4164 √√ 10 35 30 −59 27 5.07±1.18

5.10 −15 1259 −464 23 Mar 78
5.13 −13 1258 −461 15 Apr 78 16"
5.12 −14 1258 −462

400
102, 145

R√

[4.80 +0.363] 15 Apr 81
4.55

6-29+1.20/+1.27 C

4170 ✓ ✓ 10 35 00 -7 11 6.29+1.20

6.29 +01 1366 -518 15 Mar 78

6.32 +19 1339 -500 8 Apr 78 24"

6.32 +17 1344 (-477) 23 Mar 78 "

6.31 +08 1350 -809 (3)

-740

5.77 +0.375 23 Jan 80

[5.08 +0.377] 14 Apr 77

345

IRR

R ✓

6.73 +0.425 6 Mar 74

5.68 +1389 15 Mar 78

5.70 +0.412

4171 ✓✓ 10 37 30 -14 45 4.90 +0.63

Apr 10 4.92 -167 1081 -412 2 Apr 75 24'
4.95 -154 1068 -402 1 Apr 78
(10) 4.94 -160 1075 -407

556 334 504

10245 310

I
4.39 +30

~~G23~~ 28 4175 ✓✓ 10 37 50 −42 38 6.11 +0.66

RR 0.00″1

(2) (1)

6.13 −290 955 −157 31 Jan 73
6.13 −295 965 −154 14 Apr 74
6.12 −286 955 −173 27 May 78
6.12 −290 958 −154 (2)

5.83 +0.24 617 Mar 78
5.81 +0.256 18 " "
5.82 ✓ +0.250

HR4177 10 36.9 -58 55

4.72	+1.63	+1.79	4 Jan 73	4.7 C II
		+1.87		7.7 A
4.87	+1.64	(+1.70)	8 Mar 47	

8.12	-0.055	-0.40	14 Feb 73
8.18	-0.08	(-0.34)	18 Mar 47
8.09	-0.06	-0.37	4 Jan 73
8.12	-0.04	-0.39	21 Jan 73
~~8.13~~	~~-006~~	~~-0.385~~ (5)	

8.13 -0.06 -0.385 (4)

92357B

4177B ✓ ✓

-011 0.122 605 2.764 Ej+047

(0.59) (627) 805 c4

10 38 00 -59 05 4.66 +1.48

(6.0") (2W) (+) (x)

15"

7.5 A0

↗ M0 7.85

-0.05

7.9

8.03	-684	1840	-343	2.865	23 Jun 76	
8.01	-689	812	-434	2.255	16 Jun 77	
7.97	-689	863	-350	2.262	10 July 77	
8.07	-705	835	-322	2.266	7 Apr 57	
8.10	-706	842	-303	2.268	14 June 07	(6.0)
8.09	-708	749	-301	2.262	15 June 81	(6.0)
8.05	-700	845	-309	2.265 (5)		

4177 + 10 38 00 -55 05 4.66 G62a

4.73 +304 1571 -695 22 Jun 80

(2) 4.20 +289 1560 -705 7 Apr 87

4.72 +296 1566 -700

1B +B 15" 1.038 775 205 R-I +606

7.5A0 1058 000

384 624 cmp

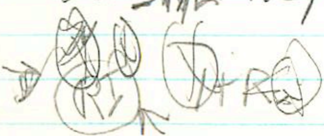
435

9 25 ☐ ✓
4182

Alho (RI) ✓

10 40 07 -1 37 6.40 10 ...

6.27	-187	1042	-438	16 Jul 83		
6.34	-175	1036	-438	11 Apr 77	8.23	+0.345 17 Mar 83
6.33	-161	1039	(-382)	5 "	582	27 ... 3
6.24	-172	1030	-436	27 Apr "	6.11	+0.32 12 Mar 77
6.28	-166	(1022)	-424	29 " "	5.41	+0.32 12 Apr 77
6.30	-[illegible]	1037	-434	(5)	6.01	+0.32 (2)



+331] 8 Mar 83

Check 6.03 +526 KMD

4173 √ √ 10 39 50 -35 37 6.36 +0.92 I

10.5 8.8

(1R) √

6.37 -138 1067 -344 4 Apr 36 24"

6.37 -145 1020 -405 27 My 38

6.37 -142 1064 -402

6.01 8.98 +243 14 Apr 81

+0.245 12683

5.44 308

5.44 310

6.01 315

5.54 +0.320 15 Apr 77

R √ √

5.44 +0.310 27 Mr 38

5.44 +310

(B)

5.44 294

5.44 303 ←

[8.31 +0.288] 14 Apr 81

6.24

4190 10 41 30 -13 52 6.4 R2

(2) (1)

6.23 +1208 1509 -440 12 mar 87
6.24 +1214 1498 -432 27 Jan 87

6.24 +1211 1503 -436

R1 (1) (2)

[7.76 +0.574] 10 mar 87
[7.74 +0.563] 11 "

7.75 +0.568

4153 10 40.8 +5 00 7"/6.34 n=3 III
(7.4 · g 15

6.14
6.19 +1.25 +1.36 14 mar 74

7.34 +1.035 +0.74 14 mar 74

5.56 +0.404 11 mar 75
(416) 12 feb 74
5.57 +0.435 12 [illegible]
5.56 +0.445 15 Apr 74
5.56 +0.428 (3)
333

6.87 +0.311 11 mar 75
321
6.87 +0.335 12 feb 74
6.90 +0.325 15 Apr 74
6.89 +0.328 (3)

R✓

4193 10 42 10 +04 52 634 IX 3 III } 8"
2.5 NO III

(x) Pl done for both

60"

✓ ✓

604

6.15 +34 1379 -499 17 2 79
6.14 +46 1359 -485 28 2 79
6.14 +40 1369 -492 (2)

7.23 +36 1413 -506 16 Mar 78
7.22 +29 1424 -470 17 2 79
7.22 -133 +1116 -478 28 2 79
7.22 -137 +1130 -485 (3)

4201 10 44 00 +2 .37 6 48 9 1.4

(X) ✓

6.27	+03	1360	-491	25 Mar 5 34"
6.27	+12	1331	-465	21 Jan 79
6.26	+13	1328	-468	22 "
6.26	+09	1340	-475	(3)

[illegible] +439 Lou[illegible]

5.74 +0.44 (2)

4207 ✓✓ 10 44 55 +6 29 6.0 g 121

6.38 -48 1314 -522 15 mar 86 24"

(✓) 6.38 -32 1282 -489 21 Jan 79

6.38 -33 1279 -484 22 "

(1n2) RR ~~6.38 -38~~ ~~1292 -498~~

5.94 +0.345 15 Jan 83

5.92 +0.353 22 Jan 80

5.89 +0.340 23 "

5.86 +0.385 (2) R (R) (✓) ~~5.92 +0.346~~ (3)

4208 √√ 10 45 10 +19 01 5.47 +1.14

5.51 −33 1338 −514 17 21 K3 20"

(5.51) −26 1314 −488 21 Jan 74

5.52 −37 1324 −504 22 "

5.52 ~~−35~~ ~~1332~~ −506 (2)

IRT

4.55 +0.362 23 Jan 80

4.99 +0.34 (2)

IRT R

4.49 362 √

4.97 345

5.00 368

7.24 +0.345 15 Apr 77

7.38 +0.425 1 Oct 83

4209 ✓✓ 10 45 15 +14 19 5.47 864

RR

5.51 -167 1075 -451 21 Jan 79 24
5.50 -162 1072 -442 22 "
5.50 -164 1074 -449
447

552

R✓

5.13 3207

5.10 +0.278 23 Jan 80

5.17 +0.306 16 Jun 78

[7.51 +0.282] 15 Feb 83

[7.43 +0.271] 19 Apr 77

5.11 291

G5 III

4216 ✓✓ 10 45 45 ~~Hovitz~~ −49 20 2.68 + 0.90

91 23 3 25 426 4 7m 3"

2.71 −170 1086 −483 (+1) 12 Mar 81 36"

2.73 −159 1069 −507 15 Apr 78 16"

2.72 −164 1078 −474 17 Apr 78 16"

2.72 −164 1078 −488 (3)

308 107 68

2.33 31 p Cap

4223 ✓✓ 10 47 40 +29 33 6.16 g1d1

6.17 -13 1243 -466 21 Jun 79 24^x
6.18 -38 1271 -460 22 "
6.18 -26 1257 -463

5.65 +0.40 Q

(1RT) R ✓ 5.65 +0.378 23 Jun 80

[7.99 +0.374] 15 Apr 81
549 399

4231 V √ 10 45 08 -80 19 5.46±0.95

RR

anno 0.7

5.46 -134 1131 -424 31 Jan 83

5.51 -123 1121 -412 8 Apr 78 24

5.48 -124 1115 -383 28 Mar 78 "

5.48 -128 1126 -418 ②

884

1 more

5.06 +0.318 27 Mar 78

5.02 +1.325 18 Mar 78

5.03 +[illegible]

123 III

4232 ✓✓ 10 48 40 -14 05 3.12 +1.25

3.11 +25 1344 .08 -440 (+) 12May51 30"

(X) 3.13 +23 1333 -464 2Apr25 24"

3.16 +33 1339 -458 1Apr28

419 Baden 3.13 D57 1339 -454

3.13

(107,45 420)

2.58 434 Cone

431

4233 ✓ ✓ 10 48 35 -9 43 5.84 +1.08

RR 5.87 -71 1189 -432 202183

5.87 -83 1191 -453 2 Apr 75 24"

5.40 -72 1185 -437 1 Apr 75

~~5.84 -72 1187 -435~~ (2)

(1) (X)

5.45 +0.258 15 Mar 58

5.42 +0.352 16 "

~~5.44 +.358~~

4240 ✓ 10 48 55 -2 58 5.95 +1.47

	5.95	+172	1603	-848	1628
(1RI) (2)	5.95	(+162)	1601	-575	2 Apr 78 24
(1)	5.99	+173	(158)	(-589)	1 Apr 78
	5.96	+172	1602	-562	(3)

R

5.21 +0.52027 My 79
5.29 +0.52615 Mar 78
5.20 +0.5651 Apr 74
5.24 +0.55

4249 X [illegible] B(R) (1A)

10 52 15 -2 07 6.15 +93

R X ✓ ✓ 6.14 -166 +10 1089 -498 17 21 93

6.15 -168 1078 -510 26 mar 78 10m 36" gpm

6.12 -159 (1059) -492 14 mar 78 Got

6.12 -162 1071 -497 25 5.77 +0.31 12 July 80

5.73 +0.298 28 Jan 80

(B) (B) 1 more ✓ 13 164 1079 -500 (4) 5.74 +0.298 23 Jan 80

553 5.74 +0.300 2[illegible]

(X) 3519 408 136 5.74 +0.299 (4)

8.74 -347 876 -491 17 21 93

8.74 -347 804 -495 21 mar (2.137) 8 Jan 80

2.141 28 Jan 80

8.73 -348 871 -(477) 25 mar 2.146 27 Jan 81 17 26 93

8.74 -341 870 -493 14 mar 78 (2.138) 8.57 +0.188 13 mar 78

8.74 -346 8[illegible] 13 -493 (4) 2.143 (3) 8.64 +0.190 11 mar 78

360 146 418 8.60 +0.188 (2)

6.01 499 282 344 – n 35

559 456 275 –233

4402 ✓ ✓ Ryabs yes 5.42 96

5.72 +1.08

4253 10 52 46 -2 02 2?

1 mar

R-I +38

5.42 -136 +1138 -473 11 mar 76

5.43 -114 +1132 -452 12 mar 76

5.45 -136 1151 -463 13 mar 81

5.43 -130 1140 -463 (3)

305

7.36	+0.300	10 mar 81
7.35	+0.295	11 "
7.36	+0.295	

544

RI

5.04 +2.95

304 304

4252 ✓✓

10	52	25	-15	19	6.36 +1.19
6.35	-14	1353	-459	27 Apr 75	
6.34	-12	1357	-465	2 Apr 75	24"
(6.37)	(-1)	(1331)	(-486)	1 Apr 75	
6.36	-13	1352	-462	(2)	

714 574

5.82 +0.377 23 Jan 70
5.93 +0.396 17 Apr 73
5.88 +0.386 (2)

5.77 +0.42 (2)

(1RF) RR

HR 4253 10 52 12 -1 58 5.44

4.99 +0.34 20 Jan 72
4.99 +0.32 26 Jan 72
4.99 +0.33

4

444
48
416
446
52

+0

465
47
416
465

4258 ✓✓ 10 53 10 -13 38 5.65 +84

RR

5.67 -207 1007 -407 2 Apr 78 24"

5.71 -196 992 -376 1 Apr 78

(1 more) 5.64 -203 1016 -404 27 Jan 81 36"

(x) 5.68 -205 1012 -406

5.36 +0.285 15 Mar 78

5.36 +0.291 16 "

5.36 288.

120 III - IV

4257 √ √ 10 52 30 -58 [128 / 26] 45 3.78 +0.94

	3.81	-149	1080	-443	(+) 12 Mar 78
(+)	3.82	-148	1090	-433	3 Apr 78 24"
	3.83	-151	1081	-450	19 Apr 78 16"
	~~3.82~~	~~-149~~	~~1091~~	~~-440~~	(3)
		-149	1083	-443	

340 337 [illegible]

[illegible]

342

4261 ✓✓ 10 54 05 −20 32 6.44 +1.10

RR · 6.44 −61 1214 −448 12 Mar 98 (3C)

6.45 −64 1211 −453 2 Apr 98 24

(6.48 −51 1189 −430) 1 Apr 98

(X)

1 More 6.46 −62 1212 −450 (2)

5.99 +0.364 15 Mar 98

5.99 +0.268 16 Mar

5.99 +3666

4268 √√ 10 52 10 -79 27 6.32+1.46

6.39 +200 1409 -579 8 Apr 78 24'

R√ 6.36 188 1418 -555 23 Dec 78 "

6.38 194 1414 -567

565 474

297 +0.474 17 Apr 81

110 2/65 / 530 5.59 +0.477 21 Jun 79

+0.535 10 2/65

4270 ✓✓ 10 55 20 +25 37 632 +105

6.38 -87 1190 -434 21 Jan 74
6.38 -93 1185 -421 22
6.38 -90 1188 -430

5.90 +0.37 (2) 1RI R

5.88 +0.334 23 Jan 80
5.53 +0.329 15 Feb 83
5.90 +0.331 (2)

4271 ✓✓ 10 54 20 -60 24 5.91 +1.05

RR

5.54 -72 1143 -439 23 Jan 78 24"

5.55 -75 1152 -445 24 Jan 79

5.54 -74 1148 -442

646

[7.74 +0.425] 15 3AB

3AB

5.35 +0.258 10 Jan 78

5.41 +1370 "

5.40 +1

(R)

4273 ✓✓ 10 55 05 -37 00 4.59 +1.02

4.61 -101 1152 -450 4 Apr 24 24"
4.64 -110 1168 -452 13 Apr 08 16"
4.62 -105 1160 -451

RV ✓

420 343

[6.51 +0.303] 4 Apr 51
[6.49 +0.303] 19 Apr 57
6.49 +0303

4281 ✓ ✓

5216 10 58 30 +11 49 6.460

RR

6.55 -413 867 -412 21 Jan 75 24"
6.54 -417 867 -409 22 "
6.54 -415 867 -410

6.48 +0.146 15 Mar 75
6.46 +0.143 Rx Mar 75
6.47 .+144

4291 ✓✓ 10 54 25 +3 44 4.84 +1.16

4.85 -21 1276 -467 17 28 24"

4.87 -17 1247 -436 21 Jan 75

4.86 -20 1257 -448 22 ...

~~4.86 20 1266 -457~~ (2)

10

4.36 + 4.05 [illegible]

4287 | [illegible] | 357 | 4.08 [illegible]

95272 | 10 | 58 | 83 | -18 | 10

4.09	(X) 64	1260	-476	27 Jan 72
4.15	-56	1245	-493	11 Apr 77	57
4.14	-50	1235	-488	9 " "
~~4.14~~	~~-53~~	~~1240~~	~~-488~~ (2)
	-57	1247		

Again

3.14 | 0.381 [illegible]

4247 ✓ 10 59 50 −15, 40 6.35 +1.20

6.36 −12 1340 −515 12 Mar 78 (3)

6.36 −14 1335 −520 2 Apr 78 24"

6.35 −6 1316 −495 1 Apr 78

R (1) 1 More

6.36 −16 1340 −518 (2)

5.80 +0.405 (2) 583 +0.364 27 May 79

584 +0.374 23 Jan 80

(1 R 1) R 584 +0.371 (2)

4248

6.06 336 180 411 2-635

145 476

430Y √√ 10 59 10 -81 26 6.70+55

R R 0.0 0.8

6.23 -347 871 -381 8 Apr 75 24"

6.74 -364 892 -386 23 Jan 78 "

6.74 -355 882 -384

351

1.020

6.49 +0.123 27 Jan 75

6.71 351 116 423 6.42 +0.156 18 Jan 75

146 6.46 +0.165

4306 ✓✓ 11 02 25 00 07 5.94 +1.22

5.55	+14	1387	-523	14 July 80 36"
6.01	-18	1387	-523	15 Apr 78 16"
5.55	+16	1385	-523	1 May 80
558	+15	1385	-516	(3)

1 mo ✓ R

10^7 ,5 410

R

5.30	+0.379	27 My 79
5.43	+0.381	
536	+0380	(2)

[7.78] [+37] +1.0 12 July 80

4308 ✓✓ 11 02 30 -13 19 6.36 +0.88

RR

6.37 -172 1031 -408 1Apr78
6.37 -160 1011 -406 15Apr78 16'
6.37 -166 1021 -407
550

6.01 +0.294 15May78
5.99 +0.289 16"
6.00 +0.291

4305 √√ 11 02 05 -11 11 5.62 gf6

11ᵐ 4"

RR

	5.48	-151	1114	-418	12 mar 81 (86)
	5.57	-141	1109	-417	1 Apr 78
(x)	5.57	-125	1070	-417	15 Apr 78 16"
1 mar	5.51	-146	1112	-418	(2)

5.16	+0.315	15 mar 78
5.15	+0.321	16"
5.16	.318	

4318 ✓✓ 11 05 05 -51 05 6.30+0.55

RR

6.31 -137 1028 -400 7 Apr 78 24"

6.31 -139 1035 -423 27 May 78 24"

6.31 -138 1032 -412

5.84 +0.333 15 May 78

5.82 +0.324 16 "

5.81 +.328

4319 ✓ ✓ 11 05 45 +02 05 5.55 g 67

11.5m 2"

(1 RI) (A) AMOE

5.52 129 1078 -437 17 2"

(1) (1) 5.53 -126 (1059) -422 21 Jun 74

5.55 -137 1082 -414 TH May 81

5.53 -131 1080 -430 (3) (80)

(BPD) -137 Lousin

5.08 +370 1 A

5.15 +354 15 mn 75

5.12 +362 (80)

4321 ✓ ✓ 11 05 25 -50 50 6.31 +1.16

RR 6.32 -25 1367 -544 15 Mar 75

6.32 -21 1346 -513 4 Apr 75 24"

6.32 -22 1342 -530 27 May 75

6.32 -23 1352 -537 (3)

5.77 +0.354 15 Mar 75

5.74 +0.344 16

5.76 +0.349

4323 √ √ Anchorite 11 05 30 -58 33 236 6.02+124

? ↗ 6.06 +60 1388 -573 (86) 12Mar87 11.5 12"

(1R#) 6.06 +67 1386 -594 4Apr78 24"

6.06 +63 1374 -569 23Mar78 "

R 1mm 6.06 +63 1383 -579 (3)

R

(1R3) √ 5.43 +10.404 21Jun79

5.51 +10.399 23Jun80

5. +10.419

Selwyn Ap[illegible] 4.20 331

4.60 + 1.08 + 82
4.19 + 0.33

4325

11 05 30 -62 17

J more

HR

4.60	-114	1182	-499	31 Jan 73
4.64	101	1166	-465	4 Apr 75 24"
4.66	-99	1180	-491	27 Apr 77
4.66	-101	1137	-469	3 Jan 77
4.63	-100	1196	-500	13 Jan 77
4.66	-102	1175	-497	1 May 77
4.65	-107	1180	-497	

R 4.20 302
4.31 307
4.14 302

[6.52 +0.282] 18 Apr 81
[6.64 +348] 17 Jan 83
[6.52 +0.323] 15 Apr 83

6 0 I 9-0

4337 √√ 11 07 35 -58 51" 3.90 +1.25

V 38 dw
96418 (X)

2.180
3.97 -20 1281 -301 ^ (+1) 12Mar87 (36)
3.94 -35 1236 -277 4Apr78 24"
3.98 -38 1236 -256 15Apr58 18"
3.96 -36 1236 -266

2480
2080

686 452 649 2.443
(684) (512) 2.443 Vr
(402)

M_V -7.45

Obert → 4 97 Lowe

Mendoza 3.37 407
+43

4325 √√ 11 05 85 -62 18 Aug 25

4.60 + 1.03

4.64 -101 1166 -465 4 Aug 25 24'
4.64 -99 1158 -461 15 Aug 25 16"
4.65 -100 1162 -463
4.65 -101 1164 -466 3 Sta
4.65 -100 1173 -470

Newberger

434F ✓✓ 11 11 25 −21 37 6.40 +1.40

6.41 +1.40 +1.775 (1)

6.40 +111 1430 −450 > Jan 24

6.40 +114 1420 −557 1 Apr 24

6.41 +115 1423 −454 15 Apr 24

6.40 +113 1424 −454 (3)

5.60 +0.53 10 Jan 24

5.73 +0.489 15 Mar 24

5.70 +0.48 23 Jan 20