

402696 00 27.9 ~~28~~ 04 125.5 m

6590 5.17 + 12 (1.56) 46
-0.0022 ± 2.1 + 0.14 ± 2.4 -1.8 ± 2.0

52.725 1606.4 -24 3 50.6 1905.4

430 -0017 +0.6

64 → 430 -0018 +0.6

290. 

+858	+510	-040	-0976	+0435	-0541	-2.1	0	-2.1
-506	+857	-045	+0576	+0731	+1307	+5.1	+1.1	+5.2
-083	+061	-994	+0094	+0082	+0146	+0.6	+1.5	+2.1

118

24 45
20 55

0

87.9

-24

0.7

+1

+8.55(3)

2696

590

-0.249.2 +0.12.7

5.18 +0.125 - C

Slown: ?

-0.177 +0.187

New?

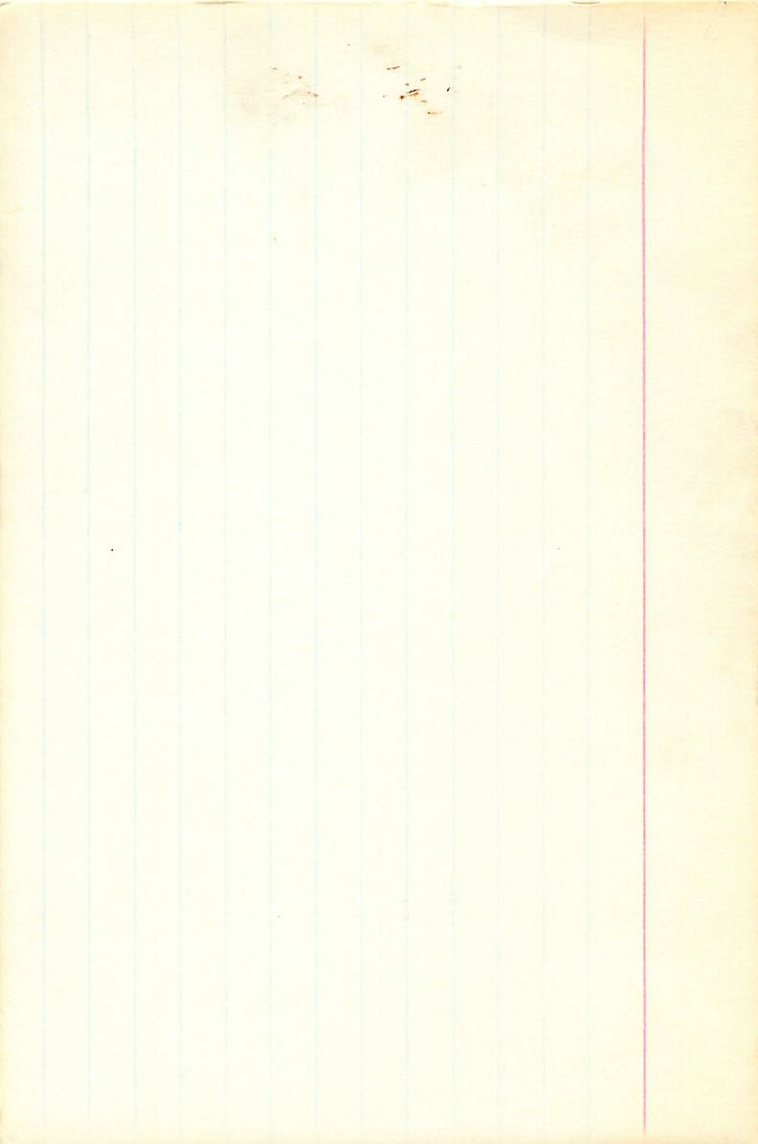
0.64 .184 1.024 2.871

-1.5 46pc

-2.7 32ish

+6.0 30 vitaru

15m



2730

G6606

W 276

73

67

571

$$\begin{array}{r} 438 \\ \times 91 \\ \hline 438 \\ 393 \\ \hline \end{array}$$

44

44

24

73

67) 28.3 + 43 06 8.1 dF7

-11c 2L

$$\begin{array}{r} 20.159 \\ + 1899.6 \\ \hline 2422 \\ \hline 451 \end{array}$$

$$\begin{array}{r} 20.159 \\ + 1899.6 \\ \hline 2422 \\ \hline 451 \end{array}$$

$$\begin{array}{r} 20.053 \\ + 5 \\ \hline 20.058 \end{array}$$

$$\begin{array}{r} 20.053 \\ + 5 \\ \hline 20.058 \end{array}$$

$$\begin{array}{r} 20.053 \\ + 5 \\ \hline 20.058 \end{array}$$

44

44

24

73

$$\begin{array}{r} 20.058 \pm 45 \\ - 104 \pm 42 \\ \hline 19.954 \end{array}$$

$$\begin{array}{r} 20.058 \pm 45 \\ - 104 \pm 42 \\ \hline 19.954 \end{array}$$

$$\begin{array}{r} 20.058 \pm 45 \\ - 104 \pm 42 \\ \hline 19.954 \end{array}$$

$$\begin{array}{r} 20.058 \pm 45 \\ - 104 \pm 42 \\ \hline 19.954 \end{array}$$

$$\begin{array}{r} 20.058 \pm 45 \\ - 104 \pm 42 \\ \hline 19.954 \end{array}$$

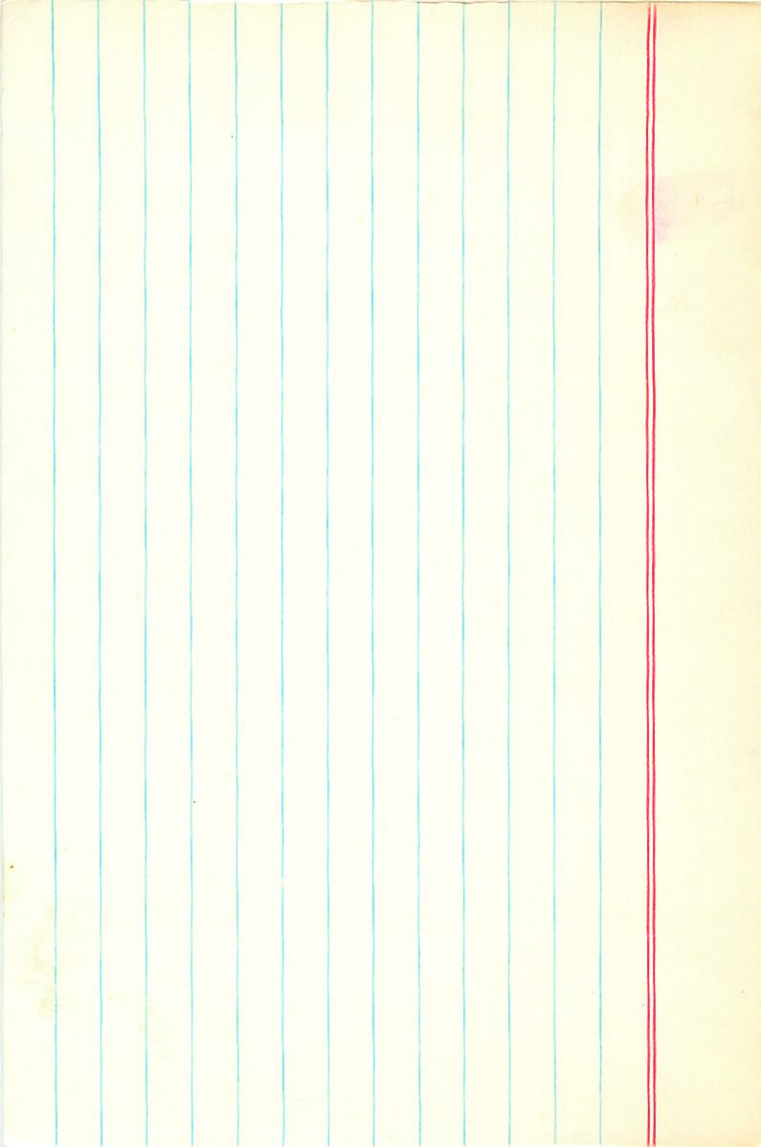
$$\begin{array}{r} 20.058 \pm 45 \\ - 104 \pm 42 \\ \hline 19.954 \end{array}$$

44

44

24

73



14022

40804

11729

W279

+3280

0 28.8 +33 18

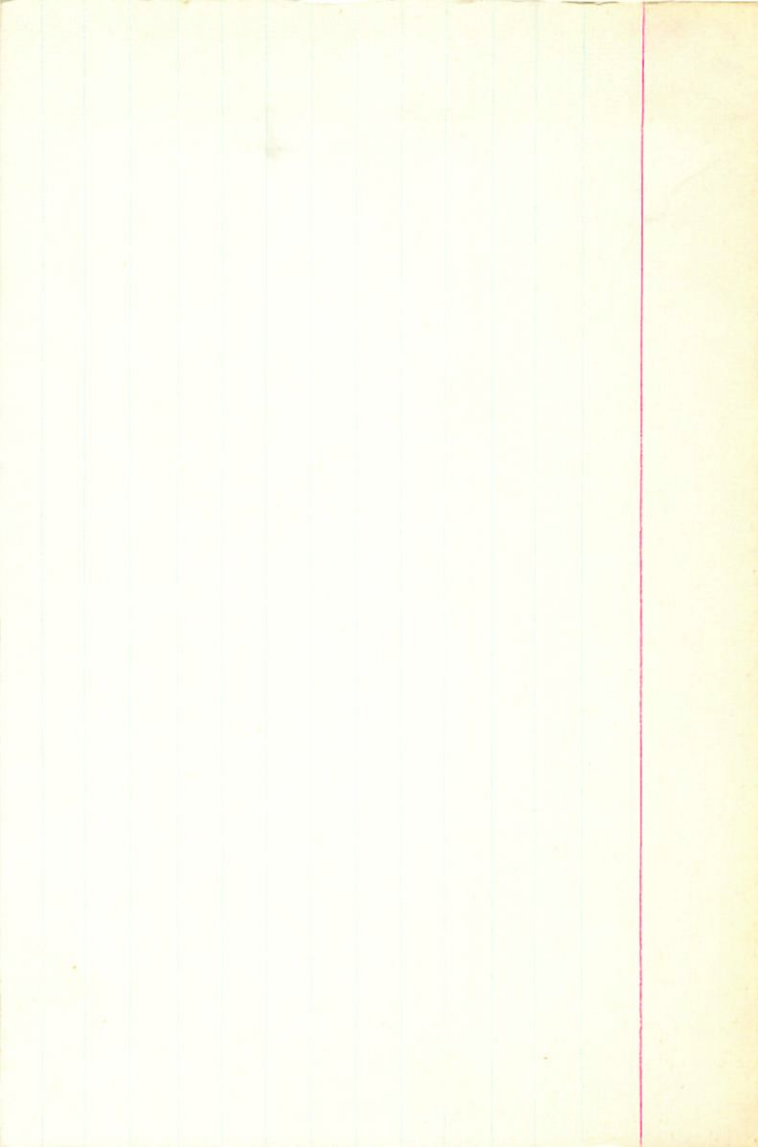
+5.0
+3.0
+5.2

(5)
(3)

+044 -019 00
0 + 2
+044 -019

856 307 415 +1785 -0276 +1504
-511 290 766 -1066 -0351 -1417
-074 965 -491 -0154 -0782 -0936

+3.7
+7.0
-4.4



00 28.5 10 22 6.86 + 2.0 + 1.0 A

7501-10089

66. 4140 (1)

 $+0.544 \text{ BL} + 0.5(4)$

15875100

Ms. 6222

3665-515

✓ 107K140- JLC 5100-

06.11.20

33,150 48

33.40 22.0

1790-1800

$$2779 \quad 0 \quad 28.9 \quad +20 \quad 33 \quad 7.4 \text{ g NH} + 4.06$$

280

$$+0027 \pm 7.3 \quad -0.21 \pm 6.9 \text{ g-L}$$

66613

$$+0009 \quad -009$$

$$0 \quad 28 \quad 53.624 \quad 1894.6 \quad +20 \quad 33 \quad 11.87 \quad 1893.6 \text{ g}$$

$$\begin{array}{r} -150 \\ \hline 474 \end{array}$$

$$\begin{array}{r} 1.18 \\ \hline 13.05 \end{array}$$

$$\begin{array}{r} 53.500 \\ - \\ \hline 498 \end{array}$$

$$\begin{array}{r} 12.53 \\ +15 \\ \hline 12.68 \end{array}$$

$$1933.50$$

$$\begin{array}{r} 53.513 \\ \hline 1.506 \\ \hline 4.032 \end{array}$$

$$\begin{array}{r} 12.93 \\ -06 \\ \hline 12.77 \end{array}$$

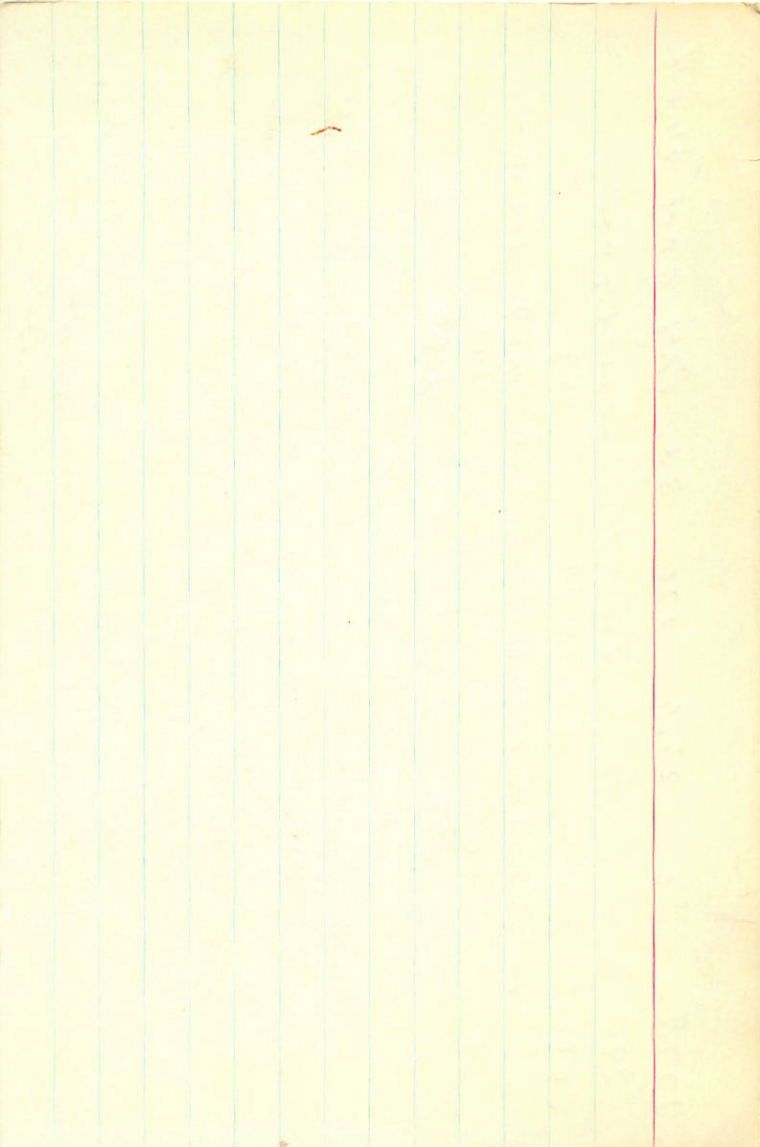
$$\begin{array}{r} \text{yale} \\ 1927.89 \\ \hline 1930. \end{array}$$

$$\textcircled{35.4}$$

$$\textcircled{36.4}$$

$$12.73$$

$$\begin{array}{r} +2.04 \\ - \\ \hline -0.32 \end{array}$$



2806 0 29.0 +15 45 7.1 g12 -6.28

282 -000782.7 -044 ± 2.4

G6616 -0009 -041

0 28 59.828 1901.5 +15 44 43.55 1894.4
034
862
-0008 -0425
-0006 -0397

6.86 + 1.21 + 1305 (2)

59.821
+1
822

6.28 + 0.48 (3)

5.90 42

59.847
-000
841

830
1
-1.032

WV 630

59.819
+
827

6.50

59.821
+1
822

-0096
-0017 -044
90

44.47
+10
54.57

1935.511551

1940.06

43.91
+06
43.97

1939.95

43.94
+15
44.09

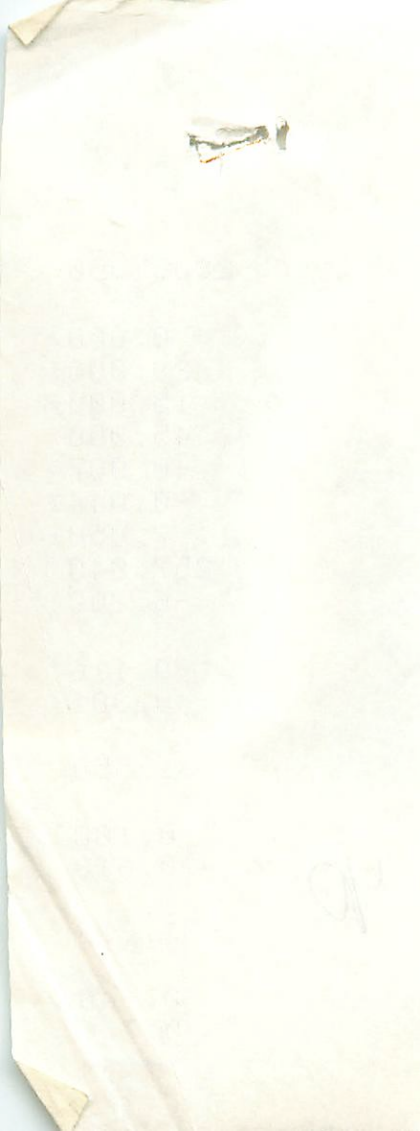
4.421
-1.80

1.370

1938.5
44.1



40



2806.000*

0.000*

29.000*

15.000*

45.000*

-0.007*

-0.044*

7.050*

257.040

-6.200

-0.116

0.301

-31.558

-0.108

0.618

-31.622

-0.140

-0.726

-31.451

40

0 29.4 466 58 213 1102

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

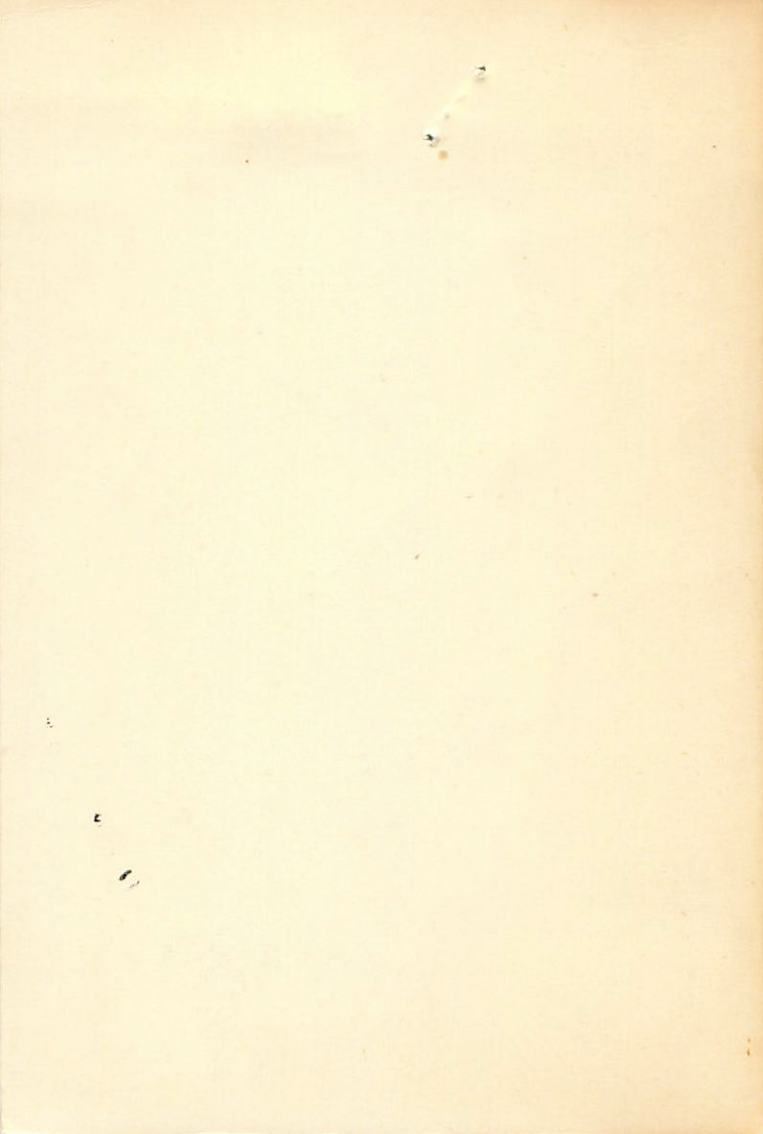
4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214

4202 0 58.3 + 71 25 214
861 10.34 +1.45
2021 9.96 +1.46 +1.17 214



784 + 66034

0

29.0 + 66 58 10.3 dm3 + 10 L

CC34

285

+ 1544

- 2 m42

9346

7.68

8.75

+ 1.736 - 2.74

8.77 107

AD5440

10.10 1.44 1.18 1.05 1.14 0.5 + 67.0 - 0.2

AB

9.440 5.452

10.26 1.56 1.14 0.54 1.22 AB 1.0 + 71.4 - 0.2

- 243 - 375

9.08

- 510 - 0.12

8.09

8.416

1.731 - 2.37
1.049 - 3.46

47

R.A. : 0.500
DEC. : 67.000
PM. R.A. : 4440.000
PM. DEC. : -243.000
DISTANCE : -0.200
MODULUS : 9.1 ✓
RAD. VEL. : 0985 -5.000

q1 (U) : 0.10 0.857
q2 (U) : 0.023
q3 (U) : 0.516
" : 7017.135

q1 (V) : -0.511
 q2 (V) : -0.105
 q3 (V) : 0.853
 dV : % -4079.8
 V : -41.476
 -9.0

q1 (W) : -0.074
 q2 (W) : 0.994
 q3 (W) : 0.078
 dW : % -1749.7
 W : -16.348

R.A. : 1.000
 DEC. : 71.400
 R.A. : 5452.000
 DEC. : -375.000
 DISTANCE : 9 -0.200
 MODULUS : 0.200
 RAD. VEL. : 0.826
 q1 (U) : -0.121
 q2 (U) : 0.551
 q3 (U) : 7021.277
 dU : 53.0
 U : 23.7

285

46034

405410

70686

3"

$\Delta x_1 = 2^m$

93 ± 6

00 29.0 +66 58

10.3 +10.2

$$\boxed{+1.740 - 0.344} \quad C'(n)$$

2841

00 29.3 +19 22 7.3 gms +3.78

289

$$\begin{array}{r} -0009 \pm 10.0 \\ +0008 \end{array} \quad \begin{array}{r} -011 \pm 11.3 \\ -003 \end{array}$$

G6627

0 29 17.901 1902.5 +19 22 0.25 1904.5

$$\begin{array}{r} 043 \\ \hline .944 \end{array}$$

$$\begin{array}{r} 50 \\ \hline 0.75 \end{array}$$

$$\begin{array}{r} 17.981 \\ +1 \\ \hline .982 \end{array}$$

0.36 1934.2 gm, 50

$$\begin{array}{r} +10 \\ \hline 0.46 \end{array}$$

5.7

$$\begin{array}{r} 17.949 \\ +5 \\ \hline 958 \end{array} \quad \begin{array}{r} .970 \\ \hline +026 \end{array}$$

$$\begin{array}{r} 0.64 \\ \hline -0.11 \end{array}$$

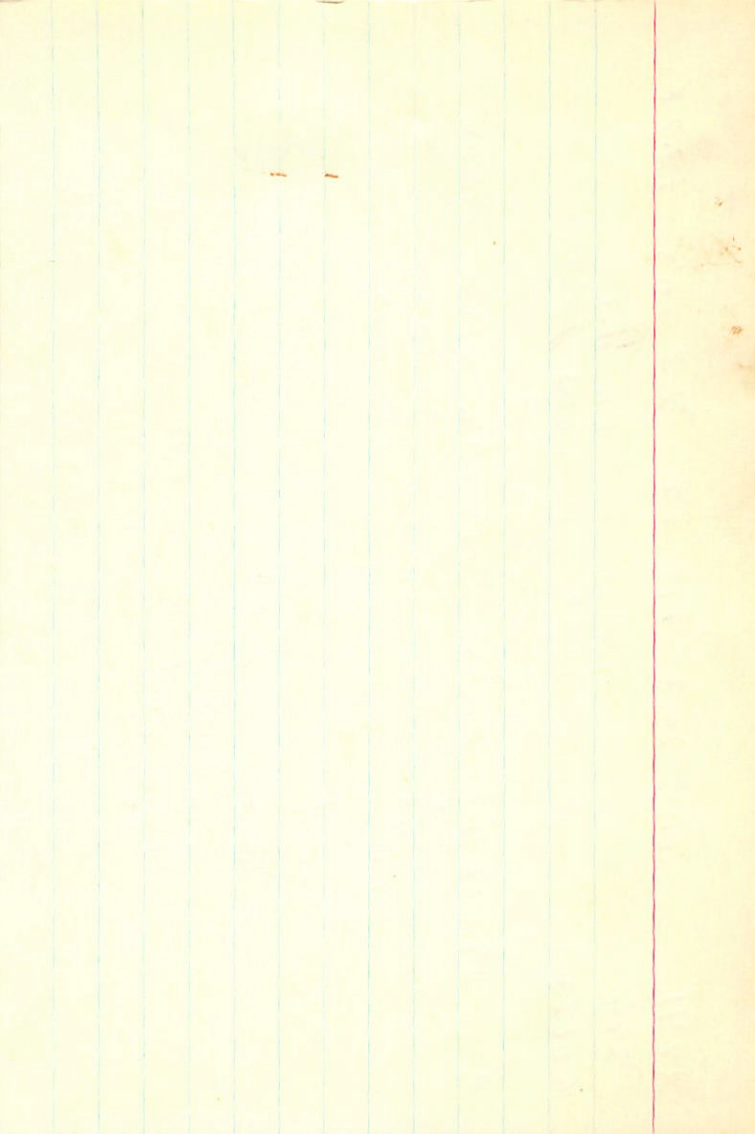
0.67 1939.95 gale

$$\begin{array}{r} +15 \\ \hline 0.82 \end{array}$$

37.0

$$\begin{array}{r} 325 \end{array}$$

34.5



NO IV

807

HP 131

3000

00

+0041 ± 1.4
0045
+20

-045 = 15
-46
-35
-043

-12.5

807

2410

57.874 3.8
-420
459

845 26
2.13
11.08

-140.92

13.5

60601 0.5

+20

+14.71

58.055
-11
044

8.46
-24
8.17

0045 -045

00976 -0415

50 /
+2.5

2055 00.25

58.090

8.45

1376

(MF)

1208 915 255

-783

8.48

138-096

57.511 84.58
-14
806

8.66

1144 905 252

8.50

(fragments)

+27 58.2 20096 -047

9736

9312

14 26

+00454

(+135-47) 4.55 +2.1

-22.80

-3646

+2.1

42

~~0.500~~
20.000
148.000
-46.000
5.000
100
-12.500

0.857
0.393
0.335
479.024
43.717

279

39

-0.511
0.553
0.658
-457.240
~~-50.955~~

-35.8

5462

-0.074
0.735
-0.674
-208.739
~~-12.449~~
~11.78

-8.1

42

110 3196

W 646321

GC 696

110

+002

0275 -018
0275 -019
+0044
+4115

5414 -023

+0274
+0278

-020
-015
± 1.1

00 32 40.362 1902.1 -03 52 04.23 1900.5

1,312

00 32 39.050

5559 9418
4013 1277

+03 52 03.24

III Cape

00 31 -23.42

+04 00 20.09

1 16.500

+ 8 16.43

7076

32 39.924 -0757

-04 52 03.96

.000

- 01

32 39.924

03.97

640

- 0.14

1442

39.782

860

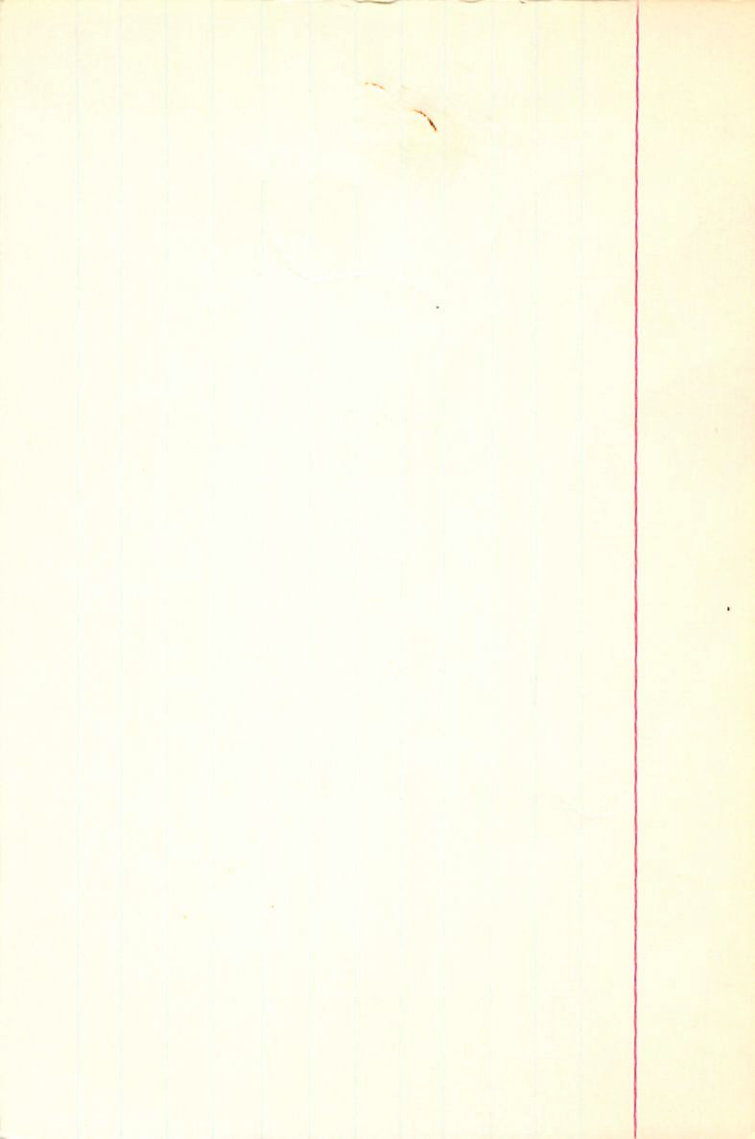
+ .29

03.68

1430.4

732

- .44



QTime

3112 0 31.3 -71 33 6.1 45 +2.38

310

7029

66667

+0194 -015 430

+0178 ± 3.9 -0.21 ± 3.7 6.6 lon to 430

1516

-0175

+0176

-0135

964 -9981

+0825

2591 0443

+086-015

984

984

684 2827

2.420

147

147

146 187 994 2.814

145 187 994 2.814

43

187

187

187

4.70

97.10

5.89

127

8101 00 3/6 -32 34

37.636-80059 9016

166

+2

9.4

+2.7

AD. VEL.	:	2.700
MODULUS	:	252
DISTANCE	:	2.900
PM. DEC.	:	2.000
PM. R.A.	:	14.000
DEC.	:	-52.000
R.A.	:	0.200

U	:	28.427
Q1	:	01.201
P3 (U)	:	-0.102
P2 (U)	:	0.202
P1 (U)	:	0.827

U	:	-24.000
Q1	:	-22.718
P3 (V)	:	-0.032
P2 (V)	:	0.829
P1 (V)	:	-0.211

U	:	-3.142
Q1	:	-2.715
P3 (W)	:	-0.223
P2 (W)	:	-0.088
P1 (W)	:	-0.074

Handwritten signature or mark.

R.A. : 0.500
 DEC. : -32.600
 PM. R.A. : 16.600
 PM. DEC. : 2.000
 DISTANCE : 9.900
 MODULUS : 955
 AD. VEL. : 2.700

q1 (U) : 0.857
 q2 (U) : 0.505
 q3 (U) : -0.109
 dU : 61.561
 U : 58.497

q1 (V) : -0.511
 q2 (V) : 0.859
 q3 (V) : -0.039
 dV : -25.718
 V : -24.666

q1 (W) : -0.074
 q2 (W) : -0.089
 q3 (W) : -0.993
 dW : -5.717
 W : -8.142

44

3141

00

32.3

+42 25

~~42~~ 40 TR MP

W317

+1 C. 2 L

02688

$$\begin{array}{c} \text{CL} \\ \text{mm} \\ \boxed{-0.190 \quad -0.072} \\ \text{V} \end{array}$$

44087

-0171±12.2
-0152

-088±9.5
-062

3141

0

32.3

+42

25

7.7 $\sqrt{1012}$

+1012

688

317

18.796

1905.9

+42

25

12.74

1904.7

754

$\sqrt{550}$

19.55

58.24

20.91

19.134

19.104

25.24

19.16

19.16

19.16

19.16

19.16

19.16

19.16

19.16

19.16

19.16

19.16

22.3

16.73

3.99

58.9.1926.55

16.55

15.45

15.22

15.22

15.22

15.22

15.22

15.22

15.22

15.22

15.22

-172 -086
-153 -060
-162 -074
-163 -072

41.9

21.0

40

3

19.16

19.16

19.16

19.16

19.16

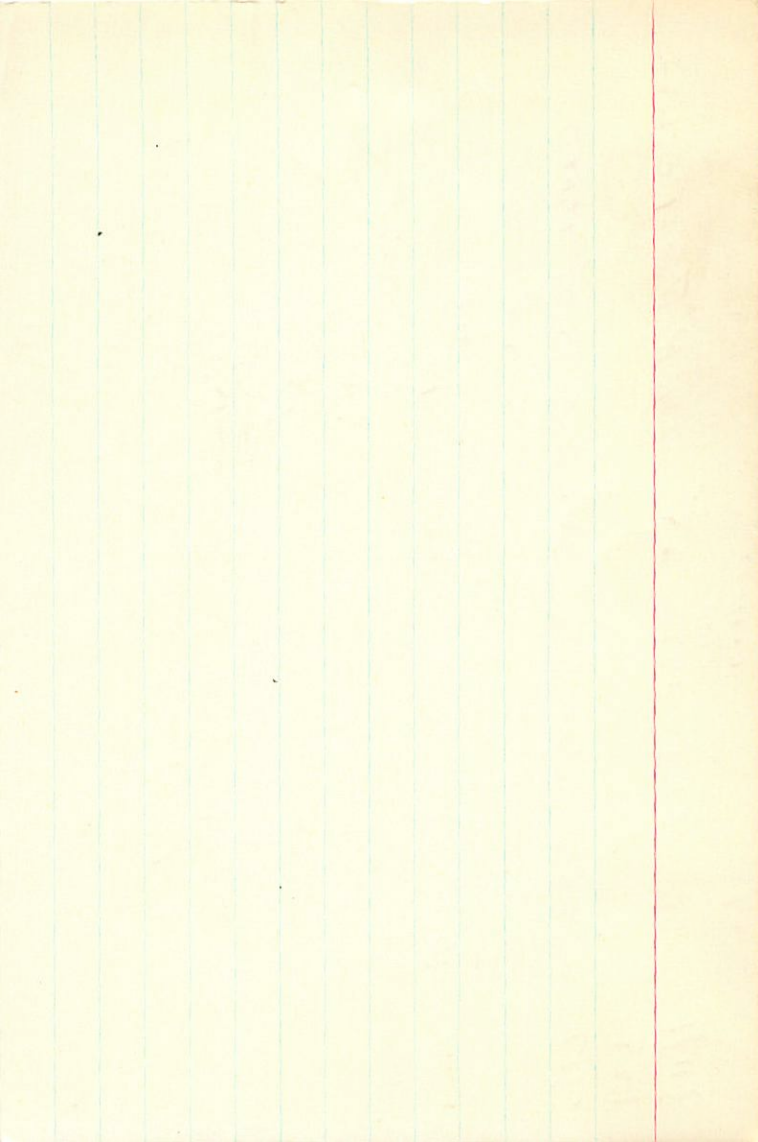
19.16

19.16

19.16

19.16

19.16



3165

318

62691 B689

A496

0

32.5

+36

.33

6.8

g141

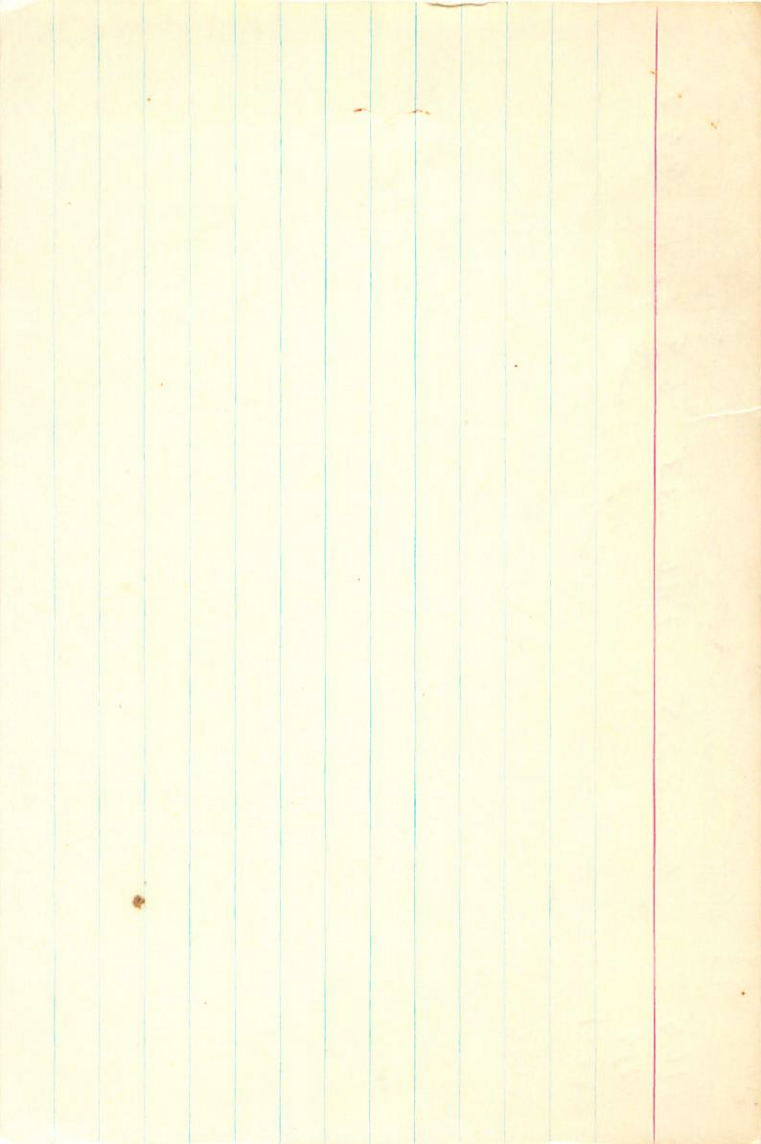
-8.98

134

-12.30

-28.20 Van

(B)



Bayer

98

0 23.1 -77 32
~~11~~ 3 62 IV

2151 +4
14

2.80 +0.62 +0.10 C

2.59 +0.22² 25

852

2.30
2.45
6.5
2.60

-62
237
299

+68837 +3272 F124 +23.0

+4
2.2346

0.214 count

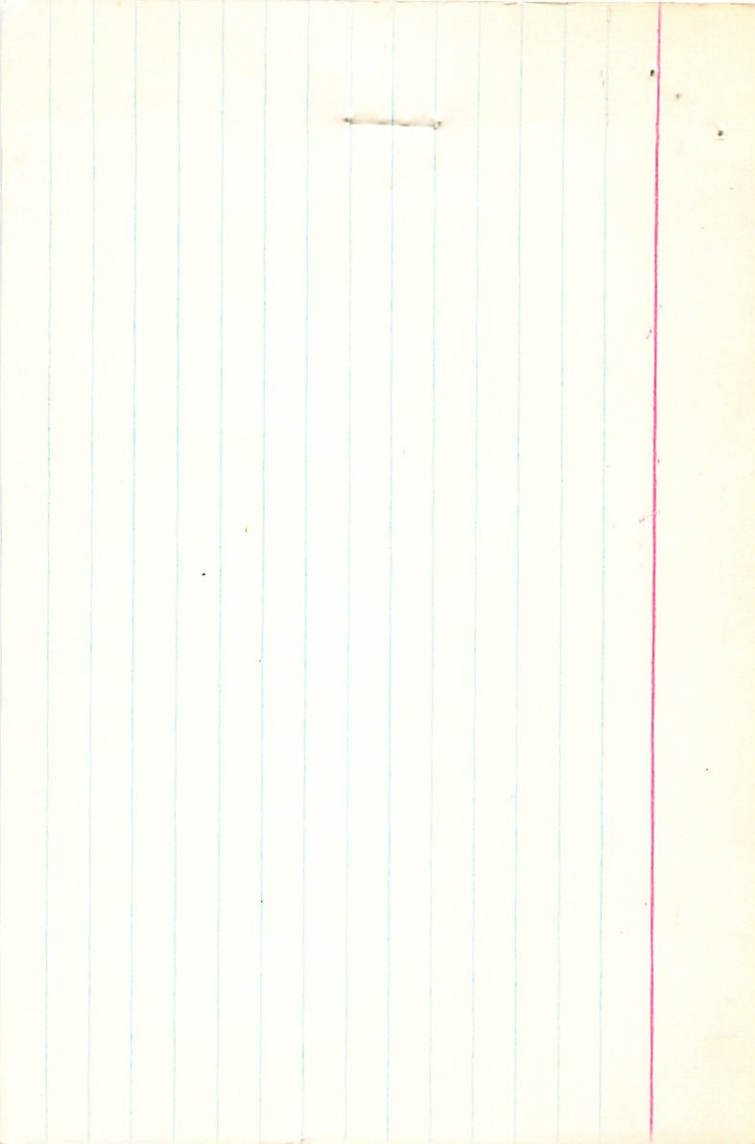
2.2346 +3272

82 263
384 148

244 441 2

2.581 ①

9702 9449
2422- 1008



98.000*

0.000*

23.100*

-77.000*

-32.000*

2.236*

0.323*

-0.650*

7.413

23.000

9.522

-0.439

60.498

-4.363

-0.631

-46.856

-2.228

BH4
 2151
 66503
 W232
 Y69

98

0 23-2 -77 32 860
 2.81 +0.61 - 0.212 160
 2.75 +0.41 - 555 (9")

+23.3 ± 0.2 (14)
 +23.0 4 (8)
 +21.7 6 (14)
 +23.0
 +22.3 26 Sta

¹⁴
 +6888 +321 14130
 +6884 ± 1.2 +326 ± 1.2
 46

103
26

+2.223 +324 60
 +2.232 +321 130
 2.225 324
 2.230

+53 -43 -28 .153
 +64 -47 -29 .130
 +47 -40 -25 .170

+68837 +3270 8104
 2.2348 +32.6
 +2.236 +323 0.9

1447 (10)
 165 (8)
 153 ± 7

145



000-1710

000-1710

000-1710

000-1710

000-1710

000-1710

000-1710

000-1710

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000-1710

000-1710

000-1710

000-1710

000-1710

000-1710

000-1710

000-1710

100

100

100

100

100

100

100

2151.000*

0.000*

23.200*

-77.000*

-32.000*

2.236*

0.323*

-0.900*

6.607

22.600

01333

7.50

06 23.

9.522

-0.439

692

+41.5

52.998

-4.365

-0.631

-47.0

-43.103

45

-2.224

-0.640

-31.2

-29.15

(4)

H03244

0 33.1 -25 40

+5.5 ± 1.6

-260173

8.23 +0.26 1.53 A7B

-16 (2)

2642

-035^{±1.3}-019^{±1.3} X

logarithm

-15 -26

144 589 - 434 501 - 035 - 019 + 5.5 008 - 2.4 - 081
005 - 001 - 035 008 - 014 - 171 + 5.0 + 4.9 + 0.7 009

$$+ 3.3 - 18.3 - 11.4$$

$$\boxed{-21.1 + 1.2 - 4.6}$$

01

$$+ 3.5 - 16.4 - 10.5$$

$$\boxed{-19.3 + 11.1 - 5.2}$$

$$12.5 - 27.5 - 15.4$$

806

147

3302 0 33.3 -48 16 5.5 F4 +7.6a

$$+0037 \pm 4.1 -103 \pm 3.566$$

324

$$+0049 -100$$

706

$$+0061 -100 \text{ N30}$$

$$+0047 \pm 4.1 -100 \pm 3.566 \text{ N30}$$

$$0 \quad 33 \quad 18.238 \quad 1509.2 \quad -48 \quad 16 \quad 29.61 \quad 1505.0$$

$$\begin{array}{r} -151 \\ \hline 127 \end{array}$$

$$+464$$

$$1935.29$$

$$\begin{array}{r} 18.340 \\ -009 \\ \hline 18.331 \end{array}$$

$$28.34$$

$$+03$$

$$46.8$$

94

$$\begin{array}{r} .313 \\ \hline +.196 \end{array}$$

$$(37.6)$$

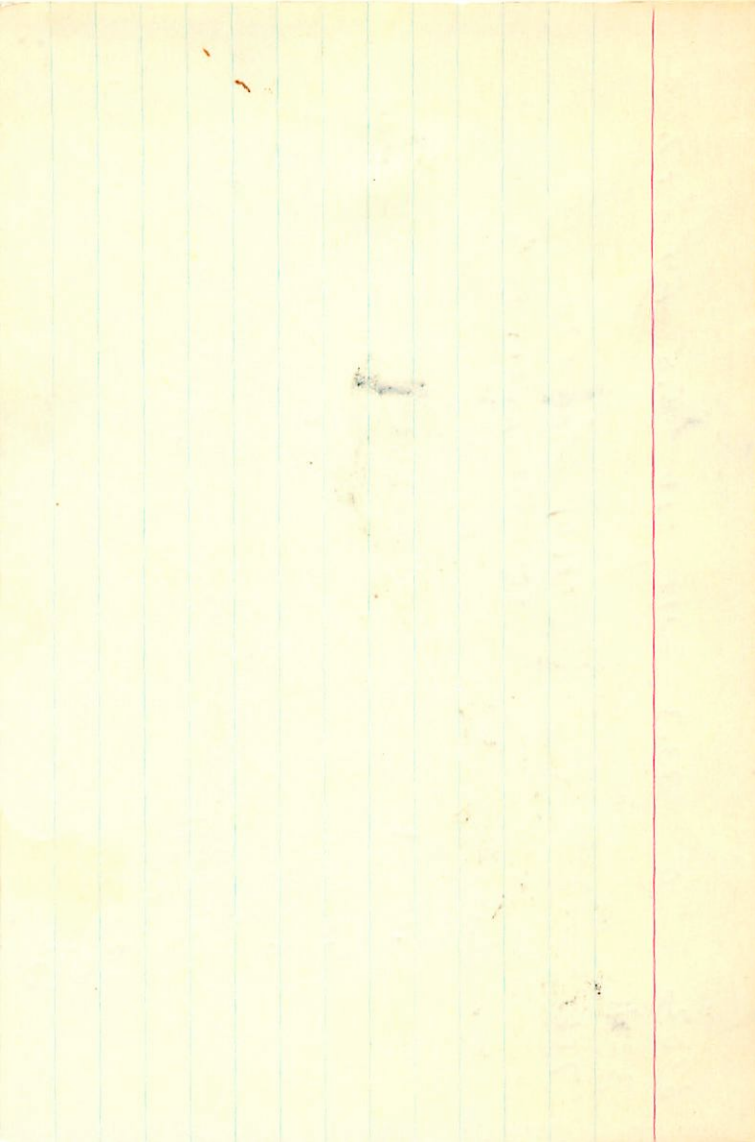
$$\begin{array}{r} 29.115 \\ \hline 4.118 \end{array}$$

$$\begin{array}{r} 41.9 \\ \hline \end{array}$$

$$\begin{array}{r} 33 \quad 18,380 \\ -025 \\ \hline 18,355 \end{array}$$

$$\begin{array}{r} 16 \quad 29.79 \\ -21 \\ \hline 30.00 \end{array}$$

$$\begin{array}{r} \text{C44} \\ 1954.31 \end{array}$$



3302

0 33.3 -48 17 d17

40147

Dec 706

85
79

85.

5.54 + 0.42 = 0.01 1849

247

 $\frac{1}{2}$

28h 42h
Mittels

425

2.258 C-0

Q-Q

173

.3014⁹³ .161 .460 2.672② 0.742

306.

462

226

215 + 12

[m]

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

62

562

581 let

02/01/7

67

05/05

21

3

1234

13 14

2.

2

46

0.550

-48.000

44.000

28.000

2.200

28

8.000

R.A. :

DEC. :

PM. R.A. :

PM. DEC. :

DISTANCE :

MODULUS :

RAD. VEL. :

0.824

0.442

-0.234

323.222

8.222

p1 (U) :

p2 (U) :

p3 (U) :

U :

U :

-0.216

118.0

p1 (U) :

p2 (U) :

46

R.A. : 0.550
DEC. : -48.300
PM. R.A. : 66.000
PM. DEC. : 98.000
DISTANCE : 2.200
MODULUS : 28
RAD. VEL. : 8.000

q1 (U) : 0.854
q2 (U) : 0.465
q3 (U) : -0.234
dU : 393.599
U : 8.972

q1 (V) : -0.516
q2 (V) : 0.811
q3 (V) : 0.375

3268

0 33.3 +12.46 F5

HR145

$$\begin{array}{r} 4.17 \\ 1.0 \\ 3.35 \end{array}$$

2C207

6.32 + 0.49 0.00 2.599

.335 1150 .401 ③ SPC 2.615 ⑤ CT

$$\begin{array}{r} 3.9 \\ 2.1 \\ 1.0 \end{array}$$

-24.56

$$\begin{array}{r} 4.97 \\ -0.995 \\ +2.00 \\ -1820 \pm 30 \end{array}$$

+23.00

$$\begin{array}{r} -0.975 \\ 4.872 \\ 1.462 \\ 1.15 \\ -17.07 \end{array}$$

$$\begin{array}{r} 3.6 \\ 3.6 \\ 10 \end{array} + 3.35$$

$$\begin{array}{r} 0.2 \\ 1.1 \\ 1.1 \end{array}$$

[m] 210

[c] 324

$$\begin{array}{r} 1.3 \\ 1.3 \end{array}$$

$$\begin{array}{r} 4.3 \\ 1.3 \\ 1.3 \end{array}$$

$$\begin{array}{r} 2.95 \\ 1.36 \end{array}$$

$$\begin{array}{r} -1425 \\ -141 \end{array}$$

$$\begin{array}{r} 4.3 \\ 1.3 \\ 1.3 \end{array}$$

3203.000*

0.000*

33.300*

12.000*

46.000*

-0.141*

-0.184*

2.950*

38.905

-24.500

-0.945

0.295

-43.980

-0.206

0.576

-22.155

-0.522

-0.762

-1.613

$$6.32 + 0.49 \text{ } 000$$

3268

$$0 \quad 333 \quad +12 \quad 56 \quad 155 \quad -24.58$$

325

6.4

$$\begin{aligned} & -0100 \pm 4.1 \quad -186 \pm 3.8 \text{ } 66 \\ & -049 \quad -178 \end{aligned}$$

66707

$$-146 \quad -186 \text{ } 66$$

$$0 \quad 33 \quad 19.128 \quad 1885.6 \quad +12 \quad 56 \quad 2.91 \quad 1882.4$$

$$\begin{array}{r} 646 \\ \hline .774 \end{array}$$

$$12.57$$

$$\hline 15.48$$

6m, 50

$$19.289$$

$$-0975 \quad -1787$$

$$6.15$$

$$1933.9$$

$$\begin{array}{r} +4 \\ \hline 295 \end{array}$$

$$7925$$

$$\hline 6.23$$

Apple

$$\boxed{-141 \quad -183}$$

$$5.25$$

$$1935.9$$

$$+6$$

$$\hline 5.31$$

$$36.9$$

$$\hline 5.77$$

$$\hline 54.5$$

$$\hline -9.71$$

$$57.3$$

$$19.226$$

$$+012$$

$$\hline .238$$

$$\hline .266$$

$$-508$$

$$\begin{array}{r} 9542-6791 \quad 2301 \\ 2443-7340 \quad 6208 \end{array}$$

145 990 223 975 -146 -186 -243 -041 -5 -855

4021006 -145 -041 275 -659 -239 -24 -3

-14 -25 -34 03

-39 -22 0

04

-17 -15 -22

-24 -19 +4

150

1516

6.56 120

III 39

24

06.8-0.42 ± 10 y old

~~040-040~~

-0039 -0036

-1036

257

CHQ-

1271

 $-0.060 \pm 8.7 \quad -0.74 \pm 6.9$

6-7-9

0820

2502

282

456

0153

1529-

150875

1892-1

20.05.2017

h. h.

mc
135h

1333.71

25

LCB

32.277

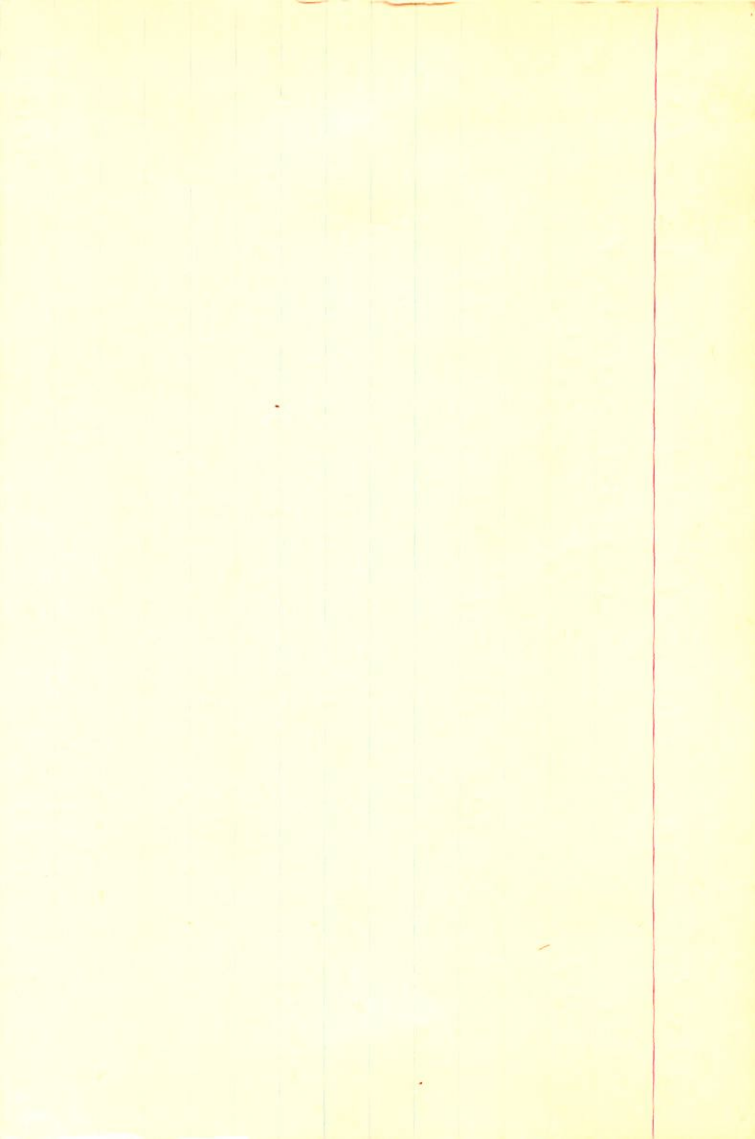
863

1000 27

48

0.550
-15.250
-64.000
-44.000
6.000
150
14.000
0.854
0.517
0.058
-357.784
-55.898
-0.516
0.830
0.212
-21.895
-0.498
-0.062
0.211
-0.976
-25.887
-17.760

8M



R.A. : 1.000
DEC. : 71.400
PM. R.A. : 5452.000
PM. DEC. : -375.000
DISTANCE : -0.200
MODULUS : 9
RAD. VEL. : 045

01 0.4 -0

PM. R.A. : 1.000
DEC. : 71.400
DISTANCE : 2423.000
MODULUS : -375.000
RAD. VEL. : -0.200

23

$$\begin{array}{r} 95 \\ 1462 \\ \hline 0361 \\ 1950 \\ \hline 3900 \\ + 3900 \\ \hline 7800 \\ 975450 \\ \hline 1425450 \end{array}$$

