SciFi Analysis Summary (Last Upd:01.02.23 11:00JST)

MC	Nov97.5%	Eff:	Nov99%	Eff:		Eff:	Jun97.5%	Eff:
Total	161981		161981				79781.98	
MUC–3D	24884	0.15362	25260	0.15594			10083.54	0.12639
LG	11989	0.07401	11898	0.07345				
1st Layer	3323	0.02051	3430	0.02118				
2D–Rec	411	0.00254	413	0.00255	Test			

Month	Jun	Nov	Jan	Feb	March	May	Jun	Nov–00Jun	Jan(Prelim.)
Runs	125	201	275			63	91	630	
Good Runs	77	28	68	51	83			230	
Subruns	937	1179	2210			583	786	4758	
Good Subruns	607	373	462	738	719	565	711	3568	
Spills	818158	977399	482426	774344	668392	518029	695891	4116481	592572
Good Spills (SF)	463891	328970	331258	661901	594197	466828	595061	2978215	447236
Good Spills (SK)	651294	728041	425664	768267	667057	475139	688718	3752886	
POT	2.2716E18	1.6181E18	1.7292E18	3.4795E18	3.3039E18	2.5115E18	3.2442E18	1.58863E19	2.18100E18
CT16sum(SK)	3.0972E18	3.5666E18	2.2193E18	4.0426E18	3.7047E18	2.5557E18	3.7534E18	1.98422E19	2.48000E18

MUC 3D:	292	261	289	592	551	421	518	2632	346
LG:	179	161	153	317	294	231	333	1489	218
First:	68	44	45	80	87	50	73	379	87
2D–Rec:	22	18	20	33	31	40	40	182	

MUC 3D Total: 2924 Events

MUC 3D(expected):	328.55	293.67	313.84	631.51	599.63	455.82	588.8	2883.27	395.84
LG(expected):	0	140.41	150.06	301.95	286.71	217.95	281.53	1378.60	
First(expected):	0	40.48	43.26	87.05	82.65	62.83	81.16	397.43	
2D–Rec(expected):	0	4.87	5.21	10.48	9.95	7.57	9.77	47.85	

Data/MC	0.889	0.889	0.921	0.937	0.919	0.924	0.880	0.913	0.874
Stat	.052	.055	.054	.039	.039	.045	.039	.018	.047
Syst(+)	.098	.082	.085	.087	.085	.085	.081	.084	.081
Syst(–)	.111	.093	.096	.098	.096	.096	.092	.095	.091
Data/MC(LG)	Err:503	1.15	1.02	1.05	1.03	1.06	1.18	1.08	
	Err:503	+– .09 (Stat)	+– .08 (Stat)	+– .06 (Stat)	+– .06 (Stat)	+– .07 (Stat)	+– .06 (Stat)	+– .03 (Stat)	
Data/MC(1L)	Err:503	1.09	1.04	0.92	1.05	0.8	0.9	0.95	
	Err:503	+– .16 (Stat)	+– .16 (Stat)	+– .1 (Stat)	+– .11 (Stat)	+– .11 (Stat)	+– .11 (Stat)	+– .05 (Stat)	
Data/MC(2D)	Err:503	3.69	3.84	3.15	3.11	5.29	4.09	3.8	
	Err:503	+– .87 (Stat)	+– .86 (Stat)	+– .55 (Stat)	+– .56 (Stat)	+– .84 (Stat)	+– .65 (Stat)	+– .28 (Stat)	
SK Expected	4.82	5.68	3.66	6.79	6.10	4.23	5.92	32.40	3.89
Stat	0.28	0.35	0.22	0.28	0.26	0.21	0.26	0.63	0.21
Syst(+)	0.86	0.64	0.41	0.76	0.69	0.48	0.67	3.65	0.44
Syst(–)	0.78	0.74	0.48	0.88	0.79	0.55	0.77	4.22	0.51
Error all (+)	0.90	0.73	0.47	0.81	0.73	0.52	0.72	3.70	0.48
(–)	0.83	0.82	0.52	0.93	0.84	0.59	0.81	4.26	0.55
(SciFi Only)	+ .6 (A)	+ .63 (A)	+ .4 (A)	+ .69 (A)	+ .62 (A)	+ .44 (A)	+ .61 (A)	+ 3.06 (A)	
	– .66 (A)	– .69 (A)	– .44 (A)	– .76 (A)	– .69 (A)	– .49 (A)	– .67 (A)	– 3.44 (A)	
Common	+ .67 (B)	+ .37 (B)	+ .24 (B)	+ .44 (B)	+ .39 (B)	+ .27 (B)	+ .38 (B)	+ 2.08 (B)	
	– .5 (B)	– .44 (B)	– .28 (B)	– .53 (B)	– .47 (B)	– .33 (B)	– .46 (B)	– 2.52 (B)	
			SK Expected total:		**37.219**	**±.688 st**	**+4.505sys**	**–4.995sys**	
						+ 4.558	**– 5.042**		
			Event Reduction Summary						
Run From	1139	2002	2219	2333	2417	2526	2589	2002	3001
Run To	1276	2213	2323	2416	2525	2588	2688	2688	3072
Reprocessed Data	156747	214569	134358	224322	201952	153757	207025	1135983	501513
Fiducial	7035	16531	11344	18336	18496	15577	21904	102188	33756

VETM	2192	2597	1870	3135	2901	2245	3061	15809	1874
GoodSpil	1581	1319	1315	2677	2598	2023	2638	12570	
VETM–UPS	1117	981	969	2022	1936	1505	1947	9360	1416
LGM	739	601	640	1259	1187	973	1228	5888	1193
Spectrum	563	487	511	1037	980	751	985	4751	772
ThroughG	561	484	507	1022	964	741	963	4681	758
MUC 3D:	292	261	289	592	551	421	518	2632	346
LG:	179	161	153	317	294	231	333	1489	218
First:	68	44	45	80	87	50	73	379	87
2D–Rec:	22	18	20	33	31	40	40	182	

MC–N41.Dec00	**Nov(99%)**	**/All**	**Nov(97.5%)**	**/All**	**Jun(99%)**	**/All**	**Jun(97.5%)**	**/All**
All	161981	1.0000	161981	1.0000			82583	1.0000
Fiducial	84465	0.5215	84465	0.5215			39115	0.4736
VETM	76000	0.4692	76000	0.4692			34268	0.4150
VETM–UPS	74876	0.4623	74876	0.4623			33719	0.4083
LGM	51660	0.3189	51660	0.3189			22944	0.2778
Spectrum	43687	0.2697	43270	0.2671			19106	0.2314
DrainedTube	41017	0.2532	40624	0.2508			18400	0.2228
ThroughG	41001	0.2531	40607	0.2507			18393	0.2227
MUC 3D:	25260	0.1559	24884	0.1536			10958	0.1327
LG:	11898	0.0735	11989	0.0740			5719	0.0693
First:	3430	0.0212	3323	0.0205			1536	0.0186
2D–Rec:	413	0.0025	411	0.0025			180	0.0022

MC–MU 99%(Bug)	**Nov(N4.0)**	**/All**	**Nov(N4.1)**	**/All**	**Jun(N4.0)**	**/All**	**Jun(N4.1)**	**/All**
All	89157	1.000	161866	1.000	66657	1.000	66499	1.000
Fiducial	48023	0.539	84318	0.521	32148	0.482	31165	0.469
VETM	42917	0.481	75851	0.469	28346	0.425	27216	0.409
VETM–UPS	42303	0.474	74804	0.462	27948	0.419	26808	0.403
LGM	29238	0.328	51551	0.318	20623	0.309	18232	0.274
Spectrum	24174	0.271	43076	0.266	15858	0.238	14948	0.225

ThroughG	24165	0.271	43053	0.266	15856	0.238	14945	0.225
MUC 3D:	14370	0.161	25802	0.159	9304	0.140	8716	0.131
LG:	7599	0.085	13288	0.082	5107	0.077	4868	0.073
First:	1962	0.022	3565	0.022	1295	0.019	1229	0.018
2D–Rec:	234	0.003	398	0.002	150	0.002	132	0.002
Drained Tube Cut	Nov(N4.0)	/All	Nov(N4.1)	/All	Jun(N4.0)	/All	Jun(N4.1)	/All
Spectrum	24174	.2711	43076	0.2661	15858	.2379	14948	0.2248
DrainedTube	22731	.255	40448	0.2499	15305	.2296	14425	0.2169
ThroughG	22722	.2549	40424	0.2497	15303	.2296	14422	0.2169
MUC 3D:	13543	.1519	24241	0.1498	8988	.1348	8393	0.1262
LG:	7128	.0799	12470	0.0770	4924	.0739	4714	0.0709
First:	1831	.0205	3337	0.0206	1241	.0186	1187	0.0178
2D–Rec:	220	.0025	376	0.0023	150	.0023	128	0.0019
MC	NovNeut4.0	Eff:	Neut4.1	Eff:	JunNeut4.0	Eff:	Neut4.1	Eff:
Total	89157		161866		61186.17		64243.51	
MUC–3D	13543	0.15190	24241	0.14965	7780.27	0.12716	7717.23	0.09673
LG	7128	0.07995	12470	0.07698	4514.88	0.07379	4568.24	0.05726
1st Layer	1831	0.02054	3337	0.02060	1150.59	0.01880	1151.12	0.01443
2D–Rec	220	0.00247	376	0.00232	128.83	0.00211	118.05	0.00148
MC True Fid C(M99,bug)			Nov(N4.1)	/TruFid			Jun(N4.1)	/TruFid
All			161866	1.371			66499	1.374
MC True Fiducial			118073	1.000			48415	1.000
Drained Tube			111848	0.947			46949	0.970
Fiducial			72798	0.617			28027	0.579
VETM			66718	0.565			25134	0.519
VETM–UPS			65770	0.557			24758	0.511
LGM			46318	0.392			17056	0.352
Spectrum			38844	0.329			14027	0.290
ThroughG			38825	0.329			14025	0.290
MUC 3D:			23550	0.199			8221	0.170
LG:			11689	0.099			4529	0.094

First:	3230	0.027	1149	0.024
2D–Rec:	356	0.003	126	0.003
	Neut4.1	**Eff:**	**Neut4.1**	**Eff:**
Total in Fid	118073		46772.88	
MUC–3D(woTruF)	24241	0.14965	7717.23	0.09673
LG	12470	0.07698	4568.24	0.05726
1st Layer	3337	0.02060	1151.12	0.01443
2D–Rec	376	0.00232	118.05	0.00148

Constants	Nov Config	June Config			
Int./pot/ton @FGD	1.3699E−16	1.3269E−16			
FGD Tons	8.62436	8.62436			
(SK Tons)	22500	22500			
Int/fid^20pot @SK	228.474	224.326			
(Int/fid^20pot @FGD)	1.1814E+5	1.1444E+5			
(Far/Near Ratio)	1.9339E−3	1.9602E−3			
SK Effiiciency	0.7847	0.7810			
Systematic Terms:	**+**	**−**			
1) SciFi(Fid+MRD+MC)					
Fiducial Cut	0.010	0.010			
Muon Selection	0.035	0.035			
SciFi Track	0.010	0.010			
MRD Track	0.030	0.030			
SciFi−MRD Match	0.010	0.010			
SciFI−Veto−LG	0.010	0.010			
Al Crossection	0.030	0.030			
Nu Spectrum (Nov)	0.0586	0.0582	Nu Spectrum	0.030	0.040
(Jun)	0.0844	0.0896	(Jun)	0.030	0.040
Inelastic/Elastic Ratio	0.050	0.070	Nu Spectrum	0.160	0.160
CC/NC Ratio	0.020	0.020	(Jun)	0.200	0.200
Total (Nov)	**0.092**	**0.104**			
(Jun)	**0.111**	**0.125**			
2) F/N+SK+CT					
F/N Event Ratio (Nov)	0.056	0.071			
(Jun)	0.136	0.098			
SK Det. Eff	0.030	0.030			
CT Normilization Error	0.010	0.010			
Total (Nov)	**0.064**	**0.078**			

	(Jun)	0.140	0.103

(1)SciFi+(2)F/N+SK+CT

Exp. @SK	**(Nov)**	**0.113**	**0.130**
	(Jun)	**0.178**	**0.162**

Update Logs:

00–12–14	Mueff 99.9–>97.5%
	Flux Error: Inagaki M
	CC/NC: Boyd
	Fiducial: HP (no change)
00–12–16	JunMC 97.5%
00–12–17	Skeff evisnew–>evis
	250kA 79.1%–>78.5%
	200kA 78.7%–>78.1%
00–12–18	F/N sys error

F/N Event Ratio	**(Nov)**	0.068	0.085
	(Jun)	0.152	0.112

Constants	Nov Config	June Config
Int./pot/ton @FGD	1.3823E−16	1.3380E−16
SFTons(2.2x2.2x17lyr)	6.20320	6.20320