

Final Central Detector Filling Status 7/20/98

Scint.	AL [m] 440 nm	Light yield Ref. NE	Gd loading Ref. NE	Date blended	Date filled	Tank	Ma- trix	Mass [kg]	PMT Near	PMT Far
Bicron 1 (PE) 8/14/97	5.3 3.7	0.99±0.01	1.04±0.03	6/18/97	6/25/97	17	8	~177	29	32
NE 1 (bl PE 3) ¹ CIT 7/15/97	7.5 6.5	1.04±0.01	0.99±0.03	7/15/97	7/17/97	49	9	175.2 ±0.3	45	55
NE 2 (bl PE 3) ^{1,2} CIT 8/4/97 10/17/97	8.5 7.1 -	1.05±0.01	0.89±0.03 1.00±0.03	8/4/97	8/5/97	7	22	172.3 171.3	223	98
Bicron 2 (SS) ⁵ 6/27/97 10/17/97	3.5 5.1 2.8	1.00±0.01	1.04±0.03	6/18/97	8/5/97	50	11	172.6 171.6	141	224
NE 3 (bl PE 4) ¹ CIT 8/5/97	6.9 7.3	1.04±0.01	1.00±0.03	8/5/97	8/5/97	6	21	172.0	148	92
NE 4 (bl PE 2) ¹ CIT 8/5/97 10/17/97	9.1 (8.0)	No sample		8/7/97	8/9/97	5	20	170.2 169.2	131	202
NE 5 (PE) ¹ CIT 8/8/97	9.4	No sample		8/8/97	8/9/97	52	10	177.6	19	101
NE 6 (SS) ¹ CIT 8/11/97 10/17/97	8.3 8.6 -	1.05±0.01	1.04±0.03	8/11/97	8/14/97	11	32	176.4 175.4	110	191
NE 7 (bl PE 3) ¹ CIT 8/12/97 10/17/97	9.1 8.8 9.3	1.04±0.01	1.03±0.03	8/12/97	8/14/97	51	31	175.8 174.8	79	235
NE 8 (bl PE) ¹ CIT 8/13/97	8.1 9.2	1.03±0.01	1.03±0.03	8/13/97	8/14/97	60	33	174.4	232	7
Bicron 3 (PE) ⁵ MB-13-35B1X 10/17/97	3.5 2.8			8/18/97	8/30/97	53	19	172.8 171.8	236	240
Bicron 4 (PE) ⁵ MB-13-34A2X	3.6			8/15/97	8/30/97	12	30	175.2	182	207
Bicron 5 Oxide (CIT) 2/9/98 2/10/98 2/22/98 3/20/98 5/14/98 5/27/98	11.5 10.6 7.7 _{unfilt} 8.5 _{filt} 8.5 _{unfilt} 8.4 (6.7) 7.2	1.03±0.05	1.04±0.03	10/20/97	10/22/97	18	44	172.9 171.9 170.9 170.2 169.2 168.2	61	189
Bicron 6 Nitrate (CIT) 2/9/98 2/22/98 3/20/98 5/14/98	12.0 9.9 8.9 9.1 _{unfilt} 9.6 9.3	1.03±0.05	1.03±0.03	10/21/97	10/22/97	14	43	174.2 173.2 172.2 171.5 170.5	126	139

Scint.	AL [m] 440 nm	Light yield Ref. NE	Gd loading Ref. NE	Date blended	Date filled	Tank	Ma- trix	Mass [kg]	PMT Near	PMT Far
Bicron 7 MB-121297-01 ³ 2/20/98 3/20/98 5/14/98 7/2/98	12.4 10.1 8.8 7.9 6.3		1.03±0.03	1/8/98	1/8/98	19	42	174.8 173.6 172.8 171.8 170.8	201	85
Bicron 8 MB-122397-02 ² 2/20/98 3/20/98 5/14/98 7/2/98	13.8 11.3 10.7 9.9 8.3		1.05±0.03	1/9/98	1/9/98	1	41	178.4 177.2 176.5 175.6 174.6	220	193
Bicron 9 MB-121297-01	10.0	0.99 ± 0.02	0.98 ± 0.04	1/14/98	1/14/98	2	7	176.1	211	196
Bicron 10 MB-121297-01	11.1			1/14/98	1/14/98	20	18	166.9	214	199
Bicron 11 MB-121297-01	10.2			1/15/98	1/15/98	65	29	173.2	130	166
Bicron 12 MB-121297-01	12.0			1/16/98	1/16/98	8	40	175.7	226	42
Bicron 13 MB-122397-02	10.1	1.02 ± 0.02	0.95 ± 0.04	1/17/98	1/17/98	62	17	175.4	109	152
Bicron 14 MB-122397-02	10.4			1/18/98	1/18/98	55	28	174.9	128	21
Bicron 15 MB-122397-02	11.4			1/19/98	1/19/98	10	39	173.5	41	156
Bicron 16 MB-122397-02	11.5			1/19/98	1/19/98	32	55	174.1	124	149
Bicron 17 MB-12898-03 ¹	10.7	1.02 ± 0.02	0.96 ± 0.04	3/25/98	3/25/98	70	6	171.7	80	219
Bicron 18 MB-12898-03	11.7			3/26/98	3/26/98	15	5	176.1	46	185
Bicron 19 MB-12898-03	10.5			3/26/98	3/26/98	58	16	171.0	171	150
Bicron 20 MB-12898-03	11.0			3/27/98	3/27/98	66	27	170.7	142	169
Bicron 21 MB-12898-03				3/30/98	3/30/98	21	38	172.4	64	38
Bicron 22 MB-20998-04 ³		1.00 ± 0.02	1.03 ± 0.04	3/30/98	3/30/98	36	49	172.9	13	244
Bicron 23 MB-20998-04				3/31/98	3/31/98	35	50	171.5	233	177
Bicron 24 MB-20998-04				3/31/98	3/31/98	40	51	173.5	280	278
Bicron 25 MB-20998-04	11.9			4/1/98	4/1/98	39	52	171.0	271	218
Bicron 26 MB-20998-04				4/1/98	4/1/98	38	53	172.7	304	279

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Bicron 27 MB-21998-05 ³		1.00 ± 0.02	1.00 ± 0.04	4/2/98	4/2/98	29	54	170.9	100	67
Bicron 28 MB-21998-05				4/2/98	4/2/98	15	4	172.8	26	121
Bicron 29 MB-21998-05				4/3/98	4/3/98	64	15	172.8	172	205
Bicron 30 MB-21998-05	13.9			4/3/98	4/3/98	22	26	172.3	146	157
Bicron 31 MB-21998-05				4/4/98	4/4/98	33	37	169.8	114	206
Bicron 32 MB-32798-07 ³		1.02 ± 0.02	1.01 ± 0.04	4/13/98	4/13/98	37	48	170.2	91	284
Bicron 33 MB-32798-07				4/14/98	4/14/98	16	3	171.1	153	134
Bicron 34 MB-32798-07				4/14/98	4/14/98	59	14	169.7	48	89
Bicron 35 MB-32798-07	11.0			4/15/98	4/15/98	24	25	170.2	51	124
Bicron 36 MB-32798-07				4/15/98	4/15/98	34	36	170.1	138	184
Bicron 37 ⁴ MB-32898-08 ³		1.00 ± 0.02	1.01 ± 0.04	4/16/98	4/16/98	45	47	170.9	154	251
Bicron 38 MB-32898-08				4/16/98	4/16/98	65	2	169.7	147	228
Bicron 39 MB-32898-08				4/17/98	4/17/98	57	13	172.6	35	79
Bicron 40 MB-32898-08	10.3			4/29/98	4/29/98	25	24	171.3	10	24
Bicron 41 MB-32898-08				4/29/98	4/29/98	31	35	170.6	192	84
Bicron 42 ⁴ MB-41798-09 ³		1.01 ± 0.02	1.07 ± 0.03	4/30/98	4/30/98	25	46	170.8	365	93
Bicron 43 MB-41798-09				4/30/98	4/30/98	54	1	171.4	86	281
Bicron 44 MB-41798-09				5/1/98	5/1/98	56	12	165.8	59	63
Bicron 45 MB-41798-09	13.1			5/4/98	5/4/98	9	23	171.2	136	125
Bicron 46 MB-41798-09				5/5/98	5/5/98	30	34	171.5	65	143

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Bicron 47 ⁴ MB-12198-10 ^{3,6}		1.02 ± 0.02	0.99 ± 0.03	5/5/98	5/5/98	46	45	169.5	399	186
Bicron 48 MB-12198-10				5/6/98	5/6/98	48	63	169.8	261	1
Bicron 49 MB-12198-10	11.6			5/6/98	5/6/98	41	62	170.5	364	397
Bicron 50 MB-12198-10				5/7/98	5/7/98	44	61	171.3	396	275
Bicron 51 MB-52098-11 ³				6/19/98	6/19/98	43	56	167.4	391	384
Bicron 52 MB-52098-11	11.8	0.97 ± 0.02	0.96 ± 0.03	6/23/98	6/23/98	26	57	172.2	18	3
Bicron 53 MB-52098-11				6/23/98	6/23/98	27	58	169.7	320	331
Bicron 54 MB-52098-11				6/23/98	6/23/98	28	59	171.8	56	5
Bicron 55 MB-52098-11				6/24/98	6/24/98	69	60	166.9	148	23
Bicron 56 MB-52098-12N ¹	12.6	0.96 ± 0.02	0.99 ± 0.03	6/24/98	6/24/98	42	64	172.5	330	264
Bicron 57 MB-52098-12N				6/24/98	6/24/98	61	65	174.3	133	238
Bicron 58 MB-52098-12N				6/25/98	6/25/98	47	66	171.3	266	277
Bicron 59 MB-52098-12N				6/26/98	6/26/98	50	11	171.4	141	224
Bicron 60 MB-52098-12N				6/26/98	6/26/98	12	30	173.4	182	207
Bicron 61 ⁴ MB-52098-12N ¹	11.6	0.95 ± 0.02	0.97 ± 0.03	6/26/98	6/26/98	53	19	171.1	236	240

¹ Gd compound synthesized from Gd(NO₃)₃.

² No water added. White precipitate found in returned transport drum.

³ Gd compound synthesized from Gd₂O₃.

⁴ Mixed with left-over of previous batch of concentrate.

⁵ Replaced 6/26/98.

⁶ Needed 4 filters per batch. Last batch not blended.

Bicron gives the light yield of the scintillator as 42% anthracene.

11343.1 kg of Gd loaded scintillator in 66 cells.