

LEFT-ARM ONLY on this page: A_y Production Run Sheet

Date: 1 MAY, 2009	Author: GOLGE
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Left HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#, T3, T4 rates, etc.	replay OK ?
1734	2:53 2:53	2:56 2:56	3He	2MA	0.35M		190 Hz / 171	
1736	3:02	3:28		10MA	0.9M		176 Hz / 814 Hz	
1737	15:53	16:39	^3He	10	2M	6	Production T3=800 T4=50	✓
1738	16:41	17:06	"	"	500K	3	" Beam Trip	✓
1739	17:45	18:05	^3He	10MA	500K	26	Production, beam trip	✓
1740	18:22	19:06	"	"	2M	6	Prod.	✓
1741	19:08	19:51	"	"	2M	5	"	✓
1742	19:53	20:42	"	"	2M	6	"	✓
1743	20:51	21:39	"	"	"	6	"	✓
1744	21:39	22:24	"	"	"	5	"	✓
1745	22:26	23:09	"	"	"	5	"	✓
1746	23:10	23:54	"	"	"	5	"	✓

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

16M

22.5%

RIGHT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>May 1, 2009</u>	Author: <u>W. Luo</u>
Beam Energy: <u>3.605</u> GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Right HRS momentum (GeV/c): <u>3.0855</u> polarity: "-"	BigBite (not in use for A_y)
angle: 17° never moved. Sieve plate: IN or OUT ?	current (A): 518 A polarity: positive angle: never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#T1, T2 rates, etc.	replay OK ?
20610	2:49	3:32	^3He	9.9	1.49M	13	$6.58 \times 10^2 / 5.43 \times 10^1$	y
20611	3:34	4:22	^3He	10 μA	1.5M	12	$6.36 \times 10^2 / 5.27 \times 10^1$	y
20612	4:23	5:22	^3He	10 μA	1.5M	11	$6.55 \times 10^2 / 5.51 \times 10^1$	y
20613	5:22	6:08	^3He	10 μA	1.5M	12	$6.18 \times 10^2 / 5.17 \times 10^1$	y
20614	6:09	6:59	^3He	10 μA	1.5M	12	$6.6 \times 10^2 / 5.01 \times 10^1$	y
20615	6:59	7:44	^3He	10 μA	1.49M	13	$6.78 \times 10^2 / 5.39 \times 10^1$	y
20618	8:34	9:32	^3He					
20619	9:32	9:45	^3He					
20630								
20638	2:40	4:47	^3He	2 μA	0.5M		spot check	
20639	2:50	4:52	^3He	2 μA			spot check	

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

8/2/98
12M

LEFT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>May 2nd, 2009</u>	Author: <u>Dian Cheng</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Left HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#, T3, T4 rates, etc.	replay OK ?
1747	23:56	00:45	^3He	10	2M	6	production	✓
1748	00:47	01:30	"	"	"	"	"	✓
1749	01:31	02:15	"	"	2M	"	"	✓
1750	02:16	03:03	"	"	2M	"	T3=829, T4=46	✓
1751	03:05	03:51	"	"	2M	"	T3=819, T4=50	✓
1752	03:53	04:39	"	"	2M	"	T3=832, T4=47	✓
1753	04:47	05:29	"	"	2M	"	T3=842, T4=51	✓
1754	05:30	06:14	"	"	2M	"	T3=814, T4=51	✓
1755	06:16	.	"	"		"	T3=830, T4=48 DAQ not counting	
1756	06:30	07:15	"	"	2M	"	T3=845, T4=49	✓
1757	07:17	8:01	"	"	2M	"	T3=848, T4=48	✓

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

20M

RIGHT-ARM ONLY on this page: A_y Production Run Sheet

Date: 1 MAY, 2007	Author: GOLGE
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Right HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#T1, T2 rates, etc.	replay OK ?
20643	15:52	16:39	^3He	10	1.5M	13	T1=90, T2=40	✓
20644	16:41	17:06	"	"	400K	13	" Beam Trip	✓
20645	17:45	18:05	^3He	10 μA	400K	12	prod. Beam Trip	✓
20646	18:21	19:06	"	"	1.5M	12	Ad.	✓
20647	19:08	19:51	"	"	1.5M	12	"	✓
20648	19:53	20:50	"	"	1.7	13	"	✓
20649	20:51	21:37	"	"	1.5M	13	"	✓
20650	21:37	22:24	"	"	1.5M	13	"	✓
20651	22:26	23:09	"	"	"	13	"	✓
20652	23:10	23:55	"	"	"	13	"	✓

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

12.2 M

5/10

LEFT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>May 2, 2009</u>	Author: <u>W. Luo</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Left HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#, T3, T4 rates, etc.	replay OK ?
1758	8:02	8:46	^2He	10	2M	5	834/45	y
1759	8:48	9:34	^3He	10	2M	6	837/49	y
1760	9:34	10:21	^3He	10	2M	6	824/47	y
1761	10:22	11:08	^3He	10	2M	5	821/46	y
1762	11:09	11:53	^3He	10	2M	5	836/51	y
1763	11:53	12:45	^3He	10	2M	5	840/52	y
1764	12:47	13:30	^3He	10	2M	5	849/46	y
1765	13:31	14:16	^3He	10	2M	5	839/53	y
1766	14:17	14:52	^3He	10	1.5M	6	844/51 Happex Data Corrupted	y
1767	14:54	15:14	^3He	10	2M	6	853/48	y
1768	15:42	16:24	^3He	10	2M	6	848/50	y
1769	16:34	16:40	Ref $^4\text{He}^3$	2	48.6K	201	12/9	

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

21.5M

RIGHT-ARM ONLY on this page: A_γ Production Run Sheet

Date: <u>May 2, 2009</u>	Author: <u>D. Am Cherry</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Right HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_γ) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#T1, T2 rates, etc.	replay OK ?
20653	23:56	00:45	^3He	10	1.5M	12	production	✓
20654	00:46	01:30	^3He	10	1.5M	11	"	✓
20655	01:31	02:15	"	"	1.5M	"	"	✓
20656	02:16	03:03	"	"	1.5M	11	T1=657, T2=58	✓
20657	03:04	03:51	"	"	1.5M	11	T1=641, T2=52	✓
20658	03:53	04:40	"	"	1.5M	11	T1=646, T2=55	✓
20659	04:47	05:29	"	"	1.5M	11	T1=655, T2=50	✓
20660	05:30	06:14	"	"	1.5M	11	T1=653, T2=54	✓
20661	06:15		"	"		11	T1=645, T2=53 <u>left ARS DAR does not count</u>	
20662	06:30	07:15	"	"	1.5M	11	T1=625, T2=58	✓
20663	07:16	8:01	"	"	1.4M	11	T1=655, T2=52	✓

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

15M

LEFT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>may 2 109</u>	Author: <u>Kevin Wang</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Left HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#, T3, T4 rates, etc.	replay OK ?
1770	16:44	17:27	Ref He^3	10	1.46M	4	567/44	✓
1771	17:33	17:36	Ref N^2	10	105K	6	test	✓
1772	17:37	18:11	Ref N^2	10	1.39M	6	731/41	✓
1773	18:17	18:22	Ref H^2	10	146K	3		
1774	18:24	19:14	Ref H^2	10	1.47M	4	570/44	✓
1775	18:16	19:28	Ref Amp	10	199K	3	257/31	✓
1776	18:34	20:18	$\overline{\text{He}}$	10	2M	6	827/49	✓
1777	20:24	21:00	$\overline{\text{He}}^3$	10	1.3M	6	827/49	✓
1778	21:06	22:09	$\overline{\text{He}}^3$	10	2M	6	830/53 plate out	✓
1779	22:10	22:55	$\overline{\text{He}}^3$	10	2M	6	811/44	✓
1780	22:56	23:39	$\overline{\text{He}}^3$	10	2M	6	840/47	✓
1781	23:40	00:24	$\overline{\text{He}}^3$	10	2M	6	811/51	✓

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More comments:

15.5M

RIGHT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>May 2, 2009</u>	Author: <u>W. Luo</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Right HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#T1, T2 rates, etc.	replay OK ?
20664	8:02	8:46	^3He	10	1.49M	12	628/51	y
20665	8:48	9:34	^3He	10	1.5M	11	628/51	y
20666	9:34	10:21	^3He	10	1.5M	12	665/57	y
20667	10:22	11:08	^3He	10	1.5M	12	664/55	y
20668	11:08	11:53	^3He	10	1.5M	13	648/51	y
20669	11:53	12:45	^3He	10	1.5M	14	651/58	y
20670	12:46	13:30	^3He	10	1.5M	12	654/51	y
20671	13:31	14:16	^3He	10	1.5M	12	646/55	y
20672	14:16	14:52	^3He	10	1.2M	12	674/57 HAPPAX DAE crash	y
20673	14:53	15:41	^3He	10	1.5M	12	663/58	y
20674	15:42	16:25	^3He	10	1.5M	12	638/50	y
20675	16:33	16:40	Ref He^3	2	34K	9	29/16 (T3 T4)	✓

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

16.7M

LEFT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>May 3, 09</u>	Author: <u>C. Chen</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Left HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#, T3, T4 rates, etc.	replay OK ?
1782	00:27	1:11	^3He	10	2M	5	829.3/46.8 (T3/T4)	✓
1783	1:14	2:03	^3He	10	2M	5	836/45.6	✓
1784	2:04	3:07	^3He	10	2M	5	805.3/52.8	✓
1785	3:12	3:53	^3He	10	2M	6	630.5/51.8	✓
1786	3:56	4:38	^3He	10	2M	5	819.9/45.97	✓
1787	4:39	5:29	^3He	10	2M	6	825.0/49.3	✓
1788	5:30	6:12	^3He	10	2M	5	822.1/44.47	✓
1789	6:14	6:59	^3He	10	2M	5	813.5/42.47	✓
1790	7:00	7:45	^3He	10	2M	6	842.3/45.3	✓
1791	7:46	8:20	^3He	10	01.2M	6	834.7/48.17	✓
1792	9:13	9:58	^3He	10	2M	6	824/47.17	
1793	9:58	10:44	^3He	10	2M	6	823/48.12	

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

23.3M

RIGHT-ARM ONLY on this page: A_y Production Run Sheet

Date: <u>May 2 09</u>	Author: <u>Kevin Wang</u>
Beam Energy: _____ GeV	Using Pol ^3He cell: Y/N, Long. Tran. or Vertical ?
Right HRS momentum (GeV/c) : _____ polarity: " - " angle : 17° never moved. Sieve plate: IN or OUT ?	BigBite (not in use for A_y) current (A) : 518 A polarity: positive angle : never moved.

Run Number	start time	stop time	target	beam (μA)	# of events	dead time	comments Happex run-#T1, T2 rates, etc.	replay OK ?
20676	16:44	17:27	Ref He^3	10	1M	10	113/77 (T3, T4)	✓
20677	17:33	17:36	Ref N^2	10	79K	13	test	✓
20678	17:37	18:11	Ref N^2	10	1M	14	136/81	✓
20679	18:55	18:23	Ref H^2	10	93K	8	"	✓
20680	18:23	19:14	Ref H^2	10	1M	10	137/89 (")	✓
20681	19:16	19:28	Ref. amp	10	102K	9	39/25 (T3, T4)	✓
20682	19:33	20:18	He^3	10	1.5M	11	170/112 (T3, T4) ^{pol} ±5.7%	✓
20683	20:22	21:00	He^3	10	1.0M	11	638/50 (T1, T2) ±1.9%	✓
20684	21:05	22:09	He^3	10	1.5M	12	660/53	✓
20685	22:10	22:55	He^3	10	1.5M	13	637/53	✓
20686	22:56	23:39	He^3	10	1.5M	12	638/51	56.2% ✓
20687	23:40	00:25	He^3	10	1.5M	13	654/43	✓

Please change to a new run sheet for a new setting or a new type of run on the run plan.
More comments:

11.5M