Table4: The Elemental Abundances of ξ Oct

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
C II			(log C/H = -3.59±0.16)		
	26578.05	-0.03	WF	36	-3.78
	6582.88	-0.33	WF	34	-3.54
	165145.16	0.19	WF	7	-3.46
N I			(log N/H = -3.98±0.22)		
	37442.30	-0.38	WF	14	-3.83
	7468.31	-0.19	WF	11	-4.14
N II			(log N/H = -4.16)		
	54630.53	0.09	WF	6	-4.16
O I			(log O/H = -3.19±0.08)		
	54368.20	-1.71	WF	10	-3.14
	96453.60	-1.29	WF	7	-3.09
	6454.44	-1.07	WF	8	-3.24
	6455.98	-0.92	WF	11	-3.23
	106155.98	-0.66	WF	23	-3.15
	6156.78	-0.44	WF	32	-3.09
	6158.18	-0.30	WF	39	-3.11
	125329.11	-1.24	WF	6	-3.29
	5330.72	-0.87	WF	12	-3.33
O II			(log O/H = -3.08±0.09)		
	14641.82	0.05	WF	6	-2.98
	4649.14	0.31	WF	6	-3.15
	24319.62	-0.38	WF	3	-3.16
	54414.90	0.17	WF	5	-3.18
Ne I			(log Ne/H = -3.64±0.16)		
	16143.06	-0.35	WS	28	-3.30
	6217.28	-0.87	WS	6	-3.79
	6334.43	-0.39	WS	19	-3.65
	6402.25	0.27	WS	41	-3.46
	36074.34	-0.45	WS	17	-3.69
	6030.00	-0.99	WS	4	-3.86
	6382.99	-0.29	WS	20	-3.60
	6506.53	-0.13	WS	26	-3.50
	56163.59	-0.56	WS	12	-3.74
	65842.49	-0.43	WS	17	-3.66
	6598.95	-0.31	WS	13	-3.82
Mg I			(log Mg/H = -4.22)		
	25183.60	-0.16	WS	7	-4.22
Mg II			(log Mg/H = -4.61±0.11)		
	94427.99	-1.21	WS	9	-4.73
	4433.98	-0.90	WS	24	-4.49
	104384.64	-0.79	WS	24	-4.63
	4390.58	-0.53	WS	31	-4.74
	166346.67	0.02	KP	33	-4.46
Al II			(log Al/H = -5.97±0.06)		
	24663.10	-0.28	FW	24	-5.86
	106231.75	0.41	WS	8	-6.01
	6243.36	0.68	WS	14	-5.99
	165593.30	0.41	WS	8	-5.99
Al III			(log Al/H = -5.63)		
	34512.54	0.42	WS	4	-5.63
Si II			(log Si/H = -4.61±0.21)		
	26347.10	0.22	LA	152	-4.40
	6371.37	-0.07	LA	125	-4.36
	34128.07	0.38	LA	86	-4.97
	4130.89	0.53	LA	100	-4.90
	45957.56	-0.33	LA	51	-4.49
	5978.93	-0.03	LA	58	-4.64

Table4: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	5	5055.98	0.51	LA	133	-4.28
7.05	4621.48	-0.54	LA	12	-4.59
	4	4621.72	-0.38	LA	13	-4.73
7.14	5185.52	0.00	LA	11	-4.93
7.33	5669.56	0.27	LA	9	-4.72
7.34	6660.53	0.24	LA	7	-4.57
	6	6671.88	0.52	LA	14	-4.43
	6	6716.97	0.63	LA	14	-4.56
Si III		(log Si/H = -4.45±0.10)				
	2	4552.62	0.29	WS	12	-4.58
	4	4567.84	0.07	WS	11	-4.42
	4	4574.76	-0.41	WS	6	-4.34
S II		(log S/H = -4.84±0.18)				
	1	5027.22	-0.72	WS	11	-4.71
	5	5142.33	-0.83	WS	6	-4.94
	6	5428.66	-0.01	WS	13	-5.04
	5	5432.82	0.31	WS	28	-4.68
	5	5453.86	0.56	WS	29	-4.90
	5	5473.61	-0.12	WS	13	-4.92
	5	5509.72	-0.14	WS	14	-4.85
	5	5564.98	-0.34	WS	10	-4.84
	7	4925.34	-0.47	WS	13	-4.72
	4	4942.46	-0.96	WS	6	-4.66
	4	4991.96	-0.25	WM	16	-4.74
	5	5009.56	-0.09	WM	16	-4.93
	5	5032.48	0.18	WS	27	-4.68
	5	5103.33	-0.28	WM	9	-5.07
	9	4656.77	-0.52	WS	7	-5.14
	4	4716.23	-0.81	WS	12	-4.48
	4	4815.55	0.18	WM	22	-4.94
11	5526.25	-0.53	WS	6	-4.96
	5	5578.89	-0.69	WS	6	-4.75
	5	5606.15	0.16	WS	20	-4.76
	5	5640.33	0.14	KX	15	-4.98
	5	5660.00	-0.18	WS	12	-4.84
	5	5664.73	-0.44	WS	10	-4.71
14	5639.98	0.33	WS	25	-4.60
	5	5647.02	0.11	WS	17	-4.79
15	4917.21	-0.40	WS	17	-4.45
	5	5014.04	0.03	WS	21	-4.63
	5	5047.29	-0.62	WS	8	-4.70
38	5320.73	0.46	WS	13	-4.98
	5	5345.72	0.28	WS	14	-4.74
39	5201.02	0.05	WS	7	-4.97
	5	5212.62	0.24	WS	9	-5.00
40	4524.95	0.08	WS	12	-4.84
43	4463.58	-0.02	WM	7	-4.81
	4	4483.43	-0.43	KX	5	-4.55
44	4142.25	0.24	WM	7	-5.16
	4	4145.06	0.44	WS	11	-5.18
	4	4153.10	0.62	WS	22	-4.74
	4	4168.37	-0.16	WS	5	-5.00
49	4267.76	0.28	WS	8	-5.00
	4	4269.72	0.08	KX	5	-5.11
	4	4282.59	-0.01	WS	8	-4.73
	4	4294.43	0.56	WM	14	-4.92
	4	4318.64	-0.08	WS	7	-4.73

Table4: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
Ti II	(log Ti/H = -6.82±0.18)				
	204294.09	-1.11	MF	4	-6.89
	414300.05	-0.77	MF	6	-6.99
	4307.86	-1.29	MF	5	-6.58
Cr II	(log Cr/H = -6.48±0.18)				
	304824.13	-1.22	MF	11	-6.17
	4848.23	-1.14	MF	4	-6.69
	444555.02	-1.38	MF	5	-6.34
	4558.66	-0.66	MF	14	-6.51
	4588.22	-0.63	MF	11	-6.65
	4618.80	-1.11	MF	6	-6.51
Fe II	(log Fe/H = -4.72±0.18)				
	264580.06	-3.65	KX	3	-4.70
	274233.17	-2.00	MF	47	-4.62
	4303.17	-2.49	MF	23	-4.79
	4351.77	-2.10	MF	30	-4.98
	4385.38	-2.57	MF	16	-4.93
	4416.83	-2.60	MF	22	-4.69
	284122.66	-3.38	MF	8	-4.54
	4178.86	-2.48	MF	23	-4.86
	4258.16	-3.40	MF	6	-4.67
	4296.57	-3.01	MF	10	-4.80
	324314.31	-3.47	KX	6	-4.58
	374489.18	-2.97	MF	11	-4.68
	4491.40	-2.70	MF	13	-4.88
	4515.34	-2.48	MF	22	-4.78
	4520.22	-2.60	MF	20	-4.73
	4555.89	-2.29	MF	25	-4.86
	4582.84	-3.10	MF	8	-4.72
	4629.34	-2.37	MF	24	-4.83
	384508.28	-2.21	MF	29	-4.84
	4522.63	-2.03	MF	32	-4.93
	4541.52	-3.05	MF	9	-4.70
	4576.33	-3.04	MF	11	-4.64
	4583.83	-2.02	MF	46	-4.52
	4620.51	-3.28	MF	6	-4.67
	424923.93	-1.32	MF	66	-4.55
	5169.03	-0.87	MF	73	-4.77
	434656.97	-3.63	MF	3	-4.69
	4731.44	-3.36	MF	10	-4.36
	1864549.21	-1.87	MF	7	-4.73
	4635.33	-1.65	MF	15	-4.50
	2204319.68	-1.69	KX	3	-4.45
	D4596.02	-1.84	KX	7	-4.60
	J4357.58	-2.10	KX	4	-4.65
	4451.54	-1.82	KX	8	-4.57
	4455.26	-1.99	KX	6	-4.52
	4579.52	-2.36	KX	5	-4.26
	4913.19	0.01	KX	7	-4.72
	4951.58	0.18	KX	7	-4.88
	4984.48	0.01	KX	5	-4.84
	4990.51	0.18	KX	7	-4.90
	5001.92	0.90	KX	23	-4.91
	5004.20	0.50	KX	11	-4.96
	5007.74	-0.20	KX	5	-4.71
	5018.44	-1.22	MF	68	-4.56
	5021.59	-0.30	KX	7	-4.45
	5022.79	-0.02	KX	5	-4.88

Table4: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	5035.71	0.61	KX	15	-4.92
	5061.72	0.22	KX	4	-5.16
	5070.90	0.24	KX	10	-4.75
	5075.76	0.28	KX	11	-4.70
	5087.30	-0.49	KX	6	-4.27
	5089.21	-0.04	KX	5	-4.79
	5093.58	0.11	KX	8	-4.73
	5127.86	-2.53	KX	4	-4.40
	5144.36	0.28	KX	4	-5.14
	5149.46	0.40	KX	9	-4.92
	5166.56	-0.03	KX	6	-4.71
	5197.56	-2.10	MF	27	-4.81
	5199.12	0.10	KX	6	-4.82
	5203.64	-0.05	KX	7	-4.58
	5215.34	-0.10	KX	6	-4.66
	5215.83	-0.23	KX	5	-4.65
	5216.85	0.81	KX	12	-5.15
	5223.23	-0.41	KX	6	-4.32
	5234.62	-2.05	MF	30	-4.76
	5237.95	0.14	KX	5	-4.93
	5251.23	0.51	KX	10	-4.91
	5254.93	-3.23	KX	7	-4.51
	5260.26	1.07	KX	26	-4.89
	5264.18	0.36	KX	12	-4.70
	5264.81	-3.19	MF	11	-4.30
	5272.40	-2.03	MF	6	-4.59
	5276.00	-1.94	MF	32	-4.82
	5291.67	0.58	KX	13	-4.86
	5316.23	0.34	KX	10	-4.81
	5339.59	0.54	KX	11	-4.93
	5362.87	-2.74	KX	19	-4.43
	5370.29	-0.54	KX	5	-4.22
	5387.06	0.52	KX	11	-4.87
	5395.86	0.36	KX	4	-5.16
	5402.06	0.50	KX	9	-4.93
	5427.82	-1.66	KX	6	-4.60
	5429.99	0.46	KX	8	-4.92
	5465.93	0.52	KX	8	-5.02
	5482.31	0.43	KX	7	-4.96
	5487.63	0.36	KX	4	-5.15
	5506.20	0.95	MF	18	-4.95
	5534.85	-2.93	MF	10	-4.61
	5544.76	0.12	KX	5	-4.84
	5567.84	-1.89	KX	4	-4.53
	5645.40	0.08	KX	8	-4.54
	5780.13	0.32	KX	7	-4.77
	5783.63	0.21	KX	5	-4.88
	5961.71	0.70	KX	12	-4.88
	6149.25	-2.72	KX	10	-4.46
	6175.14	-1.98	KX	5	-4.56
	6416.92	-2.74	KX	7	-4.62
	6456.38	-2.08	KX	25	-4.52
	6541.38	0.45	KX	6	-4.81
	7462.39	-2.73	KX	9	-4.48
Fe III	(log Fe/H = -4.55±0.05)				
44	19.59	-2.22	KX	9	-4.62
	4431.02	-2.57	KX	5	-4.53
55	127.39	-2.22	KX	6	-4.49

Table4: cont.
gf-value references: BG = Biemont et al. (1989) for V II, Biemont et al. (1981) for Zr II
BK = Biemont et al. (1982)
FW = Fuhr & Wiese (1990)
GB = Grevesse et al. (1981)
HL = Hannaford et al. (1982)
JK = Jönsson et al. (1984)
KF = Klose, Fuhr, & Wiese (2002)
KP = Kurucz & Peytremann (1975)
KX = Kurucz & Bell (1995)
LA = Lanz & Artru (1985)
LD = Lawler & Dakin (1989)
MC = Magazzu & Cowley (1986)
MF = Fuhr, Martin & Wiese (1988) and Martin, Fuhr & Wiese (1988)
WF = Wise, Fuhr & Deters (1996)
WM = Wiese & Martin (1980)
WS = Wiese, Smith & Glennon (1966) and Wiese, Smith & Miles (1969)
WV = Ward (1985)

Table5: The Elemental Abundances of α Sex

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
C I			(log C/H = -3.40±0.42)		
	64762.31	-2.46	WF	8	-3.10
	4771.72	-1.87	WF	7	-3.70
C II			(log C/H = -3.35±0.30)		
	43920.68	-0.23	WF	21	-3.00
	3918.97	-0.53	WF	10	-3.33
	64267.26	0.74	WF	9	-3.72
N I			(log N/H = -3.96±0.19)		
	18703.24	-0.32	WF	78	-3.63
	8711.7	-0.23	WF	46	-4.16
	8718.83	-0.34	WF	41	-4.12
	8728.9	-1.06	WF	14	-4.10
	37442.29	-0.38	WF	31	-3.92
	7468.31	-0.19	WF	44	-3.83
O I			(log O/H = -3.16±0.04)		
	125329.11	-1.24	WF	20	-3.13
	5329.68	-1.02	WF	27	-3.19
Mg I			(log Mg/ H = -4.46±0.27)		
	25172.68	-0.38	WS	93	-4.19
	5183.60	-0.16	WS	107	-4.08
	95528.39	-0.48	WS	22	-4.61
	114702.99	-0.38	FW	27	-4.64
	154167.27	-0.79	JK	9	-4.78
Mg II			(log Mg/H = -4.59±0.04)		
	53848.21	-1.59	WS	28	-4.58
	3850.39	-1.88	WM	19	-4.54
	94427.99	-1.21	WS	19	-4.57
	4433.98	-0.90	WS	27	-4.65
	104384.64	-0.79	WS	37	-4.62
	04390.58	-0.53	WS	54	-4.56
	194436.49	-0.89	KX	7	-4.64
Al I			(log Al/H = -5.80)		
	13944.01	-0.64	FW	48	-5.80
Al II			(log Al/H = -5.45)		
	2 4663.1	-0.28	FW	25	-5.45
Si II			(log Si/H = -4.59±0.09)		
	13853.66	-1.44	LA	69	-4.65
	3856.02	-0.49	LA	130	-4.61
	3862.59	-0.74	LA	113	-4.57
	34128.07	0.38	LA	90	-4.68
	4130.89	0.53	LA	101	-4.69
	55041.03	0.26	LA	78	-4.37
7.05	4621.48	-0.54	LA	6	-4.58
	4621.72	-0.38	LA	8	-4.59
Ca I			(log Ca/H = -5.88)		
	24226.73	0.24	FW	33	-5.88
Ca II			(log Ca/H = -5.82±0.30)		
	13933.66	0.13	WM	700	-5.82
Sc II			(log Sc/H = -9.23±0.08)		
	74246.83	0.24	LD	38	-9.35
	144374.45	-0.42	LD	11	-9.28
	4400.36	-0.53	LD	13	-9.11
	4415.56	-0.68	LD	9	-9.18
	154314.08	-0.09	LD	25	-9.17
	4320.73	-0.25	LD	14	-9.33
	4325.01	-0.44	LD	13	-9.21
Ti II			(log Ti/H = -7.03±0.21)		
	113987.61	-2.73	MF	7	-6.99

Table5: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	4025.13	-1.98	MF	13	-7.43
	194395.03	-0.66	MF	79	-6.59
	4443.80	-0.70	MF	58	-7.23
	4450.49	-1.45	MF	29	-7.19
	214161.54	-2.36	MF	7	-7.09
	314468.49	-0.60	MF	63	-7.15
	4501.27	-0.75	MF	61	-7.06
	343913.46	-0.53	MF	78	-6.62
	3932.02	-1.78	MF	23	-6.98
	404417.72	-1.43	MF	39	-6.93
	4441.73	-2.41	MF	5	-7.15
	4464.46	-2.08	MF	15	-6.93
	4470.86	-2.28	MF	10	-6.97
	414290.22	-1.12	MF	50	-6.95
	4300.05	-0.77	MF	67	-6.81
	4301.93	-1.16	MF	36	-7.27
	4312.86	-1.16	MF	47	-6.99
	4320.99	-1.87	MF	11	-7.28
	494708.65	-2.21	MF	7	-7.16
	504563.76	-0.96	MF	52	-7.04
	514394.06	-1.59	MF	21	-7.20
	4399.77	-1.27	MF	38	-7.09
	514418.34	-2.40	MF	14	-6.61
	614395.85	-2.17	MF	17	-6.74
	695336.78	-1.70	MF	15	-7.09
	5418.75	-1.99	KX	12	-6.94
	705154.06	-1.92	MF	17	-6.80
	5188.68	-1.21	MF	42	-6.86
	5226.54	-1.30	MF	28	-7.12
	824529.46	-2.03	MF	15	-6.76
	4571.97	-0.53	MF	70	-6.74
	865129.15	-1.39	MF	17	-7.15
	874028.33	-1.00	MF	22	-7.33
	4053.83	-1.21	MF	30	-6.92
	924779.99	-1.37	MF	18	-7.02
	4805.09	-1.10	MF	29	-6.98
	934374.84	-1.29	MF	17	-7.12
	4421.95	-1.77	MF	10	-6.95
	944316.81	-1.42	MF	6	-7.51
	4350.83	-1.40	MF	7	-7.45
	1044386.84	-1.26	MF	16	-6.87
	1054174.07	-1.25	MF	12	-7.04
	1135072.28	-0.75	MF	13	-7.20
	1144874.01	-0.79	MF	11	-7.24
	4911.2	-0.34	MF	24	-7.25
	1154411.08	-1.06	MF	17	-6.76
	4488.32	-0.82	MF	21	-6.85
V II	(log V/H = -7.95±0.24)				
	93973.64	-1.07	BG	6	-8.34
	3997.12	-1.23	BG	11	-7.85
	103916.42	-1.05	BG	14	-7.91
	3951.97	-0.78	BG	12	-8.27
	113903.26	-0.89	MF	15	-8.00
	254202.35	-1.52	BG	6	-7.73
	324005.71	-0.52	BG	21	-8.01
	4035.63	-0.77	BG	13	-8.03
	333899.14	-0.78	BG	9	-8.19
	374183.44	-1.12	BG	7	-7.89

Table5: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	564564.59	-1.39	BG	5	-7.66
	4600.19	-1.52	BG	5	-7.50
Cr I		(log Cr/H = -6.33±0.12)			
	14254.35	-0.11	MF	18	-6.24
	4274.80	-0.23	MF	10	-6.41
Cr II		(log Cr/H = -6.23±0.22)			
	194051.93	-2.19	KX	13	-6.58
	235249.40	-2.43	KX	11	-6.07
	5407.62	-2.09	KX	10	-6.39
	264179.42	-1.77	KX	20	-6.36
	4207.35	-2.47	KX	3	-6.63
	304812.34	-1.80	MF	15	-6.46
	4824.13	-1.22	MF	54	-5.95
	4836.23	-2.25	MF	22	-5.78
	4848.23	-1.14	MF	35	-6.54
	4876.41	-1.46	KX	44	-5.99
	4884.61	-2.08	MF	11	-6.37
	314252.62	-2.02	KX	16	-6.21
	4261.92	-1.53	KX	36	-6.13
	4269.28	-2.17	KX	16	-6.07
	4275.58	-1.71	KX	25	-6.23
	4284.21	-1.86	KX	21	-6.21
	394539.62	-2.53	MF	8	-5.95
	4565.74	-2.11	MF	14	-6.09
	435237.33	-1.16	MF	50	-6.00
	5274.96	-1.29	KX	24	-6.54
	5280.00	-2.01	KX	13	-6.21
	5310.70	-2.28	MF	9	-6.10
	5313.56	-1.65	MF	23	-6.23
	5334.87	-1.56	KX	24	-6.28
	5337.79	-2.03	KX	17	-6.02
	444555.02	-1.38	MF	32	-6.26
	4558.66	-0.66	MF	74	-5.80
	4588.22	-0.63	MF	58	-6.31
	4592.05	-1.22	MF	34	-6.36
	4616.63	-1.29	MF	30	-6.41
	4618.80	-1.11	MF	49	-6.07
	4634.07	-1.24	MF	39	-6.23
	1293911.32	-2.06	KX	5	-6.17
	1624145.77	-1.16	KX	15	-6.27
	1774697.60	-1.88	MF	5	-5.93
	1833979.50	-0.73	KX	12	-6.64
	1904901.66	-0.83	KX	8	-6.29
	1944003.28	-0.60	KX	9	-6.49
	4038.04	-0.56	KX	10	-6.48
Mn I		(log Mn/H = -6.32)			
	164754.04	-0.09	MF	3	-6.32
Mn II		(log Mn/H = -6.44±0.17)			
	I4206.37	-1.57	KX	5	-6.47
	4326.64	-1.25	KX	7	-6.63
	4478.64	-0.95	KX	5	-6.43
	54730.39	-2.15	KX	3	-6.08
	4755.73	-1.24	KX	8	-6.57
	4764.73	-1.35	KX	8	-6.43
Fe I		(log Fe/H = -4.56±0.22)			
	43856.37	-1.29	MF	22	-4.91
	3859.91	-0.71	MF	51	-4.68

Table5: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	43895.66	-1.67	MF	18	-4.64
	3899.71	-1.53	MF	16	-4.85
	3906.47	-2.24	MF	8	-4.47
	3920.25	-1.75	MF	14	-4.71
	3922.91	-1.65	MF	11	-4.96
	3927.92	-1.59	MF	24	-4.52
	3930.29	-1.59	MF	33	-4.30
	145328.04	-1.47	MF	20	-4.36
	203825.88	-0.04	MF	50	-4.83
	3849.97	-0.87	MF	28	-4.61
	3872.50	-0.93	MF	26	-4.61
	3878.02	-0.91	MF	25	-4.69
	223850.82	-1.73	MF	8	-4.50
	414383.54	0.20	MF	53	-4.70
	4404.75	-0.14	MF	42	-4.66
	4415.12	-0.61	MF	24	-4.65
	424202.02	-0.71	MF	19	-4.79
	4250.79	-0.71	MF	23	-4.60
	4271.76	-0.16	MF	41	-4.70
	4325.75	-0.01	MF	49	-4.53
	434005.25	-0.61	MF	21	-4.76
	4045.82	0.28	MF	48	-4.92
	4132.06	-0.65	MF	24	-4.62
	4143.87	-0.45	MF	26	-4.79
	453841.05	-0.05	MF	33	-4.94
	3902.94	-0.47	MF	30	-4.63
	3966.07	-1.64	MF	4	-4.54
	684442.34	-1.26	MF	5	-4.52
	4494.57	-1.41	MF	6	-4.29
	4528.61	-0.82	MF	15	-4.41
	733852.57	-1.24	MF	7	-4.38
	1524187.04	-0.55	MF	9	-4.78
	4187.79	-0.55	MF	25	-4.21
	4191.44	-0.74	KX	5	-4.84
	4198.30	-0.72	MF	20	-4.21
	4210.35	-0.87	MF	6	-4.65
	4222.22	-0.97	MF	7	-4.52
	4235.94	-0.34	MF	18	-4.62
	4250.12	-0.40	MF	18	-4.55
	4260.47	-0.02	MF	32	-4.55
	4271.16	-0.35	MF	19	-4.58
	4299.24	-0.46	KX	18	-4.52
	1753859.21	-0.68	MF	9	-4.64
	3873.76	-0.79	MF	5	-4.84
	2763998.05	-0.84	MF	8	-4.40
	2773983.98	-0.90	MF	5	-4.51
	2783956.68	-0.58	KX	16	-4.28
	3997.39	-0.39	MF	10	-4.69
	4021.87	-0.66	MF	10	-4.45
	3981.77	-1.08	MF	5	-4.35
	3184871.32	-0.41	MF	10	-4.65
	4890.75	-0.43	MF	11	-4.55
	4891.49	-0.14	MF	18	-4.59
	4920.50	0.06	MF	31	-4.42
	3504466.55	-0.59	MF	8	-4.60
	3544156.80	-0.62	MF	4	-4.91
	4175.64	-0.67	MF	8	-4.48

Table5: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
35	4181.75	-0.18	MF	9	-4.92
35	4203.98	-1.08	KX	3	-4.59
35	4109.80	-0.91	MF	10	-4.15
	4132.90	-0.92	MF	5	-4.42
	4134.68	-0.49	MF	5	-4.86
38	3232.95	-0.19	MF	31	-4.10
41	4309.37	-1.18	MF	5	-4.14
48	4170.90	-1.10	MF	5	-4.14
52	4199.10	0.25	MF	19	-4.82
52	4143.42	-0.47	KX	14	-4.29
52	4017.16	-0.92	MF	6	-4.30
52	3839.26	-0.25	MF	8	-4.81
	3843.26	-0.14	MF	8	-4.87
55	3324.18	-0.24	MF	22	-4.14
55	4736.77	-0.74	MF	6	-4.34
56	4030.49	-0.70	MF	7	-4.31
56	3948.10	-0.26	KX	7	-4.74
60	4948.77	-0.34	MF	9	-4.53
	3956.46	-0.26	MF	7	-4.70
65	3986.17	-0.85	KX	6	-4.19
66	3951.16	-0.38	MF	4	-4.80
66	3846.80	0.01	MF	13	-4.68
68	5569.62	-0.54	MF	11	-4.14
	5572.85	-0.31	MF	11	-4.37
	5615.65	-0.14	MF	16	-4.35
69	4217.54	-0.51	MF	5	-4.58
	4225.45	-0.50	MF	9	-4.26
	4238.81	-0.28	MF	11	-4.39
	4247.42	-0.23	MF	9	-4.60
	4227.43	0.23	KX	28	-4.37
69	4153.91	-0.27	MF	6	-4.70
	4157.79	-0.56	KX	7	-4.35
80	4219.36	0.12	MF	9	-4.79
80	4118.55	0.28	MF	15	-4.70
80	4014.53	-0.20	MF	9	-4.48
Fe II		(log Fe/H = -4.44±0.22)			
	3938.29	-3.89	MF	34	-4.50
	3945.21	-4.25	MF	19	-4.53
22	4124.79	-4.20	MF	5	-4.78
25	4648.94	-4.51	KX	7	-4.34
25	4670.18	-4.10	MF	14	-4.37
26	4461.43	-4.11	KX	7	-4.70
	4580.06	-3.65	KX	18	-4.68
27	4128.74	-3.77	MF	20	-4.50
	4233.17	-2.00	MF	103	-3.98
	4273.32	-3.34	MF	31	-4.54
	4303.17	-2.49	MF	65	-4.44
	4351.77	-2.10	MF	75	-4.52
	4385.38	-2.57	MF	53	-4.66
	4416.83	-2.60	MF	58	-4.50
28	4122.66	-3.38	MF	28	-4.66
	4258.16	-3.40	MF	29	-4.53
	4296.57	-3.01	MF	43	-4.55
	4369.40	-3.67	MF	18	-4.55
29	4002.08	-3.37	KX	18	-4.87
32	4314.31	-3.47	KX	22	-4.68
	4384.33	-3.50	MF	30	-4.43

Table5: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	324413.60	-3.87	MF	11	-4.67
	374472.92	-3.43	MF	23	-4.60
	4489.18	-2.97	MF	45	-4.48
	4491.40	-2.70	MF	48	-4.62
	4515.34	-2.48	MF	60	-4.51
	4520.22	-2.60	MF	53	-4.61
	4555.89	-2.29	MF	62	-4.64
	4582.84	-3.10	MF	36	-4.57
	4629.34	-2.37	MF	58	-4.70
	4666.75	-3.33	MF	31	-4.48
	384508.28	-2.21	MF	65	-4.63
	4522.63	-2.03	MF	68	-4.70
	4541.52	-3.05	MF	42	-4.44
	4576.33	-3.04	MF	44	-4.42
	4583.83	-2.02	MF	99	-3.95
	4620.51	-3.28	MF	31	-4.54
	394160.62	-5.05	KX	3	-3.98
	424923.93	-1.32	MF	118	-4.23
	434601.34	-4.40	KX	7	-4.26
	4656.97	-3.63	MF	16	-4.59
	4731.44	-3.36	MF	35	-4.30
	444663.70	-4.26	KX	14	-4.02
	1274024.55	-2.48	MF	23	-4.63
	1523863.38	-2.87	KX	7	-4.77
	3863.95	-2.53	KX	17	-4.66
	1533827.08	-2.64	MF	36	-3.98
	1724048.83	-2.14	KX	18	-4.57
	1733906.04	-1.83	KX	34	-4.40
	3935.94	-1.86	MF	33	-4.38
	1864549.21	-1.87	MF	21	-4.51
	4625.91	-2.22	KX	8	-4.66
	4635.33	-1.65	MF	35	-4.27
	1884111.88	-2.29	KX	8	-4.67
	1903938.97	-1.85	MF	24	-4.49
	2134354.34	-1.74	KX	7	-4.41
	4507.10	-1.87	KX	7	-4.19
	2194628.79	-1.74	KX	9	-4.12
	2204319.68	-1.69	KX	6	-4.41
	2224449.66	-1.60	KX	5	-4.56
	D4638.05	-1.52	KX	12	-4.26
	J4263.90	-1.64	KX	8	-4.43
	4357.58	-2.10	KX	9	-4.67
	4361.25	-2.08	KX	10	-4.64
	4451.54	-1.82	KX	19	-4.50
	4455.26	-1.99	KX	14	-4.48
	4499.71	-1.76	KX	5	-4.47
	4579.52	-2.36	KX	12	-4.19
	4826.68	-0.44	KX	4	-4.61
	4908.15	-0.30	KX	7	-4.39
	5001.92	0.90	KX	42	-4.22
	5004.20	0.50	KX	19	-4.56
	5015.76	-0.05	KX	19	-3.95
	5018.44	-1.22	MF	120	-4.31
	5030.63	0.39	KX	21	-4.36
	5035.71	0.61	KX	26	-4.41
	5070.90	0.24	KX	19	-4.24
	5089.21	-0.04	KX	13	-4.23

Table5: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	J5093.58	0.11	KX	18	-4.11
	5160.84	-2.64	KX	11	-4.28
	5169.03	-0.87	MF	122	-4.63
	5197.56	-2.10	MF	69	-4.37
	5199.12	0.10	KX	19	-4.08
	5216.85	0.81	KX	21	-4.63
	5234.62	-2.05	MF	69	-4.45
	5251.23	0.51	KX	21	-4.30
	5254.93	-3.23	KX	26	-4.48
	5257.12	0.03	KX	17	-3.98
	5260.26	1.07	KX	38	-4.36
	5264.81	-3.19	MF	43	-4.05
	5272.40	-2.03	MF	25	-4.13
	5276.00	-1.94	MF	70	-4.51
	5291.67	0.58	KX	27	-4.19
	5315.08	-0.38	KX	9	-3.99
	5325.56	-2.60	MF	35	-4.84
	5339.59	0.54	KX	18	-4.48
	5387.06	0.52	KX	20	-4.31
	5395.86	0.36	KX	19	-4.15
	5402.06	0.50	KX	21	-4.25
	5425.25	-3.36	MF	29	-4.26
	5427.82	-1.66	KX	18	-4.29
	5429.99	0.46	KX	25	-4.03
	5506.20	0.95	MF	21	-4.68
	5529.06	-0.25	KX	9	-4.06
	5534.85	-2.93	MF	49	-4.11
	5544.76	0.12	KX	15	-4.11
	5567.84	-1.89	KX	15	-4.15
	7449.33	-3.31	KX	14	-4.25
	7462.39	-2.73	KX	25	-4.47
Ni I			(log Ni/H = -5.82)		
	323858.30	-0.97	MF	11	-5.82
Ni II			(log Ni/H = -5.57±0.09)		
	94362.10	-2.72	KX	17	-5.43
	104192.07	-3.05	KX	7	-5.60
	113849.58	-1.88	KX	39	-5.62
	124015.50	-2.42	KX	21	-5.61
Sr II			(log Sr/H = -9.05)		
	14215.52	-0.17	WM	41	-9.05
Zr II			(log Zr/H = -9.45±0.04)		
	163958.24	-0.31	KX	5	-9.47
	303991.16	-0.25	KX	5	-9.39
	414149.22	-0.03	BG	7	-9.48
Ba II			(log Ba/H = -9.34±0.03)		
	14554.03	0.14	KF	22	-9.36
	4934.08	-0.16	WM	16	-9.32

Table 6: The Elemental Abundances of 68 Tau

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
C I			(log C/H = -3.87±0.14)		
	64766.68	-2.62	WF	4	-3.84
	4770.02	-2.44	WF	5	-3.88
	4775.90	-2.30	WF	15	-3.51
	125052.16	-1.30	WF	32	-4.00
	134932.04	-1.66	WF	21	-3.87
	216828.12	-1.46	WF	11	-3.79
	226587.61	-1.00	WF	17	-4.04
25.0	27116.99	0.91	WF	20	-3.95
	7119.66	-1.15	WF	17	-3.80
	267111.48	-1.09	WF	16	-3.89
	7113.19	-0.77	WF	22	-4.05
N I			(log N/H = -4.27±0.19)		
	18680.29	0.35	WF	125	-3.98
	8683.40	0.09	WF	64	-4.37
	8686.14	-0.30	WF	41	-4.29
	8703.24	-0.32	WF	51	-4.12
	8711.70	-0.23	WF	36	-4.42
	8718.83	-0.34	WF	23	-4.56
	8728.90	-1.06	WF	10	-4.24
	37442.29	-0.38	WF	27	-4.10
	7468.31	-0.19	WF	40	-4.04
	58594.00	-0.33	WF	17	-4.54
	8629.25	0.08	WF	50	-4.33
O I			(log O/H = -3.43±0.15)		
	54368.19	-1.71	WF	20	-3.41
	96453.60	-1.29	WF	7	-3.43
	6454.44	-1.07	WF	10	-3.50
	106155.98	-0.66	WF	26	-3.46
	6156.78	-0.44	WF	36	-3.52
	6158.18	-0.30	WF	53	-3.43
	217001.92	-0.89	WF	17	-3.36
	7002.33	-0.58	WF	17	-3.68
	235958.00	-1.61	WF	7	-3.05
	378820.42	0.38	WF	27	-3.47
Na I			(log Na/H = -4.67±0.01)		
	15889.95	0.12	WS	224	-4.66
	5895.92	-0.18	WS	195	-4.68
Mg I			(log Mg/H = -4.53±0.16)		
	114702.99	-0.38	FW	84	-4.74
	154167.27	-0.79	JK	68	-4.48
	174986.73	-1.44	KX	28	-4.36
Mg II			(log Mg/H = -4.49±0.20)		
	44481.32	0.97	FW	403	-4.10
	53848.21	-1.59	WS	23	-4.66
	3850.39	-1.88	WM	19	-4.47
	94427.99	-1.21	WS	20	-4.45
	4433.98	-0.90	WS	34	-4.45
	104384.64	-0.79	WS	49	-4.41
	4390.58	-0.53	WS	60	-4.54
	194436.49	-0.89	KX	7	-4.42
	236545.94	0.04	KP	9	-4.87
Al I			(log Al/H = -5.28)		
	13944.01	-0.64	FW	146	-5.28
Al II			(log Al/H = -4.84±0.23)		
	24663.10	-0.28	FW	29	-5.09

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	37042.06	0.34	WS	32	-4.80
	7056.60	0.12	WS	30	-4.64
Si I		(log Si/H = -4.67±0.17)			
	95793.07	-1.48	WS	8	-4.44
	5797.86	-1.19	WS	8	-4.72
21.0	37423.49	-0.31	KX	26	-4.50
21.1	06237.32	-0.53	KP	9	-4.85
21.1	16254.18	-0.60	KP	17	-4.48
21.1	26155.13	-0.40	KP	13	-4.81
21.1	36142.49	-0.92	KP	6	-4.67
	6145.01	-0.82	KP	4	-4.91
42.0	28742.45	-0.63	KP	13	-4.63
Si II		(log Si/H = -4.34±0.22)			
	13853.66	-1.44	LA	83	-4.58
	3856.02	-0.49	LA	158	-4.67
	3862.59	-0.74	LA	133	-4.68
	26371.37	-0.07	LA	159	-4.07
	34128.07	0.38	LA	129	-4.28
	4130.89	0.53	LA	111	-4.59
3.0	14075.45	-1.40	LA	11	-4.36
	45957.56	-0.33	LA	40	-4.16
	5978.93	-0.03	LA	56	-4.18
7.0	54621.48	-0.54	LA	4	-4.30
	4621.72	-0.38	LA	6	-4.23
7.2	64190.72	0.00	KX	10	-4.04
S I		(log S/H = -4.50±0.18)			
	58679.62	-0.41	WS	20	-4.82
	68693.98	-0.51	WS	23	-4.64
	8694.62	0.08	WS	73	-4.54
	86743.58	-0.92	WS	8	-4.52
	6748.84	-0.60	WS	16	-4.50
	6757.16	-0.31	WS	26	-4.56
	106046.04	-1.03	KX	12	-4.23
	6052.66	-0.74	KX	19	-4.28
	218882.47	-0.25	WS	27	-4.44
S II		(log S/H = -4.06)			
	444162.70	0.78	WS	6	-4.06
Ca I		(log Ca/H = -5.84±0.18)			
	24226.73	0.24	FW	121	-5.91
	36102.72	-0.89	WS	11	-5.61
	6122.21	-0.40	WS	27	-5.62
	6162.17	-0.40	WS	34	-5.49
	44434.96	-0.03	FW	25	-6.00
	4435.69	-0.50	WS	14	-5.83
	4455.89	-0.53	FW	17	-5.70
	54283.01	-0.22	WS	21	-5.89
	4298.99	-0.41	WS	17	-5.81
	4302.53	0.28	FW	41	-6.01
	186439.07	0.47	WS	34	-5.94
	6462.56	0.31	WS	32	-5.82
	6493.81	0.14	WS	15	-6.07
	206169.05	-0.55	WS	7	-5.73
	6169.55	-0.27	WS	8	-5.98
	234578.55	-0.56	WS	3	-6.03
	4585.86	-0.19	WS	9	-5.98
	326717.68	-0.61	WS	9	-5.44

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	364526.93	-0.43	WS	5	-5.92
	485857.45	0.23	WS	14	-5.92
Ca II			(log Ca/H = -6.20)		
	28498.02	-1.31	KX	281	-6.20
Sc II			(log Sc/H = -9.89±0.14)		
	74246.83	0.24	LD	39	-10.06
	144374.45	-0.42	LD	13	-9.80
	4400.36	-0.53	LD	7	-9.98
	4415.56	-0.68	LD	6	-9.94
	154314.08	-0.09	LD	19	-9.93
	4320.73	-0.25	LD	25	-9.64
Ti I			(log Ti/H = -6.66±0.16)		
	45173.74	-1.12	MF	2	-6.54
	384981.73	0.50	MF	12	-6.83
	4991.07	0.38	MF	21	-6.46
	4999.50	0.25	MF	12	-6.62
	424533.23	0.48	MF	11	-6.87
	1574885.08	0.36	MF	3	-6.62
Ti II			(log Ti/H = -6.81±0.24)		
	113981.99	-2.53	KX	17	-7.21
	3987.61	-2.73	MF	17	-6.99
	4025.13	-1.98	MF	63	-6.93
	4056.19	-2.68	KX	16	-7.09
	123786.33	-2.03	MF	47	-7.08
	3813.39	-2.02	MF	67	-6.80
	133761.32	0.10	MF	166	-6.98
	174762.79	-2.71	MF	10	-7.03
	4798.52	-2.43	MF	19	-7.00
	184500.35	-3.09	KX	7	-6.78
	4518.33	-2.55	KX	18	-6.88
	194395.03	-0.66	MF	139	-6.67
	4443.80	-0.70	MF	140	-6.63
	4450.49	-1.45	MF	91	-6.78
	204287.89	-2.02	MF	76	-6.42
	4344.33	-2.09	MF	25	-7.15
	214161.54	-2.36	MF	45	-6.51
	4184.33	-2.46	KX	27	-6.73
	304506.74	-3.32	MF	4	-6.77
	4545.14	-2.78	KX	24	-6.47
	314468.49	-0.60	MF	143	-6.63
	4501.27	-0.75	MF	137	-6.62
	343882.28	-1.71	MF	40	-7.20
	3932.02	-1.78	MF	70	-6.68
	384636.34	-2.86	KX	4	-7.24
	394583.41	-2.72	MF	10	-6.95
	404441.73	-2.41	MF	25	-6.76
	4464.46	-2.08	MF	66	-6.46
	4470.86	-2.28	MF	33	-6.76
	414290.22	-1.12	MF	127	-6.37
	4301.93	-1.16	MF	106	-6.75
	4312.86	-1.16	MF	111	-6.63
	4320.99	-1.87	MF	40	-7.05
	4330.71	-2.04	MF	29	-7.05
	494708.65	-2.21	MF	21	-7.06
	504563.76	-0.96	MF	124	-6.60
	514394.06	-1.59	MF	51	-7.13
	4399.77	-1.27	MF	90	-6.86

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	514418.34	-2.40	MF	36	-6.54
	594657.20	-2.15	MF	18	-7.19
	4719.53	-3.22	KX	4	-6.87
	604544.02	-2.40	MF	14	-7.06
	4568.31	-2.65	MF	7	-7.13
	614395.85	-2.17	MF	39	-6.72
	4409.24	-2.29	KX	13	-7.21
	705154.06	-1.92	MF	52	-6.60
	5185.91	-1.35	MF	57	-6.88
	5188.68	-1.21	MF	100	-6.59
	715013.69	-1.94	KX	25	-7.02
	824529.46	-2.03	MF	57	-6.38
	865129.16	-1.39	MF	73	-6.61
	874028.33	-1.00	MF	90	-6.66
	4053.83	-1.21	MF	85	-6.52
	916491.56	-1.79	KX	21	-6.96
	924805.09	-1.10	MF	79	-6.70
	934421.95	-1.77	MF	28	-6.78
	944316.81	-1.42	MF	31	-7.08
	4330.24	-1.51	MF	23	-7.15
	1044386.84	-1.26	MF	46	-6.64
	1054163.64	-0.40	MF	116	-6.33
	4174.07	-1.25	MF	30	-6.91
	1064064.37	-1.61	KX	14	-6.92
	1135010.21	-1.34	KX	27	-6.59
	5072.29	-0.75	MF	51	-6.76
	1144874.01	-0.79	MF	27	-7.13
	1154411.08	-1.06	MF	43	-6.57
	4456.65	-1.41	KX	14	-6.83
	4488.32	-0.82	MF	61	-6.52
	H4158.27	-0.46	KX	6	-6.71
	4188.98	-0.58	KX	5	-6.76
V I	(log V/H = -7.59)				
	224379.23	0.58	MF	6	-7.59
V II	(log V/H = -7.32±0.18)				
	93997.12	-1.23	BG	63	-7.16
	4002.94	-1.45	BG	37	-7.36
	103916.42	-1.05	BG	69	-7.26
	3929.73	-1.59	BG	30	-7.34
	3951.97	-0.78	BG	75	-7.42
	113903.27	-0.89	MF	53	-7.63
	213718.16	-1.59	MF	20	-7.37
	254178.39	-1.56	BG	16	-7.57
	4202.35	-1.52	BG	42	-7.06
	4209.76	-1.94	KX	14	-7.26
	324005.71	-0.52	BG	96	-7.11
	4008.17	-2.07	BG	12	-7.12
	4023.39	-0.69	BG	75	-7.30
	4036.78	-1.59	BG	25	-7.42
	4051.05	-1.65	KX	15	-7.44
	333899.14	-0.78	BG	58	-7.46
	374225.22	-1.46	BG	27	-7.17
	4164.01	-2.10	KX	5	-7.34
	4183.44	-1.12	BG	44	-7.19
	564564.59	-1.39	BG	22	-7.22
	4605.34	-2.21	KX	6	-7.02
	976028.26	-2.14	KX	4	-7.12

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	1003787.24	-0.62	KX	36	-7.50
	1563847.32	-0.61	KX	19	-7.71
	1663815.38	-0.40	MF	43	-7.37
	2154053.59	-0.32	KX	12	-7.62
	2254278.19	-0.81	KX	9	-7.15
Cr I	(log Cr/H = -5.89±0.20)				
	14254.35	-0.11	MF	109	-5.67
	4274.80	-0.23	MF	80	-6.08
	4289.72	-0.36	MF	71	-6.08
	75206.04	0.02	MF	54	-6.16
	5208.42	0.16	MF	99	-5.58
	104545.95	-1.37	MF	7	-5.85
	214591.39	-1.74	MF	6	-5.54
	4600.74	-1.26	MF	10	-5.76
	4616.12	-1.19	MF	11	-5.83
	4626.28	-1.32	MF	4	-6.13
	4646.15	-0.70	MF	18	-6.03
	4641.28	-1.46	MF	7	-5.77
	4652.15	-1.03	MF	12	-5.93
	224371.26	-1.09	MF	17	-5.68
	233928.65	-1.22	MF	5	-6.14
	314789.32	-0.37	MF	6	-5.95
	334544.61	-0.58	MF	7	-5.66
	693857.63	-0.20	KX	6	-5.95
	814619.53	-0.59	MF	4	-5.58
	1383858.89	0.26	KX	9	-6.02
	1454737.33	-0.09	MF	3	-6.13
	1684801.02	-0.13	MF	4	-6.02
	1864664.80	-0.48	KX	3	-5.70
	4708.02	0.11	MF	4	-6.16
	4718.43	0.09	MF	6	-5.99
	1885791.00	0.32	KX	12	-5.82
	2334622.46	-0.04	MF	2	-6.03
	2484193.66	0.23	KX	7	-5.63
Cr II	(log Cr/H = -5.78±0.21)				
	184172.60	-2.36	KX	44	-5.99
	194054.10	-2.48	KX	28	-6.13
	4087.59	-3.22	MF	8	-6.05
	203754.57	-2.19	KX	57	-5.92
	245153.50	-2.70	KX	36	-5.39
	5210.86	-2.94	KX	16	-5.60
	264086.14	-2.42	KX	20	-5.99
	4132.41	-2.34	KX	35	-5.74
	4179.42	-1.77	KX	80	-5.57
	4207.35	-2.47	KX	11	-6.16
	4229.81	-3.32	KX	5	-5.70
	304812.34	-1.80	MF	43	-6.10
	4824.13	-1.22	MF	117	-5.48
	4836.23	-2.25	MF	48	-5.57
	4848.23	-1.14	MF	85	-6.13
	4856.19	-2.26	MF	23	-6.01
	4876.41	-1.46	KX	98	-5.60
	4884.57	-2.08	MF	30	-6.05
	314246.41	-3.22	KX	6	-5.67
	4252.62	-2.02	KX	54	-5.70
	4261.92	-1.53	KX	96	-5.50

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	314269.28	-2.17	KX	43	-5.72
	4275.58	-1.71	KX	72	-5.73
	4284.21	-1.86	KX	62	-5.74
	394539.62	-2.53	MF	30	-5.47
	4565.74	-2.11	MF	49	-5.57
	444555.02	-1.38	MF	78	-5.85
	4558.66	-0.66	MF	144	-5.37
	4588.22	-0.63	MF	122	-5.82
	4592.05	-1.22	MF	79	-6.00
	4616.63	-1.29	MF	77	-5.96
	4618.80	-1.11	MF	114	-5.48
	4634.07	-1.24	MF	103	-5.57
	1056053.48	-2.16	MF	18	-5.67
	6129.23	-2.44	MF	7	-5.83
	6147.15	-2.84	KX	5	-5.61
	1293911.32	-2.06	KX	15	-5.75
	1303866.00	-2.35	KX	10	-5.65
	1624145.77	-1.16	KX	54	-5.63
	1774697.60	-1.88	MF	7	-5.87
	1794362.92	-1.89	KX	9	-5.74
	1814127.07	-1.77	KX	12	-5.71
	1833979.50	-0.73	KX	40	-6.07
	4022.37	-2.02	KX	7	-5.71
	1876089.69	-1.26	KX	13	-5.61
	1904901.65	-0.83	KX	13	-6.10
	4912.49	-0.95	KX	12	-6.01
	1914465.77	-1.18	KX	8	-6.02
	1924268.88	-1.57	KX	10	-5.52
	1934049.10	-0.86	KX	20	-5.87
	1944003.28	-0.60	KX	30	-5.90
	4038.04	-0.56	KX	36	-5.82
	D4306.92	-1.18	KX	16	-6.04
	-3778.69	-2.20	KX	12	-5.65
Mn I	(log Mn/H = -6.28±0.25)				
	24030.78	-0.47	MF	77	-6.35
	4034.49	-0.81	MF	54	-6.37
	54018.10	-0.31	MF	18	-6.20
	4041.36	0.28	MF	48	-6.20
	4055.55	-0.07	MF	19	-6.37
	4079.24	-0.42	MF	17	-6.11
	4082.94	0.35	MF	8	-6.50
	4083.63	-0.25	MF	8	-6.64
	63809.59	-0.60	MF	16	-5.94
	3823.51	0.06	MF	14	-6.65
	164754.04	-0.09	MF	11	-6.57
	4783.43	0.04	MF	27	-6.24
	214765.85	-0.08	MF	8	-6.35
	4766.42	0.10	MF	12	-6.33
	234235.14	-0.26	KX	12	-5.96
	4235.30	0.17	MF	8	-6.61
	4257.67	-0.27	MF	3	-6.60
	4281.10	-0.42	MF	10	-5.88
	276016.64	-0.22	KX	13	-5.89
	6021.79	0.03	MF	13	-6.12
	284461.08	-0.38	MF	7	-6.00

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/N_T
Mn II		(log Mn/H = -6.07±0.17)			
	I3844.16	-1.38	KX	16	-6.14
	4205.39	-3.38	KX	19	-6.36
	4206.37	-1.57	KX	15	-6.07
	4244.25	-2.40	KX	4	-5.83
	4251.74	-1.06	KX	14	-6.13
	4259.20	-1.59	KX	16	-5.99
	4283.77	-2.20	KX	7	-5.82
	4326.64	-1.25	KX	22	-6.16
	4393.38	-2.32	KX	4	-5.83
	4478.64	-0.95	KX	11	-6.06
	54738.29	-2.24	KX	3	-6.12
	4764.73	-1.35	KX	15	-6.28
Fe I		(log Fe/H = -4.20±0.20)			
	24375.93	-3.03	MF	26	-4.24
	4427.31	-3.04	KX	31	-4.09
	4461.65	-3.21	MF	30	-3.92
	34206.70	-3.88	MF	5	-4.17
	4216.19	-3.36	MF	18	-4.09
	43856.37	-1.29	MF	111	-4.35
	3859.91	-0.71	MF	144	-4.18
	3899.71	-1.53	MF	93	-4.50
	3906.47	-2.24	MF	64	-4.27
	3920.25	-1.75	MF	91	-4.30
	3922.91	-1.65	MF	108	-4.08
	164994.13	-3.08	MF	13	-3.98
	5012.07	-2.64	MF	33	-3.96
	5051.64	-2.80	MF	22	-3.98
	5123.72	-3.07	MF	10	-4.05
	5127.36	-3.31	MF	12	-3.80
	5151.91	-3.32	MF	6	-4.01
	184152.17	-3.23	MF	3	-4.49
	194174.91	-2.97	MF	8	-4.24
	203820.43	0.12	MF	161	-4.17
	3849.97	-0.87	MF	98	-4.45
	3872.50	-0.93	MF	97	-4.43
	3878.02	-0.91	MF	104	-4.33
	3917.18	-2.16	MF	34	-4.25
	3940.88	-2.60	MF	12	-4.41
	213787.88	-0.86	MF	98	-4.45
	223786.68	-2.22	MF	19	-4.49
	3790.10	-1.76	MF	36	-4.60
	3850.82	-1.73	MF	61	-4.24
	3876.04	-2.82	MF	5	-4.59
	365171.59	-1.79	MF	45	-4.20
	394531.14	-2.15	MF	23	-4.23
	4602.94	-1.95	KX	19	-4.52
	4632.91	-2.91	MF	5	-4.12
	414367.91	-2.65	MF	7	-4.25
	4383.54	0.20	MF	149	-4.24
	4404.75	-0.14	MF	124	-4.38
	4415.12	-0.61	MF	98	-4.41
	424147.66	-2.10	MF	23	-4.25
	4202.02	-0.71	MF	108	-4.15
	4250.79	-0.71	MF	105	-4.18
	4271.76	-0.16	MF	142	-4.00

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
42	4325.75	-0.01	MF	143	-4.04
43	4005.25	-0.61	MF	111	-4.10
	4045.82	0.28	MF	151	-4.18
	4063.59	0.07	MF	142	-4.12
	4071.74	-0.02	MF	146	-3.90
	4132.06	-0.65	MF	112	-4.04
	4143.87	-0.45	MF	115	-4.21
45	3827.82	0.06	MF	121	-4.50
	3902.94	-0.47	MF	109	-4.27
62	6213.43	-2.66	MF	5	-4.01
	6335.33	-2.30	MF	12	-3.98
68	4407.71	-1.92	MF	23	-4.01
	4408.41	-1.71	MF	21	-4.26
	4430.62	-1.66	MF	23	-4.23
	4442.34	-1.26	MF	44	-4.26
	4447.72	-1.34	MF	43	-4.19
	4528.61	-0.82	MF	100	-3.83
72	3949.95	-1.20	MF	39	-4.38
	4001.66	-1.88	MF	15	-4.23
	4009.71	-1.20	MF	44	-4.28
73	3807.53	-1.06	MF	33	-4.59
	3816.34	-1.46	MF	24	-4.38
73	3852.57	-1.24	MF	39	-4.32
76	3760.53	-1.29	MF	21	-4.60
111	6421.35	-2.03	MF	13	-4.13
114	4924.77	-2.20	MF	16	-3.86
	5049.82	-1.42	MF	36	-4.20
115	4630.12	-2.60	MF	7	-3.88
152	3859.21	-0.68	MF	52	-4.54
	3873.76	-0.79	MF	43	-4.55
	4187.04	-0.55	MF	77	-4.28
	4187.79	-0.55	MF	103	-3.83
	4191.44	-0.74	KX	79	-4.05
	4198.30	-0.72	MF	89	-3.93
	4210.35	-0.87	MF	60	-4.21
	4222.22	-0.97	MF	50	-4.28
	4233.60	-0.60	MF	69	-4.34
	4235.94	-0.34	MF	71	-4.61
	4250.12	-0.40	MF	87	-4.27
	4271.16	-0.35	MF	82	-4.41
	4299.24	-0.46	KX	80	-4.36
162	6219.29	-2.43	MF	7	-4.13
168	6393.60	-1.62	MF	22	-4.18
	6484.98	-1.27	MF	43	-4.14
	6593.87	-2.42	MF	7	-3.95
169	6136.62	-1.40	MF	33	-4.17
	6191.56	-1.60	MF	31	-4.01
	6252.56	-1.69	MF	20	-4.18
172	8866.96	-0.06	KX	53	-4.07
175	3859.21	-0.68	MF	56	-4.48
	3873.76	-0.79	MF	43	-4.55
206	6575.02	-2.82	MF	3	-3.90
207	6065.48	-1.53	MF	24	-4.11
	6137.69	-1.40	MF	28	-4.17
	6230.73	-1.28	MF	31	-4.25
217	4067.28	-1.42	MF	16	-4.43

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
217	4078.36	-1.50	MF	22	-4.15
	4095.97	-1.40	MF	13	-4.54
221	3829.77	-1.99	MF	7	-4.27
	3867.92	-1.92	MF	8	-4.22
222	3808.73	-1.16	MF	25	-4.43
268	6546.25	-1.65	MF	19	-4.02
	6592.92	-1.60	MF	18	-4.13
273	4266.96	-1.68	MF	9	-4.37
278	3937.32	-1.45	MF	13	-4.39
	3956.68	-0.58	KX	68	-4.22
	3997.39	-0.39	MF	58	-4.54
278	4021.87	-0.66	MF	52	-4.34
279	3995.98	-1.45	MF	16	-4.27
280	3907.94	-1.11	MF	22	-4.44
284	3910.84	-1.59	MF	16	-4.11
287	3811.89	-1.29	MF	16	-4.41
289	3789.18	-1.27	MF	13	-4.57
318	4871.32	-0.41	MF	54	-4.55
	4872.14	-0.60	MF	41	-4.54
	4890.76	-0.43	MF	70	-4.28
	4891.49	-0.14	MF	106	-3.96
	4903.31	-1.08	MF	39	-4.11
	4918.99	-0.37	MF	81	-4.17
	4938.82	-1.17	KX	36	-4.06
	5006.12	-0.77	KX	53	-4.22
339	8757.19	-2.03	MF	17	-3.84
	8611.81	-1.90	MF	16	-4.02
342	6518.37	-2.75	MF	2	-3.88
350	4443.20	-1.02	MF	22	-4.48
	4454.38	-1.25	MF	18	-4.39
	4466.55	-0.59	MF	57	-4.32
351	4290.87	-2.07	MF	5	-4.13
352	4207.13	-1.46	MF	16	-4.21
	4226.43	-1.52	MF	13	-4.26
	4245.25	-1.17	MF	30	-4.16
354	4156.80	-0.62	MF	53	-4.34
	4175.64	-0.67	MF	49	-4.33
	4181.75	-0.18	MF	88	-4.20
355	4154.50	-0.48	KX	49	-4.53
	4184.89	-0.86	MF	39	-4.32
	4191.68	-1.42	MF	9	-4.53
	4203.98	-1.08	KX	37	-4.12
	4213.64	-1.29	MF	20	-4.28
356	4121.80	-1.30	MF	15	-4.41
357	4109.80	-0.91	MF	24	-4.55
	4114.44	-1.22	MF	11	-4.62
	4132.90	-0.92	MF	36	-4.31
	4134.68	-0.49	MF	46	-4.57
358	4085.01	-1.28	MF	15	-4.43
359	4044.61	-1.08	MF	29	-4.26
	4062.45	-0.78	MF	44	-4.29
	4079.85	-1.33	MF	14	-4.38
361	3964.51	-1.55	MF	11	-4.31
364	3909.83	-1.35	MF	18	-4.24
	3942.44	-0.98	MF	30	-4.34
	3925.65	-1.32	KX	30	-4.01

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
364	3925.95	-0.86	WW	50	-4.11
380	4920.50	0.06	MF	115	-4.02
381	4985.53	-1.51	KX	16	-4.20
383	5068.76	-1.23	MF	37	-3.95
	5191.45	-0.66	KX	71	-3.93
	5192.34	-0.52	KX	63	-4.23
401	8682.26	-1.99	KX	14	-3.90
409	4647.47	-1.32	MF	24	-4.11
	4691.41	-1.45	MF	16	-4.17
409	4710.28	-1.63	KX	8	-4.28
414	4304.54	-2.01	MF	5	-4.19
	4309.37	-1.18	MF	25	-4.20
422	4146.07	-1.84	MF	6	-4.20
423	4120.21	-1.17	MF	13	-4.51
424	4066.57	-1.61	MF	12	-4.09
429	3871.75	-0.78	MF	37	-4.34
	3897.44	-1.25	MF	10	-4.56
	3903.90	-0.70	MF	49	-4.20
430	3919.06	-1.10	MF	34	-4.06
	3944.89	-1.46	MF	12	-4.24
	3918.64	-0.74	KX	54	-4.06
	3953.15	-1.11	MF	22	-4.28
432	4248.22	-1.32	MF	16	-4.20
472	4464.76	-1.78	MF	7	-4.19
	4517.52	-1.84	MF	5	-4.28
476	4387.89	-1.47	MF	9	-4.35
476a	4182.38	-1.19	MF	19	-4.30
478	4273.87	-1.96	KX	4	-4.29
482	4220.34	-1.29	MF	12	-4.37
	4267.82	-1.35	KX	22	-3.89
488	3867.22	-0.42	MF	49	-4.45
	3955.96	-1.40	MF	10	-4.34
512	4369.77	-0.73	MF	32	-4.44
514	4514.19	-2.05	MF	4	-4.19
516	4436.93	-2.10	MF	6	-3.90
520	4298.03	-1.37	MF	10	-4.42
522	4199.10	0.25	MF	95	-4.36
523	4143.42	-0.47	KX	74	-4.02
524	4074.79	-0.97	MF	29	-4.24
526	3994.11	-1.47	MF	13	-4.18
527	3990.37	-1.45	MF	12	-4.24
	4017.16	-0.92	MF	36	-4.16
554	4613.20	-1.67	MF	11	-3.93
	4625.04	-1.34	MF	14	-4.19
	4668.13	-1.29	KX	14	-4.19
	4707.27	-1.08	MF	20	-4.24
	4736.77	-0.74	MF	27	-4.46
	4637.51	-1.39	MF	13	-4.15
558	4058.22	-1.07	KX	19	-4.29
	4076.64	-0.36	MF	43	-4.51
	4080.23	-1.22	MF	14	-4.25
559	4085.30	-0.71	MF	31	-4.36
561	3946.99	-0.95	MF	25	-4.24
562	3941.28	-1.01	MF	23	-4.21
	3948.10	-0.26	KX	41	-4.62
	3955.34	-1.01	MF	27	-4.11

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	5623957.03	-0.59	MF	31	-4.45
	5673925.20	-1.40	MF	12	-4.12
	5974285.44	-0.85	MF	17	-4.54
	6034006.31	-0.99	MF	22	-4.24
	6043948.77	-0.34	MF	54	-4.31
	3956.46	-0.26	MF	46	-4.53
	6063916.73	-0.52	KX	35	-4.45
	6404268.74	-1.46	MF	11	-4.13
	6494229.51	-1.79	KX	6	-4.06
	4242.73	-1.62	MF	6	-4.26
	6554031.97	-1.06	MF	12	-4.46
	3986.17	-0.85	KX	20	-4.45
	6613951.16	-0.38	MF	48	-4.35
	3985.39	-1.10	MF	10	-4.50
	6633883.28	-0.60	MF	25	-4.56
	6643846.80	0.01	MF	57	-4.62
	6673740.25	-0.58	MF	28	-4.50
	6874882.15	-1.64	MF	7	-4.11
	4910.01	-1.54	KX	17	-3.78
	4946.39	-1.17	MF	18	-4.13
	4950.11	-1.67	MF	11	-3.86
	6894168.61	-1.94	MF	5	-3.94
	4205.55	-1.32	MF	13	-4.10
	4224.18	-0.41	MF	51	-4.24
	6924264.21	-1.48	MF	4	-4.50
	6934196.20	-0.74	MF	35	-4.15
	4217.54	-0.51	MF	41	-4.26
	4225.45	-0.50	MF	40	-4.30
	6934247.42	-0.23	MF	65	-4.22
	6944087.09	-1.40	MF	12	-4.12
	4154.81	-0.37	MF	50	-4.30
	6954090.98	-1.76	MF	2	-4.50
	4126.18	-0.96	MF	22	-4.23
	4150.26	-1.26	MF	11	-4.24
	4153.91	-0.27	MF	61	-4.22
	4157.79	-0.56	KX	46	-4.15
	4158.79	-0.67	MF	32	-4.26
	6973821.18	0.30	MF	74	-4.62
	6984054.81	-1.01	KX	11	-4.50
	4063.28	-0.80	KX	45	-3.94
	4065.40	-1.32	MF	4	-4.61
	4084.50	-0.59	MF	35	-4.33
	7264136.99	-0.54	MF	44	-4.20
	7284003.76	-1.29	MF	12	-4.15
	7313806.20	-0.82	MF	19	-4.39
	7534789.65	-0.84	KX	15	-4.45
	7554547.85	-0.78	MF	21	-4.32
	7664059.71	-1.22	MF	10	-4.23
799a	4382.77	-1.44	MF	11	-3.96
	8004219.36	0.12	MF	69	-4.36
	8014118.55	0.28	MF	73	-4.45
	8024014.53	-0.20	MF	48	-4.38
	8043846.41	-0.43	MF	24	-4.54
	8166232.61	-1.27	KX	10	-4.16
	6246.33	-0.96	MF	21	-4.11
	6336.82	-1.05	MF	18	-4.05

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
816	6400.00	-0.52	MF	49	-4.01
	6408.03	-1.05	KX	14	-4.20
	6411.65	-0.82	MF	26	-4.10
820	4643.46	-1.29	MF	11	-4.08
	4673.16	-0.98	MF	12	-4.34
821	4619.29	-1.12	MF	13	-4.20
	4669.17	-1.41	MF	12	-3.92
	4678.84	-0.66	MF	29	-4.24
	4709.09	-1.08	KX	9	-4.38
822	4728.54	-1.44	KX	5	-4.26
826	4525.14	-0.34	KX	33	-4.47
	4611.28	-0.67	KX	24	-4.30
828	4401.29	-0.92	MF	25	-4.05
	4446.83	-1.33	MF	8	-4.14
	4484.21	-0.72	MF	25	-4.26
	4482.74	-1.35	MF	5	-4.35
830	4388.41	-0.59	MF	25	-4.39
	4433.22	-0.70	MF	15	-4.51
	4485.67	-1.02	MF	11	-4.32
	4469.37	-0.26	MF	42	-4.37
	4485.67	-1.02	MF	11	-4.32
849	4309.04	-1.10	MF	16	-4.08
883	4970.50	-1.70	MF	9	-3.79
894	4542.52	-2.04	MF	3	-3.96
906	4088.57	-1.53	MF	4	-4.26
	4246.08	-1.11	MF	17	-4.04
940	4492.67	-1.65	MF	5	-3.89
959	6003.03	-1.12	MF	11	-4.10
965	5014.95	-0.25	MF	41	-4.22
966	4885.43	-1.09	KX	9	-4.23
	4938.18	-0.99	KX	18	-3.96
982	5934.65	-1.17	MF	7	-4.28
	6008.57	-1.08	KX	12	-4.09
984	4973.10	-0.95	MF	22	-3.87
	4985.26	-0.48	KX	24	-4.31
	5005.71	-0.18	KX	44	-4.29
985	4900.39	-1.27	KX	6	-4.21
	4930.33	-1.35	MF	8	-3.97
1015	6157.73	-1.26	MF	7	-4.04
1018	6027.06	-1.21	MF	9	-3.96
	6165.36	-1.55	MF	3	-4.06
1032	5187.92	-1.26	MF	4	-4.24
1042	4735.84	-1.22	MF	8	-4.04
	4800.65	-1.26	MF	8	-3.95
	5195.48	0.00	KX	31	-4.47
1065	4933.34	-0.60	KX	21	-4.10
	4991.27	-0.67	MF	22	-4.02
1066	4886.33	-0.56	KX	12	-4.44
	4983.86	-0.07	KX	39	-4.34
	4969.92	-0.71	MF	15	-4.15
	4988.95	-0.89	MF	22	-3.82
1067	4967.89	-0.62	KX	22	-4.06
	4982.52	0.14	KX	47	-4.42
	4983.27	-0.16	KX	37	-4.24
1068	4835.87	-1.50	MF	6	-3.87
1069	4842.78	-1.56	MF	3	-4.21

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
107	04918.03	-1.36	MF	7	-3.85
107	77411.17	-0.43	KX	21	-4.17
	7445.78	-0.24	KX	35	-4.07
	7511.04	0.11	KX	60	-4.06
108	95162.92	0.02	MF	62	-4.09
109	05090.77	-0.40	MF	21	-4.27
	5137.39	-0.40	MF	49	-3.80
109	15159.07	-0.82	MF	10	-4.21
109	25067.16	-0.97	MF	13	-3.98
	5133.68	0.14	MF	65	-4.13
109	45065.01	-0.13	KX	55	-3.93
	5074.75	-0.20	MF	47	-4.02
109	55121.64	-0.71	MF	22	-3.93
109	74962.56	-1.29	MF	10	-3.80
110	75753.12	-0.76	MF	8	-4.39
	5762.99	-0.45	MF	27	-4.10
111	05027.77	-1.25	MF	11	-3.79
117	28439.60	-0.70	KX	21	-3.98
117	36843.67	-0.93	MF	9	-3.94
117	65816.36	-0.68	MF	12	-4.08
	6079.02	-1.12	MF	5	-4.01
117	86007.96	-0.97	KX	11	-3.78
	6020.17	-0.27	MF	27	-4.03
	6024.07	-0.12	MF	38	-3.99
118	05862.35	-0.06	KX	24	-4.35
	5930.17	-0.23	MF	29	-3.99
119	56828.61	-0.92	MF	9	-3.90
	6841.34	-0.75	MF	12	-3.95
	6855.17	-0.48	KX	11	-4.29
119	76633.76	-0.78	MF	12	-3.94
	6810.28	-1.12	MF	7	-3.86
125	86419.98	-0.24	MF	20	-4.15
125	96055.99	-0.46	MF	17	-4.09
	6078.49	-0.42	KX	18	-3.98
	6102.17	-0.63	KX	17	-3.78
126	05984.81	-0.34	KX	20	-4.04
	5987.06	-0.56	KX	17	-3.87
	6170.49	-0.44	MF	13	-4.11
126	78699.43	-0.36	KX	21	-4.06
126	86469.21	-0.77	MF	7	-4.02
Fe II		(log Fe/H = -4.11±0.19)			
	33938.29	-3.89	MF	89	-4.00
	3945.21	-4.25	MF	61	-4.07
	143783.35	-3.16	KX	84	-4.41
	224124.79	-4.20	MF	37	-3.97
	233779.58	-3.78	KX	44	-4.25
	254648.94	-4.51	KX	12	-4.29
	4670.18	-4.10	MF	33	-4.15
	264580.06	-3.65	KX	43	-4.43
	274128.74	-3.77	MF	53	-4.12
	4273.32	-3.34	MF	72	-4.20
	4303.17	-2.49	MF	126	-4.10
	4351.77	-2.10	MF	168	-3.78
	4385.38	-2.57	MF	114	-4.22
	4416.83	-2.60	MF	101	-4.42
	284087.27	-4.71	MF	6	-4.40

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
28	4178.86	-2.48	MF	138	-3.91
	4296.57	-3.01	MF	104	-3.99
	4369.40	-3.67	MF	48	-4.20
29	3824.93	-3.41	KX	55	-4.44
	3872.76	-3.31	KX	50	-4.54
	4002.08	-3.37	KX	44	-4.53
30	4833.19	-4.78	MF	8	-4.12
	4839.99	-4.90	MF	9	-3.98
31	4893.83	-4.45	MF	15	-4.08
32	4314.31	-3.47	KX	53	-4.37
	4384.33	-3.50	MF	66	-4.17
	4413.60	-3.87	MF	23	-4.52
37	4472.92	-3.43	MF	56	-4.27
	4489.18	-2.97	MF	100	-4.05
	4491.40	-2.70	MF	85	-4.56
	4515.34	-2.48	MF	114	-4.28
	4520.22	-2.60	MF	116	-4.12
	4555.89	-2.29	MF	138	-4.02
	4582.84	-3.10	MF	73	-4.35
	4629.34	-2.37	MF	133	-4.05
	4666.75	-3.33	MF	74	-4.12
38	4508.28	-2.21	MF	132	-4.22
	4522.63	-2.03	MF	147	-4.14
	4541.52	-3.05	MF	90	-4.13
	4576.33	-3.04	MF	85	-4.22
	4583.83	-2.02	MF	169	-3.84
	4595.68	-4.26	KX	7	-4.57
	4620.51	-3.28	MF	69	-4.24
39	4088.76	-4.82	KX	6	-4.07
	4138.40	-4.47	KX	4	-4.63
42	4923.93	-1.32	MF	195	-4.18
43	4601.34	-4.40	KX	11	-4.23
	4656.97	-3.63	MF	55	-4.07
	4731.44	-3.36	MF	52	-4.38
126	4046.81	-4.09	KX	4	-3.96
141	4147.26	-3.64	KX	10	-3.98
150	4138.21	-3.18	KX	26	-3.85
151	4031.44	-3.11	KX	19	-4.09
153	3814.12	-2.41	MF	39	-4.37
153	3827.08	-2.64	MF	42	-4.08
167	5160.85	-2.64	KX	26	-3.87
170	4610.59	-3.54	KX	2	-4.17
172	4041.64	-3.11	KX	7	-4.07
173	3906.04	-1.83	KX	48	-4.30
186	4549.21	-1.87	MF	41	-4.16
	4625.91	-2.22	KX	16	-4.32
	4635.33	-1.65	MF	60	-4.04
187	4446.24	-2.58	KX	9	-4.27
188	4111.88	-2.29	KX	8	-4.65
189	4061.78	-2.15	KX	11	-4.60
190	3938.97	-1.85	MF	46	-4.11
199	6331.95	-1.98	KX	30	-3.98
205	5074.05	-1.97	KX	9	-4.34
212	3960.90	-1.41	KX	13	-4.55
213	4354.34	-1.74	KX	12	-4.01
	4507.10	-1.87	KX	12	-3.79

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
2	18491	3.30	0.01	KX	20	-3.91
2	19463	1.90	-1.82	KX	4	-4.24
2	20431	8.22	-1.93	KX	4	-4.19
	4319.68	-1.69	KX	8	-4.13
	4321.34	-1.76	KX	7	-4.12
2	22443	1.64	-1.93	KX	4	-4.18
	4449.66	-1.60	KX	14	-3.90
	D3920.64	-1.20	KX	26	-4.23
	3922.04	-1.07	KX	4	-4.46
	4319.41	-2.11	KX	4	-4.15
	4418.98	-1.97	KX	4	-4.08
	G3924.84	-1.14	KX	6	-3.88
	J4263.90	-1.64	KX	15	-3.96
	4357.58	-2.10	KX	24	-4.18
	4361.25	-2.08	KX	12	-4.53
	4455.26	-1.99	KX	39	-3.89
	4480.69	-2.39	KX	21	-3.87
	4499.71	-1.76	KX	8	-4.14
	4579.52	-2.36	KX	19	-3.93
	4640.84	-1.81	KX	11	-3.92
	4824.83	-1.89	KX	2	-4.27
	4826.68	-0.44	KX	7	-4.02
	4908.15	-0.30	KX	5	-4.30
	4948.79	-0.01	KX	14	-4.04
	4951.58	0.18	KX	17	-4.16
	4977.03	0.04	KX	12	-4.16
	4977.92	-0.66	KX	5	-3.93
	4984.48	0.01	KX	17	-3.98
	4990.51	0.18	KX	17	-4.12
	4999.18	-0.48	KX	8	-3.88
	5004.20	0.50	KX	31	-4.12
	5007.74	-0.20	KX	10	-4.06
	5015.76	-0.05	KX	13	-4.06
	5018.44	-1.22	MF	222	-4.02
	5021.59	-0.30	KX	16	-3.70
	5030.63	0.39	KX	25	-4.13
	5032.71	0.11	MF	18	-3.99
	5035.71	0.61	KX	35	-4.12
	5045.11	-0.13	KX	14	-3.95
	5061.72	0.22	KX	16	-4.23
	5067.89	-0.20	KX	13	-3.91
	5075.76	0.28	KX	17	-4.17
	5076.61	-0.71	KX	7	-3.70
	5089.21	-0.04	KX	11	-4.15
	5093.58	0.11	KX	19	-3.94
	5106.11	-0.19	KX	11	-3.99
	5117.01	-0.13	KX	9	-4.07
	5113.00	-0.50	KX	7	-3.86
	5127.86	-2.53	KX	29	-3.91
	5132.66	-4.18	MF	26	-4.06
	5144.36	0.28	KX	17	-4.13
	5149.46	0.40	KX	23	-4.09
	5150.49	-0.12	KX	10	-4.03
	5154.40	-4.14	KX	16	-4.34
	5166.56	-0.03	KX	7	-4.33
	5169.03	-0.87	MF	207	-4.54

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
J	5170.78	-0.36	KX	8	-3.91
	5172.99	-2.46	KX	8	-4.45
	5177.02	-0.18	KX	8	-4.12
	5178.37	-0.59	KX	3	-4.21
	5180.31	0.04	KX	8	-4.30
	5186.87	-0.30	KX	5	-4.18
	5197.56	-2.10	MF	131	-4.14
	5199.12	0.10	KX	13	-4.16
	5200.81	-0.37	KX	7	-4.01
	5203.64	-0.05	KX	16	-3.89
	5726.56	-0.12	KX	8	-3.92
	5746.58	-0.37	KX	5	-3.88
	5747.90	-2.91	KX	14	-3.90
	5780.12	0.32	KX	20	-3.85
	5783.63	0.21	KX	14	-3.93
	5823.15	-3.07	MF	13	-3.77
	5835.49	-2.37	KX	12	-4.30
	5842.30	-0.21	KX	5	-4.00
	5885.02	0.32	KX	11	-4.11
	5891.33	-2.03	KX	14	-3.72
	5902.82	0.42	KX	15	-4.09
	5952.51	-2.03	KX	25	-4.21
	5955.70	0.23	KX	15	-3.88
	5961.71	0.70	KX	20	-4.22
	5965.62	0.07	KX	8	-4.06
	5991.37	-3.56	KX	44	-4.13
	6017.89	-1.95	KX	8	-3.74
	6045.46	-2.42	KX	8	-4.25
	6049.45	-0.42	KX	5	-3.80
	6084.11	-3.81	KX	31	-4.08
	6147.77	-2.72	KX	69	-4.10
	6149.25	-2.72	KX	67	-4.14
	6175.14	-1.98	KX	31	-3.97
	6179.39	-2.60	KX	15	-4.16
	6199.18	-3.19	KX	7	-3.92
	6233.53	-2.94	KX	10	-4.05
	6238.39	-2.63	KX	76	-4.09
	6247.55	-2.33	KX	115	-3.78
	6248.89	-2.70	KX	17	-4.01
	6357.16	0.17	KX	7	-4.02
	6369.46	-4.25	KX	21	-4.05
	6383.72	-2.27	KX	28	-4.15
	6415.55	-1.69	KX	5	-3.71
	6416.92	-2.74	KX	64	-4.15
	6432.68	-3.71	KX	52	-4.02
	6433.82	-2.47	KX	8	-4.16
	6442.94	-2.88	KX	15	-3.90
	6456.40	-2.07	KX	24	-4.02
	6482.20	-2.27	KX	35	-3.57
	6491.25	-2.79	KX	10	-4.15
	6493.04	-2.58	KX	17	-4.09
	6510.73	-0.42	KX	4	-3.66
	6516.08	-3.45	KX	77	-3.92
	6518.74	0.35	KX	4	-4.41
	6548.39	0.21	KX	7	-3.97
	6586.70	-2.78	KX	8	-4.27

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
	J6627.24	-1.61	KX	13	-4.12
	6862.51	0.68	KX	7	-4.30
	7449.33	-3.31	KX	32	-4.07
	7462.39	-2.73	KX	77	-3.93
	7783.02	0.06	KX	4	-3.97
	6239.95	-3.44	KX	26	-4.09
	7479.69	-3.59	KX	11	-4.38
Co I	(log Co/H = -6.52±0.16)				
	183878.12	-0.66	MF	24	-6.51
	3873.96	-0.87	MF	11	-6.64
	284118.77	-0.49	MF	12	-6.65
	4121.31	-0.32	MF	21	-6.63
	294092.38	-0.94	MF	13	-6.26
	313995.31	-0.22	MF	35	-6.42
	343845.46	0.01	MF	28	-6.78
Ni I	(log Ni/H = -5.07±0.23)				
	323858.30	-0.97	MF	93	-5.23
	333807.14	-1.18	MF	66	-5.48
	436643.64	-2.30	MF	12	-4.70
	495102.97	-2.62	MF	5	-4.83
	524331.64	-2.10	MF	6	-5.19
	864284.67	-1.37	KX	5	-5.01
	4462.46	-0.60	MF	15	-5.13
	4470.47	-0.40	MF	24	-5.13
	984604.98	-0.29	MF	28	-5.10
	4648.66	-0.16	MF	41	-5.05
	4686.21	-0.64	MF	13	-5.10
	4714.41	0.23	MF	50	-5.32
	4715.76	-0.34	MF	17	-5.28
	1004606.22	-1.00	MF	6	-5.08
	1024463.42	-1.58	KX	5	-4.65
	1114873.44	-0.47	KX	9	-5.35
	4998.23	-0.78	MF	16	-4.84
	5012.46	-0.54	MF	18	-4.97
	1124980.16	-0.11	MF	37	-5.05
	1144937.34	-0.39	MF	20	-5.14
	1173908.93	-0.57	KX	12	-5.16
	1294904.41	-0.17	MF	30	-5.15
	1304852.56	-1.07	MF	3	-5.42
	4855.41	0.00	MF	21	-5.51
	1314829.03	-0.33	MF	26	-5.08
	5042.19	-0.58	MF	15	-5.06
	1324913.97	-0.63	MF	15	-4.93
	1334703.80	-0.74	KX	8	-5.16
	1364231.04	-1.42	KX	5	-4.76
	1414925.58	-0.82	MF	18	-4.72
	5099.32	-0.85	KX	14	-4.83
	1435035.37	0.29	MF	59	-5.07
	5080.53	0.13	MF	40	-5.21
	1444996.85	-0.98	MF	11	-4.80
	1454945.46	-0.82	MF	17	-4.66
	5000.34	-0.43	MF	18	-5.11
	1464547.22	-1.20	KX	3	-5.15
	1604808.86	-1.41	MF	3	-4.98
	1615099.95	-0.10	MF	28	-5.18
	5142.77	-0.23	KX	32	-4.95

Table 6: cont.

Mult.	$\lambda(\AA)$	log gf	Ref.	W_λ	log N/H
162	5084.08	0.03	MF	39	-5.15
	5146.48	0.12	KX	31	-5.33
163	4667.76	-1.01	KX	5	-5.10
177	4918.36	-0.24	MF	26	-4.97
	4935.83	-0.35	MF	14	-5.12
178	4295.88	-0.48	MF	11	-5.16
181	3863.07	-0.39	KX	9	-5.35
193	4930.82	-1.66	KX	2	-4.73
194	5081.11	0.30	MF	28	-5.47
202	5179.14	-1.47	MF	4	-4.65
206	5155.14	-0.65	MF	8	-5.10
207	7797.62	-0.26	KX	8	-5.50
210	5155.76	-0.09	MF	25	-5.13
228	6176.81	-0.53	MF	17	-4.75
230	6111.07	-0.87	MF	3	-5.17
231	5760.85	-0.80	MF	5	-5.05
234	5805.23	-0.64	MF	8	-4.98
235	4732.46	-0.55	MF	3	-5.51
249	6086.29	-0.53	MF	10	-4.92
254	4817.85	-0.77	MF	5	-5.03
261	4546.93	-0.27	KX	20	-4.89
264	6635.15	-0.82	MF	7	-4.65
Ni II		(log Ni/H = -4.84±0.19)			
9	4244.80	-3.11	KX	40	-4.65
	4362.10	-2.72	KX	43	-4.99
10	4192.07	-3.05	KX	35	-4.80
11	3849.58	-1.88	KX	85	-5.11
12	4015.50	-2.42	KX	83	-4.64
Cu II		(log Cu/H = -6.74)			
	25105.54 -	1.52	KX	13	-6.74
Zn I		(log Zn/H = -6.77±0.25)			
2	4680.14	-0.82	KX	10	-6.76
	4722.15	-0.34	KX	12	-7.17
	4810.53	-0.14	KX	41	-6.66
6	6362.35	0.15	KX	13	-6.50
Sr II		(log Sr/H= -7.93±0.21)			
1	4077.71	0.15	WM1	96	-7.90
	4215.52	-0.17	WM1	93	-7.69
3	4161.79	-0.5	KX	38	-8.20
Y II		(log Y/H = -9.04±0.12)			
1	4204.69	-1.76	HL	9	-9.08
5	4358.73	-1.32	HL	26	-8.90
	4398.02	-1.00	HL	31	-9.10
6	3950.35	-0.49	HL	63	-9.06
	3982.59	-0.49	HL	51	-9.24
	4309.62	-0.75	HL	42	-9.13
7	3788.69	-0.07	HL	76	-9.23
	3818.34	-0.97	HL	35	-9.01
12	4682.32	-1.51	HL	8	-9.15
20	4982.13	-1.29	HL	7	-9.04
	5087.42	-0.17	HL	56	-8.94
	5119.11	-1.36	HL	8	-8.90
	5200.41	-0.57	HL	31	-9.01
	5205.72	-0.34	HL	57	-8.80
22	4883.68	-0.07	HL	64	-9.04