

Telescope: 61"

Frame prefix #: SP91A

Day of Week: Fri

RA offset:

Focus: 3820²

Humidity: 55% Sheet #: 1

Observers: Fink, Gruber, Hicks

Date MST/UT: May 10/11

Dec offset:

Tailpiece: 34.3 ✓

Balance: 400 Temp O/I: 40/45

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)	R	C
001	Helix-tannae	60	0.50	1250/700 400 net	4:21:55	12:11:24.6	7:56:18.2	+00:01	1.10 - clear, quite dark GP= 376, 423		
002	"	120	"	1600/700 600 net	4:24:07	4:5		00:13	1.10 - thick clouds, night job new Moon.		
003	"	"	"	500-600 net	4:57			00:36	1.11 fine 30 sec Not peak = 300 plateau = 800		
004	"	"	"	"	5:18			00:58	1.13 T=38/34		
005	"	"	"	"	5:40			1:19	1.16		
006	"	"	"	"	6:10			1:41	1.20		
007	B55270	20	"	700	6:42	140208	94424	0:31	1.09 chapt 3480		
008	"	"	"	670				0:32	1.09		
009	"	"	"	870	6:44			0:33	"		
010	"	"	"	760	6:45			0:34	1.09		
011	McNally	600	"	1050/760 200 net	7:10	12:33:09	+33:21:43	1:27	1.05 fine 60 sec Peak 270 plateau 700		
012	"	120	"		7:21			1:31	1.07		
013	"	"	"	1312/760 Net=300	7:42	11:05	22:05	2:00	1.11		
014	"	"	"					2:23	1.15		
015	B55270	10	"					2:24	1.33		

quite bright
from sun
color

FR91A

CCD Spectrometer Observing Log

2

Tel: _____
Balance: _____Local Date: _____
UT Date: _____Temp. In: _____
Out: _____Hum: _____
Clouds: _____

Winds: _____ Tape ID: _____

Frame	Object	RA (Hst) (Obs)	DEC (Hst) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/ Height	Slit Orient.	Est. see'g	Remarks	
016	RS5270	4	20 sec	0.50m					2:31	1.24	Go
017	RS5270	7:00	"		8:42				2:32	1.24	
018	"	"	"		8:43				2:33	1.24	
019	RS 6629	"	.14			.10s			0:56	1.18	1.18
020	RS6629		0.15			.15s					1.18
21	RS 6629					.15s					1.18 1.18
22	"					.15s					1.18
91d	Sat May 11/12			H=50%	Print: 43/39		Fr=35m				40 376.5, 420
023	Shoe-Lug	1470/830 60 obs	60 sec	0.50m	3:55		8:49-0425	211844	3:26	1.34	1.39 - 2000 mhd - 1.50m - 18000 mhd
024	"	2160/860 100 obs	120 sec	"	4:07				3:13	1.39	2000 mhd 18000 mhd
025	"	1970/840	"	"	4:28				3:34	1.51	detent for read mhd
026	Hardly 2	1080/830 130 obs	60	0.70	5:41		130934	-33848	0:27	1.25	
027	"	1350/830 Mtd. 300	120	"	5:54				0:39	1.26	60 sec mhd 210 500
028	"	1360/830	120	"	6:24				1:09	1.30	
029	"	1330/830	120	"	6:46				1:21	1.35	

CCD Spectrometer Observing Log

L: 4/137 H: 020 3

Tel: _____
Balance: _____

Local Date: Sat May 11/12
UT Date: _____

Temp. In: _____
Out: _____

Hum: _____
Clouds: _____

Winds: _____

Tape ID: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/Height	Slit Orient.	Est. see'g	Remarks
030	BS 0853	9 ^h 20	1.0	0.50mm	7:28				-0.20	1.16
031	"	9 ^h 20	"	"	7:29				-0.18	1.16
032	"	9 ^h 20	"	"					-0.18	1.16
033	BS 5916	7 ^h 20	"	"	7:28				-0.22	1.47
034	"	7 ^h 20	"	"	7:29				-0.21	1.47
035	"	7 ^h 20	"	"	7:29				-0.21	1.47
036	"	7 ^h 20	"	"	7:29				-0.22	1.40
037	BS 6060	7 ^h 20	0.50	"					-0.24	1.33
038	"	7 ^h 20	"	"	7:51				-0.22	1.33
039	"	9 ^h 20	"	"	7:52					1.33
040	"	7 ^h 20	"	"					-0.26	1.33
041	"	7 ^h 50	0.50	1.0	7:57				-0.22	1.33
042	"	7 ^h 20	"	"	7:58				-0.21	1.33
043	"	7 ^h 20	"	"					-0.2	1.33
044	BS 1111	7 ^h 10	0.10	1.0	8:08		144548	15712	41:18	1.25

CCD Spectrometer Observing Log

4

Tel: _____
 Balance: _____
 Local Date: Sat Mar 11/12
 UT Date: _____

Temp. In: _____ Hum: _____ Winds: _____ Tape ID: _____
 Out: _____ Clouds: _____

Frame	Object	RA (11st) (Obs)	DEC (11st) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/Height	Slit Orient.	Est. see'g	Remarks
045	BS5511	670	0.10 _h	1.00 _m	8:09			1:19		1.23 STD
046	"	570	"	"	8:11			1:21		1.23
047	"	650	"	"	8:12			1:22		1.24
048	BS6029	570			8:21			-1:31		1.24 STD
049	"	540	"	"						
050	"	490	"	"						
051	"	500	"		8:24			-1:08		1.24
052	BS6998	880	1.00 _h	1.01 _m	8:31			-2:12		2.13 Cap & 2.14
053	"	890	"	"	8:32			-2:11		2.13
054	"	"	"	"						
055	"	930	"	"						
056	"	1050	"	"						
057	"	1100	"	"						
058	"	550	0.10 _h							
059	"		"		8:38			-2:00		2.68

CCD Spectrometer Observing Log

Tel: _____ Local Date: Sept 11/12 Temp. In: _____ Hum: _____ Winds: _____ Tape ID: _____
 Balance: _____ UT Date: _____ Out: _____ Clouds: _____

Frame	Object	RA (list) (Obs)	DEC (list) (Obs)	H.A. (Obs)	UT Start Time of Exp.	Exp. time	Width/Height	Slit Orient.	Est. see'g	Remarks
060	356998	8620	0-80sec	1.0m					-1.78	1.90
061	"	7900	"	"						1.89
062	"	7500	"	"	9109				-1.84	1.89
063	"	8800	"	"						1.89
064	Tintin	200/1100	300sec	"	9130				-1.84	1.88
065	"	200/1100	300sec	"	9138				-1.88	1.92
066	"	590/2700	600	"	9145				-1.81	1.90
067	"	4900/2100	0.8-1.0	"	9156				-1.86	1.85 <small>but very noisy</small>
068	"	6700/2700	600	"					-1.86	1.80 <small>good exp but</small>
069	"	6900/2600	"	"					-1.87	1.77 <small>good exp</small>
070	"	5700/2600	"	"					-1.94	1.75 <small>thin</small>
071	"	5100/2160	600	0.50					-1.81	1.72 <small>good exp</small>
072	"	6200/2300	"	"					-1.81	1.71 <small>very good</small>
073	"	5200/2000	"	"	11:05				-1.80	1.70
074	"	5200/2000	"	"	11:16				0.00	1.70 <small>good</small>

Telescope:

Frame prefix #:

Day of Week: Sat 11/12

RA offset:

Focus:

Humdty:

Sheet #:

Observers:

Date MST/UT:

Dec offset:

Tailpiece:

Balance:

Temp O/I: 37/41

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start MST	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
075	Nutcr	10sec	0.5m	6700					
076	"	12sec	"	8000					
077	"	"	"	9600				+0216	1.71
078	"	"	"	8200					-
79	B56998-	1.0	"	9600				+0219	1.76
80	"	"	"	10400					
81	"	0.80		7600					
82	"	"	"	9600					
83	"	"	"	8200					
84	"	"	"	8100					
85	"	"	"	7500					
86	"	"	"	7700					
87	"	"	"	8700					
88	"	"	"	6500					
89	"	"	"	8000				0:07	1.78

R91A

Sunday
May 12/13

T=42/46 7
Focus: 3843

		cut	UT	d	S	HA	AM	refs
090	Plute	1700 P32 600 1.0 mm	7:41	15 22 44	-02 20 28	+ 0:22	1-22	GP 376.2 420 cut
PLUTO 091	5888 2018 P37 11	5890 P40 11	7:58	header, pick 092		0:34	1-23	2000 fine 500p 38000
092	11	5890 P18 4 11	8:08	15 22 44	-02 20 28	0:45	1-24	check out check 1.10 pm check out check 1.10 pm
093	2274 11	5376 4 11	8:20			0:57	1-27	
094	11	5888 P49	8:31			1:08	1-27	
095	2415 110610	4968 P16	8:42			1:19	1-30	2.1. low cut? trapped dust dry space
096	11 2272	5888 P38	8:53			1:30	1-32	
097	1900	5092 P40	9:09			1:41	1-35	
098	2168	5496 P35	9			1:52	1-38	4 380
099	2189	6224 843	9:26			2:03	1-42	
100	2404	6080 P20	9:37			2:14	1-47	
101-105	BS 5883	9700 P.80 11		15:48 36	+02 33 48	2:18	1-37 - 1-38	101 102 103 104 105
106-110	11	11 11	10:14			2:31 2:36	1:45 - 1:47	106 107 108 109 110
111-115	BS 5908	0.80/0.10		16:00 247	+33 21 14	2:30	1:17 - 1:18	111 112 113 114 0.60 0.50
116-119	BS 6029	0.10 11		17:47 28	02 43 49	0:54	1:17 - 1:19	116, 117, 118, 119 Std
120	11	Prim		11	11	1:18	1-22	GP 384.8, 440
121	11	4110				1:24	1-24	Check Beamline for 3710

11A

Monday

May 13/14

T: 45/40

8

Line	Location	Count	Alt	Count	Alt	Count	Alt	Notes
122	Hardly 7	6000	0.50	not 2nd	6:01	130793	-42561	0:57 1.29 2 nd max through not 2nd
123	"	1200	"	1252/790 ~200 net				1:25 1.35 60s scale red 240 phot: 4300
124	"	"	"	1305/801	6:52			1:48 1.41
125	"	"	"	1344/801	7:14			2:09 1.49 -1.61
126	McNaght-Hy	"	"	1312/811	8:13	132442	541017	2:53 1.24 60s scale red 2:10 6 phot
127	"	"	"	1280/816	8:34			3:13 1.31
128	"	"	"	1320/804	8:56			3:34 1.40-1.51 T44/40 H=45
129	BS 5270	1.0	"	6900/920 2:00		140208	94457	3:30 1.67-1.70 125 124, 131
132-134	BS 5519	"	"	900		149959	235809	2:55 1.28-1.29 132, 133, 134
135-137	"	"	"	~900		"	"	3:02 1.32-1.33 135 136 137
138-140	BS 6629	0.10	1.00	~4600		174727	29346	0:15-1:15 chicken 2
141-143	"	"	"	~5800				-0:32 1.16 open
144	We loop	1.0	0.25m					> calibr We loop + etc

MAY
1991

Telescope: 61"

Frame prefix #: FR91A Day of Week: Fri/Sat

RA offset:

Focus: 3820 ^{→ 3480, later} Humdty:

Sheet #: 1

Observers: Grundy, Fink, Hicks Date MST/UT: 10/11

Dec offset:

Tailpiece: 34.3
Balance: ~400 Temp 0/I: 49/45°F
(too unstable)

IMAGES

Exp #	Object	Exp time	Filter slit	Counts Object/Sky	Exp start UT	RA set	Dec set	Hour-angle exp-start	Comments (P.A., seeing, Moon, clouds, etc.)
/	FK4	.05	B/Dich	14000	set Guide point: (376, 420)		$\delta = +8^\circ$		No moon, thin Cirrus before sunset
512 ² 1	Helen - 10	60	Open	12500 ^{pk}	4:04	HEL91A1.GHI			$\alpha = 0$ $\delta = 0$ found Comet ok
/	"	30	B/Dich	~8000	Phot	300	Net peak		$\alpha = 0.0215$ $\delta = 0.006$
/	BS *			Sharp	images	FWHM ~ 2.5 pixels; T = 38/34°F			New focus: 3480
512 ² 2	McN-HU	60	open	100000	Phot	3500 peak	$+32^\circ = \delta$		$\alpha = -.0355$ $\delta = +.009$
512 ² 2	"	60	"		7:00				
/	"	60	B/dich	250 peak	7000 phot				setup on:
512 ² 3	Russel 1	60	Open		9:14	RUS91A1.GHI	$\delta = -13^\circ$		$\alpha =$ $\delta =$ not obvious
" 4	"	"	"		9:26	9000 phot, 700 peak			Faint
" 5	"	"	"		9:37	16:49:46.7 - 13:29:59.9			(Moved to center from)
/						Set up position: (16:49:42.3			RA - 13:27:33.2)
/	WILD 2	60	open		9:47		-18		Stars everywhere
512 ² 7	PLUTO	30	open		10:08				
8	Neptune	15	open						

FR91A

GRUNDY, FINK, HICKS

61"

Sun/Mon

12/13 UT

Focus: 3843

~30% humidity,

T = 46/42 °F

3

Size	Exp #	object	time	filter	Photometry	net peak
		PLUTO	30	B/Dichr	38000	5600
256 ²	15	"	"	"	7:45 UT	
256 ²	16	"	"	"	4:46 UT	

Guidepoint (376.2, 420) (1mm slit)

New beam splitter
→ 3710 new focus

→ too bright, put red filter in

Set new guidepoints:
→ (384.8, 440)

Mon/Tues

512 ²	17	SA77CEU	10	IJ			Guide 40 450 DEC	focus 3800
512 ²	18	SA77FIN	600	IJ			RA 9:5:37 14:10:01	LHA 12:45 1.34 AM
512 ²	19	SA77FIN	600	IJ			DEC: 417:08	UT: LHA: 2:48 AM = 1.35
512 ²	20	FF	0.02	IJ			RA:	UT LHA: 3:06 AM 1.44
	21	"	"	"				Veriac 85
	22							"
	23							"

