INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

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TELESCOPE:             INT
DATE:                  1999 JUL 18/19
INT TAPE NR:           INTD 4119
OBSERVER:              M. Irwin, R. Sharp
PROGRAMME:             INT WFS
PATT/CAT:              WFS09
TELESCOPE OPERATOR:    M. Irwin
SUPPORT ASTRONOMER:    N. Walton

FOCUS:                 Prime
INSTRUMENT:            WFC
FILTER WHEEL (PF):     U,KPB,g,r,i,Z
CAMERA (IDS):          -
COLLIMATOR (IDS):      -
COLL. FOCUS (IDS):     -
GRATING (IDS):         -
DETECTOR:              EEV
PIXELS:                4x4200x2148
PIXEL SIZE (microns): 13.5
WINDOW:                Xstart= , Xsize= , Ystart= , Ysize=
BINNING:               in X=1, in Y=1

WEATHER:               Good - Photometric
OUTSIDE TEMP (deg C):   17.8            (FIRST HALF)
OUTSIDE TEMP (deg C):   18.3            (SECOND HALF)
HUMIDITY (%):           10              (FIRST HALF)
HUMIDITY (%):            7              (SECOND HALF)
CLOUD COVER (%):         0              (FIRST HALF)
CLOUD COVER (%):         0              (SECOND HALF)
DUST (0 - 2):            0              (FIRST HALF)
DUST (0 - 2):            0              (SECOND HALF)
SEEING (arcsec):         0.9            (FIRST HALF)
SEEING (arcsec):         1.3            (SECOND HALF)
AV. SEEING (arcsec):     -
NO. SEEING MEASURES:     20

UTC    TELESCOPE                CASELLA OUT   CASELLA IN    SEEING
       AZ   ZD  Focus  TubeTemp  Temp   Humid  Temp   Humid  Det./TV  Comments

DARK HOURS:            07:13
DOME OPEN (UTC):       18:50
MOON PHASE (D/G/B):       G
DK HRS LOST (WEATHER):00:00
DK HRS LOST (TELESC): 00:00
DK HRS LOST (DOME):    00:00
DK HRS LOST (INSTR.): 00:00
DK HRS LOST (DET.):    00:00
DK HRS LOST (COMPS.): 00:00
DK HRS LOST (A&G):     00:00
DK HRS LOST (OTHER):   00:00

COMMENTS:

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Run no. Object name              RA         Dec.     Equinox    AM    PA     UT       Exp. T.   Filter      Psys Channel  Binning Comments
 180600 Bias frame           0:00:00.00 +00:00:00.0 A        1.000 179.7 16:09:16.3      0.0        r      Sloan    1      1 x 1
 180601 Bias frame           0:00:00.00 +00:00:00.0 A        1.000 179.7 16:09:16.3      0.0        r      Sloan    5      1 x 1
 180602 Bias frame           0:00:00.00 +00:00:00.0 A        1.000 179.7 16:09:16.3      0.0        r      Sloan    3      1 x 1
 180603 Bias frame           0:00:00.00 +00:00:00.0 A        1.000 179.7 16:09:16.3      0.0        r      Sloan    4      1 x 1
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180604	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:38:06.2	0.0	r	Sloan	1	1 x 1
180605	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:38:06.2	0.0	r	Sloan	5	1 x 1
180606	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:38:06.2	0.0	r	Sloan	3	1 x 1
180607	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:38:06.2	0.0	r	Sloan	4	1 x 1
180608	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:52:07.4	0.0	U	RGO	1	1 x 1
180609	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:52:07.4	0.0	U	RGO	5	1 x 1
180610	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:52:07.4	0.0	U	RGO	3	1 x 1
180611	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:52:07.4	0.0	U	RGO	4	1 x 1
180612	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:55:56.1	0.0	U	RGO	1	1 x 1
180613	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:55:56.1	0.0	U	RGO	5	1 x 1
180614	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:55:56.1	0.0	U	RGO	3	1 x 1
180615	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:55:56.1	0.0	U	RGO	4	1 x 1
180616	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:58:51.6	0.0	U	RGO	1	1 x 1
180617	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:58:51.6	0.0	U	RGO	5	1 x 1
180618	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:58:51.6	0.0	U	RGO	3	1 x 1
180619	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	16:58:51.6	0.0	U	RGO	4	1 x 1
180620	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:03:35.1	0.0	U	RGO	1	1 x 1
180621	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:03:35.1	0.0	U	RGO	5	1 x 1
180622	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:03:35.1	0.0	U	RGO	3	1 x 1
180623	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:03:35.1	0.0	U	RGO	4	1 x 1
180624	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:06:48.2	0.0	U	RGO	1	1 x 1
180625	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:06:48.2	0.0	U	RGO	5	1 x 1
180626	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:06:48.2	0.0	U	RGO	3	1 x 1
180627	Bias frame	0:00:00.00	+00:00:00.0	A	4.115	179.7	17:06:48.2	0.0	U	RGO	4	1 x 1
180628	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.027	179.7	20:29:31.8	2.1	U	RGO	1	1 x 1
180629	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.027	179.7	20:29:31.8	2.1	U	RGO	5	1 x 1
180630	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.027	179.7	20:29:31.8	2.1	U	RGO	3	1 x 1
180631	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.027	179.7	20:29:31.8	2.1	U	RGO	4	1 x 1
180632	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.028	179.7	20:32:41.4	6.2	U	RGO	1	1 x 1
180633	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.028	179.7	20:32:41.4	6.2	U	RGO	5	1 x 1
180634	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.028	179.7	20:32:41.4	6.2	U	RGO	3	1 x 1
180635	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.028	179.7	20:32:41.4	6.2	U	RGO	4	1 x 1
180645	Flat field	14:30:05.22	+39:59:59.8	J2000.00	1.031	179.7	20:37:46.7	10.1	z	Gunn	1	1 x 1
180646	Flat field	14:30:05.22	+39:59:59.8	J2000.00	1.031	179.7	20:37:46.7	10.1	z	Gunn	5	1 x 1
180647	Flat field	14:30:05.22	+39:59:59.8	J2000.00	1.031	179.7	20:37:46.7	10.1	z	Gunn	3	1 x 1
180648	Flat field	14:30:05.22	+39:59:59.8	J2000.00	1.031	179.7	20:37:46.7	10.1	z	Gunn	4	1 x 1
180649	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.033	179.7	20:41:13.7	8.1	i	Sloan	1	1 x 1
180650	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.033	179.7	20:41:13.7	8.1	i	Sloan	5	1 x 1
180651	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.033	179.7	20:41:13.7	8.1	i	Sloan	3	1 x 1
180652	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.033	179.7	20:41:13.7	8.1	i	Sloan	4	1 x 1
180653	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.035	179.7	20:44:34.9	12.7	g	Sloan	1	1 x 1
180654	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.035	179.7	20:44:34.9	12.7	g	Sloan	5	1 x 1
180655	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.035	179.7	20:44:34.9	12.7	g	Sloan	3	1 x 1
180656	Flat field	14:30:02.61	+40:00:30.0	J2000.00	1.035	179.7	20:44:34.9	12.7	g	Sloan	4	1 x 1
180657	Flat field	14:30:00.00	+39:59:59.9	J2000.00	1.038	179.7	20:48:19.7	29.8	g	Sloan	1	1 x 1
180658	Flat field	14:30:00.00	+39:59:59.9	J2000.00	1.038	179.7	20:48:19.7	29.8	g	Sloan	5	1 x 1
180659	Flat field	14:30:00.00	+39:59:59.9	J2000.00	1.038	179.7	20:48:19.7	29.8	g	Sloan	3	1 x 1
180660	Flat field	14:30:00.00	+39:59:59.9	J2000.00	1.038	179.7	20:48:19.7	29.8	g	Sloan	4	1 x 1
180661	Focus run	15:39:19.00	-00:14:14.0	J2000.00	1.143	179.7	21:00:06.6	10.1	g	Sloan	1	1 x 1
180662	Focus run	15:39:19.00	-00:14:14.0	J2000.00	1.143	179.7	21:00:06.6	10.1	g	Sloan	5	1 x 1
180663	Focus run	15:39:19.00	-00:14:14.0	J2000.00	1.143	179.7	21:00:06.6	10.1	g	Sloan	3	1 x 1
180664	Focus run	15:39:19.00	-00:14:14.0	J2000.00	1.143	179.7	21:00:06.6	10.1	g	Sloan	4	1 x 1
180669	sa107-602 g	15:39:19.00	-00:12:58.9	J2000.00	1.143	179.7	21:06:15.9	10.1	g	Sloan	1	1 x 1
180670	sa107-602 g	15:39:19.00	-00:12:58.9	J2000.00	1.143	179.7	21:06:15.9	10.1	g	Sloan	5	1 x 1
180671	sa107-602 g	15:39:19.00	-00:12:58.9	J2000.00	1.143	179.7	21:06:15.9	10.1	g	Sloan	3	1 x 1
180672	sa107-602 g	15:39:19.00	-00:12:58.9	J2000.00	1.143	179.7	21:06:15.9	10.1	g	Sloan	4	1 x 1
180673	sa107-602 r	15:39:19.00	-00:15:28.9	J2000.00	1.143	179.7	21:09:20.6	10.1	r	Sloan	1	1 x 1
180674	sa107-602 r	15:39:19.00	-00:15:28.9	J2000.00	1.143	179.7	21:09:20.6	10.1	r	Sloan	5	1 x 1
180675	sa107-602 r	15:39:19.00	-00:15:28.9	J2000.00	1.143	179.7	21:09:20.6	10.1	r	Sloan	3	1 x 1
180676	sa107-602 r	15:39:19.00	-00:15:28.9	J2000.00	1.143	179.7	21:09:20.6	10.1	r	Sloan	4	1 x 1
180677	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:12:29.4	10.1	i	Sloan	1	1 x 1
180678	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:12:29.4	10.1	i	Sloan	5	1 x 1

180679	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:12:29.4	10.1	i	Sloan	3	1 x 1
180680	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:12:29.4	10.1	i	Sloan	4	1 x 1
180681	sa107-602 z	15:39:19.00	-00:15:28.9	J2000.00	1.144	179.7	21:15:35.7	10.1	z	Gunn	1	1 x 1
180682	sa107-602 z	15:39:19.00	-00:15:28.9	J2000.00	1.144	179.7	21:15:35.7	10.1	z	Gunn	5	1 x 1
180683	sa107-602 z	15:39:19.00	-00:15:28.9	J2000.00	1.144	179.7	21:15:35.7	10.1	z	Gunn	3	1 x 1
180684	sa107-602 z	15:39:19.00	-00:15:28.9	J2000.00	1.144	179.7	21:15:35.7	10.1	z	Gunn	4	1 x 1
180685	sa107-602 U	15:39:18.99	-00:15:28.9	J2000.00	1.145	179.7	21:18:42.9	30.1	U	RGO	1	1 x 1
180686	sa107-602 U	15:39:18.99	-00:15:28.9	J2000.00	1.145	179.7	21:18:42.9	30.1	U	RGO	5	1 x 1
180687	sa107-602 U	15:39:18.99	-00:15:28.9	J2000.00	1.145	179.7	21:18:42.9	30.1	U	RGO	3	1 x 1
180688	sa107-602 U	15:39:18.99	-00:15:28.9	J2000.00	1.145	179.7	21:18:42.9	30.1	U	RGO	4	1 x 1
180689	Lehar r	16:22:29.80	+35:31:27.1	J2000.00	1.010	179.7	21:25:34.8	299.8	r	Sloan	1	1 x 1
180690	Lehar r	16:22:29.80	+35:31:27.1	J2000.00	1.010	179.7	21:25:34.8	299.8	r	Sloan	5	1 x 1
180691	Lehar r	16:22:29.80	+35:31:27.1	J2000.00	1.010	179.7	21:25:34.8	299.8	r	Sloan	3	1 x 1
180692	Lehar r	16:22:29.80	+35:31:27.1	J2000.00	1.010	179.7	21:25:34.8	299.8	r	Sloan	4	1 x 1
180693	Lehar g	16:22:29.80	+35:31:27.0	J2000.00	1.008	179.7	21:35:23.0	299.9	g	Sloan	1	1 x 1 Slightly torn
180694	Lehar g	16:22:29.80	+35:31:27.0	J2000.00	1.008	179.7	21:35:23.0	299.9	g	Sloan	5	1 x 1 frame - extra
180695	Lehar g	16:22:29.80	+35:31:27.0	J2000.00	1.008	179.7	21:35:23.0	299.9	g	Sloan	3	1 x 1 pixels apart
180696	Lehar g	16:22:29.80	+35:31:27.0	J2000.00	1.008	179.7	21:35:23.0	299.9	g	Sloan	4	1 x 1 from CCD#1
180701	wfsj1610+5430_005	16:00:48.89	+54:29:59.9	J2000.00	1.113	179.7	21:46:00.3	598.1	z	Gunn	1	1 x 1
180702	wfsj1610+5430_005	16:00:48.89	+54:29:59.9	J2000.00	1.113	179.7	21:46:00.3	598.1	z	Gunn	5	1 x 1
180703	wfsj1610+5430_005	16:00:48.89	+54:29:59.9	J2000.00	1.113	179.7	21:46:00.3	598.1	z	Gunn	3	1 x 1
180704	wfsj1610+5430_005	16:00:48.89	+54:29:59.9	J2000.00	1.113	179.7	21:46:00.3	598.1	z	Gunn	4	1 x 1
180705	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.118	179.7	21:59:09.4	599.4	r	Sloan	1	1 x 1
180706	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.118	179.7	21:59:09.4	599.4	r	Sloan	5	1 x 1
180707	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.118	179.7	21:59:09.4	599.4	r	Sloan	3	1 x 1
180708	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.118	179.7	21:59:09.4	599.4	r	Sloan	4	1 x 1
180709	wfsj1610+5430_005	16:00:48.90	+54:29:59.9	J2000.00	1.125	179.7	22:12:20.9	599.5	i	Sloan	1	1 x 1
180710	wfsj1610+5430_005	16:00:48.90	+54:29:59.9	J2000.00	1.125	179.7	22:12:20.9	599.5	i	Sloan	5	1 x 1
180711	wfsj1610+5430_005	16:00:48.90	+54:29:59.9	J2000.00	1.125	179.7	22:12:20.9	599.5	i	Sloan	3	1 x 1
180712	wfsj1610+5430_005	16:00:48.90	+54:29:59.9	J2000.00	1.125	179.7	22:12:20.9	599.5	i	Sloan	4	1 x 1
180713	wfsj1610+5430_004	16:00:53.39	+54:09:59.9	J2000.00	1.132	179.7	22:26:49.7	599.5	z	Gunn	1	1 x 1
180714	wfsj1610+5430_004	16:00:53.39	+54:09:59.9	J2000.00	1.132	179.7	22:26:49.7	599.5	z	Gunn	5	1 x 1
180715	wfsj1610+5430_004	16:00:53.39	+54:09:59.9	J2000.00	1.132	179.7	22:26:49.7	599.5	z	Gunn	3	1 x 1
180716	wfsj1610+5430_004	16:00:53.39	+54:09:59.9	J2000.00	1.132	179.7	22:26:49.7	599.5	z	Gunn	4	1 x 1
180717	wfsj1610+5430_004	16:00:53.39	+54:10:00.0	J2000.00	1.144	179.7	22:39:56.9	599.5	r	Sloan	1	1 x 1
180718	wfsj1610+5430_004	16:00:53.39	+54:10:00.0	J2000.00	1.144	179.7	22:39:56.9	599.5	r	Sloan	5	1 x 1
180719	wfsj1610+5430_004	16:00:53.39	+54:10:00.0	J2000.00	1.144	179.7	22:39:56.9	599.5	r	Sloan	3	1 x 1
180720	wfsj1610+5430_004	16:00:53.39	+54:10:00.0	J2000.00	1.144	179.7	22:39:56.9	599.5	r	Sloan	4	1 x 1
180721	wfsj1610+5430_004	16:00:53.40	+54:09:59.9	J2000.00	1.158	179.7	22:53:06.5	599.5	i	Sloan	1	1 x 1
180722	wfsj1610+5430_004	16:00:53.40	+54:09:59.9	J2000.00	1.158	179.7	22:53:06.5	599.5	i	Sloan	5	1 x 1
180723	wfsj1610+5430_004	16:00:53.40	+54:09:59.9	J2000.00	1.158	179.7	22:53:06.5	599.5	i	Sloan	3	1 x 1
180724	wfsj1610+5430_004	16:00:53.40	+54:09:59.9	J2000.00	1.158	179.7	22:53:06.5	599.5	i	Sloan	4	1 x 1
180725	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.183	179.7	23:07:47.0	599.4	z	Gunn	1	1 x 1
180726	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.183	179.7	23:07:47.0	599.4	z	Gunn	5	1 x 1
180727	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.183	179.7	23:07:47.0	599.4	z	Gunn	3	1 x 1
180728	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.183	179.7	23:07:47.0	599.4	z	Gunn	4	1 x 1
180729	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.202	179.7	23:20:54.5	599.4	r	Sloan	1	1 x 1
180730	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.202	179.7	23:20:54.5	599.4	r	Sloan	5	1 x 1
180731	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.202	179.7	23:20:54.5	599.4	r	Sloan	3	1 x 1
180732	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.202	179.7	23:20:54.5	599.4	r	Sloan	4	1 x 1
180733	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.224	179.7	23:34:04.9	599.6	i	Sloan	1	1 x 1
180734	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.224	179.7	23:34:04.9	599.6	i	Sloan	5	1 x 1
180735	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.224	179.7	23:34:04.9	599.6	i	Sloan	3	1 x 1
180736	wfsj1610+5430_006	16:00:44.40	+54:49:59.9	J2000.00	1.224	179.7	23:34:04.9	599.6	i	Sloan	4	1 x 1
180737	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.264	179.7	23:54:09.6	599.4	g	Sloan	1	1 x 1
180738	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.264	179.7	23:54:09.6	599.4	g	Sloan	5	1 x 1
180739	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.264	179.7	23:54:09.6	599.4	g	Sloan	3	1 x 1
180740	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.264	179.7	23:54:09.6	599.4	g	Sloan	4	1 x 1
180741	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.294	179.7	00:07:17.4	599.1	U	RGO	1	1 x 1
180742	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.294	179.7	00:07:17.4	599.1	U	RGO	5	1 x 1
180743	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.294	179.7	00:07:17.4	599.1	U	RGO	3	1 x 1
180744	wfsj1610+5430_006	16:00:44.40	+54:50:00.0	J2000.00	1.294	179.7	00:07:17.4	599.1	U	RGO	4	1 x 1

180745	wfsj1610+5430_004	16:00:53.40	+54:09:59.8	J2000.00	1.325	179.7	00:21:19.8	599.5	g	Sloan	1	1 x 1
180746	wfsj1610+5430_004	16:00:53.40	+54:09:59.8	J2000.00	1.325	179.7	00:21:19.8	599.5	g	Sloan	5	1 x 1
180747	wfsj1610+5430_004	16:00:53.40	+54:09:59.8	J2000.00	1.325	179.7	00:21:19.8	599.5	g	Sloan	3	1 x 1
180748	wfsj1610+5430_004	16:00:53.40	+54:09:59.8	J2000.00	1.325	179.7	00:21:19.8	599.5	g	Sloan	4	1 x 1
180749	wfsj1610+5430_004	16:00:53.40	+54:10:00.0	J2000.00	1.363	179.7	00:34:16.7	599.0	U	RGO	1	1 x 1
180750	wfsj1610+5430_004	16:00:53.40	+54:10:00.0	J2000.00	1.363	179.7	00:34:16.7	599.0	U	RGO	5	1 x 1
180751	wfsj1610+5430_004	16:00:53.40	+54:10:00.0	J2000.00	1.363	179.7	00:34:16.7	599.0	U	RGO	3	1 x 1
180752	wfsj1610+5430_004	16:00:53.40	+54:10:00.0	J2000.00	1.363	179.7	00:34:16.7	599.0	U	RGO	4	1 x 1
180761	wfsj1610+5430_005	16:00:48.89	+54:30:00.0	J2000.00	1.424	179.7	00:51:44.7	599.4	g	Sloan	1	1 x 1
180762	wfsj1610+5430_005	16:00:48.89	+54:30:00.0	J2000.00	1.424	179.7	00:51:44.7	599.4	g	Sloan	5	1 x 1
180763	wfsj1610+5430_005	16:00:48.89	+54:30:00.0	J2000.00	1.424	179.7	00:51:44.7	599.4	g	Sloan	3	1 x 1
180764	wfsj1610+5430_005	16:00:48.89	+54:30:00.0	J2000.00	1.424	179.7	00:51:44.7	599.4	g	Sloan	4	1 x 1
180765	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.475	179.7	01:05:15.4	599.5	U	RGO	1	1 x 1
180766	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.475	179.7	01:05:15.4	599.5	U	RGO	5	1 x 1
180767	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.475	179.7	01:05:15.4	599.5	U	RGO	3	1 x 1
180768	wfsj1610+5430_005	16:00:48.90	+54:30:00.0	J2000.00	1.475	179.7	01:05:15.4	599.5	U	RGO	4	1 x 1
180769	Focus run	21:42:35.00	+00:18:00.8	J2000.00	1.272	179.7	01:22:39.9	10.1	r	Sloan	1	1 x 1
180770	Focus run	21:42:35.00	+00:18:00.8	J2000.00	1.272	179.7	01:22:39.9	10.1	r	Sloan	5	1 x 1
180771	Focus run	21:42:35.00	+00:18:00.8	J2000.00	1.272	179.7	01:22:39.9	10.1	r	Sloan	3	1 x 1
180772	Focus run	21:42:35.00	+00:18:00.8	J2000.00	1.272	179.7	01:22:39.9	10.1	r	Sloan	4	1 x 1
180773	sa113-163	21:42:35.00	+00:16:45.9	J2000.00	1.246	179.7	01:31:27.2	30.1	U	RGO	1	1 x 1
180774	sa113-163	21:42:35.00	+00:16:45.9	J2000.00	1.246	179.7	01:31:27.2	30.1	U	RGO	5	1 x 1
180775	sa113-163	21:42:35.00	+00:16:45.9	J2000.00	1.246	179.7	01:31:27.2	30.1	U	RGO	3	1 x 1
180776	sa113-163	21:42:35.00	+00:16:45.9	J2000.00	1.246	179.7	01:31:27.2	30.1	U	RGO	4	1 x 1
180777	sa113-163 g	21:42:34.99	+00:16:46.0	J2000.00	1.238	179.7	01:35:06.5	10.1	g	Sloan	1	1 x 1
180778	sa113-163 g	21:42:34.99	+00:16:46.0	J2000.00	1.238	179.7	01:35:06.5	10.1	g	Sloan	5	1 x 1
180779	sa113-163 g	21:42:34.99	+00:16:46.0	J2000.00	1.238	179.7	01:35:06.5	10.1	g	Sloan	3	1 x 1
180780	sa113-163 g	21:42:34.99	+00:16:46.0	J2000.00	1.238	179.7	01:35:06.5	10.1	g	Sloan	4	1 x 1
180781	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.231	179.7	01:38:16.7	10.1	r	Sloan	1	1 x 1
180782	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.231	179.7	01:38:16.7	10.1	r	Sloan	5	1 x 1
180783	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.231	179.7	01:38:16.7	10.1	r	Sloan	3	1 x 1
180784	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.231	179.7	01:38:16.7	10.1	r	Sloan	4	1 x 1
180785	sa113-163 i	21:42:35.00	+00:16:45.9	J2000.00	1.224	179.7	01:41:25.1	10.1	i	Sloan	1	1 x 1
180786	sa113-163 i	21:42:35.00	+00:16:45.9	J2000.00	1.224	179.7	01:41:25.1	10.1	i	Sloan	5	1 x 1
180787	sa113-163 i	21:42:35.00	+00:16:45.9	J2000.00	1.224	179.7	01:41:25.1	10.1	i	Sloan	3	1 x 1
180788	sa113-163 i	21:42:35.00	+00:16:45.9	J2000.00	1.224	179.7	01:41:25.1	10.1	i	Sloan	4	1 x 1
180789	sa113-163 z	21:42:35.00	+00:16:45.9	J2000.00	1.217	179.7	01:44:41.6	10.1	z	Gunn	1	1 x 1
180790	sa113-163 z	21:42:35.00	+00:16:45.9	J2000.00	1.217	179.7	01:44:41.6	10.1	z	Gunn	5	1 x 1
180791	sa113-163 z	21:42:35.00	+00:16:45.9	J2000.00	1.217	179.7	01:44:41.6	10.1	z	Gunn	3	1 x 1
180792	sa113-163 z	21:42:35.00	+00:16:45.9	J2000.00	1.217	179.7	01:44:41.6	10.1	z	Gunn	4	1 x 1
180793	wfsj2240+0000_004	22:34:39.98	-00:19:59.7	J2000.00	1.302	179.7	02:01:16.6	599.5	z	Gunn	1	1 x 1
180794	wfsj2240+0000_004	22:34:39.98	-00:19:59.7	J2000.00	1.302	179.7	02:01:16.6	599.5	z	Gunn	5	1 x 1
180795	wfsj2240+0000_004	22:34:39.98	-00:19:59.7	J2000.00	1.302	179.7	02:01:16.6	599.5	z	Gunn	3	1 x 1
180796	wfsj2240+0000_004	22:34:39.98	-00:19:59.7	J2000.00	1.302	179.7	02:01:16.6	599.5	z	Gunn	4	1 x 1
180797	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.265	179.7	02:14:25.5	599.3	r	Sloan	1	1 x 1
180798	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.265	179.7	02:14:25.5	599.3	r	Sloan	5	1 x 1
180799	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.265	179.7	02:14:25.5	599.3	r	Sloan	3	1 x 1
180800	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.265	179.7	02:14:25.5	599.3	r	Sloan	4	1 x 1
180801	wfsj2240+0000_004	22:34:40.00	-00:20:00.0	J2000.00	1.234	179.7	02:27:33.7	599.4	i	Sloan	1	1 x 1
180802	wfsj2240+0000_004	22:34:40.00	-00:20:00.0	J2000.00	1.234	179.7	02:27:33.7	599.4	i	Sloan	5	1 x 1
180803	wfsj2240+0000_004	22:34:40.00	-00:20:00.0	J2000.00	1.234	179.7	02:27:33.7	599.4	i	Sloan	3	1 x 1
180804	wfsj2240+0000_004	22:34:40.00	-00:20:00.0	J2000.00	1.234	179.7	02:27:33.7	599.4	i	Sloan	4	1 x 1
180805	wfsj2240+0000_004	22:34:39.99	-00:20:00.0	J2000.00	1.207	179.7	02:41:08.4	599.5	g	Sloan	1	1 x 1
180806	wfsj2240+0000_004	22:34:39.99	-00:20:00.0	J2000.00	1.207	179.7	02:41:08.4	599.5	g	Sloan	5	1 x 1
180807	wfsj2240+0000_004	22:34:39.99	-00:20:00.0	J2000.00	1.207	179.7	02:41:08.4	599.5	g	Sloan	3	1 x 1
180808	wfsj2240+0000_004	22:34:39.99	-00:20:00.0	J2000.00	1.207	179.7	02:41:08.4	599.5	g	Sloan	4	1 x 1
180809	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.186	179.7	02:54:05.9	599.6	U	RGO	1	1 x 1
180810	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.186	179.7	02:54:05.9	599.6	U	RGO	5	1 x 1
180811	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.186	179.7	02:54:05.9	599.6	U	RGO	3	1 x 1
180812	wfsj2240+0000_004	22:34:40.00	-00:19:59.9	J2000.00	1.186	179.7	02:54:05.9	599.6	U	RGO	4	1 x 1
180813	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.161	179.7	03:08:02.3	599.6	z	Gunn	1	1 x 1
180814	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.161	179.7	03:08:02.3	599.6	z	Gunn	5	1 x 1

180815	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.161	179.7	03:08:02.3	599.6	z	Gunn	3	1 x 1
180816	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.161	179.7	03:08:02.3	599.6	z	Gunn	4	1 x 1
180817	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.149	179.7	03:21:10.0	599.4	r	Sloan	1	1 x 1
180818	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.149	179.7	03:21:10.0	599.4	r	Sloan	5	1 x 1
180819	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.149	179.7	03:21:10.0	599.4	r	Sloan	3	1 x 1
180820	wfsj2240+0000_006	22:34:40.00	+00:19:59.9	J2000.00	1.149	179.7	03:21:10.0	599.4	r	Sloan	4	1 x 1
180821	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.142	179.7	03:34:19.2	599.7	i	Sloan	1	1 x 1
180822	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.142	179.7	03:34:19.2	599.7	i	Sloan	5	1 x 1
180823	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.142	179.7	03:34:19.2	599.7	i	Sloan	3	1 x 1
180824	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.142	179.7	03:34:19.2	599.7	i	Sloan	4	1 x 1
180829	wfsj2240+0000_006	22:34:39.99	+00:19:59.9	J2000.00	1.137	179.7	03:48:17.3	599.6	g	Sloan	1	1 x 1
180830	wfsj2240+0000_006	22:34:39.99	+00:19:59.9	J2000.00	1.137	179.7	03:48:17.3	599.6	g	Sloan	5	1 x 1
180831	wfsj2240+0000_006	22:34:39.99	+00:19:59.9	J2000.00	1.137	179.7	03:48:17.3	599.6	g	Sloan	3	1 x 1
180832	wfsj2240+0000_006	22:34:39.99	+00:19:59.9	J2000.00	1.137	179.7	03:48:17.3	599.6	g	Sloan	4	1 x 1
180833	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.137	179.7	04:02:05.0	599.5	U	RGO	1	1 x 1
180834	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.137	179.7	04:02:05.0	599.5	U	RGO	5	1 x 1
180835	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.137	179.7	04:02:05.0	599.5	U	RGO	3	1 x 1
180836	wfsj2240+0000_006	22:34:39.99	+00:20:00.0	J2000.00	1.137	179.7	04:02:05.0	599.5	U	RGO	4	1 x 1
180837	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.153	179.7	04:15:52.4	599.5	U	RGO	1	1 x 1
180838	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.153	179.7	04:15:52.4	599.5	U	RGO	5	1 x 1
180839	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.153	179.7	04:15:52.4	599.5	U	RGO	3	1 x 1
180840	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.153	179.7	04:15:52.4	599.5	U	RGO	4	1 x 1
180841	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.161	179.7	04:29:34.9	599.5	g	Sloan	1	1 x 1
180842	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.161	179.7	04:29:34.9	599.5	g	Sloan	5	1 x 1
180843	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.161	179.7	04:29:34.9	599.5	g	Sloan	3	1 x 1
180844	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.161	179.7	04:29:34.9	599.5	g	Sloan	4	1 x 1
180845	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.173	179.7	04:42:31.4	599.4	r	Sloan	1	1 x 1
180846	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.173	179.7	04:42:31.4	599.4	r	Sloan	5	1 x 1
180847	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.173	179.7	04:42:31.4	599.4	r	Sloan	3	1 x 1
180848	wfsj2240+0000_003	22:34:40.00	-00:40:00.0	J2000.00	1.173	179.7	04:42:31.4	599.4	r	Sloan	4	1 x 1
180849	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.189	179.7	04:55:30.3	599.4	i	Sloan	1	1 x 1
180850	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.189	179.7	04:55:30.3	599.4	i	Sloan	5	1 x 1
180851	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.189	179.7	04:55:30.3	599.4	i	Sloan	3	1 x 1
180852	wfsj2240+0000_003	22:34:39.99	-00:40:00.0	J2000.00	1.189	179.7	04:55:30.3	599.4	i	Sloan	4	1 x 1
180853	wfsj2240+0000_003	22:34:40.00	-00:39:59.9	J2000.00	1.210	179.7	05:08:33.0	599.4	z	Gunn	1	1 x 1
180854	wfsj2240+0000_003	22:34:40.00	-00:39:59.9	J2000.00	1.210	179.7	05:08:33.0	599.4	z	Gunn	5	1 x 1
180855	wfsj2240+0000_003	22:34:40.00	-00:39:59.9	J2000.00	1.210	179.7	05:08:33.0	599.4	z	Gunn	3	1 x 1
180856	wfsj2240+0000_003	22:34:40.00	-00:39:59.9	J2000.00	1.210	179.7	05:08:33.0	599.4	z	Gunn	4	1 x 1
180857	sa113-163 g	21:42:34.99	+00:16:45.9	J2000.00	1.365	179.7	05:22:28.8	10.1	g	Sloan	1	1 x 1
180858	sa113-163 g	21:42:34.99	+00:16:45.9	J2000.00	1.365	179.7	05:22:28.8	10.1	g	Sloan	5	1 x 1
180859	sa113-163 g	21:42:34.99	+00:16:45.9	J2000.00	1.365	179.7	05:22:28.8	10.1	g	Sloan	3	1 x 1
180860	sa113-163 g	21:42:34.99	+00:16:45.9	J2000.00	1.365	179.7	05:22:28.8	10.1	g	Sloan	4	1 x 1
180861	sa113-163 r	21:42:34.99	+00:16:46.0	J2000.00	1.379	179.7	05:25:49.2	10.1	r	Sloan	1	1 x 1
180862	sa113-163 r	21:42:34.99	+00:16:46.0	J2000.00	1.379	179.7	05:25:49.2	10.1	r	Sloan	5	1 x 1
180863	sa113-163 r	21:42:34.99	+00:16:46.0	J2000.00	1.379	179.7	05:25:49.2	10.1	r	Sloan	3	1 x 1
180864	sa113-163 r	21:42:34.99	+00:16:46.0	J2000.00	1.379	179.7	05:25:49.2	10.1	r	Sloan	4	1 x 1
180865	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.392	179.7	05:28:56.3	10.1	i	Sloan	1	1 x 1
180866	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.392	179.7	05:28:56.3	10.1	i	Sloan	5	1 x 1
180867	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.392	179.7	05:28:56.3	10.1	i	Sloan	3	1 x 1
180868	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.392	179.7	05:28:56.3	10.1	i	Sloan	4	1 x 1