

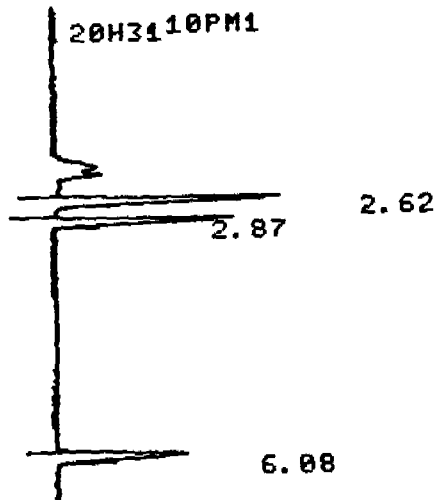
DO A 116418
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1001

RT(1)= 2.62 RF(1)= 0. CN(1)="HCE "
RT(2)= 2.87 RF(2)= -0. CN(2)="HCB0 "
RT(3)= 6.08 RF(3)= 0. CN(3)="HCBZ "

INJECT TIME 00:07:39

20H3110PM1



1/20

HCE .02788 µg/ml
HCB0 .02734 µg/ml
HCBZ .02775 µg/ml

HEXES

00:07:39

FILE 1 METHOD 5. RUN 839 INDEX 6

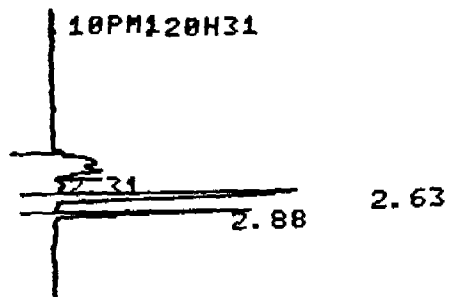
ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCE	0.	2.62	1938 01	
HCB0	0.	2.87	1680 01	
HCBZ	0.	6.08	1268 01	
TOTALS	0.		4886	

TT(3)=8

INJECT TIME 00:15:41

10PM120H31



omit

DO A 116419
CONFIDENTIAL

6.09

HEXES

00:15:41

FILE 1 METHOD 5. RUN 840 INDEX 7

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.31	1203 01	
HCE	0.	2.62	2032 01	
HCB0	0.	2.88	1508 01	
HCBZ	0.	6.09	1698 01	
TOTALS	0.		6441	

INJECT TIME 00:24:43

10PM 120H31

2.62
2.88

6.09

HCE .02788 μ g/ml
HCB0 .02734 μ g/ml
HCBZ .02775 μ g/ml

HEXES

00:24:43

FILE 1 METHOD 5. RUN 841 INDEX 8

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCE	0.	2.62	2004 01	
	-	2.88	1621 01	

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HCBZ

0.

6.09

1423 01

TOTALS

0.

5058

INJECT TIME

00:34:22

Blank

20H3110PM1

2.20

8.00ER0

1268
1423
Area = 1346 / .02775
RF = 48505

HEXES

00:34:22

FILE 1

METHOD 5.

RUN 842

INDEX 9

ANALYST: LOUISE ALMO

NAME

CONC

RT

AREA BC

RF

1

0.

2.2

1175 01

TOTALS

0.

1175

INJECT TIME

00:43:23

20H3110PM1

2.29 2.20

Original
Blank

DO A 116421
CONFIDENTIAL

6.10

HEXES

00:43:23

FILE 1 METHOD 5. RUN 843 INDEX 10

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.19	655 02	
2	0.	2.29	1059 03	
HCBZ	0.	6.1	17112 01	
TOTALS	0.		18826	

RF(1)=7070

RF(2)=6057

RF(3)=4851

FI= 1. MN= 5.

NM = "HEXES"

CA= 0.	RN= 843.	IX= 11.	PW= 1.
PT= 10.	MA= 0.	CZ= 3.	SI= 0.

TT(1)= 0.1	TF(1)= "PM1"
TT(2)= 0.2	TF(2)= "H31"
TT(3)= 8.	TF(3)= "ER0"

RT(1)= 2.62	RF(1)= 7070.	CN(1)= "HCE "
RT(2)= 2.87	RF(2)= 6057.	CN(2)= "HCB0 "
RT(3)= 6.08	RF(3)= 4851.	CN(3)= "HCBZ "

HEXES

00:43:23

FILE 1 METHOD 5. RUN 843 INDEX 10

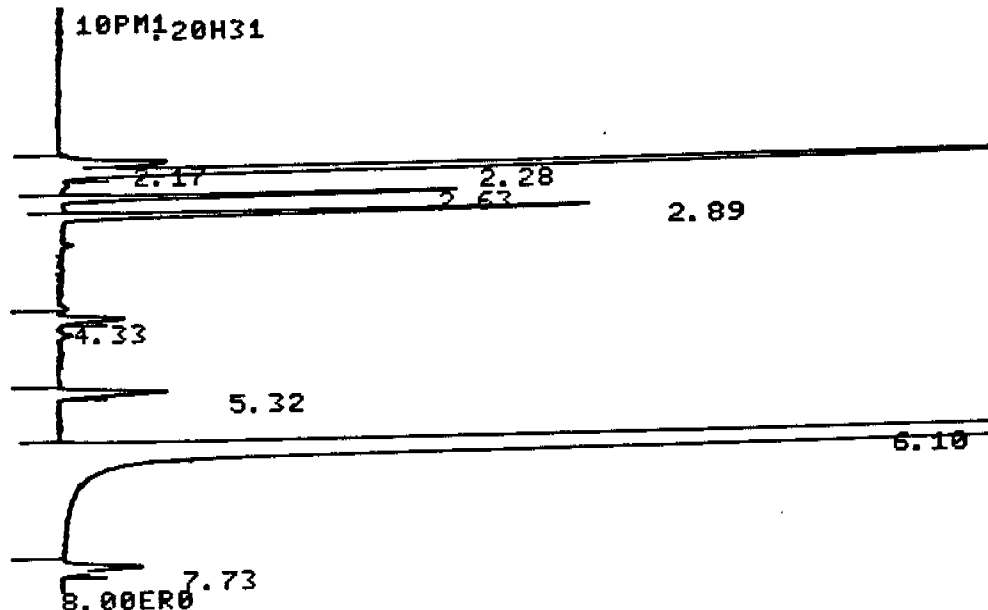
ANALYST: LOUISE ALMO

DO A 116422
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CONC RT AREA BC RF

NAME	0.	2.19	655 02	
1	0.	2.29	1059 03	
2	3.528	6.1	17112 01	4851.
HCBZ				
TOTALS	3.528		18826	

INJECT TIME 00:57:08

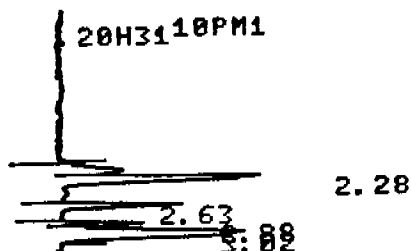


HEXES 00:57:08
 FILE 1 METHOD 5. RUN 844 INDEX 11
 ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.17	1278 02	
2	0.	2.28	13318 03	
HCE	0.436	2.63	3085 01	7070.
HCB0	0.688	2.89	4168 01	6057.
5	0.	4.33	633 01	
6	0.	5.32	1136 01	
HCBZ	277.94	6.1	1348285 01	4851.
8	0.	7.73	978 01	
TOTALS	279.064		1372881	

*rediluted
prelimary #*

INJECT TIME 01:06:08



DO A 116423
 CONFIDENTIAL

6.10

HEXES

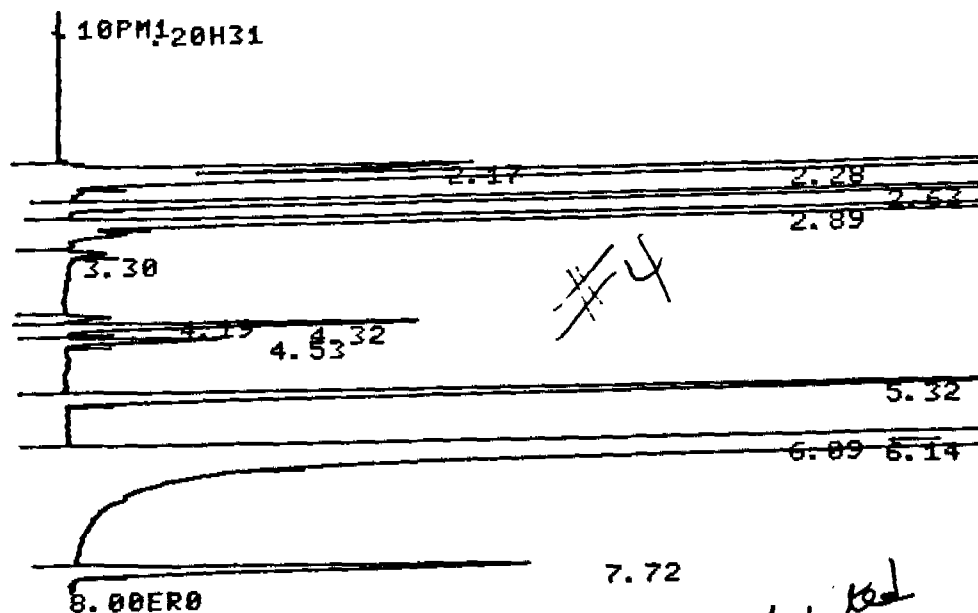
01:06:08

FILE 1 METHOD 5. RUN 845 INDEX 12

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.28	1566 01	
HCE	0.121	2.63	856 01	7070.
HCB0	0.073	2.88	441 01	6057.
4	0.	3.02	2646 01	
HCBZ	28.137	6.1	136494 01	4851.
TOTALS	28.331		142003	

INJECT TIME 01:15:09



HEXES

01:15:09

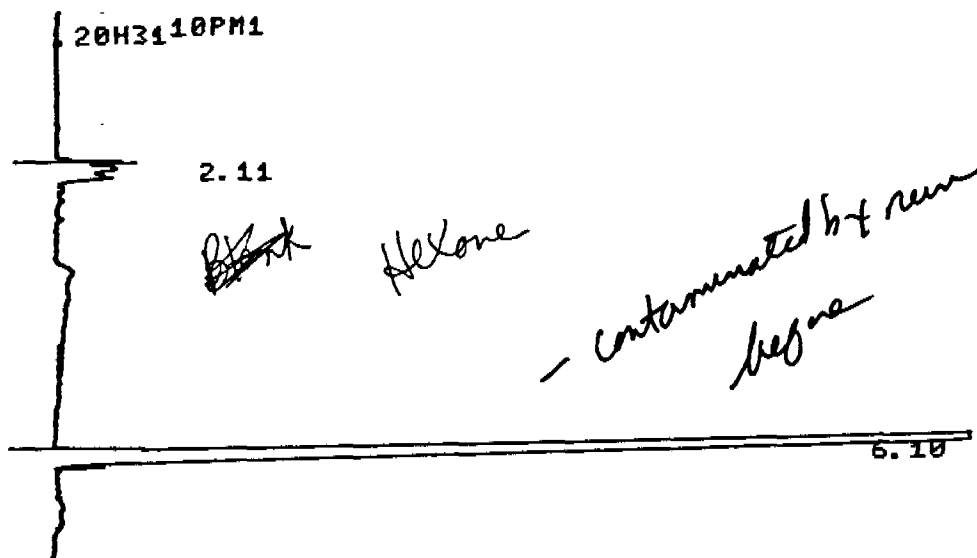
FILE 1 METHOD 5. RUN 846 INDEX 13

ANALYST: LOUISE ALMO

DO A 116424
CONFIDENTIAL

NAME	CONC	RT	AREA BC	RF
1	0.	2.17	4855 02	
2	0.	2.28	42521 03	
HCE	3.231	2.63	22840 01	7070.
HCB0	6.46	2.89	39129 01	6057.
5	0.	3.3	317 01	
6	0.	4.19	366 02	
7	0.	4.32	3644 03	
8	0.	4.53	1490 01	
9	0.	5.32	12957 01	
HCBZ	1512.532	6.09	7337295 02	4851.
11	0.	6.14	2220232 03	
12	0.	7.72	5950 01	
TOTALS	1522.223		9691596	

INJECT TIME 01:32:17



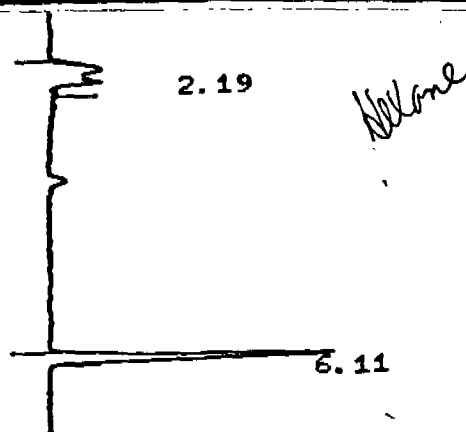
HEXES 01:32:17
 FILE 1 METHOD 5. RUN 847 INDEX 14
 ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	62 01	
HCBZ	4.717	6.1	22882 01	4851.
TOTALS	4.717		22944	

INJECT TIME 01:40:40

20H3110PM1

DO A 116425
 CONFIDENTIAL

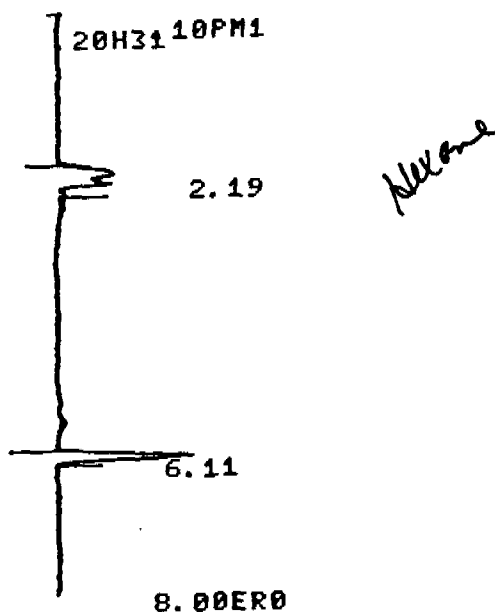


100

HEXES 01:40:40
 FILE 1 METHOD 5. RUN 848 INDEX 15
 ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.19	1153 01	
HCBZ	0.666	6.11	3230 01	4851.
TOTALS	0.666		4383	

INJECT TIME 01:48:34



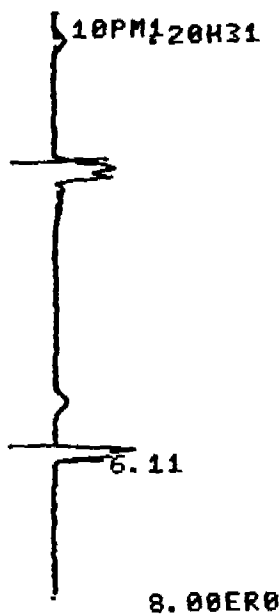
DO A 116426
 CONFIDENTIAL

HEXES 01:48:34
 FILE 1 METHOD 5. RUN 849 INDEX 16

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.19	1169 01	
HCBZ	0.336	6.11	1631 01	4851.
TOTALS	0.336		2800	

INJECT TIME 01:57:54



HEXES

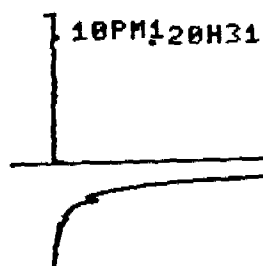
01:57:54

FILE 1 METHOD 5. RUN 850 INDEX 17

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	0.169	6.11	820 01	4851.
TOTALS	0.169		820	

INJECT TIME 02:17:08



DO A 116427
CONFIDENTIAL

col

6.11

8.00E00

HEXES

02:17:08

FILE 1 METHOD 5. RUN 851 INDEX 18

ANALYST: LOUISE ALMO

Dirt #3

NAME	CONC	RT	AREA BC	RF
1	0.	2.14	7746803	02
2	0.	2.19	2466624	03
HCBZ	1.528	6.11	7411	01 4851.
TOTALS	1.528		10220838	

X11

INJECT TIME 02:36:26

10PM120H31

2.14.11

6.11

8.00E00

reduluto

DO A 116428
CONFIDENTIAL

HEXES

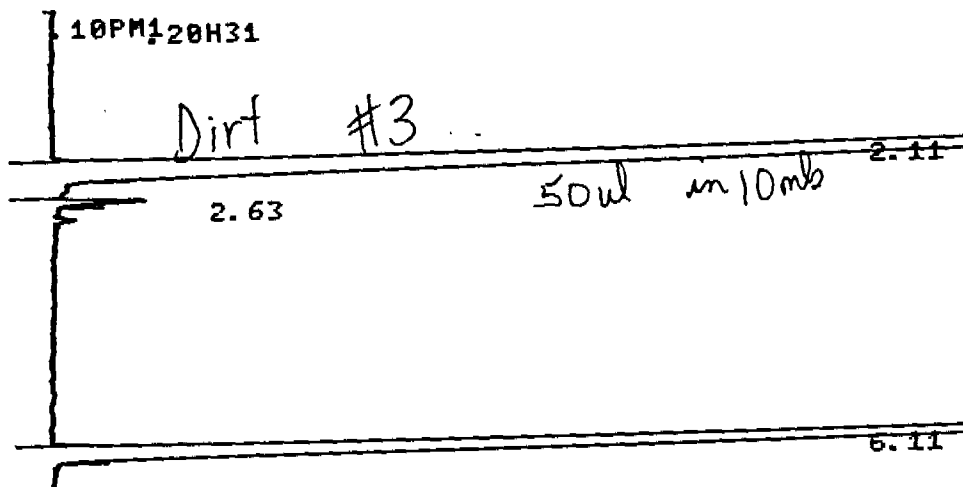
02:36:26

FILE 1 METHOD 5. RUN 852 INDEX 19

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	3154 02	
2	0.	2.14	3244 03	
HCBZ	0.098	6.11	473 01	4851.
TOTALS	0.098		6871	

INJECT TIME 02:51:20



HEXES

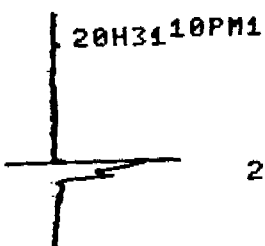
02:51:20

FILE 1 METHOD 5. RUN 853 INDEX 20

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	494452 01	
HCE	0.102	2.63	722 01	7070.
HCBZ	6.305	6.11	30586 01	4851.
TOTALS	6.407		525760	

INJECT TIME 03:13:14



DO A 116429
CONFIDENTIAL

126 ug/g

$$\frac{2.6305 \text{ ug} \times 201 \text{ ml}}{2 \times \text{DF} \times \text{mls}} =$$

(10)

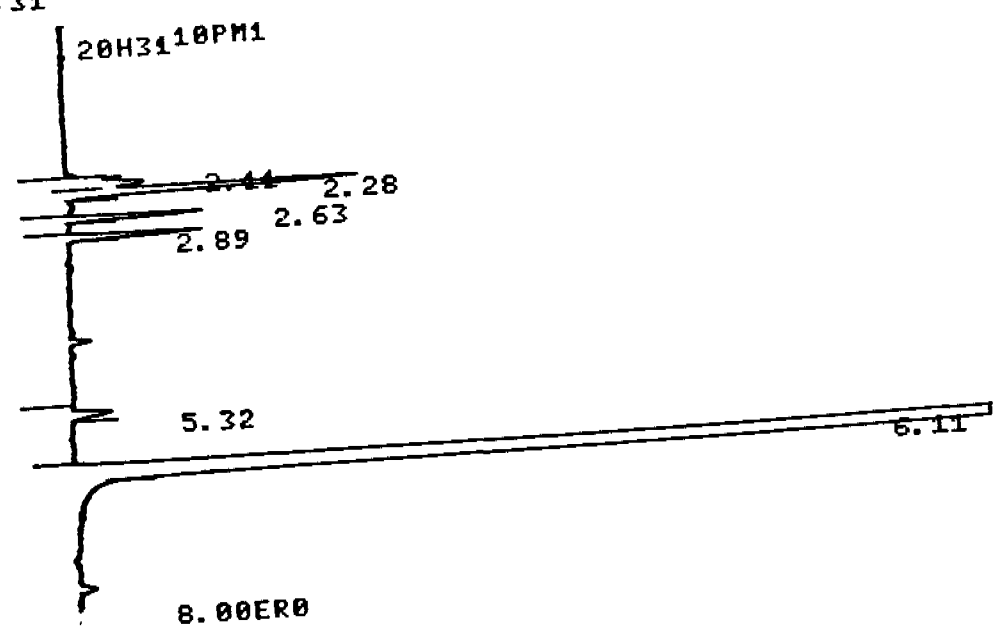
Hex one

6.11

03:13:14
HEXES
FILE 1 METHOD 5. RUN 854 INDEX 21
ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	145 01	
HCBZ	0.103	6.11	502 01	4851.
TOTALS	0.103		647	

INJECT TIME 03:20:31



DO A 116430
CONFIDENTIAL

03:20:31
HEXES
FILE 1 METHOD 5. RUN 855 INDEX 22
ANALYST: LOUISE ALMO

#10
X21.

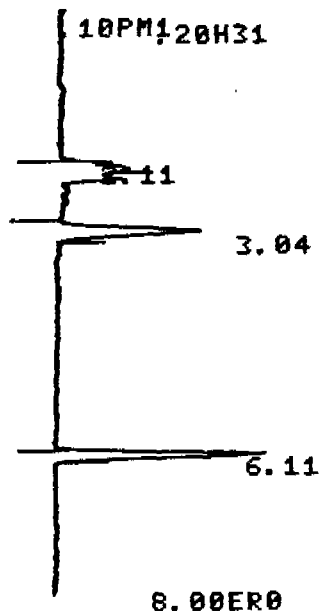
RF

1	0.	2.11	1446	02	
2	0.	2.28	3304	03	
HCE	0.153	2.63	1082	01	7070.
HCBD	0.174	2.89	1054	01	6057.
5	0.	5.32	423	01	
HCBD	70.267	6.11	340863	01	4851.
TOTALS	70.594		348172		

1473 *ug*
blank of 103
subtracted

mc

INJECT TIME 03:29:32



HEXES

03:29:32

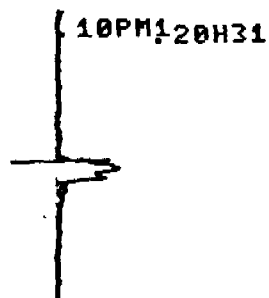
FILE 1 METHOD 5. RUN 856 INDEX 23

ANALYST: LOUISE ALMO

*None
blank*

NAME	CONC	RT	AREA	BC	RF
1	0.	2.11	765	01	
HCBD	0.404	3.04	2448	01	6057.
HCBD	0.469	6.11	2272	01	4851.
TOTALS	0.873		5485		

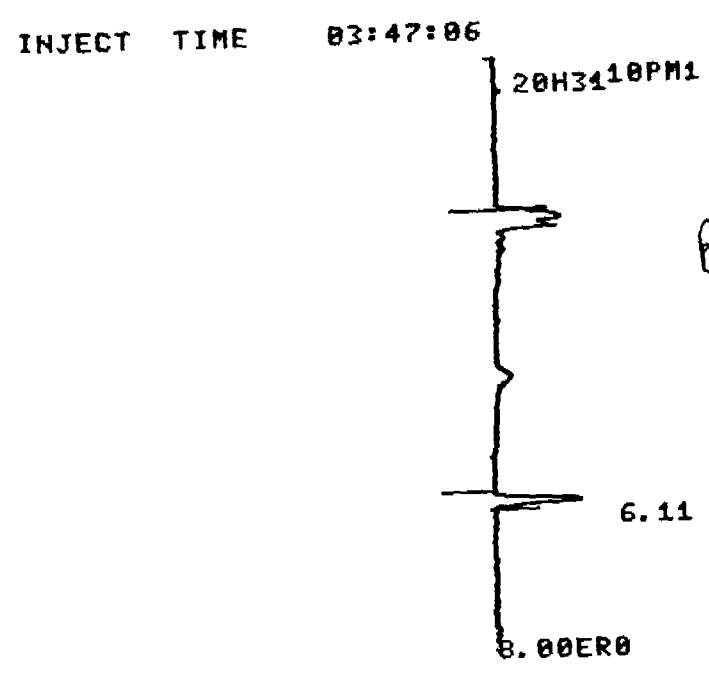
INJECT TIME 03:39:50



DO A 116431
CONFIDENTIAL

fil one

HEXES 03:39:50
 FILE 1 METHOD 5. RUN 857 INDEX 24
 ANALYST: LOUISE ALMO
 NAME CONC RT AREA BC RF
 TOTALS 0.



*Blank Filter
Re made*

HEXES 03:47:06
 FILE 1 METHOD 5. RUN 858 INDEX 25
 ANALYST: LOUISE ALMO
 NAME CONC RT AREA BC RF
 HCBZ 0.216 6.11 1050 01 4851.

DO A 116432
CONFIDENTIAL

TOTALS

0.216

1858

INJECT TIME 03:56:05

20H3110PM1

2.28

2.63

#9
x 101

6.11

HEXES

03:56:05

FILE 1

METHOD 5.

RUN 859

INDEX 26

ANALYST: LOUISE ALMO

NAME

CONC

RT

AREA BC

RF

1

0.

2.28

486 01

HCE

0.03

2.63

209 01

7070.

HCBZ

22.553

6.11

109405 01

4851.

TOTALS

22.583

110100

#9 ug
22.58 micrograms
blank of .216
subtracted

INJECT TIME 04:04:32

10PM120H31

3.62

6.12

DO A 116433
CONFIDENTIAL

8.00ER0

090

HEXES

04:04:32

FILE 1 METHOD 5.

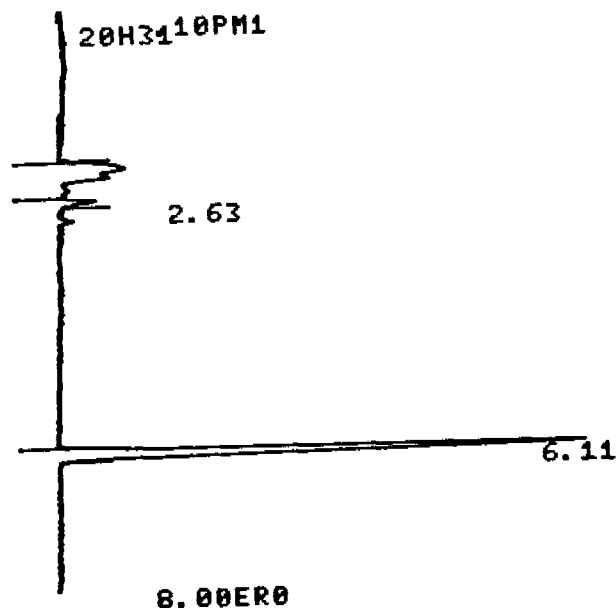
RUN 860

INDEX 27

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	3.62	896 01	
HCBZ	0.182	6.12	885 01	4851.
TOTALS	0.182		1781	

INJECT TIME 04:13:29



HEXES

04:13:29

FILE 1 METHOD 5.

RUN 861

INDEX 28

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCE	0.033	2.63	234 01	7070.
HCBZ	1.248	6.11	6052 01	4851.
TOTALS	1.281		6286	

DO A 116434
CONFIDENTIAL

#8
x 101
Blank 20
subtracted

INJECT TIME 04:22:30

10PM120H31

8.00ER0

HEXES

04:22:30

FILE 1 METHOD 5. RUN 862 INDEX 29

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
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TOTALS	0.			
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INJECT TIME 04:31:31

20H3110PM1

2.29

2.89

2.64

6.12

DO A 116435
CONFIDENTIAL

04:31:31

MEAS

FILE 1 METHOD 5. RUN 863 INDEX 30

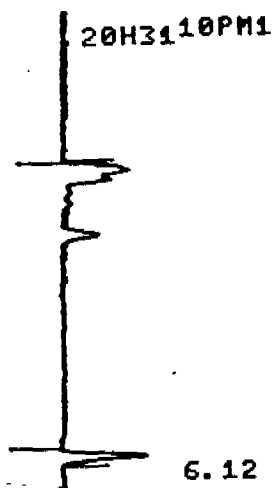
ANALYST: LOUISE, ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.29	1395 01	
HCE <i>923</i>	9.23	2.64	65254 01	7070.
HCB0 <i>141</i>	1.396	2.89	8457 01	6057.
HCBZ <i>2609</i>	26.286	6.12	127516 01	4851.
TOTALS	36.912		202622	

~~X101~~
X101

101

INJECT TIME 04:40:31



Helone

Blank=0

5/26/88
2655 ug HCBZ
932 HCE
141 HCB0

#6 101

105

6.11

subtracted
blank

HEXES

04:49:17

FILE 1 METHOD 5. RUN 865 INDEX 32

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA	BC	RF
HCBZ	0.604 - .209	6.11	2930	01	4851.
TOTALS	0.604		2930		

40 micrograms

DO A 116438
CONFIDENTIAL

INJECT TIME 04:58:05

10PM120H31

plf me

HEXES

04:58:05

FILE 1

METHOD 5.

RUN 866

INDEX 33

ANALYST: LOUISE ALMO

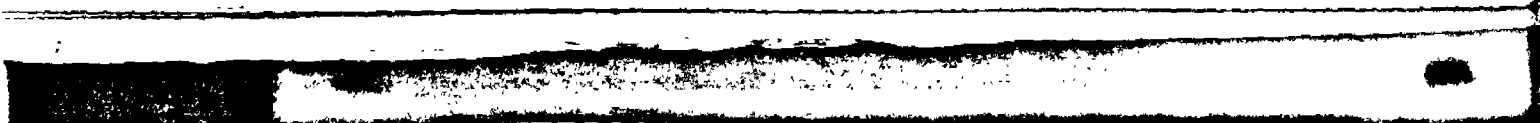
NAME

CONC

RT

AREA BC

RF



TOTALS

0.

54

INJECT TIME 05:05:22

10PM120H31

2.29

2.64

2.89

5
X 101

6.12

8.00ER0

HEXES

05:05:22

FILE 1 METHOD 5. RUN 867 INDEX 34

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.29	528 01	
HCE	0.309	2.64	2186 01	7070. 31.2
HCB0	0.113	2.89	684 01	6057. 4.4
HCBZ	2.191	6.12	10627 01	4851. 221
TOTALS	2.613		14025	

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INJECT TIME 05:14:22

20H3110PM1

DO A 116439
CONFIDENTIAL

8.00E0

101

HEXES

05:14:22

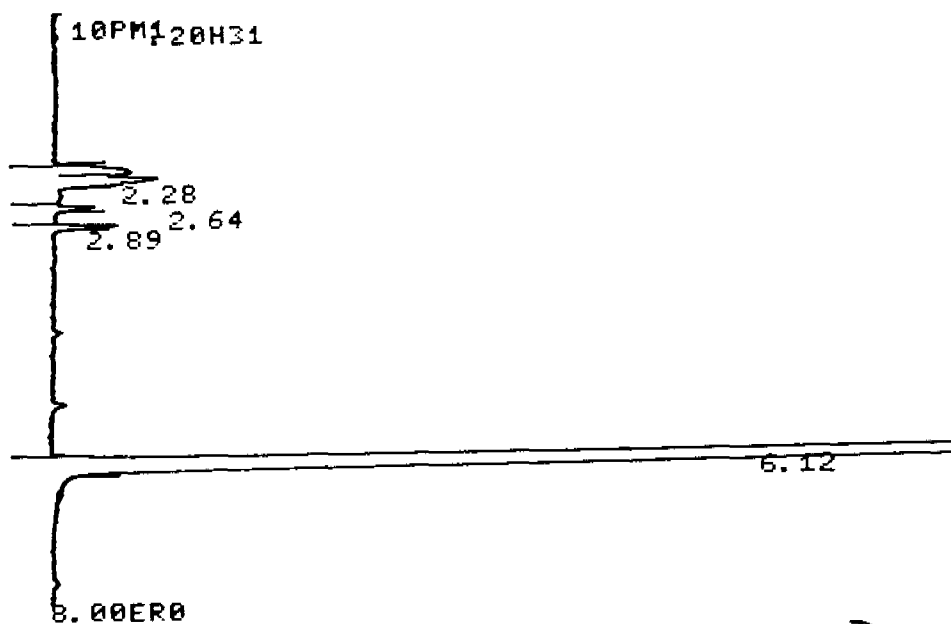
FILE 1 METHOD 5. RUN 868 INDEX 35

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
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TOTALS 0.

INJECT TIME 05:23:23



HEXES

05:23:23

FILE 1 METHOD 5. RUN 869 INDEX 36

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
------	------	----	---------	----

1	0.	2.28	792 01	
HCE	0.038	2.64	266 01	7070.3.8
HCB0	0.066	2.89	403 01	6057.6.7
HCBZ	33.142	6.12	160771 01	4851.3347
TOTAL	33.246		162232	

DO A 116440
CONFIDENTIAL

blank = 0
#4
X101

TOTALS 2.631 6.12 12765 01 4851.
2.631 12765

INJECT TIME 05:50:26

[10PM120H31

Hexone

HEXES

05:50:26

FILE 1 METHOD 5. RUN 872 INDEX 39

ANALYST: LOUISE ALMO

NAME CONC RT AREA BC RF

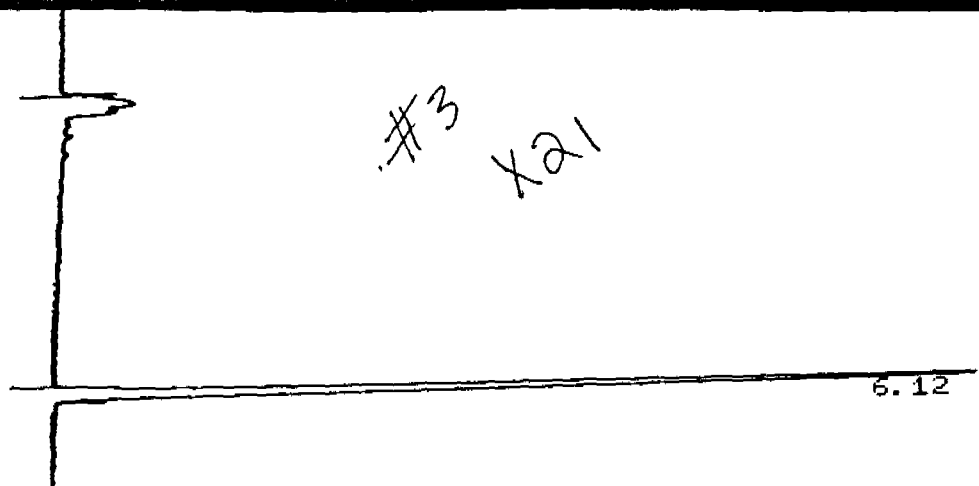
TOTALS 0.

DO A 116441
CONFIDENTIAL

INJECT TIME 05:57:48

[10PM120H31

#3
X21



HEXES

05:57:48

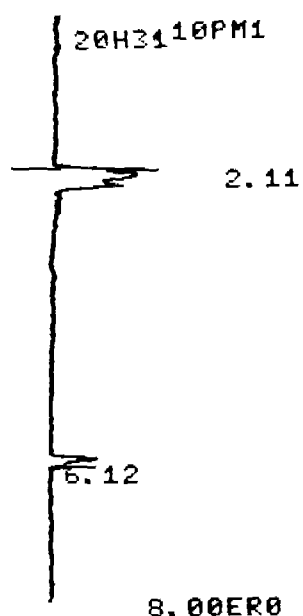
FILE 1 METHOD 5. RUN 873 INDEX 40

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	2.453	6.12	11901 01	4851.
TOTALS	2.453		11901	

51.5 µg

INJECT TIME 06:06:18



DO A 116442
CONFIDENTIAL

HEXES

06:06:18

FILE 1

METHOD 5.

RUN 874

INDEX 41

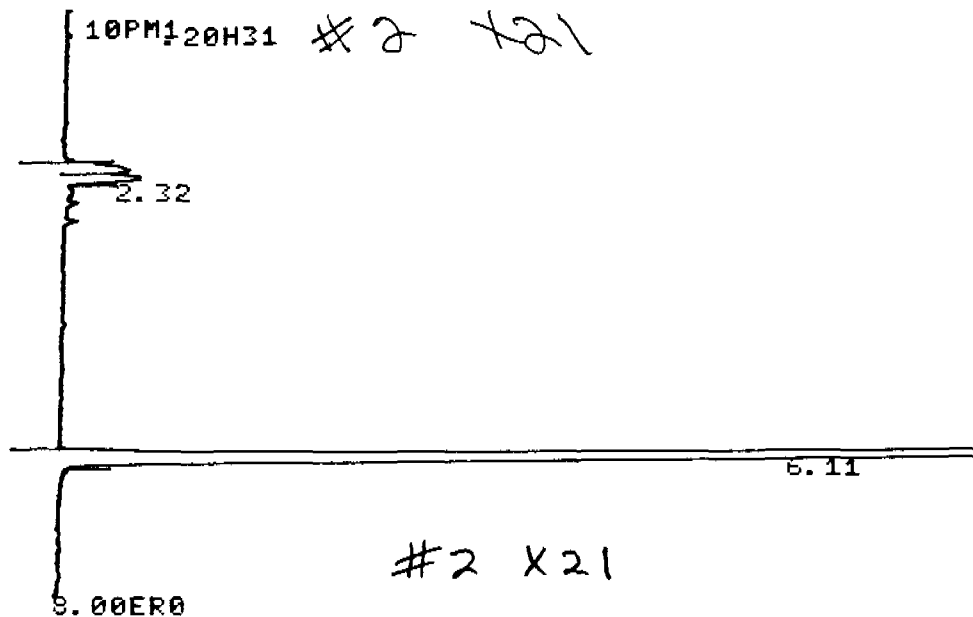
ANALYST: LOUISE ALMO

Hexane

100

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	90 01	
HCBZ	0.074	6.12	358 01	4851.
TOTALS	0.074		448	

INJECT TIME 06:14:51



HEXES

06:14:51

FILE 1

METHOD 5.

RUN 875

INDEX 42

ANALYST: LOUISE ALMO

211 pg

NAME	CONC	RT	AREA BC	RF
1	0.	2.32	594 01	
HCBZ	10.111-074	6.11	49047 01	4851.
TOTALS	10.111		49641	

DO A 116443
CONFIDENTIAL

INJECT TIME 06:23:51

20H3110PM1

Helene

DO A 116444
CONFIDENTIAL

6.12

HEXES

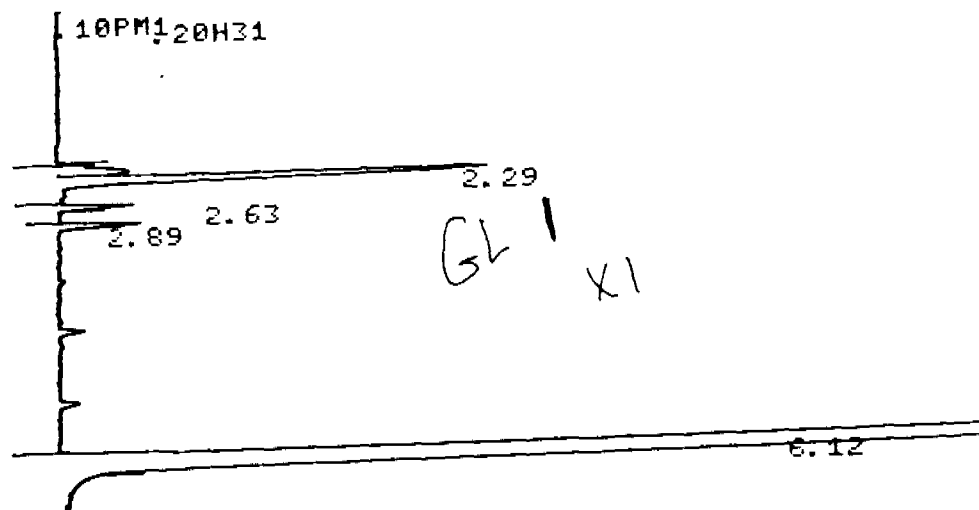
06:23:51

FILE 1 METHOD 5. RUN 876 INDEX 43

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	0.079	6.12	382 01	4851.
TOTALS	0.079		382	

INJECT TIME 06:35:21



HEXES

06:35:21

FILE 1 METHOD 5. RUN 877 INDEX 44

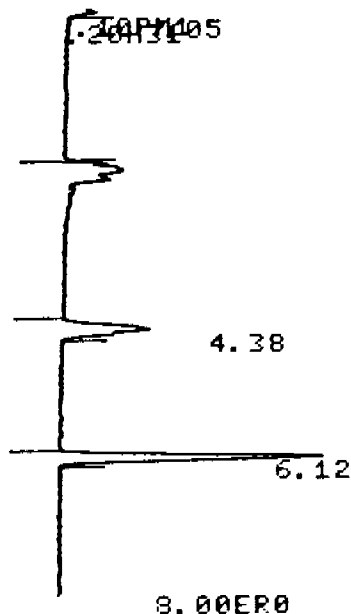
ANALYST: LOUISE ALMO

DO A 116445
CONFIDENTIAL

NAME	CONC	RT	AREA BC	RF
------	------	----	---------	----

	0.	2.29	3992 01	
1	0.082	2.63	580 01	7070.
HCE	0.078	2.89	470 01	6057.
HCB0	99.717	0.716.12	483731 01	4851.
HCBZ				
TOTALS	99.877		488773	

INJECT TIME 06:43:04



HEXES

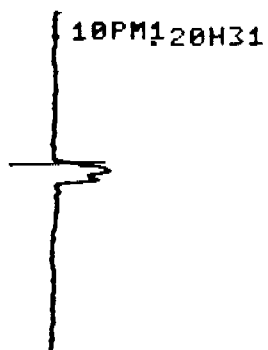
06:43:04

FILE 1 METHOD 5. RUN 878 INDEX 45

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	0.05	267 01	
2	0.	4.38	1473 01	
HCBZ	0.657	6.12	3185 01	4851.
TOTALS	0.657		4925	

INJECT TIME 06:52:27



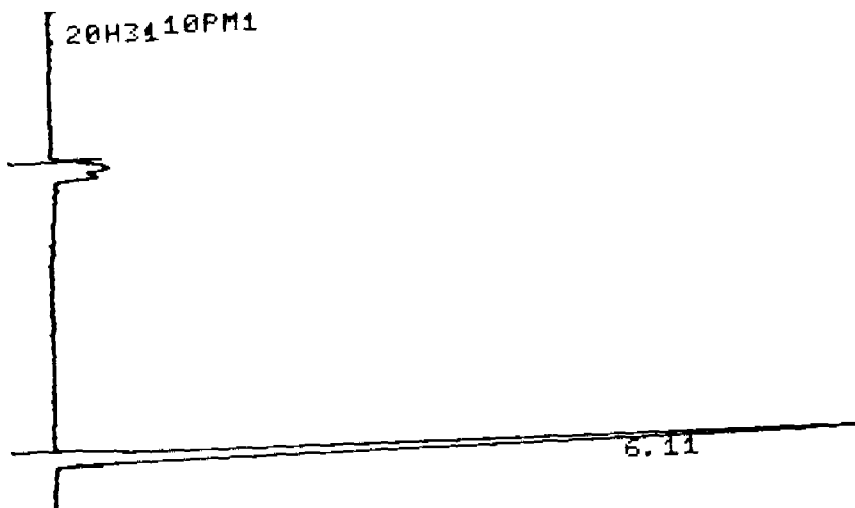
DO A 116446
CONFIDENTIAL

6.13

06:52:27
 HEXES
 FILE 1 METHOD 5. RUN 879 INDEX 46
 ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	0.143	6.13	694 01	4851.
TOTALS	0.143		694	

INJECT TIME 07:00:17



07:00:17
 HEXES
 FILE 1 METHOD 5. RUN 880 INDEX 47
 ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	2.012 - 143	6.11	9758 01	4851.
TOTALS	2.012		9758	

#GL1
 X101

189 ng

DO A 116447
 CONFIDENTIAL

INJECT TIME 07: 8:21

10PM120H31

2.11 2.20

8.00ER0

115

HEXES

07:08:21

FILE 1 METHOD 5. RUN 881 INDEX 48

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	23 01	
2	0.	2.2	371 01	
TOTALS	0.		394	

INJECT TIME 07:17:10

20H3110PM1

GL2
x101

6.12

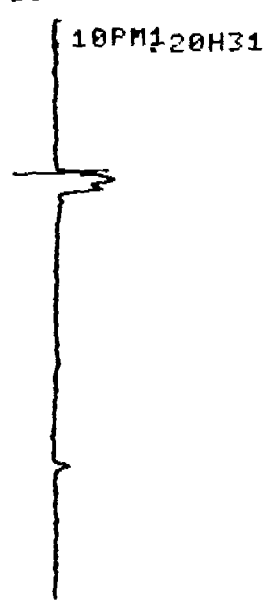
DO A 116448
CONFIDENTIAL

HEXES 07:17:10
FILE 1 METHOD 5. RUN 882 INDEX 49
ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	0.891	6.12	4322 01	4851.
TOTALS	0.891		4322	

890 μ g

INJECT TIME 07:25:39



Helene

HEXES 07:25:39
FILE 1 METHOD 5. RUN 883 INDEX 50
ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
TOTALS	0.			

TT(3)=7

FI= 1. MN= 5.
NM = "HEXES"

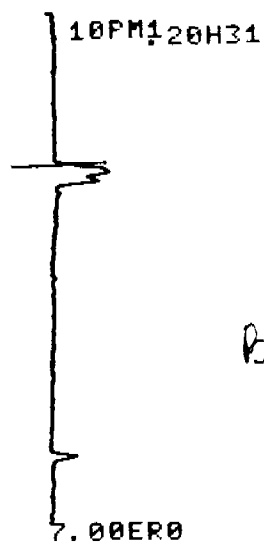
DO A 116449
CONFIDENTIAL

CA= 0. RN= 883. IX= 51. PW= 1.
CZ= 3. SI= 0.

TT(1)= 0.1 TF(1)="PM1"
TT(2)= 0.2 TF(2)="H31"
TT(3)= 7. TF(3)="ER0"

RT(1)= 2.62 RF(1)= 7070. CN(1)="HCE "
RT(2)= 2.87 RF(2)= 6057. CN(2)="HCB0 "
RT(3)= 6.08 RF(3)= 4851. CN(3)="HCBZ "

INJECT TIME 07:34:51



BIK Filter

HEXES

07:34:51

FILE 1 METHOD 5. RUN 884 INDEX 51

ANALYST: LOUISE ALMO

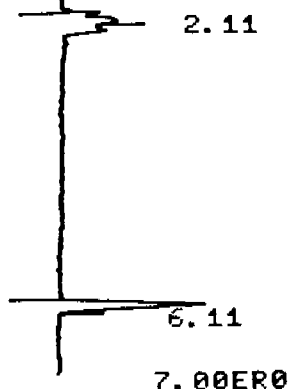
NAME CONC RT AREA BC RF

TOTALS 0.

INJECT TIME 07:43:52

20H3110PM1

DO A 116450
CONFIDENTIAL



GL 3
X101

34.8 *mg*

HEXES

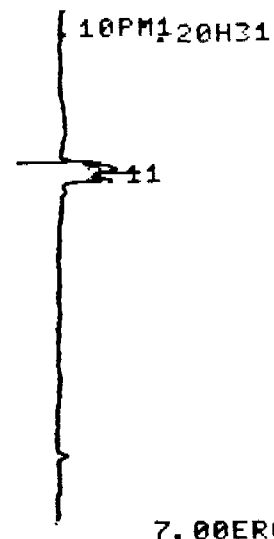
07:43:52

FILE 1 METHOD 5. RUN 885 INDEX 52

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	567 01	
HCBZ	0.345	6.11	1675 01	4851.
TOTALS	0.345		2242	

INJECT TIME 07:52:53



Hexane

HEXES

07:52:53

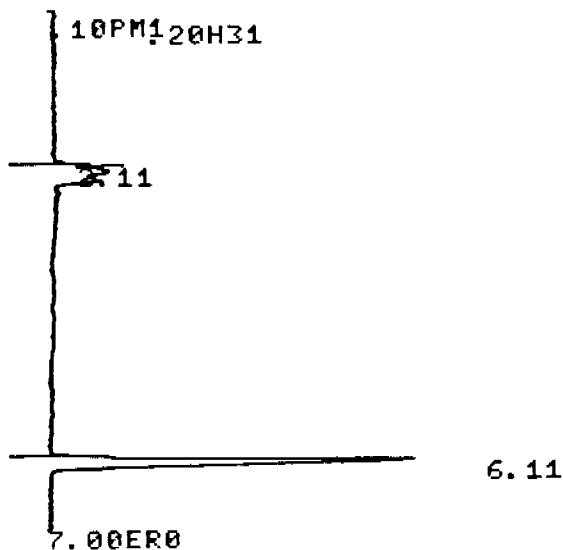
FILE 1 METHOD 5. RUN 886 INDEX 53

DO A 116451
CONFIDENTIAL

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	595 01	
TOTALS	0.		595	

INJECT TIME 08:01:52



GL 4
x 101

HEXES

08:01:52

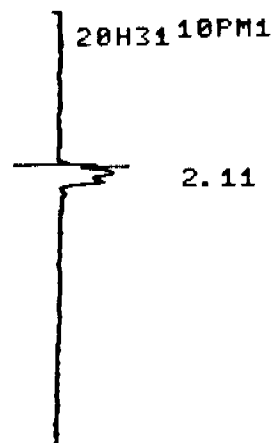
FILE 1 METHOD 5. RUN 887 INDEX 54

84.3 mg

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	30 01	
HCBZ	0.835	6.11	4052 01	4851.
TOTALS	0.835		4082	

INJECT TIME 08:10:53



DO A 116452
CONFIDENTIAL

BK Helene

7.00ER0

HEXES

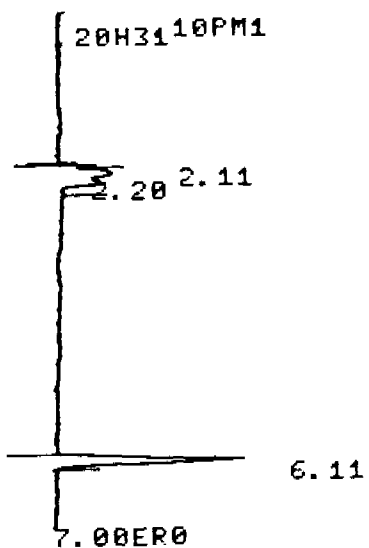
08:10:53

FILE 1 METHOD 5. RUN 888 INDEX 55

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	23 01	
TOTALS	0.		23	

INJECT TIME 08:19:55



GLS
X101

44.5 mg

HEXES

08:19:55

FILE 1 METHOD 5. RUN 889 INDEX 56

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	26 01	
2	0.	2.2	1112 01	
HCBZ	0.441	6.11	2139 01	4851.
TOTALS	0.441		3277	

DO A 116453
CONFIDENTIAL

INJECT TIME

08:28:55

20H311 PM1

2.20 2.11

*Blank
Hexone*

7.00E00

HEXES

08:28:55

FILE 1 METHOD 5. RUN 890 INDEX 57

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.11	26 01	
2	0.	2.2	1228 01	
TOTALS	0.		1254	

INJECT TIME 08:37:36

10PM120H31

*GL 6
x101*

6.11

7.00E00

*omit*DO A 116454
CONFIDENTIAL

EXES

08:37:36

FILE 1 METHOD 5. RUN 891 INDEX 58

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
HCBZ	0.17	6.11	825 01	4851.
TOTALS	0.17		825	

INJECT TIME 08:51:38

10PM120H31

2.28

GL 4

XI

6.12

7.00ER0

HEXES

08:51:38

FILE 1 METHOD 5. RUN 892 INDEX 59

ANALYST: LOUISE ALMO

NAME	CONC	RT	AREA BC	RF
1	0.	2.28	585 01	
HCBZ	11.266	6.12	54649 01	4851.
TOTALS	11.266		55234	

DO A 11645
CONFIDENTIAL