INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

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TELESCOPE:             INT
DATE:                  1999 JUL 19/20
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):   17.2            (FIRST HALF)
OUTSIDE TEMP (deg C):   16.8            (SECOND HALF)
HUMIDITY (%):           11              (FIRST HALF)
HUMIDITY (%):            9              (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):         1.0            (FIRST HALF)
SEEING (arcsec):         1.2            (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:            07:14
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
180869	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	13:20:00.9	0.0	r	Sloan	1	1 x 1	
180870	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	13:20:00.9	0.0	r	Sloan	5	1 x 1	
180871	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	13:20:00.9	0.0	r	Sloan	3	1 x 1	
180872	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	13:20:00.9	0.0	r	Sloan	4	1 x 1	

180873	Bias frame	14:30:00.00	+39:59:59.9	J2000.00	1.021	179.7	20:05:28.2	0.0	g	Sloan	1	1 x 1
180874	Bias frame	14:30:00.00	+39:59:59.9	J2000.00	1.021	179.7	20:05:28.2	0.0	g	Sloan	5	1 x 1
180875	Bias frame	14:30:00.00	+39:59:59.9	J2000.00	1.021	179.7	20:05:28.2	0.0	g	Sloan	3	1 x 1
180876	Bias frame	14:30:00.00	+39:59:59.9	J2000.00	1.021	179.7	20:05:28.2	0.0	g	Sloan	4	1 x 1
180877	Bias frame	14:29:59.99	+40:00:00.0	J2000.00	1.021	179.7	20:09:10.4	0.0	g	Sloan	1	1 x 1
180878	Bias frame	14:29:59.99	+40:00:00.0	J2000.00	1.021	179.7	20:09:10.4	0.0	g	Sloan	5	1 x 1
180879	Bias frame	14:29:59.99	+40:00:00.0	J2000.00	1.021	179.7	20:09:10.4	0.0	g	Sloan	3	1 x 1
180880	Bias frame	14:29:59.99	+40:00:00.0	J2000.00	1.021	179.7	20:09:10.4	0.0	g	Sloan	4	1 x 1
180881	Bias frame	14:29:59.99	+39:59:59.9	J2000.00	1.022	179.7	20:12:10.0	0.0	g	Sloan	1	1 x 1
180882	Bias frame	14:29:59.99	+39:59:59.9	J2000.00	1.022	179.7	20:12:10.0	0.0	g	Sloan	5	1 x 1
180883	Bias frame	14:29:59.99	+39:59:59.9	J2000.00	1.022	179.7	20:12:10.0	0.0	g	Sloan	3	1 x 1
180884	Bias frame	14:29:59.99	+39:59:59.9	J2000.00	1.022	179.7	20:12:10.0	0.0	g	Sloan	4	1 x 1
180885	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.023	179.7	20:15:33.2	0.0	g	Sloan	1	1 x 1
180886	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.023	179.7	20:15:33.2	0.0	g	Sloan	5	1 x 1
180887	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.023	179.7	20:15:33.2	0.0	g	Sloan	3	1 x 1
180888	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.023	179.7	20:15:33.2	0.0	g	Sloan	4	1 x 1
180889	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.024	179.7	20:18:34.6	0.0	g	Sloan	1	1 x 1
180890	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.024	179.7	20:18:34.6	0.0	g	Sloan	5	1 x 1
180891	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.024	179.7	20:18:34.6	0.0	g	Sloan	3	1 x 1
180892	Bias frame	14:30:00.00	+40:00:00.0	J2000.00	1.024	179.7	20:18:34.6	0.0	g	Sloan	4	1 x 1
180893	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.029	179.7	20:30:36.9	2.8	z	Gunn	1	1 x 1
180894	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.029	179.7	20:30:36.9	2.8	z	Gunn	5	1 x 1
180895	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.029	179.7	20:30:36.9	2.8	z	Gunn	3	1 x 1
180896	Flat field	14:30:00.00	+40:00:00.0	J2000.00	1.029	179.7	20:30:36.9	2.8	z	Gunn	4	1 x 1
180897	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.031	179.7	20:33:38.9	5.1	z	Gunn	1	1 x 1
180898	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.031	179.7	20:33:38.9	5.1	z	Gunn	5	1 x 1
180899	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.031	179.7	20:33:38.9	5.1	z	Gunn	3	1 x 1
180900	Flat field	14:30:05.22	+39:59:59.9	J2000.00	1.031	179.7	20:33:38.9	5.1	z	Gunn	4	1 x 1
180901	Flat field	14:30:05.22	+40:00:00.0	J2000.00	1.033	179.7	20:36:55.1	3.2	i	Sloan	1	1 x 1
180902	Flat field	14:30:05.22	+40:00:00.0	J2000.00	1.033	179.7	20:36:55.1	3.2	i	Sloan	5	1 x 1
180903	Flat field	14:30:05.22	+40:00:00.0	J2000.00	1.033	179.7	20:36:55.1	3.2	i	Sloan	3	1 x 1
180904	Flat field	14:30:05.22	+40:00:00.0	J2000.00	1.033	179.7	20:36:55.1	3.2	i	Sloan	4	1 x 1
180905	Flat field	14:30:00.00	+40:00:59.9	J2000.00	1.035	179.7	20:39:55.9	6.1	i	Sloan	1	1 x 1
180906	Flat field	14:30:00.00	+40:00:59.9	J2000.00	1.035	179.7	20:39:55.9	6.1	i	Sloan	5	1 x 1
180907	Flat field	14:30:00.00	+40:00:59.9	J2000.00	1.035	179.7	20:39:55.9	6.1	i	Sloan	3	1 x 1
180908	Flat field	14:30:00.00	+40:00:59.9	J2000.00	1.035	179.7	20:39:55.9	6.1	i	Sloan	4	1 x 1
180909	Flat field	14:29:59.99	+40:00:59.9	J2000.00	1.037	179.7	20:43:25.6	17.0	r	Sloan	1	1 x 1
180910	Flat field	14:29:59.99	+40:00:59.9	J2000.00	1.037	179.7	20:43:25.6	17.0	r	Sloan	5	1 x 1
180911	Flat field	14:29:59.99	+40:00:59.9	J2000.00	1.037	179.7	20:43:25.6	17.0	r	Sloan	3	1 x 1
180912	Flat field	14:29:59.99	+40:00:59.9	J2000.00	1.037	179.7	20:43:25.6	17.0	r	Sloan	4	1 x 1
180913	Flat field	14:29:54.77	+40:01:00.0	J2000.00	1.039	179.7	20:46:40.0	32.0	r	Sloan	1	1 x 1
180914	Flat field	14:29:54.77	+40:01:00.0	J2000.00	1.039	179.7	20:46:40.0	32.0	r	Sloan	5	1 x 1
180915	Flat field	14:29:54.77	+40:01:00.0	J2000.00	1.039	179.7	20:46:40.0	32.0	r	Sloan	3	1 x 1
180916	Flat field	14:29:54.77	+40:01:00.0	J2000.00	1.039	179.7	20:46:40.0	32.0	r	Sloan	4	1 x 1
180917	Focus run	15:39:18.99	-00:14:14.0	J2000.00	1.143	179.7	21:01:39.0	10.1	r	Sloan	1	1 x 1
180918	Focus run	15:39:18.99	-00:14:14.0	J2000.00	1.143	179.7	21:01:39.0	10.1	r	Sloan	5	1 x 1
180919	Focus run	15:39:18.99	-00:14:14.0	J2000.00	1.143	179.7	21:01:39.0	10.1	r	Sloan	3	1 x 1
180920	Focus run	15:39:18.99	-00:14:14.0	J2000.00	1.143	179.7	21:01:39.0	10.1	r	Sloan	4	1 x 1
180921	sa107-602 U	15:39:18.99	-00:15:29.0	J2000.00	1.144	179.7	21:07:35.6	30.1	U	RGO	1	1 x 1
180922	sa107-602 U	15:39:18.99	-00:15:29.0	J2000.00	1.144	179.7	21:07:35.6	30.1	U	RGO	5	1 x 1
180923	sa107-602 U	15:39:18.99	-00:15:29.0	J2000.00	1.144	179.7	21:07:35.6	30.1	U	RGO	3	1 x 1
180924	sa107-602 U	15:39:18.99	-00:15:29.0	J2000.00	1.144	179.7	21:07:35.6	30.1	U	RGO	4	1 x 1
180925	sa107-602 U	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:11:41.6	9.6	g	Sloan	1	1 x 1
180926	sa107-602 U	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:11:41.6	9.6	g	Sloan	5	1 x 1
180927	sa107-602 U	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:11:41.6	9.6	g	Sloan	3	1 x 1
180928	sa107-602 U	15:39:19.00	-00:15:29.0	J2000.00	1.144	179.7	21:11:41.6	9.6	g	Sloan	4	1 x 1
180929	sa107-602 r	15:39:19.00	-00:15:29.0	J2000.00	1.145	179.7	21:14:49.9	8.5	r	Sloan	1	1 x 1
180930	sa107-602 r	15:39:19.00	-00:15:29.0	J2000.00	1.145	179.7	21:14:49.9	8.5	r	Sloan	5	1 x 1
180931	sa107-602 r	15:39:19.00	-00:15:29.0	J2000.00	1.145	179.7	21:14:49.9	8.5	r	Sloan	3	1 x 1
180932	sa107-602 r	15:39:19.00	-00:15:29.0	J2000.00	1.145	179.7	21:14:49.9	8.5	r	Sloan	4	1 x 1
180933	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.146	179.7	21:18:00.8	10.1	i	Sloan	1	1 x 1
180934	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.146	179.7	21:18:00.8	10.1	i	Sloan	5	1 x 1

180935	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.146	179.7	21:18:00.8	10.1	i	Sloan	3	1 x 1
180936	sa107-602 i	15:39:19.00	-00:15:29.0	J2000.00	1.146	179.7	21:18:00.8	10.1	i	Sloan	4	1 x 1
180937	sa107-602 z	15:39:19.00	-00:15:29.0	J2000.00	1.147	179.7	21:21:28.8	10.1	z	Gunn	1	1 x 1
180938	sa107-602 z	15:39:19.00	-00:15:29.0	J2000.00	1.147	179.7	21:21:28.8	10.1	z	Gunn	5	1 x 1
180939	sa107-602 z	15:39:19.00	-00:15:29.0	J2000.00	1.147	179.7	21:21:28.8	10.1	z	Gunn	3	1 x 1
180940	sa107-602 z	15:39:19.00	-00:15:29.0	J2000.00	1.147	179.7	21:21:28.8	10.1	z	Gunn	4	1 x 1
180941	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.117	179.7	21:28:11.7	599.5	z	Gunn	1	1 x 1
180942	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.117	179.7	21:28:11.7	599.5	z	Gunn	5	1 x 1
180943	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.117	179.7	21:28:11.7	599.5	z	Gunn	3	1 x 1
180944	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.117	179.7	21:28:11.7	599.5	z	Gunn	4	1 x 1
180945	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.119	179.7	21:41:19.5	599.5	r	Sloan	1	1 x 1
180946	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.119	179.7	21:41:19.5	599.5	r	Sloan	5	1 x 1
180947	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.119	179.7	21:41:19.5	599.5	r	Sloan	3	1 x 1
180948	wfsj1600+5430_007	16:00:39.80	+55:10:00.0	J2000.00	1.119	179.7	21:41:19.5	599.5	r	Sloan	4	1 x 1
180949	wfsj1600+5430_007	16:00:39.79	+55:10:00.0	J2000.00	1.124	179.7	21:54:28.9	599.4	i	Sloan	1	1 x 1
180950	wfsj1600+5430_007	16:00:39.79	+55:10:00.0	J2000.00	1.124	179.7	21:54:28.9	599.4	i	Sloan	5	1 x 1
180951	wfsj1600+5430_007	16:00:39.79	+55:10:00.0	J2000.00	1.124	179.7	21:54:28.9	599.4	i	Sloan	3	1 x 1
180952	wfsj1600+5430_007	16:00:39.79	+55:10:00.0	J2000.00	1.124	179.7	21:54:28.9	599.4	i	Sloan	4	1 x 1
180953	wfsj1600+5430_003	16:00:57.80	+53:49:59.9	J2000.00	1.119	179.7	22:09:14.6	599.5	z	Gunn	1	1 x 1
180954	wfsj1600+5430_003	16:00:57.80	+53:49:59.9	J2000.00	1.119	179.7	22:09:14.6	599.5	z	Gunn	5	1 x 1
180955	wfsj1600+5430_003	16:00:57.80	+53:49:59.9	J2000.00	1.119	179.7	22:09:14.6	599.5	z	Gunn	3	1 x 1
180956	wfsj1600+5430_003	16:00:57.80	+53:49:59.9	J2000.00	1.119	179.7	22:09:14.6	599.5	z	Gunn	4	1 x 1
180957	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.129	179.7	22:22:23.6	599.4	r	Sloan	1	1 x 1
180958	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.129	179.7	22:22:23.6	599.4	r	Sloan	5	1 x 1
180959	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.129	179.7	22:22:23.6	599.4	r	Sloan	3	1 x 1
180960	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.129	179.7	22:22:23.6	599.4	r	Sloan	4	1 x 1
180961	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.140	179.7	22:35:32.9	599.4	i	Sloan	1	1 x 1
180962	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.140	179.7	22:35:32.9	599.4	i	Sloan	5	1 x 1
180963	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.140	179.7	22:35:32.9	599.4	i	Sloan	3	1 x 1
180964	wfsj1600+5430_003	16:00:57.80	+53:50:00.0	J2000.00	1.140	179.7	22:35:32.9	599.4	i	Sloan	4	1 x 1
180965	wfsj1600+5430_012	16:04:34.70	+53:49:59.9	J2000.00	1.152	179.7	22:49:47.9	599.4	z	Gunn	1	1 x 1
180966	wfsj1600+5430_012	16:04:34.70	+53:49:59.9	J2000.00	1.152	179.7	22:49:47.9	599.4	z	Gunn	5	1 x 1
180967	wfsj1600+5430_012	16:04:34.70	+53:49:59.9	J2000.00	1.152	179.7	22:49:47.9	599.4	z	Gunn	3	1 x 1
180968	wfsj1600+5430_012	16:04:34.70	+53:49:59.9	J2000.00	1.152	179.7	22:49:47.9	599.4	z	Gunn	4	1 x 1
180969	wfsj1600+5430_012	16:04:34.69	+53:50:00.1	J2000.00	1.167	179.7	23:02:55.5	599.6	r	Sloan	1	1 x 1
180970	wfsj1600+5430_012	16:04:34.69	+53:50:00.1	J2000.00	1.167	179.7	23:02:55.5	599.6	r	Sloan	5	1 x 1
180971	wfsj1600+5430_012	16:04:34.69	+53:50:00.1	J2000.00	1.167	179.7	23:02:55.5	599.6	r	Sloan	3	1 x 1
180972	wfsj1600+5430_012	16:04:34.69	+53:50:00.1	J2000.00	1.167	179.7	23:02:55.5	599.6	r	Sloan	4	1 x 1
180973	wfsj1600+5430_012	16:04:34.70	+53:50:00.0	J2000.00	1.186	179.7	23:16:06.5	599.5	i	Sloan	1	1 x 1
180974	wfsj1600+5430_012	16:04:34.70	+53:50:00.0	J2000.00	1.186	179.7	23:16:06.5	599.5	i	Sloan	5	1 x 1
180975	wfsj1600+5430_012	16:04:34.70	+53:50:00.0	J2000.00	1.186	179.7	23:16:06.5	599.5	i	Sloan	3	1 x 1
180976	wfsj1600+5430_012	16:04:34.70	+53:50:00.0	J2000.00	1.186	179.7	23:16:06.5	599.5	i	Sloan	4	1 x 1
180977	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.203	179.7	23:30:13.4	599.3	z	Gunn	1	1 x 1
180978	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.203	179.7	23:30:13.4	599.3	z	Gunn	5	1 x 1
180979	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.203	179.7	23:30:13.4	599.3	z	Gunn	3	1 x 1
180980	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.203	179.7	23:30:13.4	599.3	z	Gunn	4	1 x 1
180981	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.227	179.7	23:43:21.0	599.5	r	Sloan	1	1 x 1
180982	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.227	179.7	23:43:21.0	599.5	r	Sloan	5	1 x 1
180983	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.227	179.7	23:43:21.0	599.5	r	Sloan	3	1 x 1
180984	wfsj1600+5430_021	16:08:11.60	+53:49:59.9	J2000.00	1.227	179.7	23:43:21.0	599.5	r	Sloan	4	1 x 1
180985	wfsj1600+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.254	179.7	23:56:30.4	599.5	i	Sloan	1	1 x 1
180986	wfsj1600+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.254	179.7	23:56:30.4	599.5	i	Sloan	5	1 x 1
180987	wfsj1600+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.254	179.7	23:56:30.4	599.5	i	Sloan	3	1 x 1
180988	wfsj1600+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.254	179.7	23:56:30.4	599.5	i	Sloan	4	1 x 1
180989	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.277	179.7	00:10:17.4	599.4	z	Gunn	1	1 x 1
180990	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.277	179.7	00:10:17.4	599.4	z	Gunn	5	1 x 1
180991	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.277	179.7	00:10:17.4	599.4	z	Gunn	3	1 x 1
180992	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.277	179.7	00:10:17.4	599.4	z	Gunn	4	1 x 1
180993	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.310	179.7	00:23:24.6	598.9	r	Sloan	1	1 x 1
180994	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.310	179.7	00:23:24.6	598.9	r	Sloan	5	1 x 1
180995	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.310	179.7	00:23:24.6	598.9	r	Sloan	3	1 x 1
180996	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.310	179.7	00:23:24.6	598.9	r	Sloan	4	1 x 1

180997	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.347	179.7	00:36:33.4	599.3	i	Sloan	1	1 x 1
180998	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.347	179.7	00:36:33.4	599.3	i	Sloan	5	1 x 1
180999	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.347	179.7	00:36:33.4	599.3	i	Sloan	3	1 x 1
181000	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.347	179.7	00:36:33.4	599.3	i	Sloan	4	1 x 1
181001	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.392	179.7	00:50:45.3	599.4	g	Sloan	1	1 x 1
181002	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.392	179.7	00:50:45.3	599.4	g	Sloan	5	1 x 1
181003	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.392	179.7	00:50:45.3	599.4	g	Sloan	3	1 x 1
181004	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.392	179.7	00:50:45.3	599.4	g	Sloan	4	1 x 1
181005	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.439	179.7	01:03:45.3	599.4	U	RGO	1	1 x 1
181006	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.439	179.7	01:03:45.3	599.4	U	RGO	5	1 x 1
181007	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.439	179.7	01:03:45.3	599.4	U	RGO	3	1 x 1
181008	wfsj1610+5430_030	16:11:48.40	+53:49:59.9	J2000.00	1.439	179.7	01:03:45.3	599.4	U	RGO	4	1 x 1
181009	wfsj1610+5430_021	16:08:11.60	+53:50:00.0	J2000.00	1.509	179.7	01:17:31.7	599.0	U	RGO	1	1 x 1
181010	wfsj1610+5430_021	16:08:11.60	+53:50:00.0	J2000.00	1.509	179.7	01:17:31.7	599.0	U	RGO	5	1 x 1
181011	wfsj1610+5430_021	16:08:11.60	+53:50:00.0	J2000.00	1.509	179.7	01:17:31.7	599.0	U	RGO	3	1 x 1
181012	wfsj1610+5430_021	16:08:11.60	+53:50:00.0	J2000.00	1.509	179.7	01:17:31.7	599.0	U	RGO	4	1 x 1
181017	wfsj1610+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.573	179.7	01:31:26.1	599.4	g	Sloan	1	1 x 1
181018	wfsj1610+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.573	179.7	01:31:26.1	599.4	g	Sloan	5	1 x 1
181019	wfsj1610+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.573	179.7	01:31:26.1	599.4	g	Sloan	3	1 x 1
181020	wfsj1610+5430_021	16:08:11.59	+53:49:59.9	J2000.00	1.573	179.7	01:31:26.1	599.4	g	Sloan	4	1 x 1
181021	sa113-163 U	21:42:35.00	+00:16:46.0	J2000.00	1.205	179.7	01:46:50.2	30.1	U	RGO	1	1 x 1
181022	sa113-163 U	21:42:35.00	+00:16:46.0	J2000.00	1.205	179.7	01:46:50.2	30.1	U	RGO	5	1 x 1
181023	sa113-163 U	21:42:35.00	+00:16:46.0	J2000.00	1.205	179.7	01:46:50.2	30.1	U	RGO	3	1 x 1
181024	sa113-163 U	21:42:35.00	+00:16:46.0	J2000.00	1.205	179.7	01:46:50.2	30.1	U	RGO	4	1 x 1
181025	sa113-163 g	21:42:35.00	+00:16:46.0	J2000.00	1.199	179.7	01:50:26.5	10.1	g	Sloan	1	1 x 1
181026	sa113-163 g	21:42:35.00	+00:16:46.0	J2000.00	1.199	179.7	01:50:26.5	10.1	g	Sloan	5	1 x 1
181027	sa113-163 g	21:42:35.00	+00:16:46.0	J2000.00	1.199	179.7	01:50:26.5	10.1	g	Sloan	3	1 x 1
181028	sa113-163 g	21:42:35.00	+00:16:46.0	J2000.00	1.199	179.7	01:50:26.5	10.1	g	Sloan	4	1 x 1
181029	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.192	179.7	01:54:39.6	10.1	r	Sloan	1	1 x 1
181030	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.192	179.7	01:54:39.6	10.1	r	Sloan	5	1 x 1
181031	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.192	179.7	01:54:39.6	10.1	r	Sloan	3	1 x 1
181032	sa113-163 r	21:42:35.00	+00:16:45.9	J2000.00	1.192	179.7	01:54:39.6	10.1	r	Sloan	4	1 x 1
181033	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.187	179.7	01:57:55.7	10.1	i	Sloan	1	1 x 1
181034	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.187	179.7	01:57:55.7	10.1	i	Sloan	5	1 x 1
181035	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.187	179.7	01:57:55.7	10.1	i	Sloan	3	1 x 1
181036	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.187	179.7	01:57:55.7	10.1	i	Sloan	4	1 x 1
181037	sa113-163 z	21:42:35.00	+00:16:46.0	J2000.00	1.181	179.7	02:01:32.5	10.1	z	Gunn	1	1 x 1
181038	sa113-163 z	21:42:35.00	+00:16:46.0	J2000.00	1.181	179.7	02:01:32.5	10.1	z	Gunn	5	1 x 1
181039	sa113-163 z	21:42:35.00	+00:16:46.0	J2000.00	1.181	179.7	02:01:32.5	10.1	z	Gunn	3	1 x 1
181040	sa113-163 z	21:42:35.00	+00:16:46.0	J2000.00	1.181	179.7	02:01:32.5	10.1	z	Gunn	4	1 x 1
181041	wfsj2240+0000_039	22:43:12.00	-00:39:59.8	J2000.00	1.302	179.7	02:07:36.5	599.4	z	Gunn	1	1 x 1
181042	wfsj2240+0000_039	22:43:12.00	-00:39:59.8	J2000.00	1.302	179.7	02:07:36.5	599.4	z	Gunn	5	1 x 1
181043	wfsj2240+0000_039	22:43:12.00	-00:39:59.8	J2000.00	1.302	179.7	02:07:36.5	599.4	z	Gunn	3	1 x 1
181044	wfsj2240+0000_039	22:43:12.00	-00:39:59.8	J2000.00	1.302	179.7	02:07:36.5	599.4	z	Gunn	4	1 x 1
181045	wfsj2240+0000_039	22:43:12.00	-00:39:59.9	J2000.00	1.265	179.7	02:20:47.1	599.5	r	Sloan	1	1 x 1
181046	wfsj2240+0000_039	22:43:12.00	-00:39:59.9	J2000.00	1.265	179.7	02:20:47.1	599.5	r	Sloan	5	1 x 1
181047	wfsj2240+0000_039	22:43:12.00	-00:39:59.9	J2000.00	1.265	179.7	02:20:47.1	599.5	r	Sloan	3	1 x 1
181048	wfsj2240+0000_039	22:43:12.00	-00:39:59.9	J2000.00	1.265	179.7	02:20:47.1	599.5	r	Sloan	4	1 x 1
181049	wfsj2240+0000_039	22:43:12.00	-00:40:00.0	J2000.00	1.234	179.7	02:33:55.7	599.5	i	Sloan	1	1 x 1
181050	wfsj2240+0000_039	22:43:12.00	-00:40:00.0	J2000.00	1.234	179.7	02:33:55.7	599.5	i	Sloan	5	1 x 1
181051	wfsj2240+0000_039	22:43:12.00	-00:40:00.0	J2000.00	1.234	179.7	02:33:55.7	599.5	i	Sloan	3	1 x 1
181052	wfsj2240+0000_039	22:43:12.00	-00:40:00.0	J2000.00	1.234	179.7	02:33:55.7	599.5	i	Sloan	4	1 x 1
181053	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.208	179.7	02:47:07.9	599.5	g	Sloan	1	1 x 1
181054	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.208	179.7	02:47:07.9	599.5	g	Sloan	5	1 x 1
181055	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.208	179.7	02:47:07.9	599.5	g	Sloan	3	1 x 1
181056	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.208	179.7	02:47:07.9	599.5	g	Sloan	4	1 x 1
181057	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.188	179.7	03:00:34.3	599.5	U	RGO	1	1 x 1
181058	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.188	179.7	03:00:34.3	599.5	U	RGO	5	1 x 1
181059	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.188	179.7	03:00:34.3	599.5	U	RGO	3	1 x 1
181060	wfsj2240+0000_039	22:43:11.99	-00:39:59.9	J2000.00	1.188	179.7	03:00:34.3	599.5	U	RGO	4	1 x 1
181061	wfsj2240+0000_048	22:45:20.00	-00:39:59.9	J2000.00	1.173	179.7	03:14:51.7	599.6	U	RGO	1	1 x 1
181062	wfsj2240+0000_048	22:45:20.00	-00:39:59.9	J2000.00	1.173	179.7	03:14:51.7	599.6	U	RGO	5	1 x 1

181063	wfsj2240+0000_048	22:45:20.00	-00:39:59.9	J2000.00	1.173	179.7	03:14:51.7	599.6	U	RGO	3	1 x 1
181064	wfsj2240+0000_048	22:45:20.00	-00:39:59.9	J2000.00	1.173	179.7	03:14:51.7	599.6	U	RGO	4	1 x 1
181065	wfsj2240+0000_048	22:45:19.99	-00:39:59.9	J2000.00	1.161	179.7	03:27:58.9	599.5	z	Gunn	1	1 x 1
181066	wfsj2240+0000_048	22:45:19.99	-00:39:59.9	J2000.00	1.161	179.7	03:27:58.9	599.5	z	Gunn	5	1 x 1
181067	wfsj2240+0000_048	22:45:19.99	-00:39:59.9	J2000.00	1.161	179.7	03:27:58.9	599.5	z	Gunn	3	1 x 1
181068	wfsj2240+0000_048	22:45:19.99	-00:39:59.9	J2000.00	1.161	179.7	03:27:58.9	599.5	z	Gunn	4	1 x 1
181069	wfsj2240+0000_048	22:45:20.00	-00:40:00.0	J2000.00	1.153	179.7	03:41:06.6	599.5	r	Sloan	1	1 x 1
181070	wfsj2240+0000_048	22:45:20.00	-00:40:00.0	J2000.00	1.153	179.7	03:41:06.6	599.5	r	Sloan	5	1 x 1
181071	wfsj2240+0000_048	22:45:20.00	-00:40:00.0	J2000.00	1.153	179.7	03:41:06.6	599.5	r	Sloan	3	1 x 1
181072	wfsj2240+0000_048	22:45:20.00	-00:40:00.0	J2000.00	1.153	179.7	03:41:06.6	599.5	r	Sloan	4	1 x 1
181073	wfsj2240+0000_048	22:45:20.00	-00:40:00.1	J2000.00	1.149	179.7	03:54:15.1	599.3	i	Sloan	1	1 x 1
181074	wfsj2240+0000_048	22:45:20.00	-00:40:00.1	J2000.00	1.149	179.7	03:54:15.1	599.3	i	Sloan	5	1 x 1
181075	wfsj2240+0000_048	22:45:20.00	-00:40:00.1	J2000.00	1.149	179.7	03:54:15.1	599.3	i	Sloan	3	1 x 1
181076	wfsj2240+0000_048	22:45:20.00	-00:40:00.1	J2000.00	1.149	179.7	03:54:15.1	599.3	i	Sloan	4	1 x 1
181077	wfsj2240+0000_048	22:45:19.99	-00:40:00.0	J2000.00	1.148	179.7	04:07:27.5	599.5	g	Sloan	1	1 x 1
181078	wfsj2240+0000_048	22:45:19.99	-00:40:00.0	J2000.00	1.148	179.7	04:07:27.5	599.5	g	Sloan	5	1 x 1
181079	wfsj2240+0000_048	22:45:19.99	-00:40:00.0	J2000.00	1.148	179.7	04:07:27.5	599.5	g	Sloan	3	1 x 1
181080	wfsj2240+0000_048	22:45:19.99	-00:40:00.0	J2000.00	1.148	179.7	04:07:27.5	599.5	g	Sloan	4	1 x 1
181081	wfsj2240+0000_051	22:45:20.00	+00:20:00.2	J2000.00	1.141	179.7	04:22:17.5	599.5	U	RGO	1	1 x 1
181082	wfsj2240+0000_051	22:45:20.00	+00:20:00.2	J2000.00	1.141	179.7	04:22:17.5	599.5	U	RGO	5	1 x 1
181083	wfsj2240+0000_051	22:45:20.00	+00:20:00.2	J2000.00	1.141	179.7	04:22:17.5	599.5	U	RGO	3	1 x 1
181084	wfsj2240+0000_051	22:45:20.00	+00:20:00.2	J2000.00	1.141	179.7	04:22:17.5	599.5	U	RGO	4	1 x 1
181085	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.150	179.7	04:36:13.4	599.4	g	Sloan	1	1 x 1
181086	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.150	179.7	04:36:13.4	599.4	g	Sloan	5	1 x 1
181087	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.150	179.7	04:36:13.4	599.4	g	Sloan	3	1 x 1
181088	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.150	179.7	04:36:13.4	599.4	g	Sloan	4	1 x 1
181089	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.162	179.7	04:49:12.7	599.3	r	Sloan	1	1 x 1
181090	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.162	179.7	04:49:12.7	599.3	r	Sloan	5	1 x 1
181091	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.162	179.7	04:49:12.7	599.3	r	Sloan	3	1 x 1
181092	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.162	179.7	04:49:12.7	599.3	r	Sloan	4	1 x 1
181093	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.177	179.7	05:02:10.5	599.4	i	Sloan	1	1 x 1
181094	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.177	179.7	05:02:10.5	599.4	i	Sloan	5	1 x 1
181095	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.177	179.7	05:02:10.5	599.4	i	Sloan	3	1 x 1
181096	wfsj2240+0000_051	22:45:20.00	+00:19:59.9	J2000.00	1.177	179.7	05:02:10.5	599.4	i	Sloan	4	1 x 1
181097	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.198	179.7	05:15:08.4	599.5	z	Gunn	1	1 x 1
181098	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.198	179.7	05:15:08.4	599.5	z	Gunn	5	1 x 1
181099	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.198	179.7	05:15:08.4	599.5	z	Gunn	3	1 x 1
181100	wfsj2240+0000_051	22:45:20.00	+00:20:00.0	J2000.00	1.198	179.7	05:15:08.4	599.5	z	Gunn	4	1 x 1
181101	sa92-335 g	0:55:00.00	+00:44:13.0	J2000.00	1.157	179.7	05:28:14.3	10.1	g	Sloan	1	1 x 1
181102	sa92-335 g	0:55:00.00	+00:44:13.0	J2000.00	1.157	179.7	05:28:14.3	10.1	g	Sloan	5	1 x 1
181103	sa92-335 g	0:55:00.00	+00:44:13.0	J2000.00	1.157	179.7	05:28:14.3	10.1	g	Sloan	3	1 x 1
181104	sa92-335 g	0:55:00.00	+00:44:13.0	J2000.00	1.157	179.7	05:28:14.3	10.1	g	Sloan	4	1 x 1
181105	sa92-335 r	0:55:00.00	+00:44:13.0	J2000.00	1.154	179.7	05:31:21.0	10.1	r	Sloan	1	1 x 1
181106	sa92-335 r	0:55:00.00	+00:44:13.0	J2000.00	1.154	179.7	05:31:21.0	10.1	r	Sloan	5	1 x 1
181107	sa92-335 r	0:55:00.00	+00:44:13.0	J2000.00	1.154	179.7	05:31:21.0	10.1	r	Sloan	3	1 x 1
181108	sa92-335 r	0:55:00.00	+00:44:13.0	J2000.00	1.154	179.7	05:31:21.0	10.1	r	Sloan	4	1 x 1
181109	sa92-335 i	0:55:00.00	+00:44:13.0	J2000.00	1.151	179.7	05:34:27.3	10.1	i	Sloan	1	1 x 1
181110	sa92-335 i	0:55:00.00	+00:44:13.0	J2000.00	1.151	179.7	05:34:27.3	10.1	i	Sloan	5	1 x 1
181111	sa92-335 i	0:55:00.00	+00:44:13.0	J2000.00	1.151	179.7	05:34:27.3	10.1	i	Sloan	3	1 x 1
181112	sa92-335 i	0:55:00.00	+00:44:13.0	J2000.00	1.151	179.7	05:34:27.3	10.1	i	Sloan	4	1 x 1