

175674 18 55.2 -48 35 185 Bal 1 +9.4

6.5

5.58 4.15
5.40
55
502

±8 ±6
+0015 -006 6c
+13 + 6

+0028

Handwritten signature

" +012 +005

Pages

-0001 -001
+ 13 + 6

+0012 +005

272 -302 -613
372 908 -190
-586 247 -340

+0155 -0071
+0212 +0215
-0505 +0068

+0094

+0427

-0487

-8.6
-1.8
-3.4

-7.4
+4.0
-9.4

173674.000*

18.000*

55.200*

-48.000*

-35.000*

0.012*

0.005*

5.000*

100.000

P=624mm
NO 511871

+4930 ± 2.4 -161 ± 2.2
+135 -168

17605 / 18 55.2 +32 50 5.2 d60 -47.2a

26030

11406 9.027 1906.0 +32 50 9.57 1904.1

-576
8.457

+739
16.96

5.21

2.00 20.00

12.822

15.2 1925.815

558888

57.415

1.491

12.600

618

8.704

13.09

697

3.87

~~717~~

13.57

19308

8.297

12.9

797

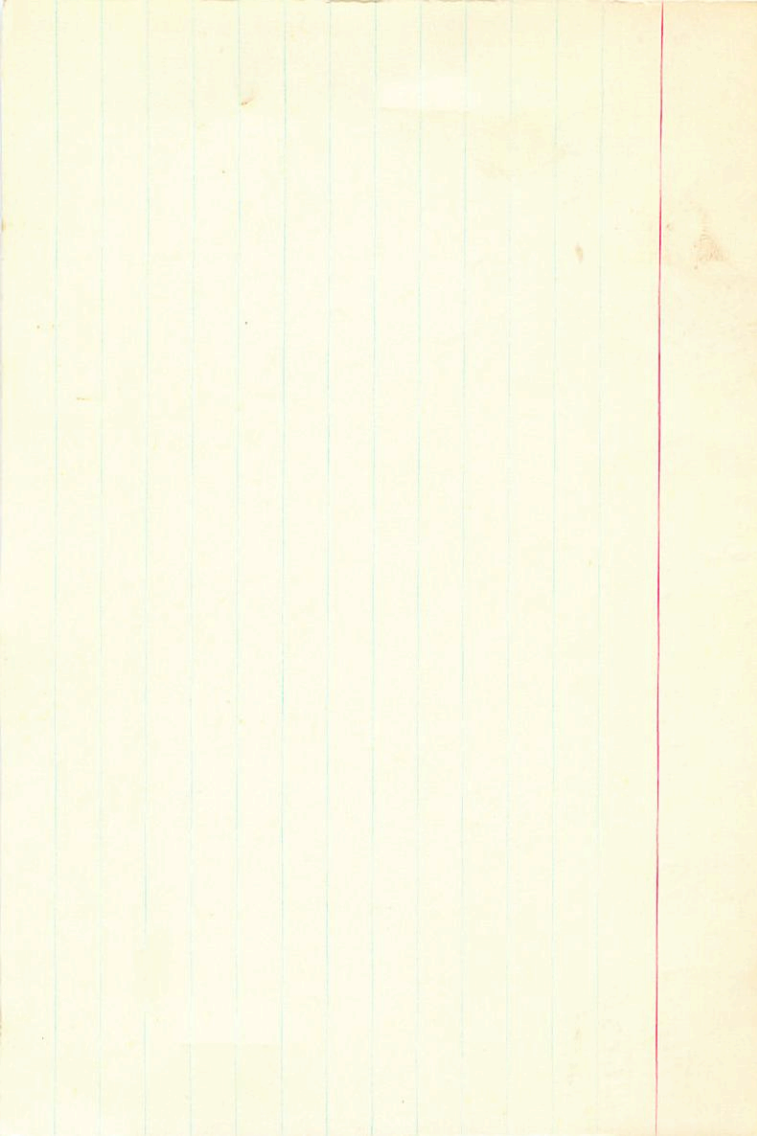
-29
12.61

5585
27.9

22.6

21.9

!



175893

18 55.6 -29 34

-29015594

+42.0

(7)

+012 +017 7ok → 0c

+016 +021 7ok → 5k4

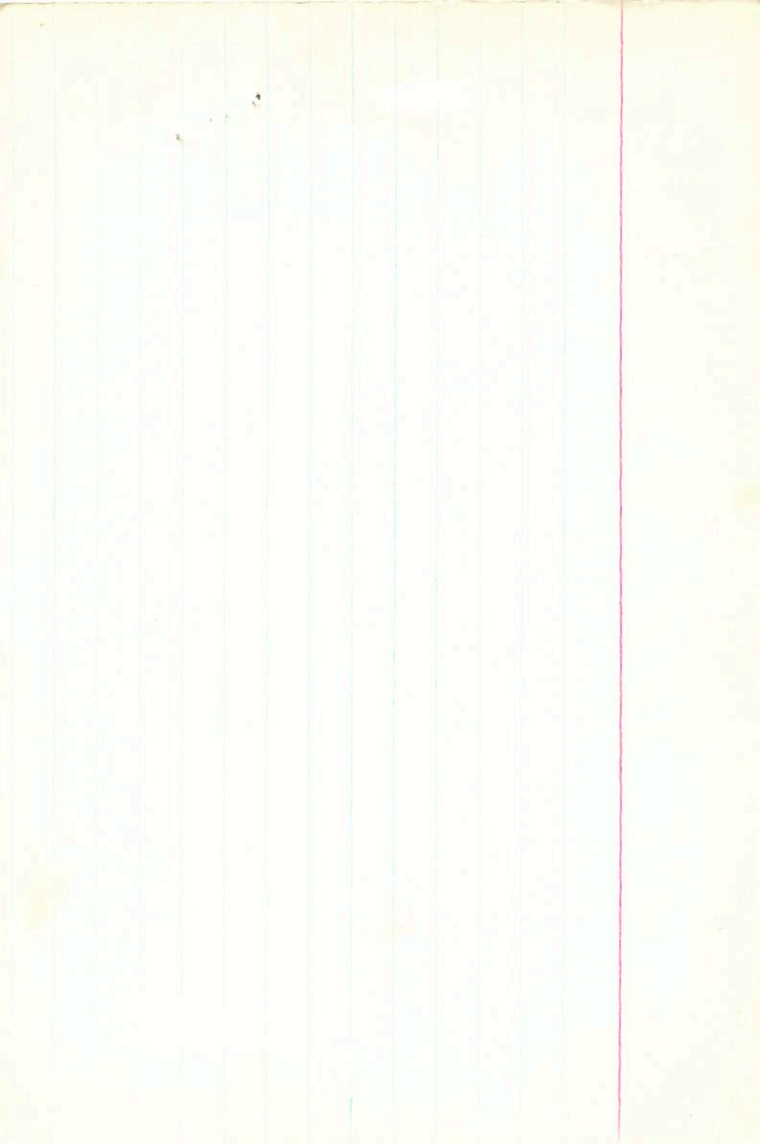
+011 +026 7ok →

+0185 +0235

(+42.0)

+013 +023

15



949
-2515574

14017553 18 55.6 -29 34

442.0

+021 +016
+1.0

424
424
424

+018 006

9.20 +1.20 -

Lehrer

+0006 +0.27
+3.5
+0.010 +0.027

+0.013 +0.027

Lehrer +013 +027
Yale +017 +023
→ +016 +025

93

2328
7328

15000

10001

-22.4
+135.4
-15.7

-40.5
+4.9
-10.4

+18.7
+130.8
-35.2

+0013
+130.8
-0.52

+0162 +0013
+0229 +1179
-0547 +0495

272 011 -942
372 921 114
-886 387 -247

2580

-40.4
-4.9
-10.4

+0206
+1356
-0174

+0193 +0013
+0264 +1042
-0032 +0456

2

0.269
0.009
-0.963
17.601
-36.030

0.374
0.921
0.113
123.476
35.761

-0.888
0.391
-0.244
-12.292
-13.342

-009 -106

7163

18 56.0 +6 10

-9.46

-015 -117

39.8 po.
-0141

57.017 1902.5
028
045

-8006 ± 9.5
-8012
-0012

-008 -112

-012
7230
876461 19.37

56.992
+10
57.005
-1040

-0012 -114
-00105 -115.7
~~00115~~

275 568 -777
372 682 624
-488 460 625

-0156 -3015
-0212 -2621
+0505 -2442

-3171
-3833
-1937

-106 ± 8.0
-124 -114
22.05
5.25
27.33

18.55
+6.05
-1.5
-11.7

3.4
1936.7764

22.90
-8
22.82
4.51

-12.6 +7.3
-15.3 -5.9
-7.7 -0.2

-5.3
-21.2
-7.9

176095

18

w430

56.0 +L 10

F5

H07163

56.961 ⁷²⁰⁰ 1937

6-20+47-1 C

93
401.8
308

G026050

3.1

.807 .164 .479 (2) SPL 2.628

31

+ 12 33
-00090 -1150
-60 78 -1117
39 11
" 7 78
-0611
+0007

act

±6

4.4

[M] 221 +9

[C] 418 ⁴⁶ / ⁺⁷⁵ +3.1

W9-113

-9.46

39.8ps. -5.3 -21.2 -7.9 -0009 = -012

-9.4

-317 -383 -194 -112

w430

122
-15 -33 -14
-3 -4 -2

R.A. : 18.950
DEC. : 6.150
PM. R.A. : -15.000
PM. DEC. : -117.000
DISTANCE : 3.400
MODULUS : 48
RAD. VEL. : -9.400

q1 (U) : 0.280
q2 (U) : 0.570
q3 (U) : -0.773
dU : -335.673
U : -8.802

q1 (V) : 0.367
q2 (V) : 0.681
q3 (V) : 0.634
dV : -403.343
V : -25.268

q1 (W) : -0.887
q2 (W) : 0.461
q3 (W) : 0.019
dW : -192.867
W : -9.405

176047 18 56.4 -34 32 NITR -40 740.56, 14

8.10 +56 2.04

+0006 -16 -42.86

ARRSyr

-23°14922

9

18 56.7

-23

47

(6200

-10080018)

RV 87.5

+0187005 4→60

+020 +005

+026 ±10 +005 ±10 Y

+114 ARR -24 .002

+107 0 +22 .003

4

300-

51.600
73.012
0.214
0.409
0.887

261

49.962
70.949
0.210
0.306
0.367

261

127.321
066.990
0.954
0.102
0.280

100.000
1000
10.000
0.000
22.000
22.000
19.000

312

4

Rv 7000

+R 5yr 18 56.7 -23 47 C 2000 -1000 0 0 15)

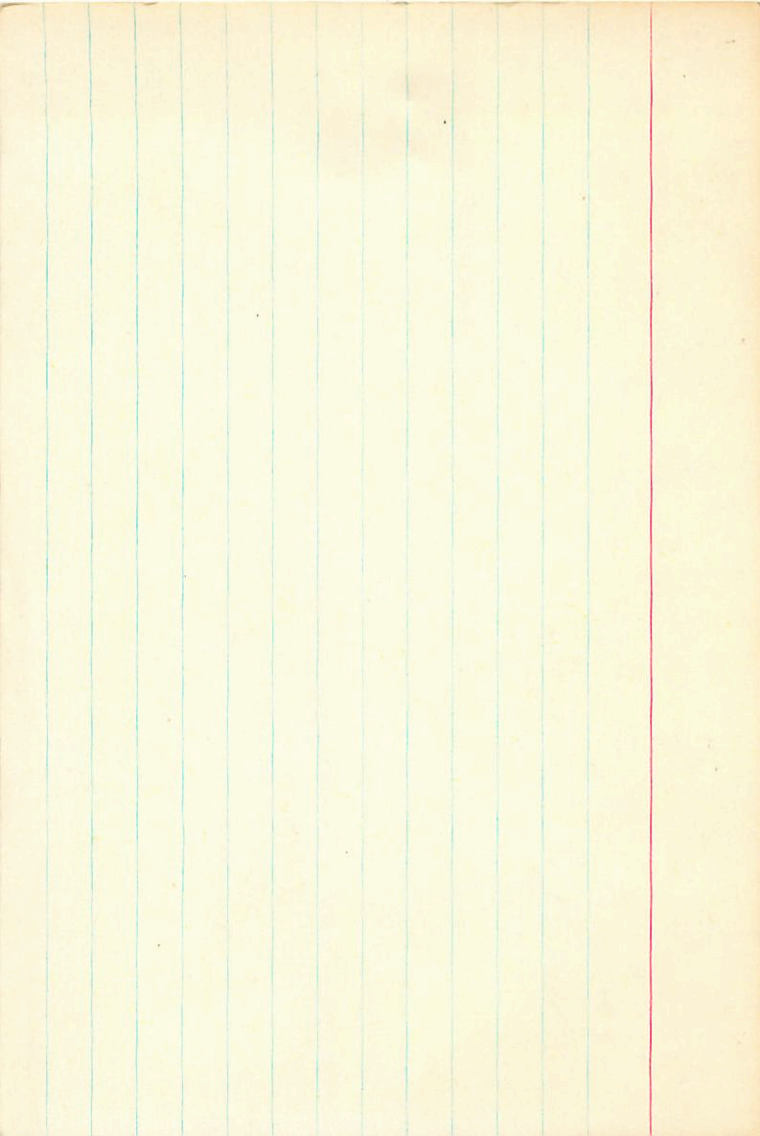
P = 87.4

-2304422

W 11432

+026 ± 10 +005 ± 10 ✓

+94 -21 +24 if no paper included



HAR 1762²

95.1

18 56.5 +13 50 Aug 14.5a

10 Aug 26064
11426

5.90 + 0.26

-007 -0556c
-003 -044N
-005 -050

W 11426

24 044² 5N30

7N30

-0002
-0005 20 -051 2.166 7N30

-1002 -044 N 30 ?

-8005

-8007

1002-044

-970

~~2444~~ 244 234 571 -005 -050 +14.5 -012 +3.5 -232

-005 012 -001 -003 -009 -062 +14.1 -334 12.7 02

+2.9 -15.8 -8.1

-18.4 + 3.5 +3.7

025

+3.1 -15.1 -5.8

-16.7 + 9.2 4

022

-17 +3 -3

+0004±3.2 -041±2.6
0000 -036

A051901 AR7191

176668 18 56.5 +62 20 6.4 966 -8.0 8
26074 -7.0 3

11433 47.243 1886.8 +62 19 43.18 / 880.4
-025

2.85
46.00 1927.1
41.8
238

GM = 2.85

32.10
15 12.88
47.221
2.10
2.11

49.8

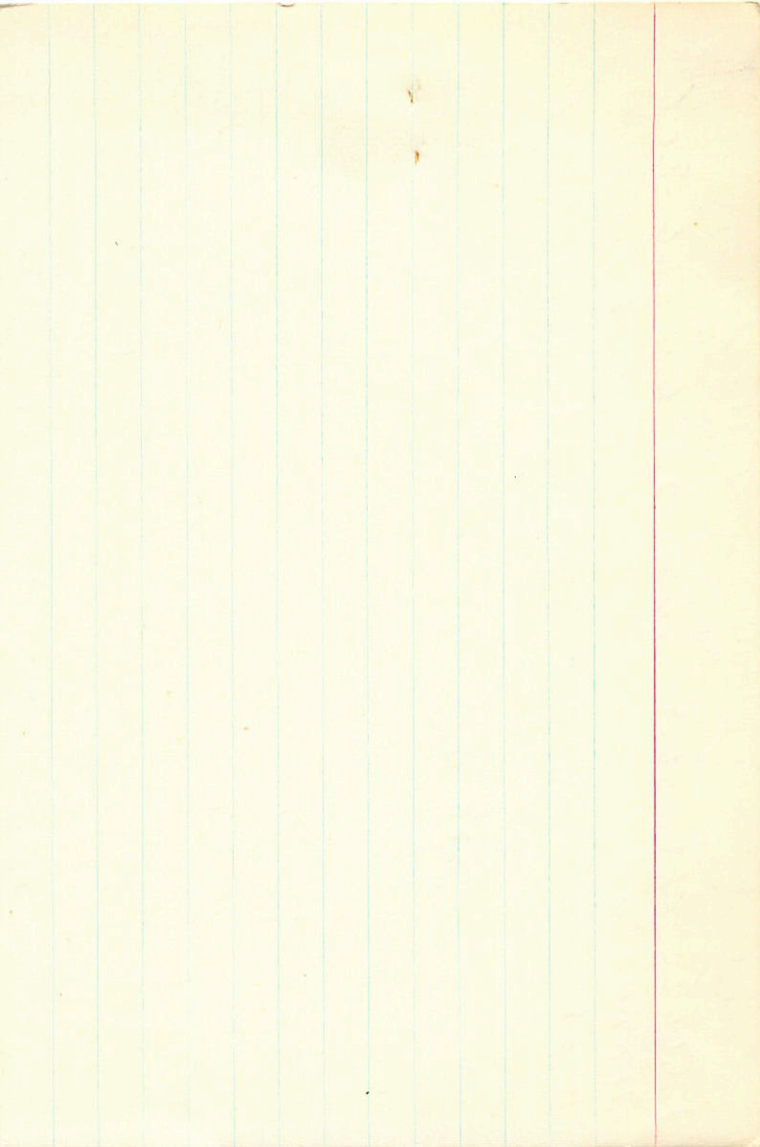
7314
36.6
56.2

44.26
44.44
44.6
44.50

43.64 1945.64
-14
43.50

47.203
18
221
-102

44.00
2.00



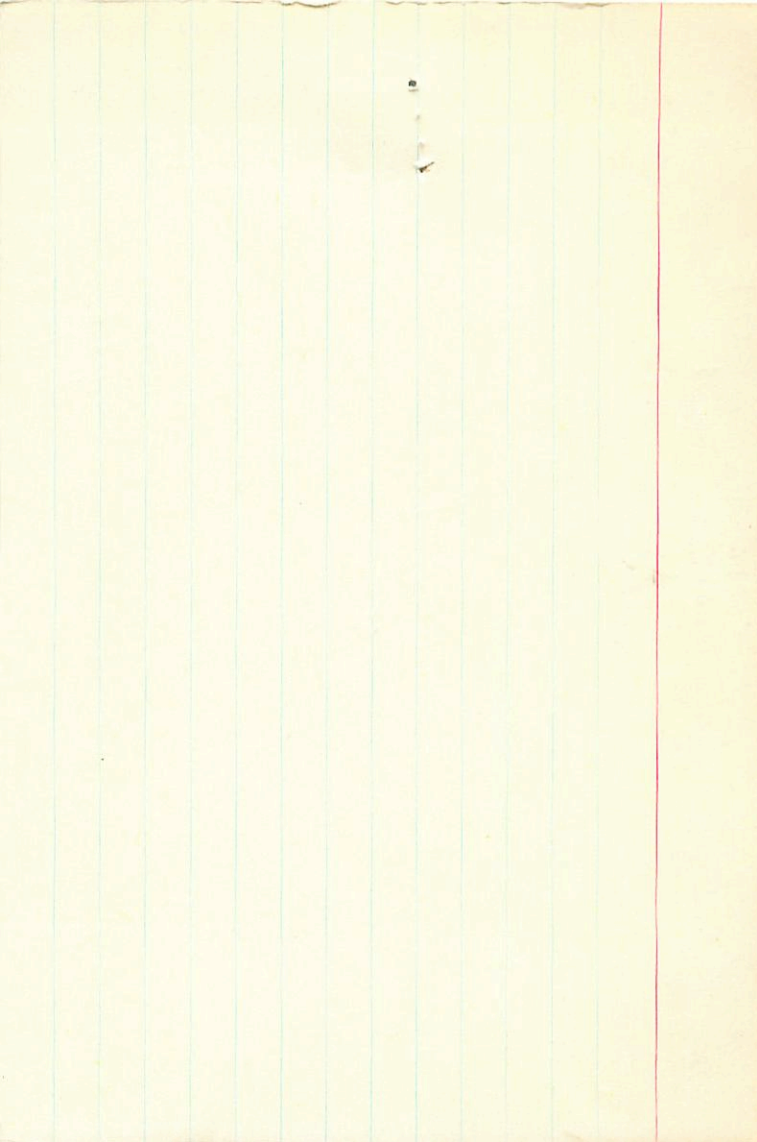
11A91
 106303
 26075
 +0006 ± 2.3
 +0009
 +13 33
 +0004
 -126 ± 1.8
 -131
 5.4 dF6 ± 15.9
 18 56.5
 132

11434
 47.531 1895.2 + 13 33 15.44 1895.4

~~Ans 1192~~
 Ans 1192
 -0.81
 500
 6.88
 22.54
 1895
 +13.55

35A
 47.524
 3
 527
 +0006 -121
 +0004 -1271
 +0113
 17.43 1934.5
 9
 17.82
 111
 1934.5 + 15.5

482
 47.553
 2.04 -14
 20.539
 533
 12.94
 +030
 38.6
 36.3
 36.8
 41.4
 16.82
 1934.5 + 15.5
 12
 16.70
 17.41
 -5.43



11 Apr 18 56.8 +13 33 d R6 115.96
HR 7172 5.24 +0.53 +0.07 +009 -1266C
F8V -1286C+

W11434

34A (16) 9323 3846
395 (16) 9543 -9231

-969 245' 234 572 -1009 -128 +15.9 -030 +3.7 -5.9

009 -029 002 007 076 -128 15.5 +3.8 -15.0 037

+6.3 -19.3 -16.0 038 +5.9 -18.5 = 12.1
[-21.4 + 12.1 = -7.7]

-24.0 -0.3 -9.9 +5.3 -17.6 05

+6.5 -20.1 -19.8 025 +5.1 -17.1 -6.1 06

-26.3 -2.6 -11.8 -17.1 +5.6 -11.4

026

+4.9 -16.9 -4.7

07

-16.7 +6.5 -3.6

416
1244
27

176303 / 8 56.8 +13 33 F8 TE

HR712
GC26078
11 Rpl

524 + 53 + 07 274
524 + 0.535 + 005 @ 174
5.30 + 3.3 144

.300 .174 .455 @ 506
356 16 + 28 2.616 @ 20

2.50
11 157
11 157

+00075 -1285 +20 GC+
55 00091 -1247
+126
+0132 4016-126 +15.96

2.75 ✓ 2.40 -223 +1.5 -8.7
-374 -327 -327

8

22

5



Handwritten mark or signature.

7172.000*

13.000*

55.800*

13.000*

33.000*

0.016*

-3.126*

2.500*

31.623

15.900

-3.376

-3.693

-22.903

-3.326

3.716

1.067

-3.339

3.078

-3.464

5



AD

18. 938
 13. 558
 14. 888
 - 128. 888
 1. 188
 17
 15. 588

 8. 288
 8. 664
 - 8. 698
 - 385. 861
 17. 133

 8. 367
 8. 598
 8. 717
 - 886. 238
 5. 529

 8. 887
 8. 455
 8. 878
 - 882. 885
 4. 823

5

$$\begin{array}{r} +0039 \pm 4.3 \\ +0039 \\ \hline \end{array}$$

$$176244 \quad 18 \quad 57.3 \quad -25 \quad 07 \quad 6.4 \quad 9100 \quad -24.56$$

$$26089$$

$$11440 \quad 20.714 \quad 19063 \quad -25 \quad 0 \quad 45.82 \quad 1903.8$$

$$\begin{array}{r} -170 \\ \hline 1544 \\ \hline \end{array}$$

$$\begin{array}{r} -1.80 \\ \hline 5062 \\ \hline \end{array}$$

$$48.701$$

$$31972$$

$$20.630$$

$$\frac{680}{655}$$

$$+ \frac{2}{655}$$

$$52.07 \quad 1934.93$$

$$\frac{1522}{5}$$

$$51.32$$

$$1.73$$

$$49.78$$

$$\frac{49.65}{86}$$

$$\textcircled{31.7}$$

$$560$$

$$37.8$$

$$\textcircled{34.0}$$

$$20.687$$

$$\frac{19}{674}$$

$$+ \frac{12}{2}$$

$$44.21 \quad 1940.67$$

$$\frac{0}{49.43}$$

$$+ 1.19$$

176441

18 575 +16 11 4.9 AS +28.3

26094

27.89 1903.4

35

26.245

-5074 ±75 -140 ±7.5

-118 0.78 1903.4

-120 10.82

-120 2.20

28.003
+7

-105 -124

3.34

1934.6

+18 3.68

020 25000

37.1

27.991 284

1934.57

2.29
+125

4

281693 -663

-1399 -4139

-5538

364562 742

-1822 -3356

-5178

-989 451 094

+4415 -2694

+1721

188

+210

+2.7

4R 7181 18527 + 26109² 24C

287 / 33 2874
 1422 / 2 14224
 1994 / 3 3
 2874 2874
 1422 1422
 1994 1994

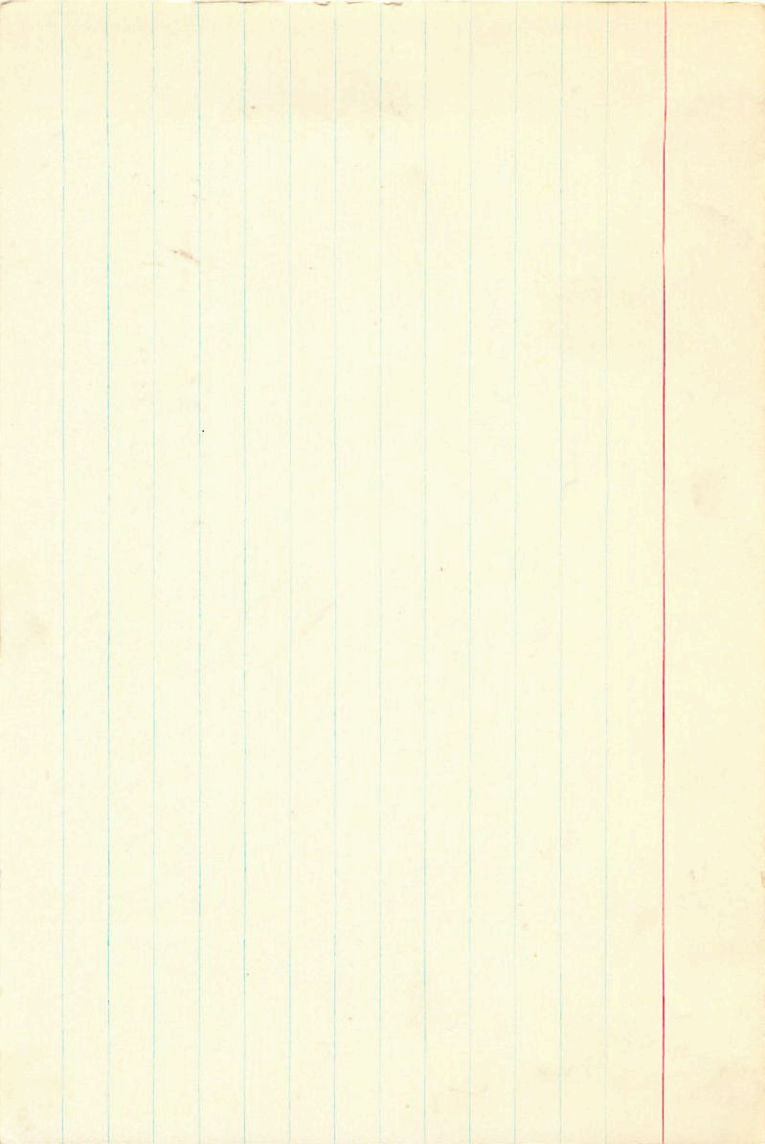
2.5
 1.5
 1.5

" +083 -010 6C
 +0062 -006 6C

8.85C
 76248.4

83

281 798 -532 +1105 -0227 +0878 +723 +12.8
 364 424 828 +1420 -0120 +1300 +108 -19.9
 -889 428 172 -3485 -0122 -3607 -29.9 -4.1



2 Lys
 176670 1 T 58.1 +32 04 5.1 g/123 -15.5a

26115
 11455 7.568

477

042^{1/2} 06

477
 13
 1422
 477
 06162

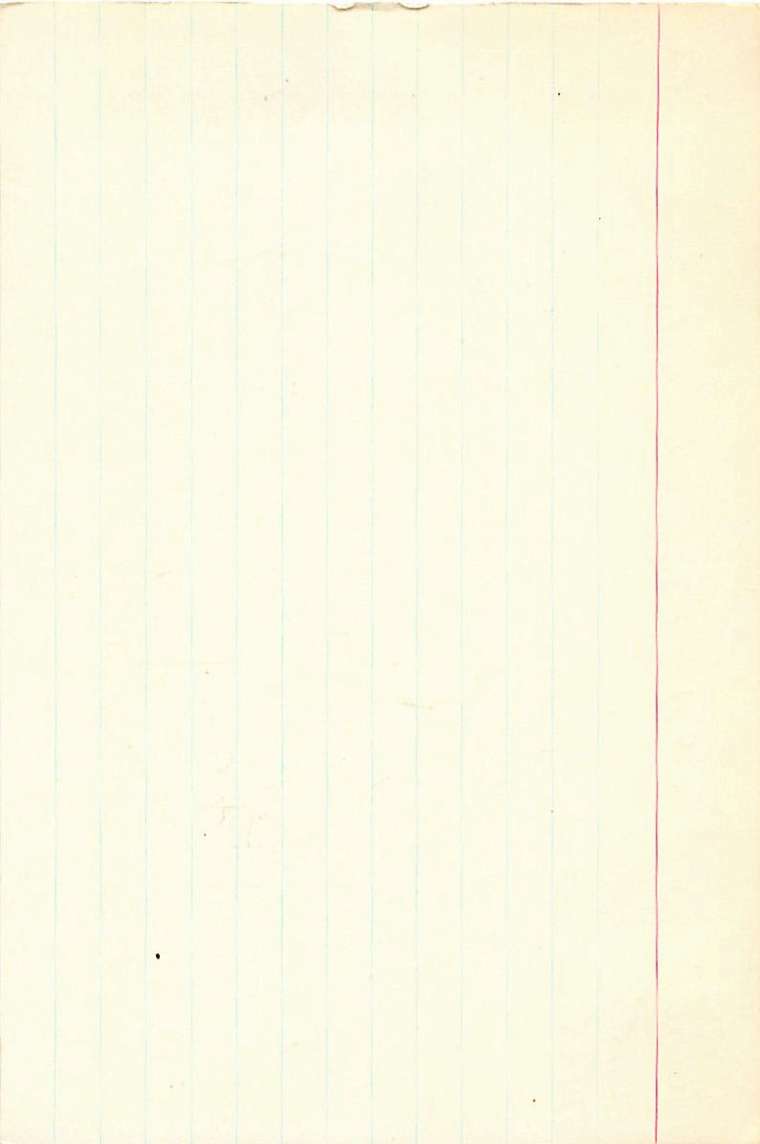
~~+008 +009 66~~

+0009 +013 66 →

+009 9.6 5.4 -1.2
 -1.9

280 849 -446	+0118 +0520	+0638 +9.9	+6.9
356 336 868	+0150 +0206	+0356 +5.6	-13.3
-887 407 215	-0376 +0250	-0126 -1.9	-3.3

155



176384

18

58.3

-36

58

6.9

138m

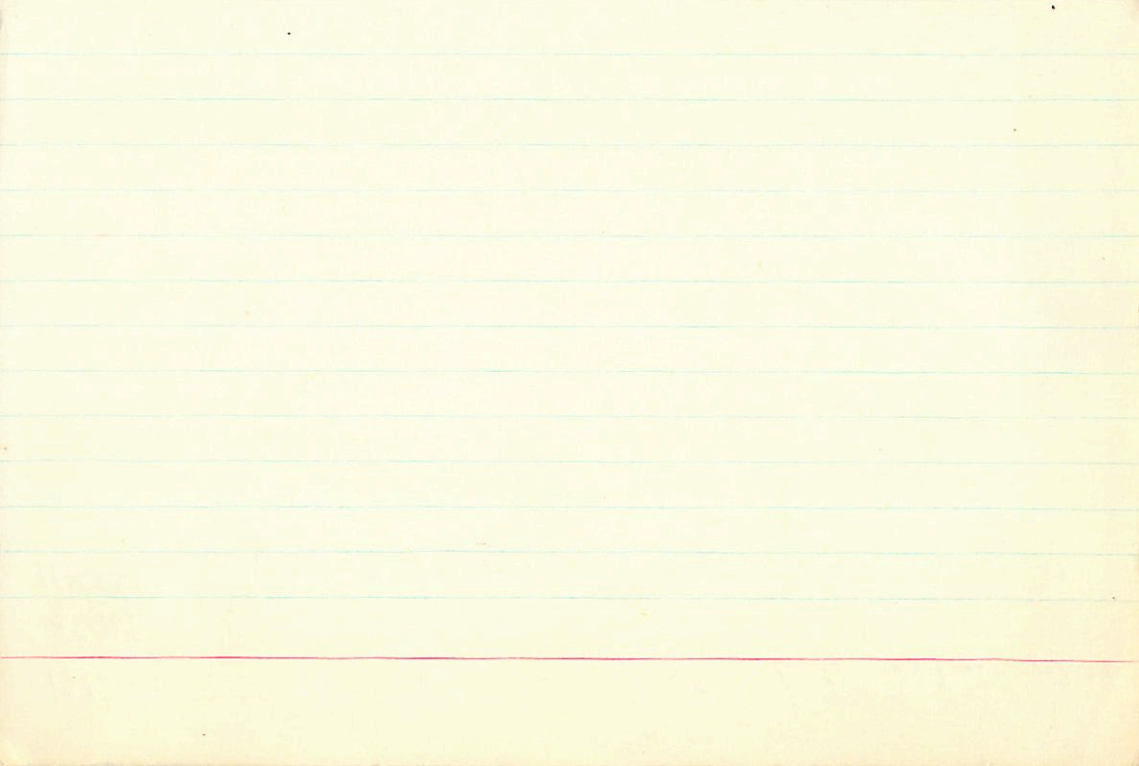
+7.36

76118

11456

16.575-1901.3

+0005[±]10.0



176387

18 58.5

-46 43

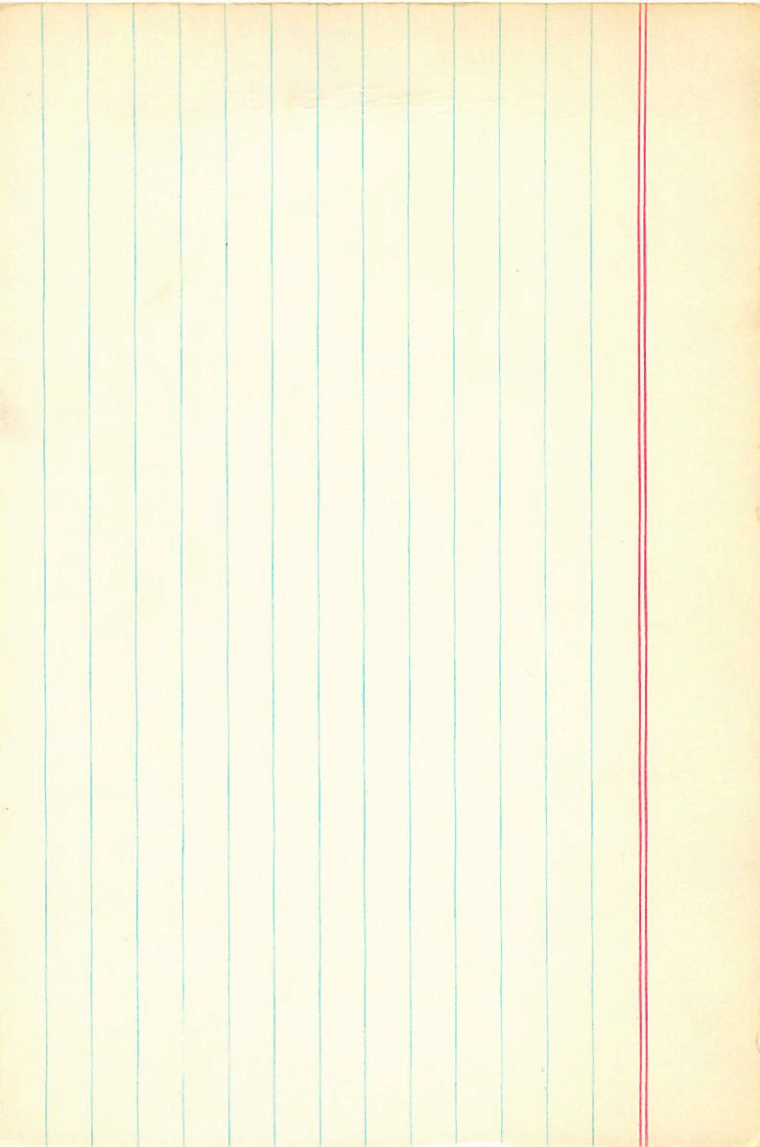
A0 +71.8

256

~~-460~~ 12764 54.9 -16 47

9.5 A0

-130 -120 CA



H6650

18 58.7

0000 ± 7.5 - 232 ± 6.7
+ 0006
+ 02 25 7.2 100 + 2500

20129

40.341 1401.5 + 2 24 48.24 1500.6

11462

0

40.346

11.46
59.70

52.15
1932.9

355

52.20

40.355

367
1020
33.2

51.13
0
1936.47
937

367

34.7

333
51.60

31.1

8.04

6

~~-0000 ± 2.2~~
~~+0000 ± 2.2~~
~~+0000 ± 2.2~~

176593 19 58.7 -15 21 6.4 966 +20.30

26132
11466

42.063 1902.8 -15 21 17.39 1900.6

$\frac{-10}{17.49}$

23.98

$\frac{392}{1935.18}$

$\frac{20.06}{1.50}$

$\frac{16.56}{+3.4}$

$\frac{18.2}{}$

35.7

16.366

25730

42.092

$\frac{1.94}{0.94}$

0

42.091

$\frac{0.82}{}$

$\frac{0.78}{}$

7810
312892

42

$\frac{24}{24}$

$\frac{0.6}{0.6}$

1541.07

18.07

5030

17.9

17.33

17.51 1939.24

+12

$\frac{17.39}{}$

$\frac{17.31}{+1.8}$

4 11551
385

37.9

17.31

+1.8