E05-102 Shift Check List

Date: 6/10/09

	Owl	Day	Swing
Time (hh/mm,24:00)	04:20	14:52	19:33
Your Name	Eric Jensen	T. Averett	X. Qian
Visual Hall Inspection	✓	✓	✓
Beam Energy (MeV)	2425.5181	2425.5	2427.20
Beam Current (uA)	9.135	9.58	9.47
# beam trips last hour	8	5	5
SPOT++ size X/Y (mm)	4x4	4x4	4x4 ✓
SPOT++ saved in Halog ?	✓	✓	✓
Beam Position at 1H04A X/Y (mm)	-.510/2.099	-0.46/2.11	-0.501/2.088
Beam Position at 1H04B X/Y (mm)	-.499/1.992	-0.49/1.99	-0.5/2.003
Hall A beam position feedback	✓	✓	✓
Alarm Handler running ?	✓	✓	✓
Saved Hall A tools screen into Halog ?	✓ auto	✓	✓
Wien angle	66.92		66.92
Beam half-wave plate IN/OUT ?	in	OUT	IN
Most recent Hall A Moller date/result	5/27/09		5/27/09
Target position	^{3}He	^{3}He	^{3}He
Pol. ^{3}He optical pumping direction	Transverse	Longitudinal, +	
Pumping laser on ?	✓	✓	✓
Temperature in laser optics enclosure	—		—
Pol. ^{3}He oven heater ON ?	✓	✓	✓
^{3}He cell oven temperature (RTDs)	77.5/47.6/42.3/41.7/52	230 C	230
^{3}He cell temperature (RTDs)	230	82/52/48/41/38C	77/45/43/41
^{3}He cell polarization, recent NMR	58.8%	55.8%	51.2
^{3}He cell polarization, recent EPR	—	—	—
Spin-flip ON ?	yes	NO, I think	Yes
Target cooling jet flow	43.1		43.0
Ref. cell gas type	N_2	N_2	N_2
Ref. cell low pressure gauge (left)	848 torr	18 psig ↷ 848 torr	848
Ref. cell high pressure gauge (right)	18 psi		18
Ref. cell tempreture (RTDs)	-25		-25
Left Arm Angle	12.5°	12.5°	12.5
Left Arm Momentum (GeV/c)	2.320	2.320	2.32
Left Arm NMR locked ?	✓	✓	✓
Left Arm Helium flow OK ?	✓	✓	✓
Left Arm liquid level OK ?	✓	✓	✓
Left Arm Quad #1 (A)	1745.541	1745.467	1745.467
Left Arm Quad #2 (A)	998.86	998.85	998.86
Left Arm Dipole (A)	792.31	792.30	792.31
Left Arm Quad #3 (A)	923.72	923.71	923.71

Page-2: Shift Check List

Date: 6/10/09

	Owl	Day	Swing
Right Arm Angle	18.0°	18.0°	18
Right Arm Momentum (GeV/c)	1.865	1.865	1.865
Right Arm NMR locked ?	✓	✓	✓
Right Arm Helium flow OK ?	✓	✓	✓
Right Arm liquid level OK ?	✓	✓	✓
Right Arm Quad #1 (A)	1402.243	1402.243	1402.257
Right Arm Quad #2 (A)	802.64	802.64	802.63
Right Arm Dipole (A)	644.21	644.21	644.21
Right Arm Quad #3 (A)	742.27	742.26	742.27
Argon pressure (PSI)	852.832	840	788
Ethane pressure (PSI)	493.359	634	597
CO2 pressure (PSI)	766.406	904	853
Left VDC gas flow (top/bottom)	5.29/5.87	~~5.29~~ 5.25/5.86	5.15/5.87
Left Cerenkov pressure (PSI)	—		—
Left VDC HV on (top/bottom) ?	3.996/4.000	3.994/3.989	3.998/4.000
Left VDC threshold on (top/bot.) ?	3.90/3.96	3.89/3.96	3.9/3.9
Left S1/S2 HV on ?	✓	✓	✓
Left Cerenkov HV on ?	✓	✓	✓
Right VDC gas flow (top/bottom)	6.021/5.811	~~5.79~~ 5.79/5.59	6.19/5.81
Right Cerenkov pressure (PSI)	—		—
Right VDC HV on (top/bottom) ?	4.000/4.008	0/4.009	0/4.009
Right VDC threshold on (top/bot.) ?	3.87/3.84	3.87/3.84	0/4.009
Right S1/S2 HV on ?	✓	✓	✓
Right Cerenkov HV on ?	✓	✓	✓
Happex-run started/run-# ?	31504	31507	~~3~~ 31506
Last-Left-HRS run number	3432	3447	3455
Left-HRS-DAQ deadtime	8%	8%	8
Left-HRS-DAQ CODA rate	2,088.87	2.16k Hz	2.2 KHz
Left-HRS-prescale PS3/PS4	200/40	200/40	200/40
Left-HRS-rates T3/T4	19.7 K/382.3	22.9k/430 Hz	22kHz/430Hz
Last Left-HRS run replayed	3432	3443	3454
Left VDC eff./wiremap OK ?	✓	✓	✓
Last-Right-HRS run number	22303	22318	22326
Right-DAQ deadtime	11.5%	12%	12%
Right-DAQ CODA rate	1667	~~1667~~ 702 Hz	1.6 KHz
Right-prescale PS1/PS2	1/1	1/1	1/1
Right-rates T1/T2	1.67k/55.5	1.9k/62 Hz	1.9/62
Last Right-HRS run replayed	22303	22315	22325
Right VDC eff./wiremap OK ?	✓	✓	✓

E05-102 Shift Check List

Date: 6/11/09.

	Owl	Day	Swing
Time (hh/mm,24:00)	5:00.		23:00
Your Name	Kai Pan.		Diancheng Wang
Visual Hall Inspection	OK.		✓
Beam Energy (MeV)	2425.5.		2425.5
Beam Current (uA)	9.5uA.		3 MA
# beam trips last hour	9		3
SPOT++ size X/Y (mm)	4X4.		4 x 4
SPOT++ saved in Halog ?	✓		✓
Beam Position at 1H04A X/Y (mm)	-.478/2.094		-0.468/2.083
Beam Position at 1H04B X/Y (mm)	-.502/1.981		-0.509/2.007
Hall A beam position feedback	✓		✓
Alarm Handler running ?	✓		✓
Saved Hall A tools screen into Halog ?	✓		✓
Wien angle	66.9		66.92
Beam half-wave plate IN/OUT ?	IN		IN
Most recent Hall A Moller date/result	5/27/09		5/27/09 cell
Target position	3He.		~~Reference cell~~
Pol. ^{3}He optical pumping direction	Longitudinal		~~Anti parallel~~ AP
Pumping laser on ?	Yes.		✓
Temperature in laser optics enclosure	✓		✓
Pol. ^{3}He oven heater ON ?	✓		✓
^{3}He cell oven temperature (RTDs)	230		231
^{3}He cell temperature (RTDs)	41/45/51/7)		50.3/45.5/54.9/227.2/251.9
^{3}He cell polarization, recent NMR	61.6%		62.56%
^{3}He cell polarization, recent EPR	✓		✓
Spin-flip ON ?	Off		No
Target cooling jet flow	43.0.		42.4
Ref. cell gas type	N_2		N_2
Ref. cell low pressure gauge (left)	847 tor.		859
Ref. cell high pressure gauge (right)	018 psig		20
Ref. cell tempreture (RTDs)	~~25~~.		0/40/40
Left Arm Angle	12.5		12.5
Left Arm Momentum (GeV/c)	2.320		2.320
Left Arm NMR locked ?	✓		✓
Left Arm Helium flow OK ?	✓		✓
Left Arm liquid level OK ?	✓		✓
Left Arm Quad #1 (A)	1745.5		1745.5
Left Arm Quad #2 (A)	998.86.		998.86
Left Arm Dipole (A)	792.31		792.31
Left Arm Quad #3 (A)	923.71		923.72

Page-2: Shift Check List

Date:

	Owl	Day	Swing
Right Arm Angle	17.99°		18.0
Right Arm Momentum (GeV/c)	0.7		2.025
Right Arm NMR locked ?	✓		✓
Right Arm Helium flow OK ?	✓		✓
Right Arm liquid level OK ?	✓		✓
Right Arm Quad #1 (A)	526.4		1522.5
Right Arm Quad #2 (A)	301.26		871.6
Right Arm Dipole (A)	239.50		703.41
Right Arm Quad #3 (A)	278.54		805.74
Argon pressure (PSI)	709.57		614.062
Ethane pressure (PSI)	~~721.2~~		603.809
CO2 pressure (PSI)	784.2.		750.293
Left VDC gas flow (top/bottom)	5.39/5.86		5.405/5.86
Left Cerenkov pressure (PSI)	✓		✓
Left VDC HV on (top/bottom) ?	3.999/4.000		4.000/4.000
Left VDC threshold on (top/bot.) ?	3.90/4.00.		3.89/3.~~90~~
Left S1/S2 HV on ?	✓		✓
Left Cerenkov HV on ?	✓		✓
Right VDC gas flow (top/bottom)	5.84/5.94		6.18/5.96
Right Cerenkov pressure (PSI)	✓		✓
Right VDC HV on (top/bottom) ?	4.000		-0.012/4.009
Right VDC threshold on (top/bot.) ?	4.008.		3.87/3.84
Right S1/S2 HV on ?	✓		✓
Right Cerenkov HV on ?	✓		✓
Happex-run started/run-# ?	3,513.		31516
Last-Left-HRS run number	3476		3497
Left-HRS-DAQ deadtime	7		~~8~~ 7
Left-HRS-DAQ CODA rate	1810		~~2552~~ 1937
Left-HRS-prescale PS3/PS4	200/40		200/40
Left-HRS-rates T3/T4	22k/.4k		22K/445
Last Left-HRS run replayed	3472		3495
Left VDC eff./wiremap OK ?	✓		✓
Last-Right-HRS run number	22345		22364
Right-DAQ deadtime	14		12
Right-DAQ CODA rate	.1462		~~1855~~ 2034
Right-prescale PS1/PS2	1/10		1/1
Right-rates T1/T2	2.2k/30.8		2.3k/176
Last Right-HRS run replayed	22338.		22362
Right VDC eff./wiremap OK ?	✓		✓

E05-102 Shift Check List

Date:

	Owl	Day	Swing
Time (hh/mm,24:00)	4:46		21:32
Your Name	Yawei Zhang		JIN HUANG
Visual Hall Inspection	OK		OK.
Beam Energy (MeV)	2425		3606
Beam Current (uA)	9 uA		10
# beam trips last hour	6		4
SPOT++ size X/Y (mm)	4/4		4/4
SPOT++ saved in Halog ?	Yes		✓
Beam Position at 1H04A X/Y (mm)	-.469/2.087		-0.5, 2.0
Beam Position at 1H04B X/Y (mm)	-.490/1.997		-0.5, 2.0
Hall A beam position feedback	✓		✓
Alarm Handler running ?	✓		✓
Saved Hall A tools screen into Halog ?	✓		✓
Wien angle	66.9		66.9
Beam half-wave plate IN/OUT ?	IN		IN.
Most recent Hall A Moller date/result	5/27/09		5/27/09
Target position	Polarized 3He		3He
Pol. ^{3}He optical pumping direction	long +		Longit
Pumping laser on ?	✓		✓
Temperature in laser optics enclosure	/		—
Pol. ^{3}He oven heater ON ?	✓		✓
^{3}He cell oven temperature (RTDs)	227/231/251		226/250
^{3}He cell temperature (RTDs)	44/46.2/51/78		79/46/40/41/51
^{3}He cell polarization, recent NMR	64.95 %		64.5%
^{3}He cell polarization, recent EPR	/		—
Spin-flip ON ?	No		NO
Target cooling jet flow	43.0		43
Ref. cell gas type	3He		3He
Ref. cell low pressure gauge (left)	1		1
Ref. cell high pressure gauge (right)	135		134
Ref. cell tempreture (RTDs)	0/40/40		0/40/40
Left Arm Angle	12.5		12.5
Left Arm Momentum (GeV/c)	2.320		3.350
Left Arm NMR locked ?	✓		✓
Left Arm Helium flow OK ?	✓		✓
Left Arm liquid level OK ?	✓		
Left Arm Quad #1 (A)	1745.467		2520
Left Arm Quad #2 (A)	998.87		1463
Left Arm Dipole (A)	792.30		1188
Left Arm Quad #3 (A)	923.73		1333

Page-2: Shift Check List

Date:

	Owl	Day	Swing
Right Arm Angle	18.0		17
Right Arm Momentum (GeV/c)	2.025		3.085J
Right Arm NMR locked ?	✓		✓
Right Arm Helium flow OK ?	✓		✓
Right Arm liquid level OK ?	✓		✓
Right Arm Quad #1 (A)	1522.568		2320
Right Arm Quad #2 (A)	871.65		1327
Right Arm Dipole (A)	703.41		1113
Right Arm Quad #3 (A)	805.75		1227
Argon pressure (PSI)	561.914		463
Ethane pressure (PSI)	568.945		607
CO2 pressure (PSI)	701.660		626
Left VDC gas flow (top/bottom)	5.20/5.65		5.1/5.9
Left Cerenkov pressure (PSI)			
Left VDC HV on (top/bottom) ?	4.00✓ / ✓4.00		3.992/4.008
Left VDC threshold on (top/bot.) ?	3.90✓ / ✓ 3.96		3.90/3.96
Left S1/S2 HV on ?	✓ / ✓		✓
Left Cerenkov HV on ?	✓		✓
Right VDC gas flow (top/bottom)	5.77/5.60		6.2/6.0
Right Cerenkov pressure (PSI)			
Right VDC HV on (top/bottom) ?	✓ / ✓		✓
Right VDC threshold on (top/bot.) ?	✓ / ✓		✓
Right S1/S2 HV on ?	✓ / ✓		✓
Right Cerenkov HV on ?	✓		✓
Happex-run started/run-# ?	31518		31522
Last-Left-HRS run number	3508		3524
Left-HRS-DAQ deadtime	8%		3%
Left-HRS-DAQ CODA rate	5545		2.1K
Left-HRS-prescale PS3/PS4	200/40		4/2
Left-HRS-rates T3/T4	23K/439		7K/180
Last Left-HRS run replayed	3508(OK) ~~3515~~		3524
Left VDC eff./wiremap OK ?	OK		~~✓~~
Last-Right-HRS run number	22375		22391
Right-DAQ deadtime	12%		6%
Right-DAQ CODA rate	1633		600
Right-prescale PS1/PS2	1/1		1/1
Right-rates T1/T2	2K/73		0.5K/27
Last Right-HRS run replayed	(OK) 22375		22391
Right VDC eff./wiremap OK ?	OK		✓

E05-102 Shift Check List

Date: June 13, 2009

	Owl	Day	Swing
Time (hh/mm,24:00)	4:47	10.41	19:51
Your Name	Ibrahim	Kai Pan.	Ge Jin
Visual Hall Inspection	OK	OK.	✓
Beam Energy (MeV)	3606	3607.	3606
Beam Current (uA)	12	12.	14
# beam trips last hour	9	9	6
SPOT++ size X/Y (mm)	4 x 3.5	4x3.5	4 x 3
SPOT++ saved in Halog ?	✓	✓	✓
Beam Position at 1H04A X/Y (mm)	-0.5/2	-0.5/2	-0.515 / 2.066
Beam Position at 1H04B X/Y (mm)	-0.5/2	-0.5/2.	-0.505 / 2.005
Hall A beam position feedback	ON	ON	✓
Alarm Handler running ?	✓	✓	
Saved Hall A tools screen into Halog ?	✓	✓	
Wien angle	66.9	66.9	66.9
Beam half-wave plate IN/OUT ?	IN	IN	Out
Most recent Hall A Moller date/result			
Target position	He3	^{3}He	^{3}He Long
Pol. ^{3}He optical pumping direction	Long +	Long	
Pumping laser on ?	Yes ! (Laser3)	Yes	
Temperature in laser optics enclosure	RTD 1 = 73 °C	✓	
Pol. ^{3}He oven heater ON ?	YES	Yes	
^{3}He cell oven temperature (RTDs)	231 / 225 / 251	231/225/251	
^{3}He cell temperature (RTDs)	78.8/46.9/41/42/52.7	41/47/52/79	
^{3}He cell polarization, recent NMR	62.6% (01:45)	62.2%	62.05
^{3}He cell polarization, recent EPR	✓	✓	
Spin-flip ON ?	OFF	OFF	
Target cooling jet flow	42.9	42.9	
Ref. cell gas type	3He !	3He	3He
Ref. cell low pressure gauge (left)	1 (outl.)	1 Tor	1
Ref. cell high pressure gauge (right)	134	134	133
Ref. cell tempreture (RTDs)	0 / 40.4 / 40.4	0/40/40	
Left Arm Angle	12.5	12.5.	12.5
Left Arm Momentum (GeV/c)	3.35	3.35.	3.35
Left Arm NMR locked ?	✓	✓	✓
Left Arm Helium flow OK ?	✓	✓	✓
Left Arm liquid level OK ?	✓	✓	✓
Left Arm Quad #1 (A)	2520	2520	2520.150
Left Arm Quad #2 (A)	1442	1442	1442.53
Left Arm Dipole (A)	1187	1187	1187.15
Left Arm Quad #3 (A)	1337	1333	1333.82

Page-2: Shift Check List

Date:

	Owl	Day	Swing
Right Arm Angle	17.0	17	17
Right Arm Momentum (GeV/c)	—	3.085	3.08550
Right Arm NMR locked ?	—	✓	
Right Arm Helium flow OK ?	✓	✓	✓
Right Arm liquid level OK ?	✓	✓	✓
Right Arm Quad #1 (A)	2320	2320	2320.409
Right Arm Quad #2 (A)	1327	1327	1327.96
Right Arm Dipole (A)	—	1112.	1112.14
Right Arm Quad #3 (A)	1227	1227	1227.55
Argon pressure (PSI)	404	375	366.789
Ethane pressure (PSI)	556	620	585.645
CO2 pressure (PSI)	557	547	466.406
Left VDC gas flow (top/bottom)	5.22/5.66	5.3/5.86	5.37/5.86
Left Cerenkov pressure (PSI)			
Left VDC HV on (top/bottom) ?	3.995/4.002	3.99/4.00	? /4.008
Left VDC threshold on (top/bot.) ?		3.91/3.96	~~3.995/4.007~~ 3.90/3.96
Left S1/S2 HV on ?	✓	✓	
Left Cerenkov HV on ?	✓	✓	
Right VDC gas flow (top/bottom)	5.7/5.6	6.0/5.8	~~8~~6.085/3.920
Right Cerenkov pressure (PSI)		3.87/3.84	
Right VDC HV on (top/bottom) ?	4.00/4.01	4.00/4.009	3.992/4.001
Right VDC threshold on (top/bot.) ?		3.87/3.84	3.87/3.84
Right S1/S2 HV on ?	✓	✓	
Right Cerenkov HV on ?	✓	✓	
Happex-run started/run-# ?	31524	31525	31527
Last-Left-HRS run number	3537	~~3537~~	3567
Left-HRS-DAQ deadtime	4%	5	5
Left-HRS-DAQ CODA rate	5476 KB/s	~~866 KB/s~~ 7070 KB/s	
Left-HRS-prescale PS3/PS4	4/2	4/2	4/2
Left-HRS-rates T3/T4	7.85kHz/211Hz	7.5kHz/213Hz	8.8kHz/230Hz
Last Left-HRS run replayed	yes	yes	✓
Left VDC eff./wiremap OK ?	yes	yes	✓
Last-Right-HRS run number	R-arm is	22402	22422
Right-DAQ deadtime	down because	6	7
Right-DAQ CODA rate	the magnet	~~557 KB/s~~	800 KB/s
Right-prescale PS1/PS2	problem.	1/1	1/1
Right-rates T1/T2	—	625/33.8	680 139
Last Right-HRS run replayed	—	yes	yes
Right VDC eff./wiremap OK ?	—	Yes	✓