

59522

+0005 ±1.9
+0004

-0114 ±2.2
-0008

-192

188603

19 53.9

-27 18 4.6

9123 -16.2a

27605

+0010 -011
+0009

1886.5 -015
-27 15 14.95

1897.2

12278

52.864

-026
84

14.11

+00098 -013
6222 -010

668

1443
-41
1402

11.92

1927.88

0183
052

5292
-12
908

32.026
52.901
-1.43
858

55.92
6.00
49.92

14.64

+016-009

7047

1498
-24
1522

14.64

1939.61

6779
33.7

5294
-16
902

852
-18
834

14.62

14.42

36.5

14.62

14.62

14.62

14.42

1.31

115g
189063

19 53.9 +60 46.3g MI -22.48

27607

12279

54.9331887.1 +60 41 25.71 18833

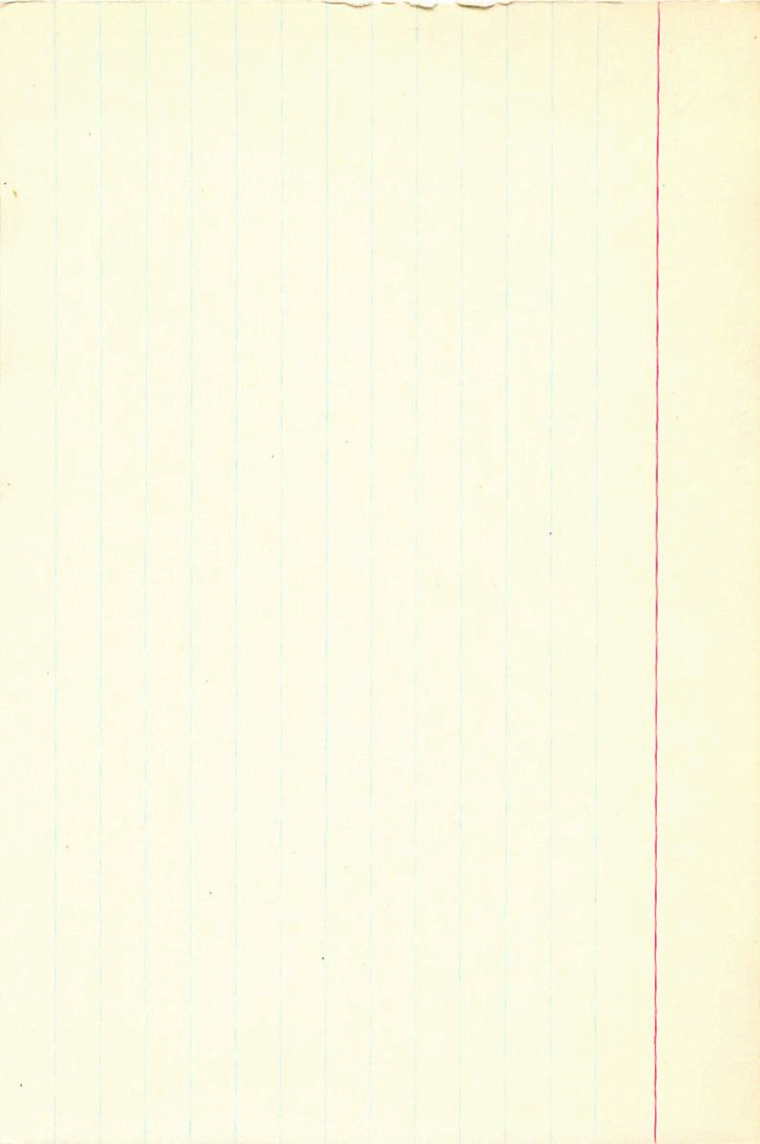
$$\begin{array}{r} 0.13 \\ \hline 946 \end{array}$$

$$\begin{array}{r} 33 \\ \hline 26,04 \end{array}$$

$$\begin{array}{r} 30.38 \\ 24.60 \\ 54.987 \\ \hline 943 \\ + \\ 953 \end{array}$$

$$\begin{array}{r} 27.6 \\ 58.15 \\ \hline 25.78 \\ \hline 26.12 \\ \hline 26.28 \end{array}$$

-0002#3.5 -005#3.2



L997-21

19 54.0 - 1 09

13.69 + 0.27 - 0.55

 γ_{Luo}
~~6.44~~0.84 213° L
- .45 - .70 ρ_c 219° }
 ρ_o 213° } $\pi_g = 0.073$ $\rho_c = 157$ $\rho_o = ?$

77W(7)

 $\sin \lambda = 2683$ $\cos \lambda = 730$

-879 477 -020 1.000 ~.45 -20 +51 014 -1 -3.317

-396 612 -215 006 -1.505 -962 +510 +24 -45

-2 -56 -46 073

+72 -9 -10

+0011 ± 17.0 -105 ± 12.0 C_p(S)
+0040 -61
-45 58 FSTE -413 ± 1.2

188555 19542
27614

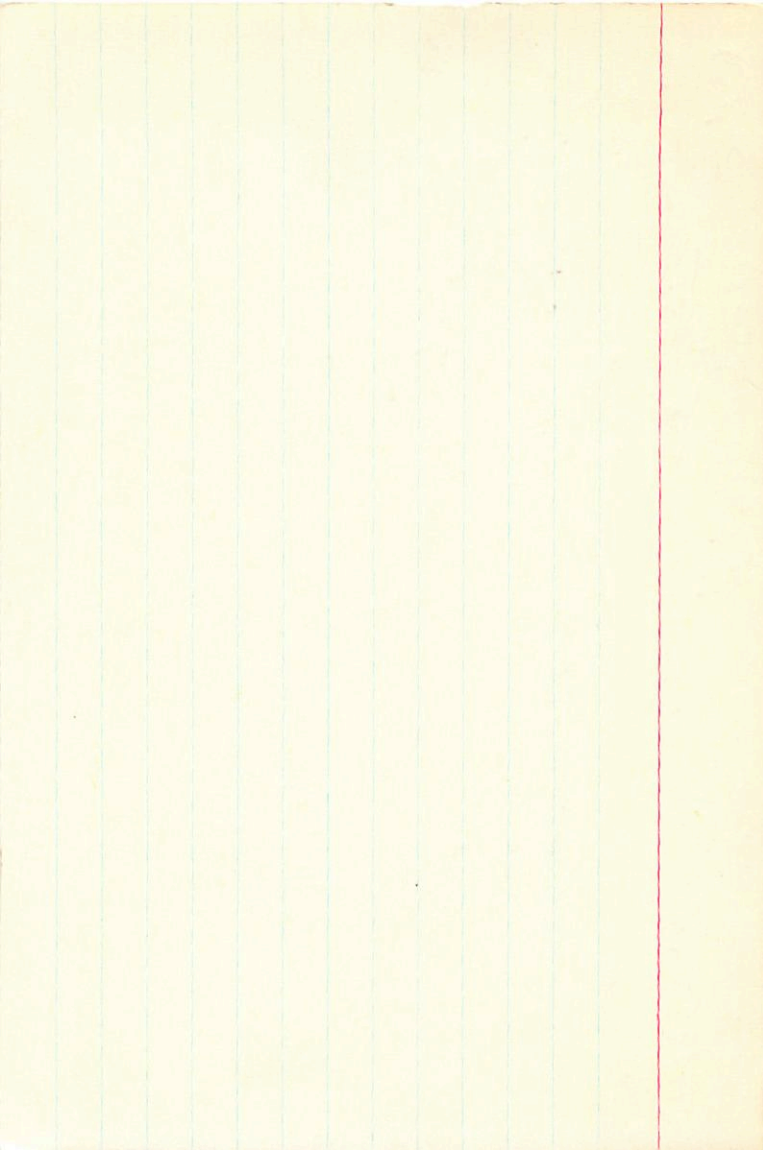
8.60 + 39

10.780 1904.9 -45 57 44.25 - 1908.9
-050
730
4.74
39.61

10.946
-15
931

42.44 1955.71
-7
42.71

10040 -66 CP



774 + 87 - 102

188642

F 1046

C 2719

7006

14 543 - 38 12 - 30.84C

6.54 to 40 (1.58) F.C.E.

+00747 10.0 - 08378.7

104 111

786 Street
+0083-101
+ 5 + 5

+0088-096

+087-095

21.255

- 359

20.896

41140
20.042
1.81

985
141

+105

+0093
+0083-092

+0084-086

424
27.88

32.17 1858

1928.64

64.47

57.58

22.84

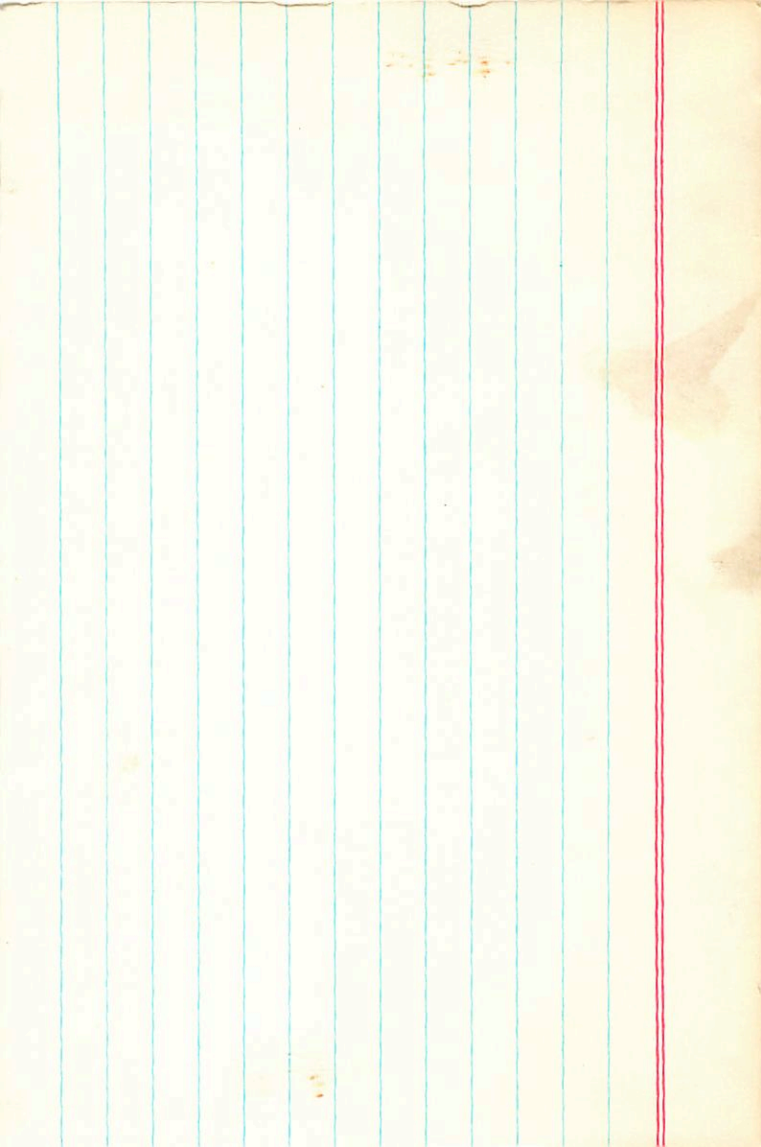
3203

31.4 1935.7

- 25

22.15

2114
1414



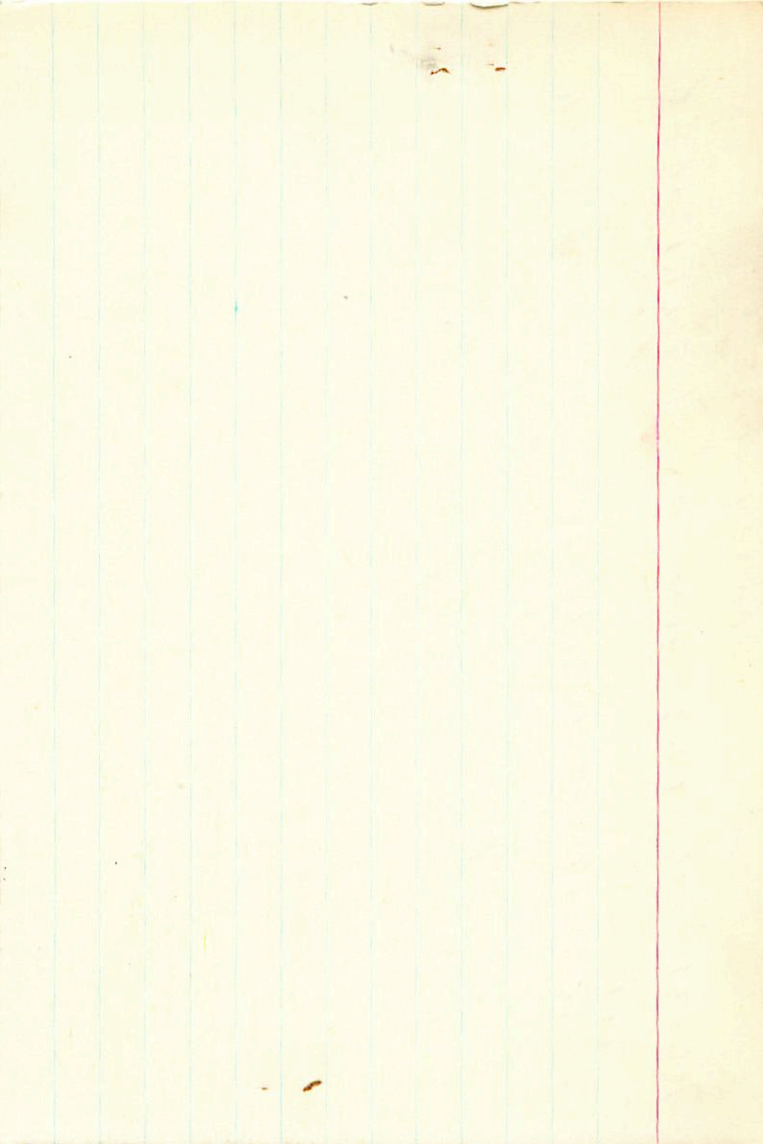
-0014 ± 3.4 -008 ± 3.8

189231 19 54.3 +64 35 6.9 g 101 +0.26
-400

27617

12285 19.520 1889.7 +64 35 16.42 18906
 $\frac{054}{604}$

$\frac{48}{16,90}$



-16.5

6.06 100

758 07

544 51

9626

+017 -072 -66

-3 +3

+014 -069

! ! !

! ! !

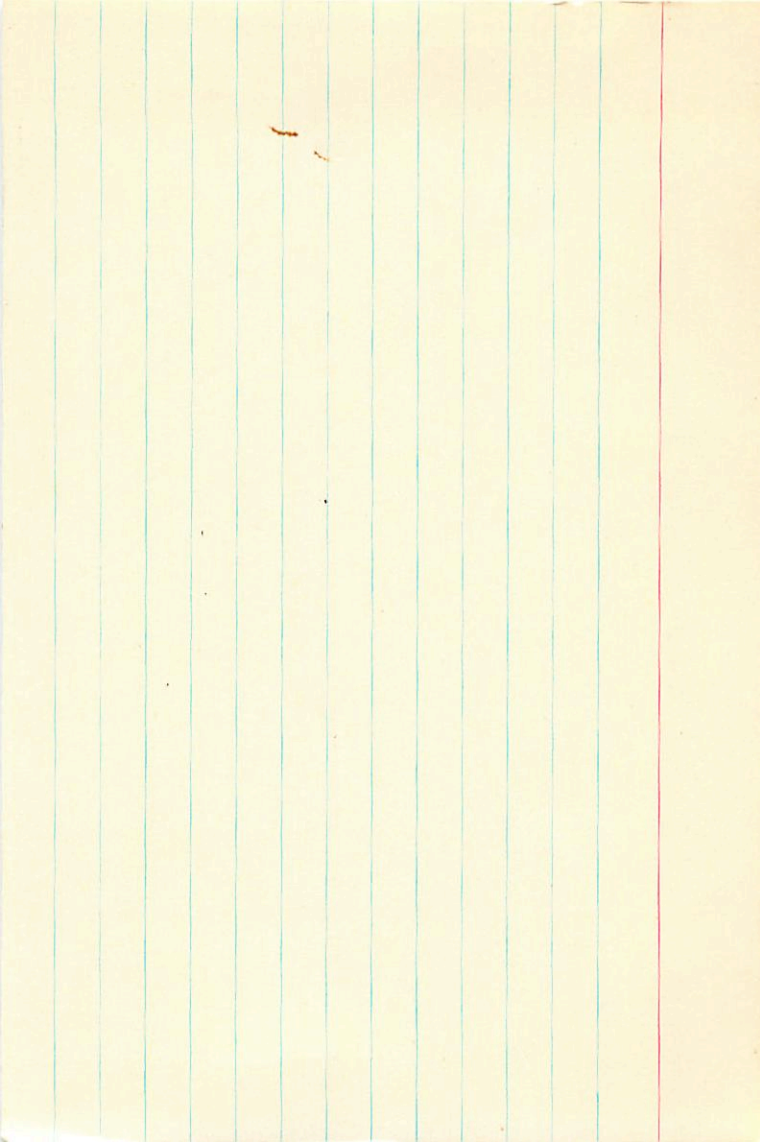
25

HR7614

19 54.8 +20 52 +8 A

W12293

6.4 A3 III -029 -025 G-C



7620

19 54.9

+36 07

179066

4 162.6

54
1126

6.00

044 075 412 2674

+00025 -0104 W₃ 50

(062)

421

-0178

124

545

+0730

12.9

5976 8465

5.75

+007 014

+8.6

-8018

5323

7.50

+8.5

74

7.5

7.80

23

26

19.900
36.400
8.500
-14.000
7.000
363
-23.000

0.475
0.824
-0.309
-39.192
-7.123

0.218
0.230
0.948
-0.156
-24.776

-0.852
0.518
0.070
-62.136
-24.136

26

85 IV

19 54.9 + 36 07

7620

189066

6.02 - 16 - 59 + 02 06

-044 075 412 2.674

667 421
134
555

5.95

10001-005

-230

~~-2.0~~
795

10001-005
10001

28

189276 19 55.0 +58

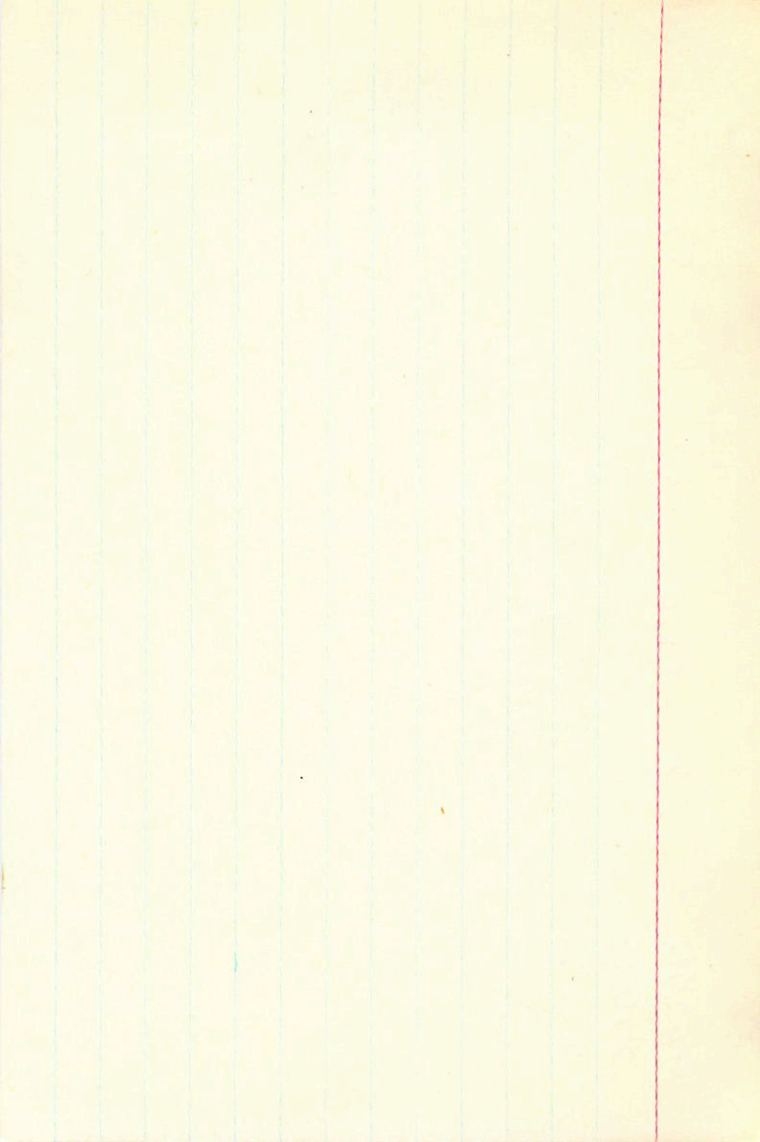
27635

12298

-0022²⁰ -020²⁷ N30

-0020±1.6 -018±1.2-6.6 → N30

13 51 6/15
25



189067
27640
12303

19 55.2 +23 57 7.160 -7.18

-0097 ± 9.0 -151 ± 8.7
-0093 -134

12.403 1900.5 +23 57 15.31 1900.9

480
883

12.574
4
570

1200

12.624
2
630
600
-283

30.3

7.41
22.72
18.29 1932.9
11
18.40

19.14 1928.69
8
19.06 4159
30.8

18.73
3.99

29.9

859e

1897635

189319

27672

27672

12320

~~W~~ W 12320

6 A (12)

15 M (10)

19 56.5

118 21

9 M 0 - 32.8a

340 (10)

+059 +025 FIN3

+061 +024 GC

+061 +023 M30

+060 +025

125 III

4.00 11.52 - H

+0044 95 +023 85 M30

+0043 ±1.0 +027 ±1.0 GC M30

F144

+00460 +0255

+0651

+0681 +0234

5650 6654

→231 7438

W3 A

+00461 +0239

+00464 +0215

+0657

+0687 +0194

189118 19 56.6 -34 50 5.3 A3 -17.6a

27674

12324

36.7541909.0 -34 50 3.39 1903.9

$$\begin{array}{r} -320 \\ \hline 434 \end{array}$$

$$\begin{array}{r} + 3.55 \\ \hline 59.84 \end{array}$$

2.5±9

49

$$\begin{array}{r} 36.706 \\ -23 \\ \hline 685 \end{array} \quad \begin{array}{r} 1553 \\ \hline 777 \end{array} \quad \begin{array}{r} \\ \hline +343 \end{array}$$

39.9

2.81 1940.39

$$\begin{array}{r} 0 \\ \hline 671 \end{array} \quad \begin{array}{r} 9776 \\ \hline 489 \end{array} \quad \begin{array}{r} 3.36 \\ \hline 3.52 \end{array}$$

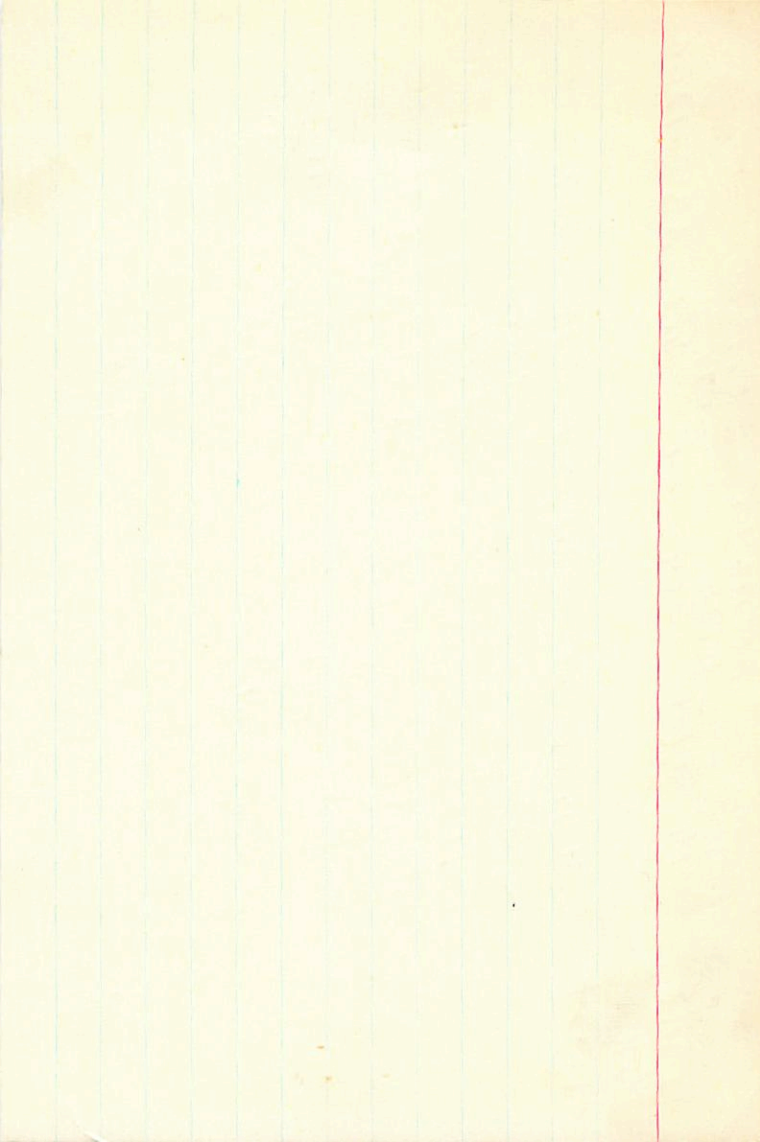
9776

489

45.0

$$\begin{array}{r} - 3.81 \\ \hline 03.81 \end{array} \quad \begin{array}{r} 1957.37 \\ \hline -9 \end{array}$$

3.90



+0016 ± 113 -154 ± 9.0
+0037 -145

189247 19 57.4 -44 07 7.576 -22.5 ± 11.0 (15)

27698 +0032 7.66442

20.865 1401.5 -44 07 7.33 1899.0
-078
787
1
45
45
4
3

0026 -136 04-189 7.85
5-9.48

41.2 22.5 6.88 1929.04
2.15

1163
5.82
-634

4001 4.70
-101 4.62

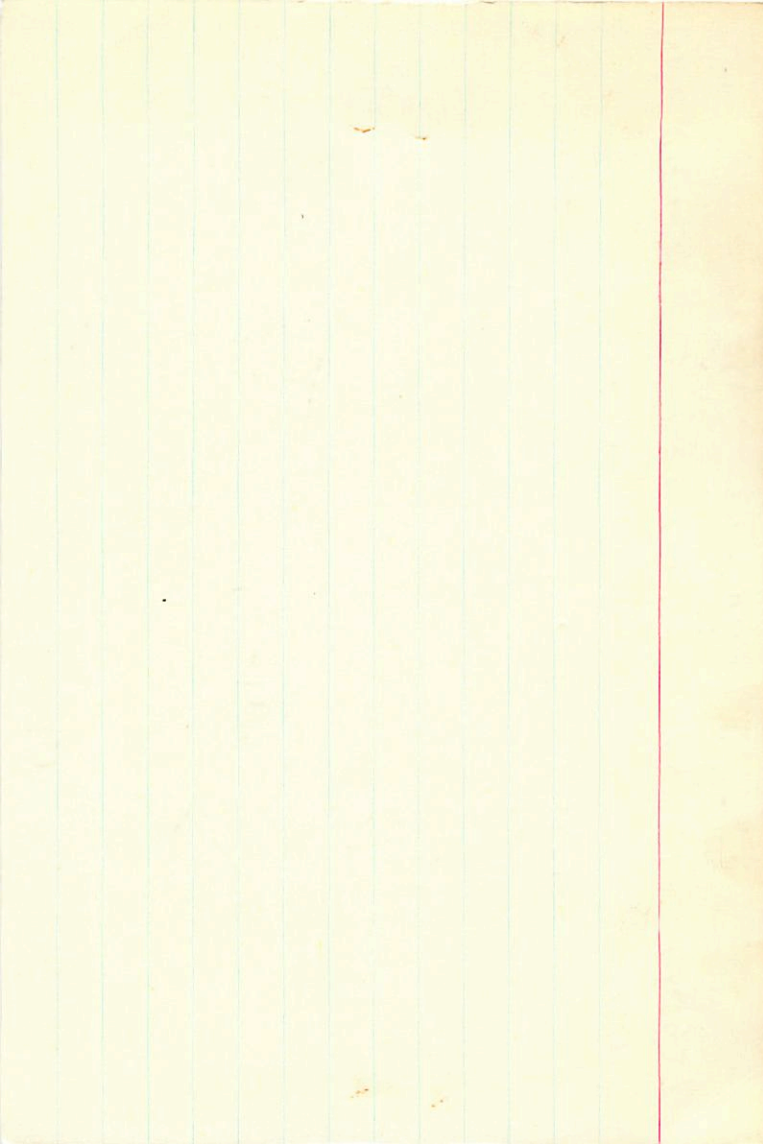
139 +21
-57 -62
-15 -28

6.94 1956.37

21.00
-15
20.989
678 1814
29343

5798 1577
-816 -040
7.01

8541
-127
43.7



7651 19 57.9 +51 55 85 114

18975

6.14 -19 -66

+01 03

162

-090 097 318 2.668

093 334
166
300

6.1 ✓

-2.00

8.1

18975 1000+

1000+ 900+
1000+ 800+
1000+ 700+

28

-0011E3.9 -025 ± 3.4
-0015 -029

189900 19 57.9 +63 2.4 6.0 A0 -8.96

27716

MEM

12343

51.401 1894.1 +63 23 50.13 1887.8

062

62.463

32.58
1887.0
57.455
-39.9

404

51.377 -063
16
395

1.54
51.69

443 1926.5

5-90
50.26
50.48

13
50.61

50.14 1944.95

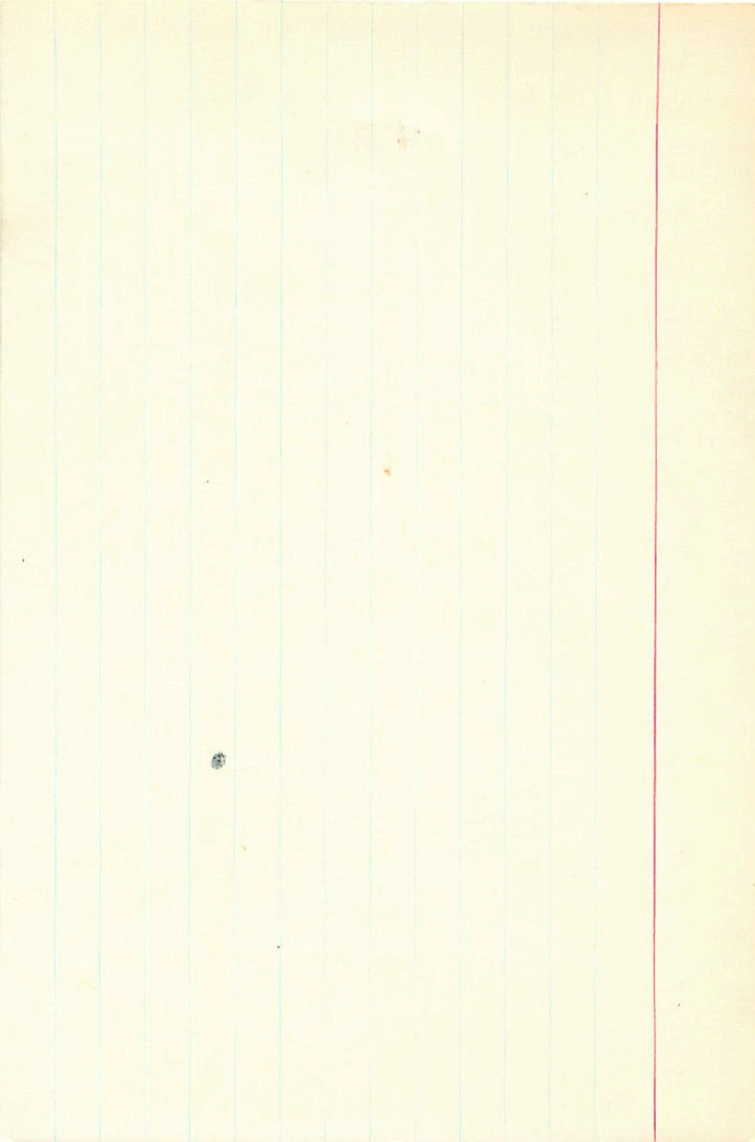
-14
50.00

50.80
-1.39

41.5

7125
35.6

47.8



598 494
189561 19 58.4
27787 605

+0010 ± 2.9 -010 ± 3.1
-0001 -004
-22 53 6.1

19013 -22 52 34.77 1901.1
883 402 435
88

25.712 19013 -22 52 34.77 1901.1
-049

56.552
29.165
25.717

32.0
660
660
667

40.75 1927.60
+4.75

34.28
36.00
+1.40
37.40
+30
37.30

1939.09
+14
34.51

6669
33.3
32.2

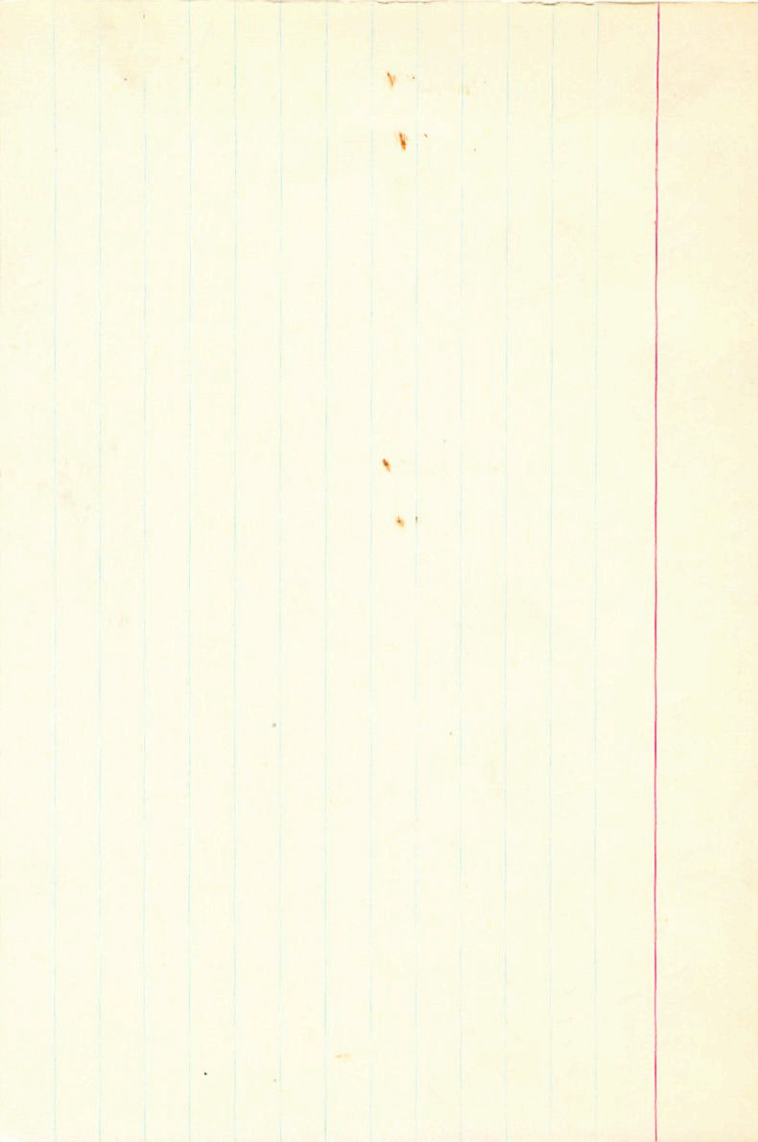
34.40
-12

25.669
-14
16.54

7643

4008-013 12
+011 13
88

49.4 28



189558

19

58.2

-12

23

F9 IV

P8/G2 IV

Reminder Y444

-14.76

-0208 -364 GC Syn

-0213 -365 New GC

-0210 -365

-0209 -364 FK4

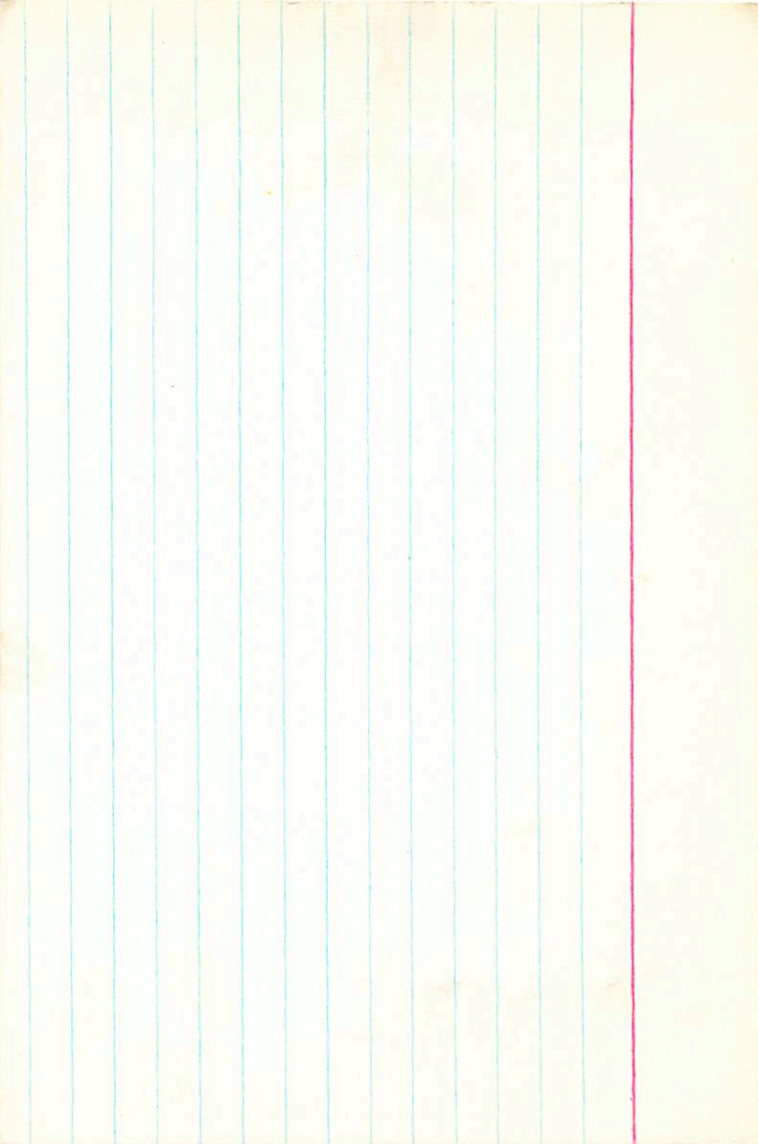
-306

-305 -366

+6m

7.72 +0.575 -0.105 (3)

7.52 +0.23 (3)



7.72 357 056 822 240 363 RPM

17.185

189558

19 58.2 22 23 dF6 -14.786(13)
-307 313
-314
-343
3.80

GC27729 ~~W12354~~

W12354 6 ~~W12354~~ 7.72 + 0.52 - 0.02 F9ER ~~W12354~~

Y4736 S=07

-1205613

-0211 -368
-304 -368

-37 -79 +26 .025

¹⁰ -02105 3645 +8

-48 -97 +32 .02

-02095 3637

-69 -128 +31 .015

39 7069
¹⁰ -307 -364

777 384 098 371

7.72 + 0.575 - 0.10 3E

2586

9.52 + 0.285 2E

1023 529 32

902
779
644 55

+8 ac
-305 -364
-304 12 -360 10 Y
-305 -363

-1RM (8)

34/10)
57.5(17)

13±6

-020849.0 -36448.0
-0213 -365

62

14.888 1496.1 -12 22 21.77 18947

1.121
57 20.13

16,009
1.64

54.953
23.260
22.47 1931.77
4.60

15.513
1.81
17.87
+1.30
16.57
+39
75.59
37.8
43.1

41.798
33293
15.09
4
196
120
889
41.7

14.118
474
17.37
-15.73
57.37
35.47
19412

33
054

19.924
+13
76.56

Handwritten notes at the top of the page, possibly including a date or reference number.

Item	Value	Unit
VEL.	-12.000	
ODULUS	20	
STANCE	3.700	
DEC.	-393.000	
R.A.	-314.000	
DEC.	-12.400	
R.A.	19.920	
U	-20.354	
BU	N-1248.191	
P3 (U)	-0.818	
P2 (U)	0.818	
P1 (U)	0.485	
U	156.69	
BU	N-1798.480	
P3 (V)	0.459	
P2 (V)	0.883	
P1 (V)	0.310	
U	948.0	
P3 (M)	-0.322	
P2 (M)	0.394	
P1 (M)	0.849	
BU	33.187	
BU	229.222	

Handwritten mark or signature at the bottom left corner.

464
99
160
x53

R.A. : 19.950
DEC. : -12.400
. R.A. : -314.000
. DEC. : -363.000
STANCE : 3.500
MODULUS : 50
. VEL. : -15.000

q1 (U) : 0.485
q2 (U) : 0.316
q3 (U) : -0.816
dU : % -1248.191
U : -50.324

q1 (V) : 0.210
q2 (V) : 0.863
q3 (V) : 0.459
dV : % -1790.460
V : -96.621

q1 (W) : -0.849
q2 (W) : 0.394
q3 (W) : -0.352
dW : 556.722
W : 33.187

29

-10.36

7666

19 5-8.8

+70 17

6.35 6814

469 1084

1.20

1093 1062

 3

1064

1040

10084 ± 5.5

1062.575

1064

41.51

1902.5

 2.92

49.793

 423

 370

10085 + 1063

 +1

41.87

49.691

 158

 289

4379

1945.15

1064

10085 + 1063

 +1

41.72

+2.93

0767

0110

1063

0415

7627

20

189754

19 58.8 +14 23 7.0 A2 +478

27747

12868

-000414 +005¹⁴ N30

-000219.0 -00457.8 G6 → N30



-240 Debit
Am -20.56

15 Vnd 19 59.0 +27 37

2653 189849

4.68 +0.16

023

27753

+054 +006 GC

12273

+0041 60 +006 57 N30

+054 +006 N30

5950

+0041 1.6 +010 1.5 GC N30

+054 +006

10580 2004
2525

-866 500 Y63556 +054 +006 -20.9 003-10 024

047003027 002 213 142-18.5 -9 +16 0.024

0 +22-9

+15-17-100

0 +22-9

023

+15-17-8

625gr

179763

HR7650 189763

27763

12379

19

59.6

-27

51

4.46

+1.64 gr

5.09100

+0028 65 +017 67 N30

+0030 ± 1.2 +019 ± 1.5 66 N30

799①

799

+035 +020 FN3

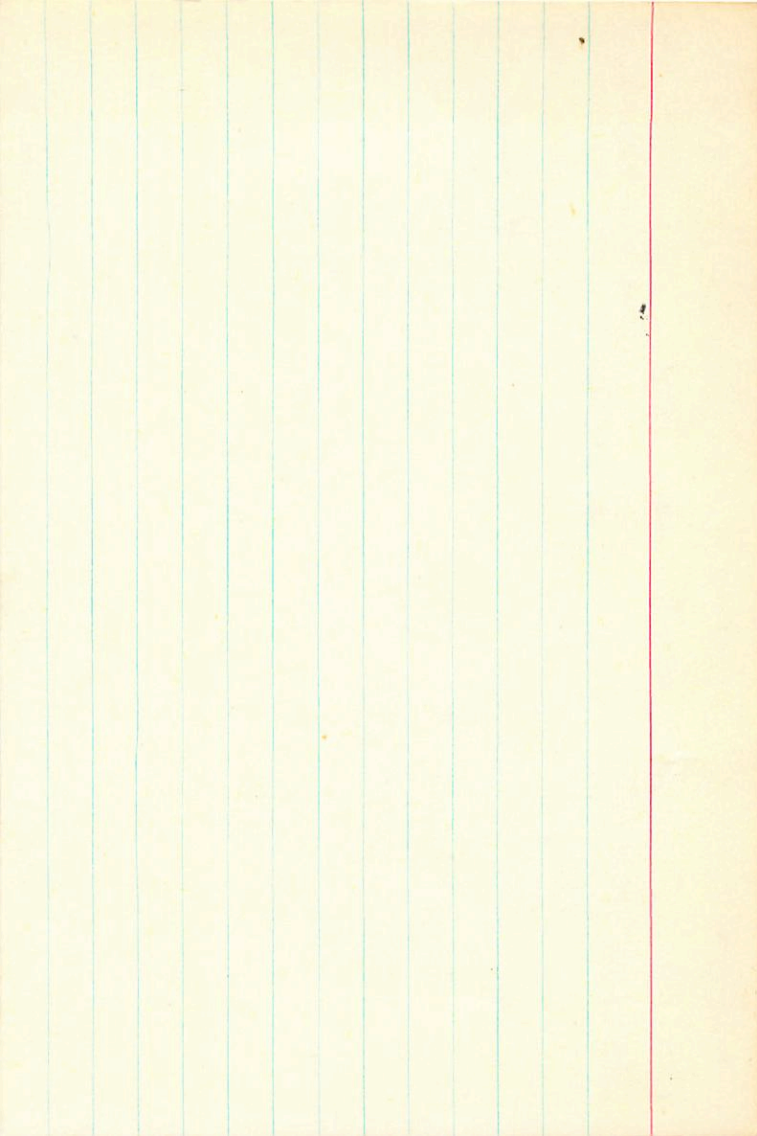
+034 +016 GC

+032 +017 N30

+034

+016

+018



189585

27756

+0029 13.0
+0008
19 59.1 -44

+0024 21

4.320
-129
4.191

1905.4

-44 21 43.49 1904.9
-45
43.94

+0024 +0.003

4.247
-15
4.232

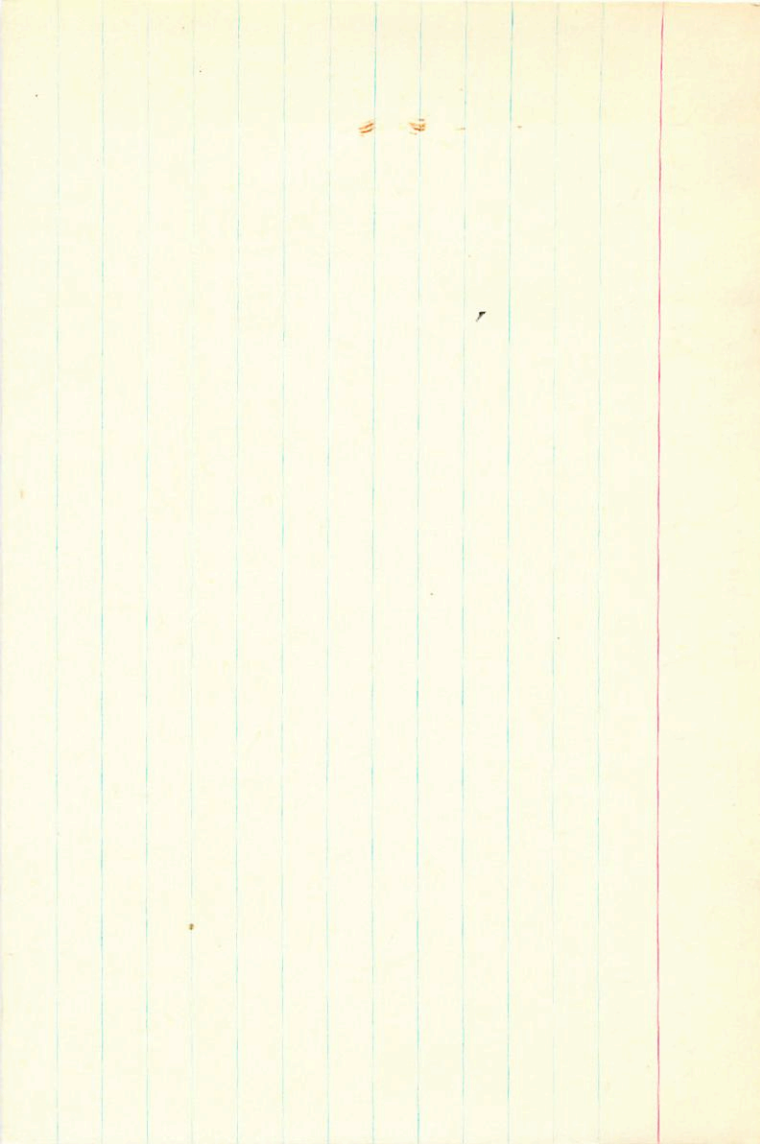
43.74 1956.39
-7
43.81

+0106 13.0
+0003
22 68.10

88949.0 +2.05

-01 CP

S₂(5)
+56 ± 0.7



26644

7562

+0015 ± 2.1
+0010

+002 ± 1.5
+004

70.8 (12)
5.3 904 + 0.9

190147

19

59.9 + 49

58

27770

+ 2400000

12387

56.655

+ 49

52.90 18873

0051325

(2)

-0.96
55.9

(382)

-13
52.67

5.12 + 112

17.20

42.402

56.602

598

9

601

+042

28.3

43.0

910

52.10

52.75

52.7

52.52

15

19286

1247 915 306

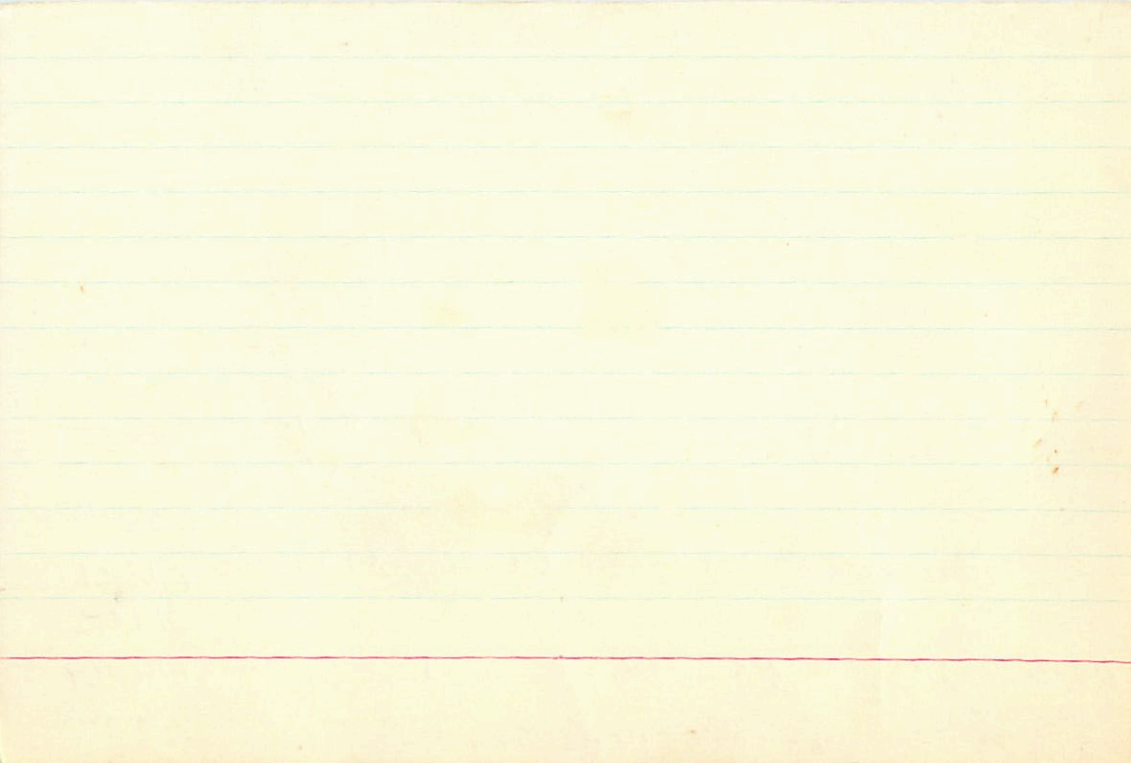
M =

1011

0.382

359 082

250



105

2728
1530

7652 20 00.2 -38 04 9ms 3.50

189831

27779 477 +140 +167 L

3.50

406 +0.555 E

4.02 +0.515

368
742
52
242
533

+0056 +096
-1
+066

±003.0
new

-38.38

+0622

+065-088

+061-093

+0051-093
+19

±30 6196

-7950

6523

1137
-0028
-0.75
0182

+00530 -0911
-22

3.70 / 1.14
20

404 55
366
76
290
2
5.3

7652.000*

20.000*

0.200*

-38.000*

-4.000*

0.065*

-0.000*

5.350*

117.490

-38.300

0.179

-0.866

54.263

-0.346

0.042

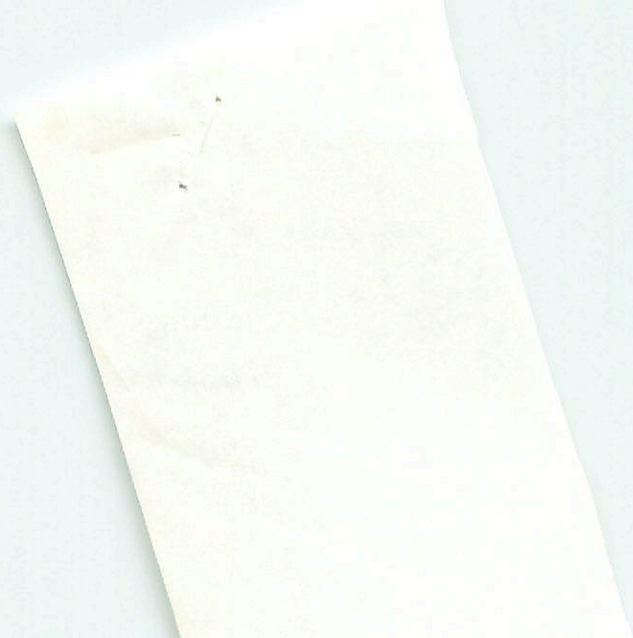
-42.298

-0.342

-0.497

-21.103

30



7652.000*

23.000*

0.200*

-33.000*

-4.000*

0.061*

-0.000*

5.300*

114.815

-33.200

$$4.76 + 1.43(1248)5.24 - 0.55 = 38 - 0.58 = 2.4$$

$$189831 \quad 20 \quad 00.2 \quad -38 \quad 03 \quad 9 \quad 110 \quad -38.37$$

$$+0064$$

$$27779$$

$$14.413 \quad 1905.9 \quad -38 \quad 4 \quad 50.62 = 1903.7$$

$$\textcircled{765}$$

$$\frac{-243}{1.77}$$

$$+407$$

$$\textcircled{7031}$$

$$46.55$$

$$110 \quad 14.337$$

$$-2 \frac{1}{3.16}$$

$$14586$$

$$52.21$$

$$52.34$$

$$44.88 \quad 1939.42$$

$$\frac{-6}{580}$$

$$+4$$

$$49.84$$

$$95.41$$

$$49.7$$

$$\frac{736}{368}$$

$$198$$

$$101.54$$

$$50.76$$

$$-4.21$$

$$10141$$

$$50.70$$

$$-4.15$$

$$+0060 -00975$$

$$-00014 -00957$$

$$14.421$$

$$\frac{1}{420}$$

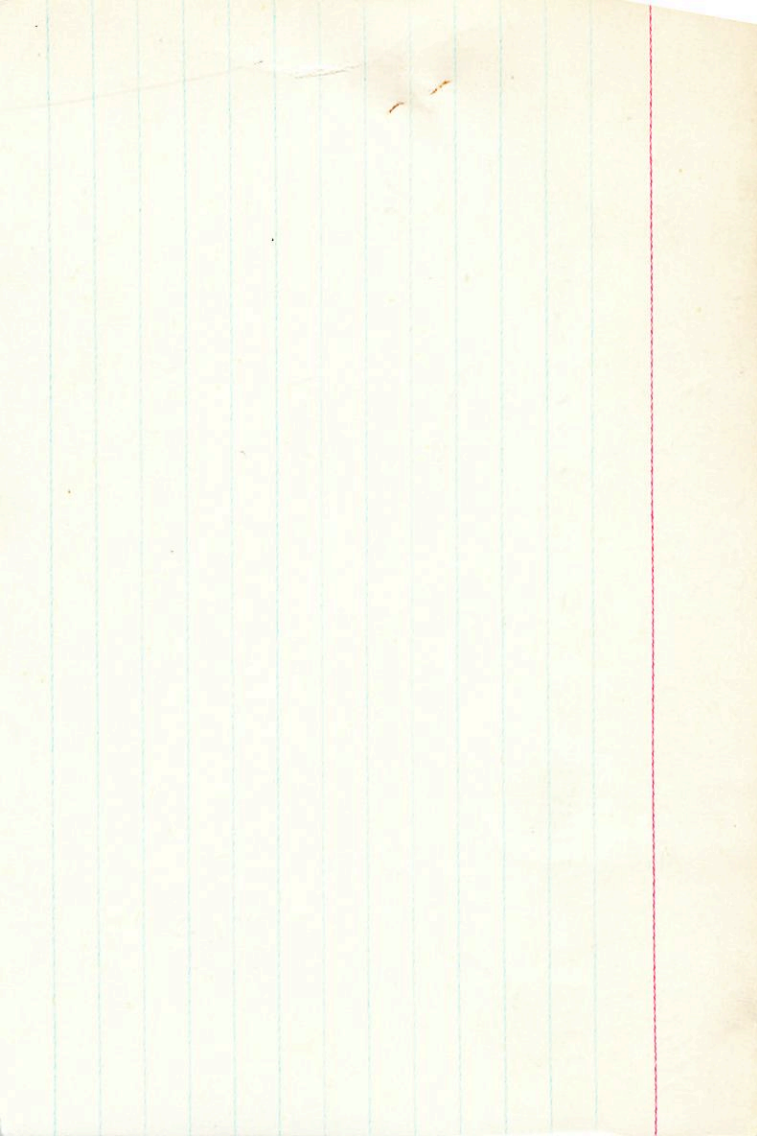
$$+023$$

$$+072 -098$$

$$1137$$

$$-0002 -015$$

$$0.192 = 2.55$$



89 II - III

MSgr
190229

20 01.2 +15 53 5.5 A0 -24.78

27812
12409

→ 745 (20) Var -20.5
-233 Outbid 61.7 day

7664

²⁴
-1003 -0085

10027 -0085
-00006

1009 645

1002-008

Verly

Comm / Ver

-0002426 -007 52.2

-0004

-010

12.659

1592.3

22.68

1896.7

37

2

664

23 05

1003-0055

12.664

22.65

1940.1

002

00

652

43

017

20.000

15.900

2.000

-8.000

6.950

245

-20.500

-24.5

0.494

0.663

-0.562

-20.631

6.461

0.202

0.542

0.816

10.706

244

190056 20 01.2 -32 12 5.0 102 -11.88
+0031# 2.4 -005±2.4
+0035 -019

27811

3592

12408

9.523 1908.7

-32 11

53.54 1907.4

$$\begin{array}{r} -128 \\ \hline 395 \end{array}$$

$$\begin{array}{r} +21 \\ \hline 53.33 \end{array}$$

$$\boxed{+0038 -008} \rightarrow$$

$$\begin{array}{r} 3996 \\ \hline 895 \\ \hline 2295 \end{array}$$

9.526
$$\begin{array}{r} -23 \\ \hline 503 \end{array}$$

903
1926

53.98 1939.39

39.0

0

9540

+1115 +11.2 +10.2

+0103 +1.0 -1.7

-2020 -20.2 +56

81.25

54.08

-75

47.7
40.3

9.561

+20

503

444 027 -804

969 145

-840 247 -473

+1125 -0010

+0470 -0367

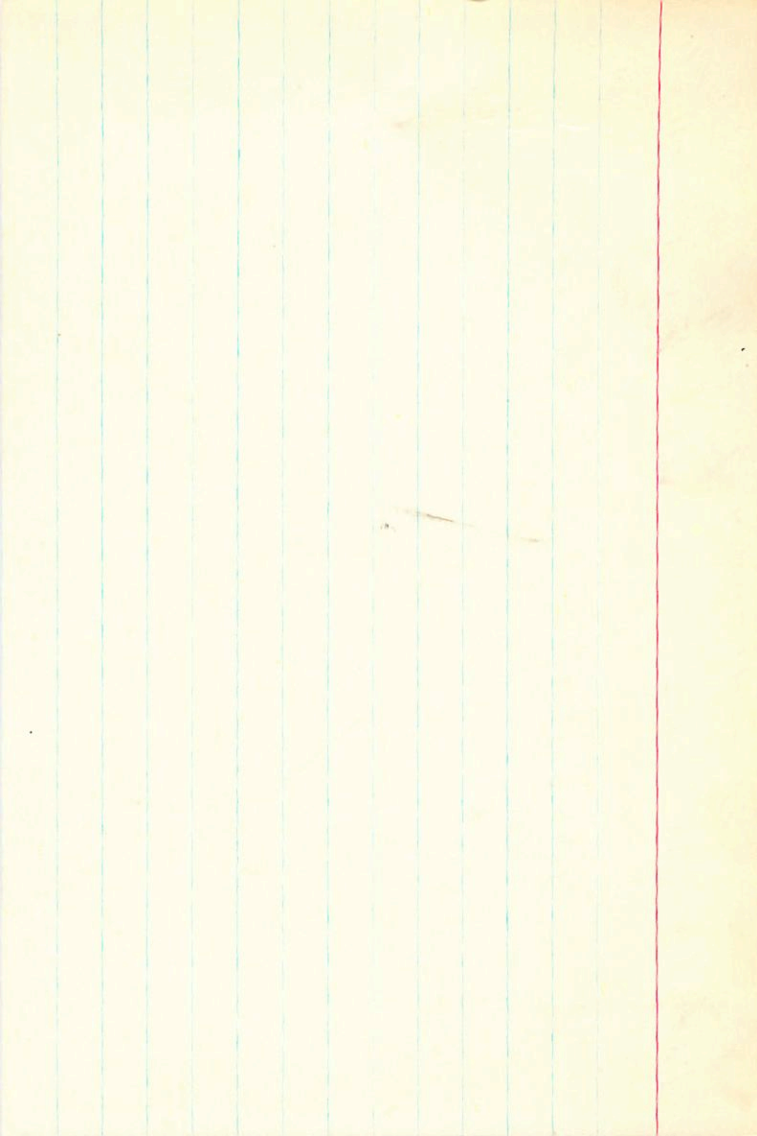
-1426 -0094

5413

-7

5420

1956.01



190713 +0067 ± 2.2 +010 ± 1.8
 +0059 +012
 20 01.8 +64 30 6.6 967 +8.86

27829 47.148 1901.2 +64 29 34.13 1894.1
 +23 (3)
 +34 (3)

 327

 46,821 -56

 33,557

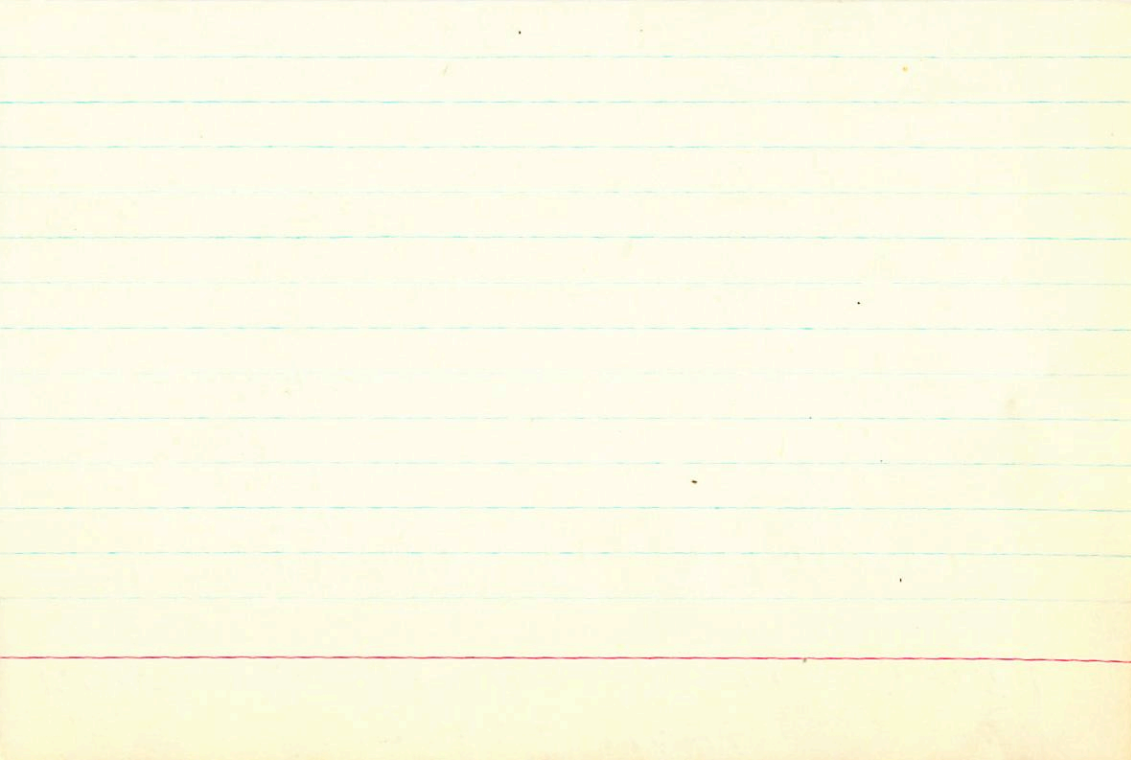
 47064

 082
 +261

 34.24 1945.67
 -13

 3416

 59



62494
 190249 20 01.5 -00 51¹¹² 5.8 g144 +0.27

27832

12423 48.609 1848.0 -0 51 0.60 1848.5

$\frac{6.14}{5}$
 54.56

11.59 1934.20

11.55

$\frac{00.04}{1.20}$

4162

58.827 1774

37.3

58.57

38.5

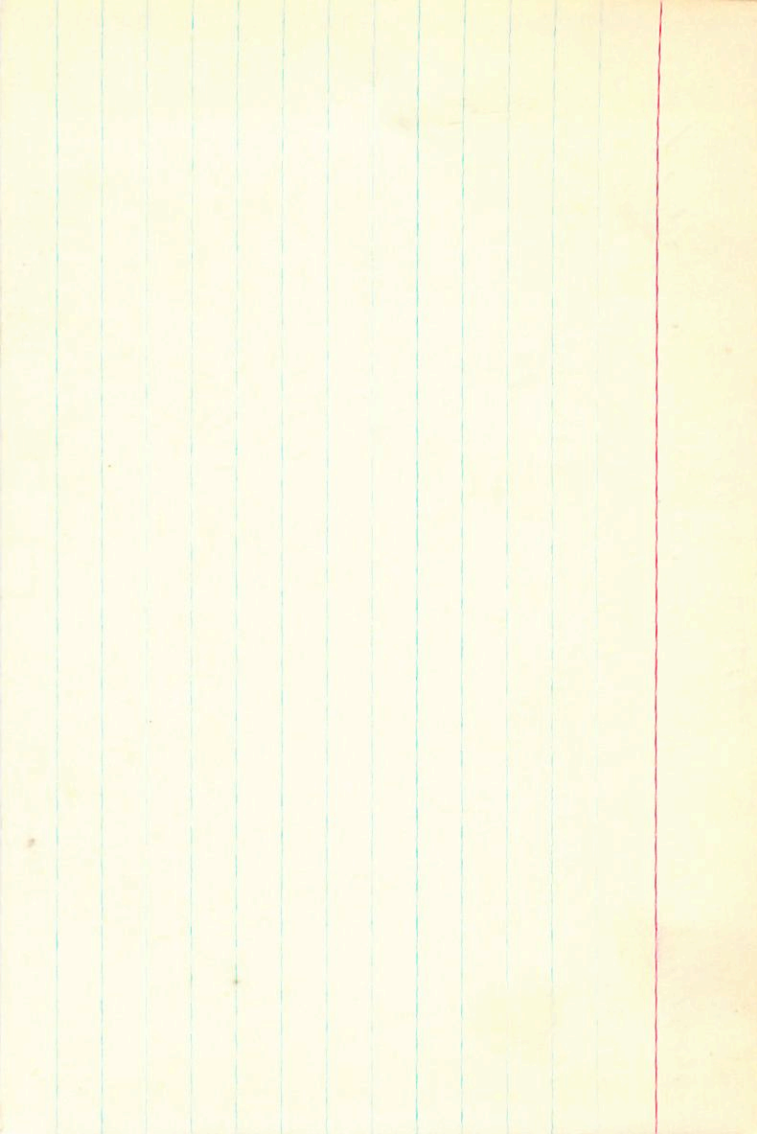
59.44 1940.42

48.612
¹¹²
 700

$\frac{6.17}{-24}$
 $\frac{59}{3}$
 -618

39.3

59.17
 58.87
 -4.31



189276

27635

12298

19

55.0

+58

43

5.1

g 105 + 5.0a

²⁰

-0022

-020

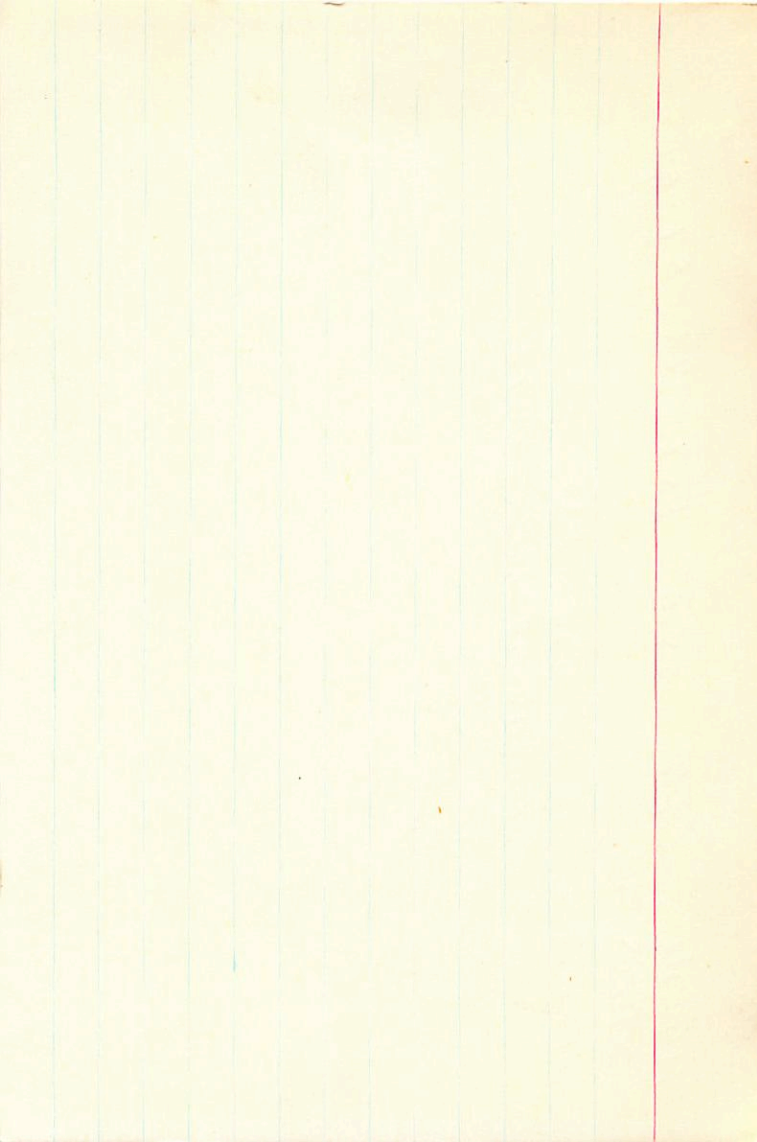
²⁷

N30

-0020 ± 16

-018 ± 1.2-6.6

→ N30



-16,125

0,068

-0,032

-22,801

0,949

-0,002

0,855

-0,307

-0,016

-23,000

389,045 313

2,950*

-0,007*

0,005*

2,000*

36,000*

54,900*

19,000*

7620,000*

Handwritten signature or initials.

$$4.76 + 1.43(12.45) 524 \quad +0055 = 38 \quad -088 = 2.4$$

$$189831 \quad 20 \quad 00.2 \quad -38 \quad 05 \quad g \quad MV \quad -38.3 \quad \uparrow$$

$$27779 \quad +006 \quad \uparrow \quad -057$$

$$12393 \quad 14.413 \quad 1905.9 \quad -38 \quad 4 \quad 50.62 \quad 1903.7$$

765

$$\begin{array}{r} -243 \\ \hline 170 \end{array}$$

0.31

$$\begin{array}{r} +4.07 \\ \hline 46.55 \end{array}$$

110

$$\begin{array}{r} 14.337 \\ -21 \\ \hline 316 \end{array}$$

$$\begin{array}{r} 14586 \\ -6 \\ \hline 540 \end{array}$$

$$\begin{array}{r} 52.21 \\ -10 \\ \hline 52.34 \end{array}$$

$$\begin{array}{r} 49.88 \quad 1939.42 \\ +4 \\ \hline 49.84 \end{array}$$

6206 6512
7841 → 889

$$\begin{array}{r} 736 \\ 368 \\ \hline +198 \end{array}$$

41.8

$$\begin{array}{r} 10141 \\ 5070 \\ \hline 41.15 \end{array}$$

$$\begin{array}{r} 10154 \\ 5070 \\ \hline -41.21 \end{array}$$

$$\begin{array}{r} 9541 \\ 497 \\ \hline 44.0 \end{array}$$

$$\begin{array}{r} 14.421 \\ -1 \\ \hline 420 \end{array}$$

$$+0060 -00975$$

$$-00614 -00857$$

$$\begin{array}{r} +073 \\ +072 -098 \end{array}$$

$$\begin{array}{r} 1137 \\ -0006 -0.15 \\ \hline 51.65 \end{array}$$

$$51.5-7 \quad 1955.94$$



7652.000*

20.000*

3.200*

-38.000*

-4.000*

3.061*

-3.093*

5.300*

114.815

-33.300

9.172

-3.866

52.881

-9.370

9.042

-44.473

-0.330

-3.497

-13.800

30