

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: Deb

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name: _____
sieve at 1.5 GeV

Purpose:

- Production
 Test
 Optics
 Other: _____

E_{beam} : 2.76 GeV I_{beam} : 5 μ A

Raster: On Off
Size: _____

HMS
 p : +/- -1.500 θ (TV): 11.500
From GUI Nearest 0.005

SHMS
 p : +/- -1.500 θ (TV): 9.500
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Beam position and angle on target:

3H07A	X	Y
<u>0.0</u>	mm	<u>0.18</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.81</u>	mm	<u>0.60</u> mm
Nomin:		Nomin:

Q1	I-SET (from PSU) <u>195.83</u> A	A	I-SET (from PSU) <u>995.15</u> A	A	HB
	B-HALL <u>0.191</u> kg		B-HALL <u>3.132</u> kg		
Q2	I-SET (from PSU) <u>155.16</u> A	A	I-SET (from PSU) <u>314.80</u> A	A	Q1
	B-HALL <u>-0.274</u> kg		B-HALL <u>-2.232</u> kg		
Q3	I-SET (from PSU) <u>75.31</u> A	A	I-SET (from PSU) <u>529.56</u> A	A	Q2
	B-HALL <u>0.148</u> kg		B-HALL <u>4.957</u> kg		
D	I-READ <u>457.98</u> A	A	I-SET (from PSU) <u>397.96</u> A	A	Q3
	B-NMR <u>0.4106735</u> T		B-HALL <u>8.400</u> kg		
	If momentum increased:		I-SET (from PSU)		D
	<input type="checkbox"/> HMS cycled?		<u>478.64</u> A		
	<input type="checkbox"/> SHMS cycled?		B-NMR <u>-3.486</u> kg		

Run Number: 8376

LH2 10cm LD2 10cm MT thick 10cm
 C 1.5% r.l. C 0.5% r.l.

PS1: -1 PS2: 0.4 PS3: 0.1 PS4: -1 PS5: -1 PS6: -1

Start time (from RC): 1:00 Am Stop time (from RC): 1:10

Settings Verified? HV OK? 50k OK?

HMS prescale pretrig: _____ k SHMS prescale pretrig: _____ k COIN pretrig: _____ k

$e-\pi n$ evts: _____ $\Sigma e-\pi n$ evts: _____

Data ok Junk

Comments: 1.3M events in total.

Run Number: _____

LH2 10cm LD2 10cm MT thick 10cm
 C 1.5% r.l. C 0.5% r.l.

PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____

Start time (from RC): _____ Stop time (from RC): _____

Settings Verified? HV OK? 50k OK?

HMS prescale pretrig: _____ k SHMS prescale pretrig: _____ k COIN pretrig: _____ k

$e-\pi n$ evts: _____ $\Sigma e-\pi n$ evts: _____

Data ok Junk

Comments: _____

Run Number: _____

LH2 10cm LD2 10cm MT thick 10cm
 C 1.5% r.l. C 0.5% r.l.

PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____

Start time (from RC): _____ Stop time (from RC): _____

Settings Verified? HV OK? 50k OK?

HMS prescale pretrig: _____ k SHMS prescale pretrig: _____ k COIN pretrig: _____ k

$e-\pi n$ evts: _____ $\Sigma e-\pi n$ evts: _____

Data ok Junk

Comments: _____

Run Number: _____

LH2 10cm LD2 10cm MT thick 10cm
 C 1.5% r.l. C 0.5% r.l.

PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____

Start time (from RC): _____ Stop time (from RC): _____

Settings Verified? HV OK? 50k OK?

HMS prescale pretrig: _____ k SHMS prescale pretrig: _____ k COIN pretrig: _____ k

$e-\pi n$ evts: _____ $\Sigma e-\pi n$ evts: _____

Data ok Junk

Comments: _____

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: Deb

Use a separate sheet for each configuration.

Configuration Name: _____

Trigger PID legs study

Purpose:

- Production
 Test
 Optics
 Other: Trig PID Legs study

E_{beam} : _____ GeV

I_{beam} : 5.00 μA

Raster: On Off
 Size: 2x2

Beam position and angle on target:

3H07A	X	Y
<u>0.006</u> mm		<u>0.210</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>0.175</u> mm		<u>-0.022</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU)	I-SET (from PSU)	HB
	<u>495.5821</u> A	<u>495.25</u> A	
Q2	I-SET (from PSU)	I-SET (from PSU)	Q1
	<u>0.056</u> kg	<u>3.134</u> kg	
Q3	I-SET (from PSU)	I-SET (from PSU)	Q2
	<u>45.89</u> A	<u>314.16</u> A	
D	I-SET (from PSU)	I-SET (from PSU)	Q3
	<u>-0.052</u> kg	<u>-2.231</u> kg	
D	I-SET (from PSU)	I-SET (from PSU)	D
	<u>22.43</u> A	<u>529.56</u> A	
D	I-READ	I-SET (from PSU)	D
	<u>0.042</u> kg	<u>4.951</u> kg	
D	B-NMR	B-HALL	D
	<u>136.14</u> A	<u>348.08</u> A	
D	B-NMR	B-NMR	D
	<u>0.12265</u> T	<u>3.400</u> kg	
If momentum increased:		I-SET (from PSU)	
<input type="checkbox"/> HMS cycled?		<u>478.64</u> A	
<input type="checkbox"/> SHMS cycled?		<u>-3.474</u> kg	

HMS

p : +/- -1.5 $\theta(\text{TV})$: 11.500
From GUI Nearest 0.005

SHMS

p : +/- -0.448 $\theta(\text{TV})$: 9.500
From GUI Nearest 0.005

Collimator:

HMS: Large Sieve

SHMS: Large Sieve

Run Number:

8377

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: 7
 PS2: -1
 PS3: -1
 PS4: 5
 PS5: -1
 PS6: -1

Start time (from RC):

03:33

Stop time (from RC):

03:41

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

1.9 M total events

Run Number:

8378

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: 7
 PS2: -1
 PS3: -1
 PS4: 5
 PS5: -1
 PS6: -1

Start time (from RC):

03:42

Stop time (from RC):

03:48

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

1.49 M total events

Run Number:

8379

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: 7
 PS2: -1
 PS3: -1
 PS4: 5
 PS5: -1
 PS6: -1

Start time (from RC):

03:49

Stop time (from RC):

03:56

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

1.5 M total events

Run Number:

8380

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: 7
 PS2: -1
 PS3: -1
 PS4: 5
 PS5: -1
 PS6: -1

Start time (from RC):

03:57

Stop time (from RC):

04:06

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

1.5 M total events

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19 / 06 / 22
yy mm dd

Initials: Deb

Continuation of Configuration:

Trigger PID Legs Study

This sheet is only to be used to continue a running configuration.

Run Number: 8381	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: 7 PS2: -1 PS3: -1 PS4: 5 PS5: -1 PS6: -1	Start time (from RC): 04:06 Stop time (from RC): 04:14	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
---------------------	---	--	---	--	--	--	--

1.9 M events

Run Number: 8382	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: 7 PS2: -1 PS3: -1 PS4: 5 PS5: -1 PS6: -1	Start time (from RC): 04:14 Stop time (from RC): 04:21	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
---------------------	---	--	---	--	--	--	--

1.5 M events

Run Number: 8383	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: 7 PS2: -1 PS3: -1 PS4: 5 PS5: -1 PS6: -1	Start time (from RC): 4:21 Stop time (from RC): 4:23	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
---------------------	---	--	---	--	--	--	--

Run Number: 8384	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: 7 PS2: -1 PS3: -1 PS4: 5 PS5: -1 PS6: -1	Start time (from RC): 04:31 Stop time (from RC): 04:38	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
---------------------	---	--	---	--	--	--	--

1.5 M total events

Run Number: 8385	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: 7 PS2: -1 PS3: -1 PS4: 5 PS5: -1 PS6: -1	Start time (from RC): 04:38 Stop time (from RC): 04:44	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
---------------------	---	--	---	--	--	--	--

1.3 M events

Run Number: 8386	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: 7 PS2: -1 PS3: -1 PS4: 5 PS5: -1 PS6: -1	Start time (from RC): 04:51 Stop time (from RC): 05:02	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
---------------------	---	--	---	--	--	--	--

2.6 M events

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19, 06, 22
yy mm dd

Initials: Jeb

Use a separate sheet for each configuration.

Configuration Name: _____
Sieve at 0.448 GeV

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam} : 2.774 GeV I_{beam} : 5 μA

Raster: On Off
Size: _____

HMS
 p : +/- _____ $\theta(\text{TV})$: 11.500
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>1.07</u> mm		<u>0.200</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>0.173</u> mm		<u>-0.027</u> mm
Nomin:		Nomin:

SHMS
 p : +/- _____ $\theta(\text{TV})$: 9.500
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

	HMS	SHMS	
Q1	I-SET (from PSU) <u>58.21</u> A B-HALL	I-SET (from PSU) <u>495.15</u> A B-HALL	HB
	<u>0.055</u> KG	<u>3.134</u> KG	
Q2	I-SET (from PSU) <u>15.89</u> A B-HALL	I-SET (from PSU) <u>314.84</u> A B-HALL	Q1
	<u>-0.053</u> KG	<u>-2.232</u> KG	
Q3	I-SET (from PSU) <u>22.44</u> A B-HALL	I-SET (from PSU) <u>529.60</u> A B-HALL	Q2
	<u>0.041</u> KG	<u>348</u> KG	
D	I-READ <u>136.14</u> A B-NMR	I-SET (from PSU) <u>348.12</u> A B-HALL	Q3
	<u>0.12265</u> T	<u>3.400</u> KG	
	If momentum increased:		
	<input type="checkbox"/> HMS cycled?		
	<input type="checkbox"/> SHMS cycled?		
		I-SET (from PSU) <u>478.64</u> A B-NMR	D
		<u>-3.480</u> KG	

Run Number: <u>8387</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
----------------------------	---	--	---	--	--	--	---

Comments: junk : Mcc switch the Raster ON!

Run Number: <u>8388</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>06:02</u> Stop time (from RC): <u>06:19</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
----------------------------	---	--	---	--	--	--	--

Comments: 2.7 M events

Run Number: <u>8389</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>06:21</u> Stop time (from RC): <u>~06:35</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
----------------------------	---	--	--	--	--	--	--

Comments: when stopped daq showed failed for Run state. ~3M events needed to configure daq. → Restarted DAS |! CHECK THE RUN!!

Run Number: <u>8390</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>06:36</u> Stop time (from RC): <u>06:43</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
----------------------------	---	--	---	--	--	--	---

Comments: 1.6 M events

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19, 06, 22
yy mm dd

Initials: Feb

Continuation of Configuration:

Sieve at 0.448 GeV

This sheet is only to be used to continue a running configuration.

Run Number: 8391	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>06:44</u> Stop time (from RC): <u>06:44</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: <u> </u>	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: <u> </u>	COIN pretrig: <u> </u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: 1.8 GeV							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC): 	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC): 	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC): 	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC): 	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC): 	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

p(e,e' π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/6/22
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

Configuration Name: _____

Sieve at 0.8 GeV/c
HMS

Purpose:

- Production
 Test
 Optics
 Other: _____

E_{beam}: 2.774 GeV

I_{beam}: 5 μ A

Raster: On Off

Size: _____

HMS

p: ~~*/- 12.800~~ 6.800 θ (TV): 11.500
From GUI Nearest 0.005

SHMS

p: ~~*/- 12.500~~ 9.500 θ (TV): 9.500
From GUI Nearest 0.005

Collimator:

HMS: Large
Sieve

SHMS: Large
Sieve

Beam position and angle on target:

3H07A	X	Y
	<u>-0.002</u> mm	<u>0.197</u> mm
Nomin:	Nomin:	
3H07C	X	Y
	<u>-0.785</u> mm	<u>0.60</u> mm
Nomin:	Nomin:	

HMS

SHMS

Q1	I-SET (from PSU) <u>104.28</u> A	I-SET (from PSU) <u>495.15</u> A	HB
	B-HALL <u>0.10</u> kg	B-HALL <u>3.134</u> kg	
Q2	I-SET (from PSU) <u>82.46</u> A	I-SET (from PSU) <u>314.84</u> A	Q1
	B-HALL kg	B-HALL <u>-2.232</u> kg	
Q3	I-SET (from PSU) <u>40.13</u> A	I-SET (from PSU) <u>529.60</u> A	Q2
	B-HALL <u>0.077</u> kg	B-HALL <u>4.951</u> kg	
D	I-READ <u>243.7</u> A	I-SET (from PSU) <u>348.12</u> A	Q3
	B-NMR <u>0.219086</u> T	B-HALL <u>3.400</u> kg	
	If momentum increased:		D
	<input checked="" type="checkbox"/> HMS cycled?		
	<input checked="" type="checkbox"/> SHMS cycled?		
	I-SET (from PSU) <u>478.64</u> A		
	B-NMR <u>-3.480</u> kg		

Run Number:

8392

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.
 Optics 1

PS1: -1
PS2: 2
PS3: 0
PS4: -1
PS5: -1
PS6: -1

Start time (from RC):

08:17

Stop time (from RC):

08:31

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 342 k
pretrig:

✓ $e-\pi n$ evts:

SHMS prescale 601 k
pretrig:

✓ $\Sigma e-\pi n$ evts:

COIN pretrig: ✓ k

- Data ok
 Junk

Comments:

HMS Dipole drifted down a little \rightarrow will run again

Run Number:

8393

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.
 Optics 1

PS1: -1
PS2: 2
PS3: 0
PS4: -1
PS5: -1
PS6: -1

Start time (from RC):

08:35

Stop time (from RC):

08:55

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 473 k
pretrig:

✓ $e-\pi n$ evts:

SHMS prescale 832 k
pretrig:

✓ $\Sigma e-\pi n$ evts:

COIN pretrig: ✓ k

- Data ok
 Junk

Comments:

1.3 m events total

Run Number:

8394

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.
 Optics 1

PS1: -1
PS2: 2
PS3: 0
PS4: -1
PS5: -1
PS6: -1

Start time (from RC):

08:56

Stop time (from RC):

09:18

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 501 k
pretrig:

✓ $e-\pi n$ evts:

SHMS prescale 882 k
pretrig:

✓ $\Sigma e-\pi n$ evts:

COIN pretrig: ✓ k

- Data ok
 Junk

Comments:

Run Number:

8395

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.
 Optics 1

PS1: -1
PS2: 2
PS3: 0
PS4: -1
PS5: -1
PS6: -1

Start time (from RC):

09:18

Stop time (from RC):

09:34.5

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 308 k
pretrig:

✓ $e-\pi n$ evts:

SHMS prescale 537 k
pretrig:

✓ $\Sigma e-\pi n$ evts:

COIN pretrig: ✓ k

- Data ok
 Junk

Comments:

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/6/22
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

Configuration Name: Sieve at HMS
1 GeV/c

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam}: 2.774 GeV **I_{beam}:** 5 μ A

Raster: On Off
Size: _____

HMS
p: #/- 1.000 **θ (TV):** 11.5000
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>-0.03</u>	mm	<u>0.212</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.790</u>	mm	<u>0.546</u> mm
Nomin:		Nomin:

SHMS
p: #/- 1.500 **θ (TV):** 9.5000
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve

	HMS	SHMS	
Q1	I-SET (from PSU) <u>129.76</u> A B-HALL <u>-2.232</u> kG	I-SET (from PSU) <u>445.20</u> A B-HALL <u>3.135</u> kG	HB
Q2	I-SET (from PSU) <u>104.68</u> A B-HALL <u>4.950</u> kG	I-SET (from PSU) <u>314.84</u> A B-HALL <u>-2.232</u> kG	Q1
Q3	I-SET (from PSU) <u>51.57</u> A B-HALL <u>0.097</u> kG	I-SET (from PSU) <u>524.56</u> A B-HALL <u>4.951</u> kG	Q2
D	I-READ <u>3045.20</u> A B-NMR <u>0.2737437</u> T	I-SET (from PSU) <u>3480.00</u> A B-HALL <u>3.402</u> kG	Q3
	If momentum increased: <input checked="" type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?		D
		<u>478.64</u> A B-NMR <u>-3.486</u> kG	

Run Number: <u>8396</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics 1	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>10:10</u> Stop time (from RC): <u>10:12</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>372</u> k SHMS prescale pretrig: <u>607</u> k e-πn evts: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
-----------------------------------	--	--	---	--	---	--

HMS pipole drifted out of range

Run Number: <u>8397</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics 1	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>10:12</u> Stop time (from RC): <u>10:29</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>390</u> k SHMS prescale pretrig: <u>616</u> k e-πn evts: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	---	---	--

HMS again drifted, will run for ~15min then pause current

Run Number: <u>8398</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics 1	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>10:29</u> Stop time (from RC): <u>10:49</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k SHMS prescale pretrig: _____ k e-πn evts: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	---	---	--

HMS pipole more stable

Run Number: <u>8399</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics 1	PS1: <u>-1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>10:50</u> Stop time (from RC): <u>11:34</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k SHMS prescale pretrig: _____ k e-πn evts: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	---	---	--

8398/8399 best runs ~

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19, 06, 22
 yy mm dd

Initials: _____

Continuation of Configuration:

This sheet is only to be used to continue a running configuration.

Run Number: 8402	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

SK 29/6/19 → This run was the first (quite crappy) BCM calibration Junk?

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

p(e,e' π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name:
SHMS Pointing scan
1

Purpose:

- Production
 Test
 Optics
 Other: SHMS Pointing scan

Raster: On Off
 Size: _____

Beam position and angle on target:

3H07A	X	Y
<u>-0.05</u> mm		<u>0.2</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.80</u> mm		<u>0.89</u> mm
Nomin:		Nomin:

E_{beam}: 2.883 GeV I_{beam}: 5 μ A

HMS
 p: +/- -0.000 θ (TV): 11.500
From GUI Nearest 0.005

SHMS
 p: +/- 1.500 θ (TV): 7.598
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Q1	I-SET (from PSU) <u>130.40</u> A B-HALL <u>0.25</u> KG	I-SET (from PSU) <u>495.20</u> A B-HALL <u>3.135</u> KG	HB
Q2	I-SET (from PSU) <u>103.15</u> A B-HALL <u>-0.169</u> KG	I-SET (from PSU) <u>314.76</u> A B-HALL <u>-2.232</u> KG	Q1
Q3	I-SET (from PSU) <u>50.18</u> A B-HALL <u>0.097</u> KG	I-SET (from PSU) <u>529.6</u> A B-HALL <u>4.951</u> KG	Q2
D	I-READ <u>305.07</u> A B-NMR <u>0.2777777</u>	I-SET (from PSU) <u>348.0</u> A B-HALL <u>3.402</u> KG	Q3
	If momentum increased: <input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?		D
		<u>478.64</u> A B-NMR <u>-3.484</u> KG	

Run Number: <u>8403</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Opt 1	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
----------------------------	---	--	---	--	--	--	---

Junk

Run Number: <u>8404</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Opt 1	PS1: <u>1</u> PS2: <u>2</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>1</u> PS6: _____	Start time (from RC): <u>17:30:08</u> Stop time (from RC): <u>17:42:26</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>312</u> k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: <u>925</u> k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
----------------------------	---	--	---	---	---	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------	--	--	---	--	--	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------	--	--	---	--	--	--	--

p(e,e' π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: _____

SHMS Pointing Scan
2

E_{beam}: 2.783 GeV

I_{beam}: 5 μ A

Purpose:

- Production
 Test
 Optics
 Other: Pointing scan

Raster: On Off
 Size: _____

Beam position and angle on target:

3H07A	X	Y
<u>-0.1</u>	mm	<u>0.2</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.88</u>	mm	<u>0.57</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU)	A	I-SET (from PSU)	A	HB
	B-HALL	<u>Same</u>	B-HALL	<u>as</u>	
Q2	I-SET (from PSU)	A	I-SET (from PSU)	A	Q1
	B-HALL	<u>Previous</u>	B-HALL	<u>KG</u>	
Q3	I-SET (from PSU)	A	I-SET (from PSU)	A	Q2
	B-HALL	<u>KG</u>	B-HALL	<u>KG</u>	
D	I-READ	A	I-SET (from PSU)	A	Q3
	B-NMR	<u>T</u>	B-HALL	<u>KG</u>	
If momentum increased:			I-SET (from PSU)	A	D
<input type="checkbox"/> HMS cycled?			B-NMR	<u>KG</u>	
<input type="checkbox"/> SHMS cycled?				<u>KG</u>	

HMS

p: +/- Same θ (TV): 11.500
From GUI Nearest 0.005

SHMS

p: +/- Same θ (TV): 10.990
From GUI Nearest 0.005

Collimator:

HMS: Large
Sieve

SHMS: Large
Sieve

Run Number:

8405

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: -1
 PS2: 2
 PS3: 0
 PS4: -1
 PS5: X
 PS6: X

Start time (from RC):

17:51:34

Stop time (from RC):

18:06:10

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: 433

$e-\pi n$ evts:

SHMS prescale pretrig: 462

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

Comments:

Optics 1

Run Number:

8406

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: _____
 PS2: _____
 PS3: _____
 PS4: _____
 PS5: _____
 PS6: _____

Start time (from RC):

18:08:43

Stop time (from RC):

18:18:52

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

Comments:

Run Number:

Comments:

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: _____
 PS2: _____
 PS3: _____
 PS4: _____
 PS5: _____
 PS6: _____

Start time (from RC):

Stop time (from RC):

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

Run Number:

Comments:

- LH2 10cm
 LD2 10cm
 MT thick 10cm
 C 1.5% r.l.
 C 0.5% r.l.

PS1: _____
 PS2: _____
 PS3: _____
 PS4: _____
 PS5: _____
 PS6: _____

Start time (from RC):

Stop time (from RC):

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale pretrig: k

$e-\pi n$ evts:

SHMS prescale pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

Data ok

Junk

$p(e,e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name:
SHMS Pointing Scan #3

Purpose:

- Production
 Test
 Optics
 Other: pointing scan

E_{beam} : same GeV I_{beam} : _____ μA

Raster: On Off
 Size: _____

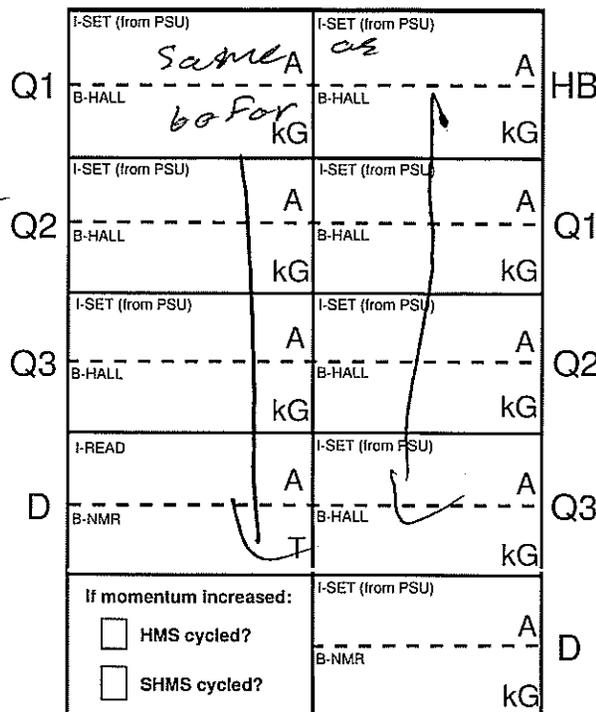
HMS
 p : +/- same $\theta(\text{TV})$: _____
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>-0.01</u> mm		<u>0.17</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.81</u> mm		<u>0.60</u> mm
Nomin:		Nomin:

SHMS
 p : +/- same $\theta(\text{TV})$: 12.990
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve



Run Number: <u>8407</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: <u>-1</u> PS2: <u>0</u> PS3: _____ PS4: <u>X</u> PS5: _____ PS6: _____	Start time (from RC): <u>18:24:40</u> Stop time (from RC): <u>18:33:54</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>32k</u> pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: <u>233k</u> pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	---	---	--	--

Run Number: <u>8408</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>1</u> PS6: _____	Start time (from RC): <u>18:34:22</u> Stop time (from RC): <u>18:40:33</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>179</u> pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: <u>362</u> pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	---	---	---	---	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	--	--

p(e,e'π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/ipl/

Date: 19/06/22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: _____
SHMS Pointing scan
4

Purpose:

- Production
 Test
 Optics
 Other: pointing scan

E_{beam}: 5.000 GeV **I_{beam}:** _____ μA

Raster: On Off
Size: _____

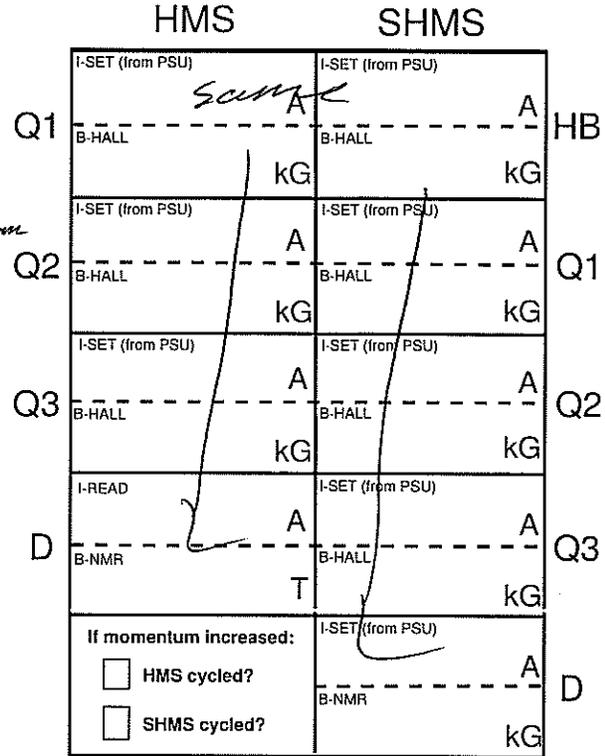
HMS
p: +/- 5.000 **θ(TV):** _____
From GUI Nearest 0.005

SHMS
p: +/- _____ **θ(TV):** 14.990
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Beam position and angle on target:

3H07A	X	Y
<u>-0.00</u> mm		<u>0.19</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.75</u> mm		<u>0.57</u> mm
Nomin:		Nomin:



Run Number: <u>8409</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> _____	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>1</u> PS6: <u>1</u>	Start time (from RC): <u>18:45:59</u> Stop time (from RC): <u>19:02:32</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>486</u> k pretrig: _____ e-πn evts: _____	SHMS prescale: <u>630</u> k pretrig: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	--	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale _____ k pretrig: _____ e-πn evts: _____	SHMS prescale _____ k pretrig: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale _____ k pretrig: _____ e-πn evts: _____	SHMS prescale _____ k pretrig: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale _____ k pretrig: _____ e-πn evts: _____	SHMS prescale _____ k pretrig: _____ Σ e-πn evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	---	--

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name: _____
SHMS Pointing scan #5

Purpose:

- Production
 Test
 Optics
 Other: _____

E_{beam}: same GeV **I_{beam}:** _____ μ A

Raster: On Off
Size: _____

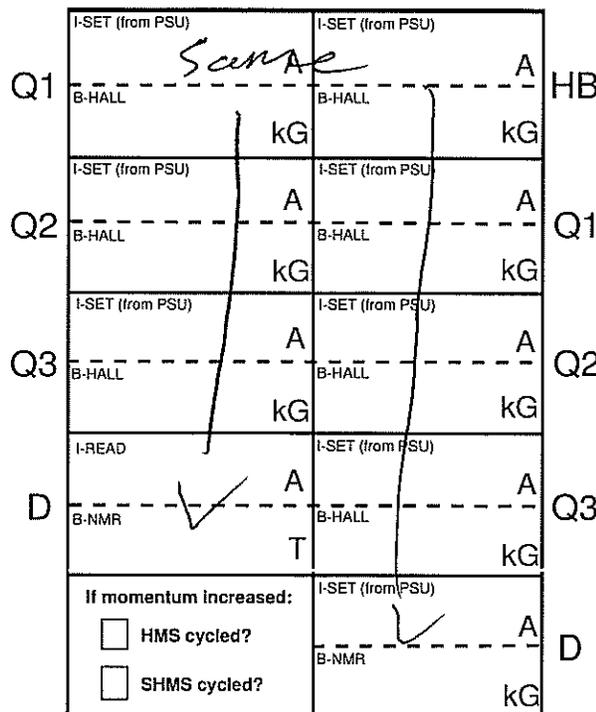
HMS
p: +/- _____ **θ (TV):** same
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

SHMS
p: +/- _____ **θ (TV):** 16.990
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve



Run Number: <u>8410</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>1</u> PS6: _____	Start time (from RC): <u>19:08:41</u> Stop time (from RC): <u>19:16:25</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale <u>223</u> k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale <u>178</u> k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	---	---	---	--	--	--

ended b/c SHMS dipole tripped

Run Number: <u>8411</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>1</u> PS6: _____	Start time (from RC): <u>19:35:19</u> Stop time (from RC): <u>19:48:36</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale <u>389</u> k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale <u>322</u> k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	---	---	---	--	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	---	--

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: _____
SHMS Pointing scan #7

Purpose:

- Production
- Test
- Optics
- Other: _____

E_{beam} : same GeV I_{beam} : _____ μA

HMS
 p : +/- same $\theta(\text{TV})$: _____
From GUI Nearest 0.005

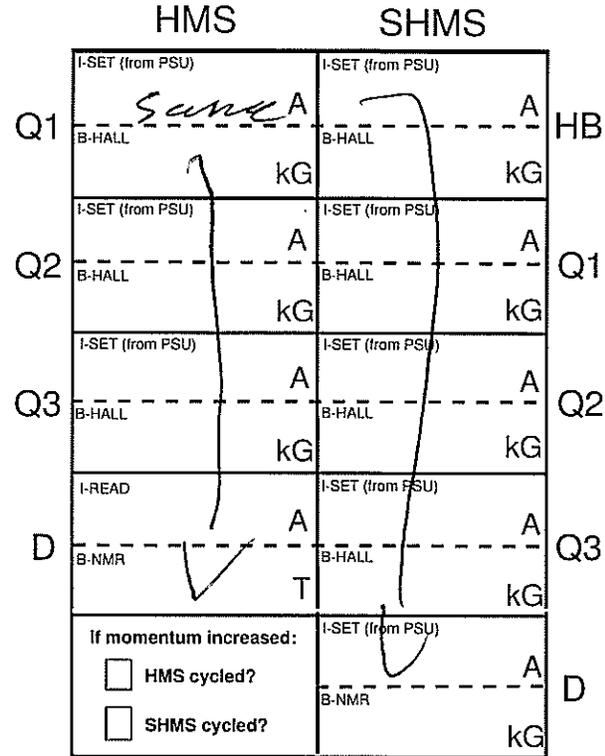
SHMS
 p : +/- same $\theta(\text{TV})$: 24.984
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Raster: On Off
Size: _____

Beam position and angle on target:

3H07A	X	Y
<u>-0.036</u> mm		<u>0.206</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.75</u> mm		<u>0.63</u> mm
Nomin:		Nomin:



Run Number: <u>8414</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>1</u> PS6: <u>1</u>	Start time (from RC): <u>20:35:10</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
-------------------------	--	--	--	--	--	--	---

wrong trigger setting

Run Number: <u>8415</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> <u>optics!</u>	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>3</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>20:36:52</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------------------	--	--	--	--	--	--	---

Ended b/c lost beam

Run Number: <u>8416</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> <u>optics!</u>	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>3</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>20:42:50</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>143</u> k $e-\pi n$ evts: _____	SHMS prescale pretrig: <u>112</u> k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------------------	--	--	--	---	---	---	---

Run Number: _____	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------------	--	--	-----------------------------	--	--	--	--

p(e,e' π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/22
yy mm dd

Initials: NLT

Use a separate sheet for each configuration.

Configuration Name:
SHMS pointing scan #8

Purpose:

- Production
 Test
 Optics
 Other: _____

E_{beam}: Some GeV **I_{beam}:** _____ μ A

Raster: On Off
Size: _____

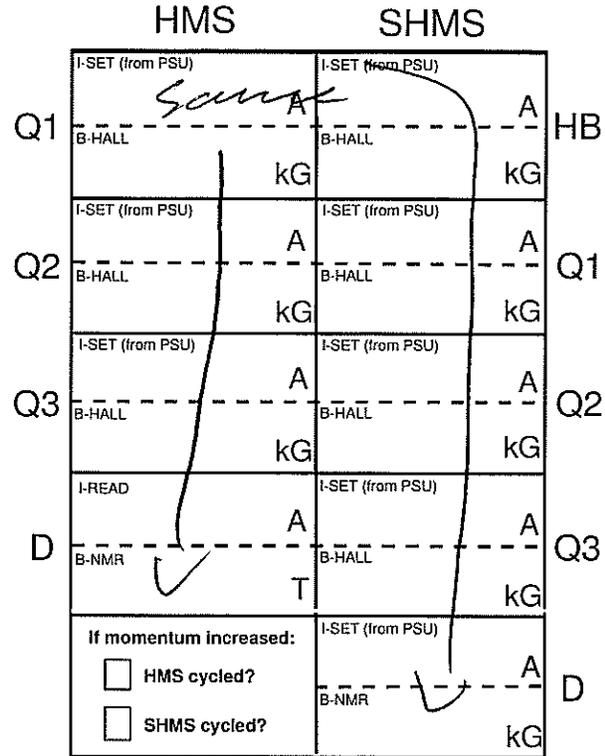
HMS
p: +/- Some **θ (TV):** _____
From GUI Nearest 0.005

SHMS
p: +/- Some **θ (TV):** 29.967
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Beam position and angle on target:

3H07A	X	Y
<u>0.05</u> mm		<u>0.19</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.78</u> mm		<u>0.56</u> mm
Nomin:		Nomin:



Run Number: <u>8417</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>3</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>21:16:37</u> Stop time (from RC): <u>21:17:51</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	--	--	--	--

Stopped b/c beam off

Run Number: <u>8418</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>3</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>21:18:43</u> Stop time (from RC): <u>21:55:53</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>197</u> k pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale: <u>70</u> k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Stopped b/c beam off

Run Number: <u>8419</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>3</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>21:56:32</u> Stop time (from RC): <u>22:16:38</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>115</u> k pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale: <u>40</u> k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	--	--

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19, 06, 22
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: _____
SHMS pointing scan
#9

Purpose:

- Production
 Test
 Optics
 Other: _____

E_{beam}: same GeV **I_{beam}:** _____ μ A

Raster: On Off
Size: _____

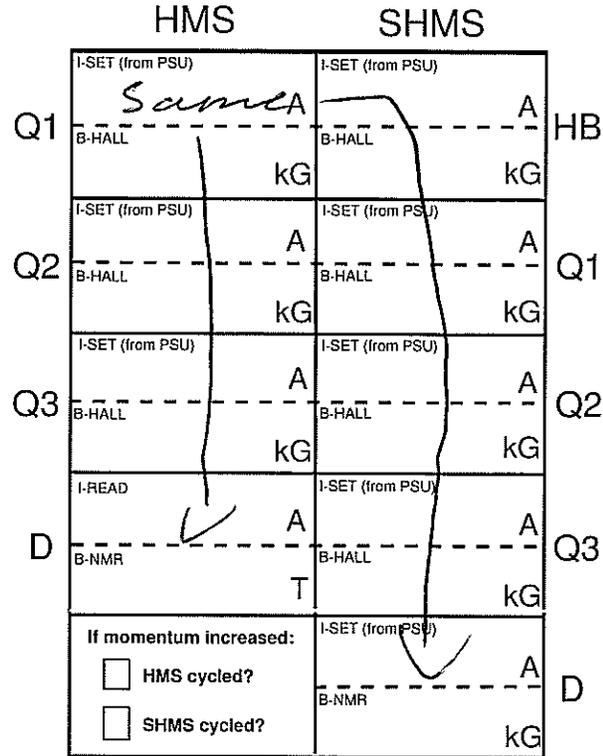
HMS
p: +/- same **θ (TV):** _____
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>0.018</u> mm		<u>0.20</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.79</u> mm		<u>0.62</u> mm
Nomin:		Nomin:

SHMS
p: +/- same **θ (TV):** 34.995
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve



Run Number: <u>8420</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>4</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>22:24:37</u> Stop time (from RC): <u>22:38:53</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>45</u> k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: <u>16</u> k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	--	--	--

ended b/c beam off

Run Number: <u>8421</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics!	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>4</u> PS4: <u>-1</u> PS5: <u>X</u> PS6: <u>X</u>	Start time (from RC): <u>22:40:11</u> Stop time (from RC): <u>23:59:11</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>233</u> k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: <u>91</u> k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k pretrig: _____ $e-\pi n$ evts: _____	SHMS prescale: _____ k pretrig: _____ $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	--	--

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/tpi/

Date: / /
 yy mm dd

Initials:

Use a separate sheet for each configuration.

Configuration Name: _____
 SHMS Pointing
 Scan # 10

Purpose:

- Production
 Test
 Optics
 Other: _____

E_{beam}: _____ GeV **I_{beam}:** _____ μ A

HMS
p: +/- _____ θ (TV): _____
From GUI Nearest 0.005

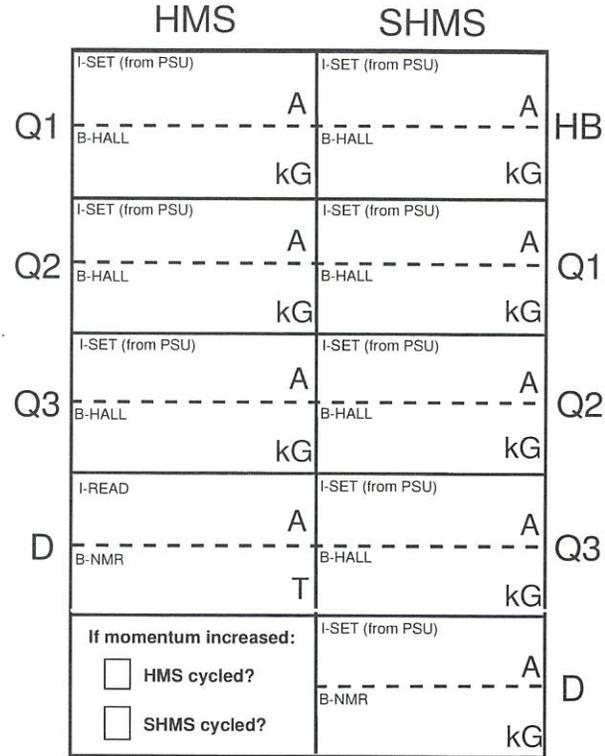
SHMS
p: +/- _____ θ (TV): 38.725
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve

Raster: On Off
Size: _____

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		
3H07C	X	Y
	mm	mm
Nomin:		



Run Number: 8422	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>4</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: _____	Start time (from RC): <u>00:06:59</u> Stop time (from RC): <u>1:08:06</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>196</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>54</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8423	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>4</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: _____	Start time (from RC): <u>1:13</u> Stop time (from RC): <u>1:35</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: JUNK							

Run Number: 8424	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>4</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: _____	Start time (from RC): <u>2:47</u> Stop time (from RC): <u>2:50</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>204</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>56</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8425	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Optics	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>4</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: _____	Start time (from RC): <u>2:51</u> Stop time (from RC): <u>3:56</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>206</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>57</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

$p(e,e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: / /
yy mm dd

Initials:

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name:
BPM Calibration

Purpose:

- Production
- Test
- Optics
- Other:

E_{beam}: GeV **I_{beam}:** μ A

Raster: On Off
Size:

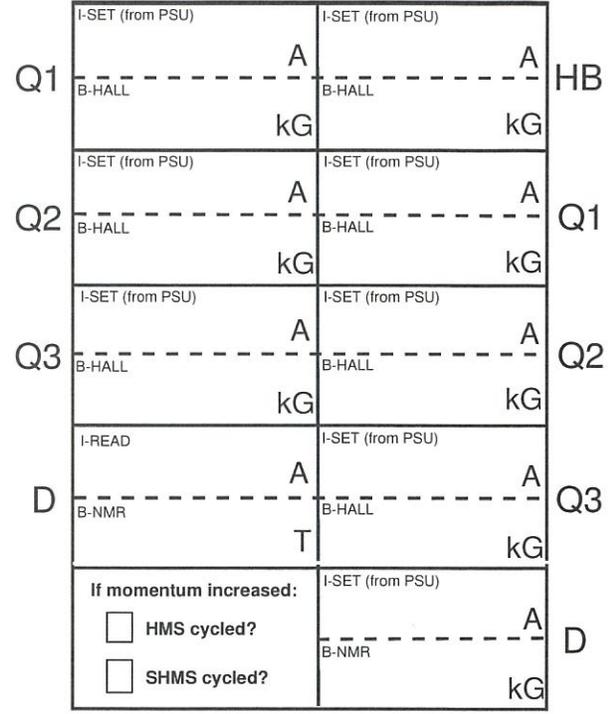
HMS
p: +/- θ (TV):
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

SHMS
p: +/- θ (TV): 38.795
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve



Run Number: <u>8426</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> <u>optics</u>	PS1: <u> </u> PS2: <u> </u> PS3: <u> </u> PS4: <u> </u> PS5: <u> </u> PS6: <u> </u>	Start time (from RC): <u>4:29</u> Stop time (from RC): <u>4:44</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> e-πn evts:	SHMS prescale pretrig: k <u> </u> Σ e-πn evts:	COIN pretrig: k <u> </u> <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <u>8427</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> <u>of</u>	PS1: <u> </u> PS2: <u> </u> PS3: <u> </u> PS4: <u> </u> PS5: <u> </u> PS6: <u> </u>	Start time (from RC): <u> </u> Stop time (from RC): <u> </u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> e-πn evts:	SHMS prescale pretrig: k <u> </u> Σ e-πn evts:	COIN pretrig: k <u> </u> <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>Run 8426 through 8435 were for BPM Calibrations. No replays were done for these runs.</u>							

Run Number: <u>8436</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>1</u> PS5: <u>1</u> PS6: <u>1</u>	Start time (from RC): <u>12:28</u> Stop time (from RC): <u>12:44</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> e-πn evts:	SHMS prescale pretrig: k <u> </u> Σ e-πn evts:	COIN pretrig: k <u> </u> <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>HMS pointing scan NMR unstable?</u>							

Run Number: <u>8437</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>1</u> PS5: <u>1</u> PS6: <u>1</u>	Start time (from RC): <u>12:45</u> Stop time (from RC): <u>12:58</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> e-πn evts:	SHMS prescale pretrig: k <u> </u> Σ e-πn evts:	COIN pretrig: k <u> </u> <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>HMS pointing scan NMR unstable?</u>							

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/25
yy mm dd

Initials: MM

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name: HMS parity scan

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam}: 2.72 GeV **I_{beam}:** 5 μ A

Raster: On Off
Size: _____

HMS
p: +0.15 **θ (TV):** 13.50
From GUI Nearest 0.005

SHMS
p: +0.2770 **θ (TV):** 6.00
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

Q1	I-SET (from PSU) <u>195.79</u> A B-HALL	I-SET (from PSU) <u>916.85</u> A B-HALL	HB
	<u>0.189</u> kG	<u>5.867</u> kG	
Q2	I-SET (from PSU) <u>-155.16</u> A B-HALL	I-SET (from PSU) <u>581.44</u> A B-HALL	Q1
	<u>-0.275</u> kG	<u>-4.03</u> kG	
Q3	I-SET (from PSU) <u>75.30</u> A B-HALL	I-SET (from PSU) <u>-977.48</u> A B-HALL	Q2
	<u>0.149</u> kG	<u>9.194</u> kG	
D	I-READ <u>-458.04</u> A B-NMR	I-SET (from PSU) <u>642.84</u> A B-HALL	Q3
	<u>0.41065</u> T	<u>6.208</u> kG	
	If momentum increased: <input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?		D
		<u>233.88</u> A B-NMR	
		<u>-6.419</u> kG	

Run Number: <u>8438</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>12:58</u> Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k _____ $e-\pi n$ evts:	SHMS prescale pretrig: k _____ $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	--	---	--	--	---

NMR may not have been stable all run

Run Number: <u>8439</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>13:08</u> Stop time (from RC): <u>13:19</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k _____ $e-\pi n$ evts:	SHMS prescale pretrig: k _____ $\Sigma e-\pi n$ evts:	COIN pretrig: k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	--	--	--

Run Number: <u>8440</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>-1</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>13:20</u> Stop time (from RC): <u>13:26</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k _____ $e-\pi n$ evts:	SHMS prescale pretrig: k _____ $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	---	---	--	--	--	---

Run during HMS angle rotation

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k _____ $e-\pi n$ evts:	SHMS prescale pretrig: k _____ $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	--	--	---

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 19/06/25
yy mm dd

Initials: TU

Use a separate sheet for each configuration.

Configuration Name: _____
HMS pointing

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam} : 2.772 GeV I_{beam} : 5 μA

Raster: On Off
Size: _____

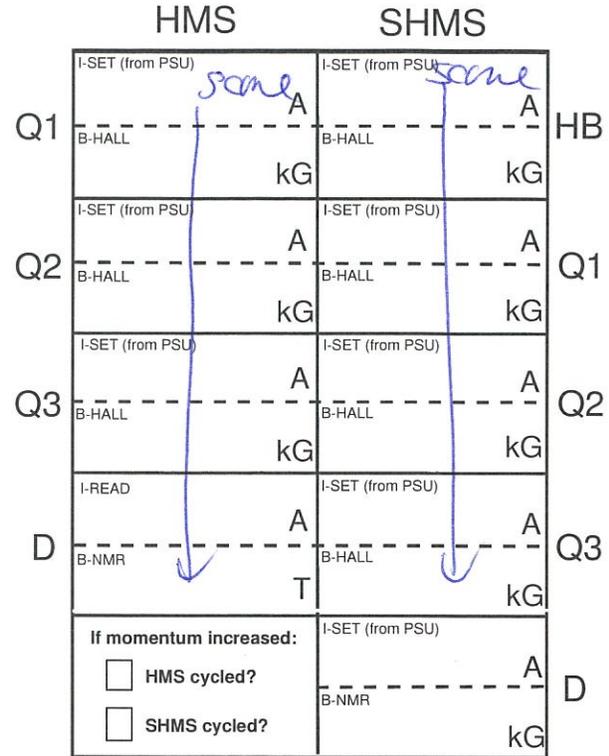
HMS
 p : +0.15 $\theta(\text{TV})$: 15.5
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

SHMS
 p : +0.2770 $\theta(\text{TV})$: 60
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve



Run Number: <u>8441</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>13:27</u> Stop time (from RC): <u>13:38</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Run Number: <u>8442</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>13:38</u> Stop time (from RC): <u>13:52</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Run Number: <u>8443</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>-1</u> PS4: <u>0</u> PS5: <u>0</u> PS6: <u>0</u>	Start time (from RC): <u>13:53</u> Stop time (from RC): <u>13:56</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Run during HMS cycle watch

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k _____	SHMS prescale pretrig: k _____	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	--	---

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/tpi/

Date: 19/06/25
yy mm dd

Initials: _____

Use a separate sheet for each configuration.

Configuration Name: _____
HMS polarity

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam}: 2.772 GeV **I_{beam}:** 5 μ A

Raster: On Off
Size: _____

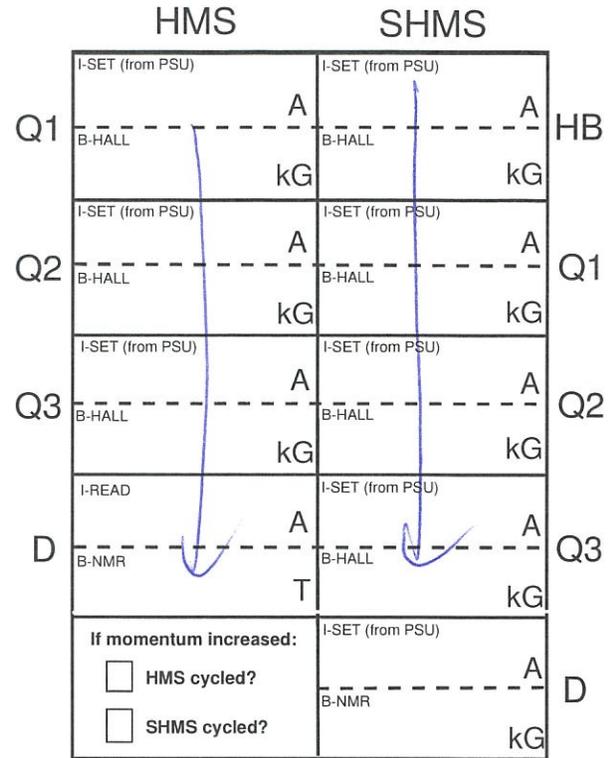
HMS
p: +/- 1.5 **θ (TV):** 17.5
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

SHMS
p: +/- 2.770 **θ (TV):** 6.0
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve



Run Number: <u>8444</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>13:57</u> Stop time (from RC): <u>14:09</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Run Number: <u>8445</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>14:09</u> Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	--	---	---	---	--	---

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	--	---

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u>	SHMS prescale pretrig: k <u> </u>	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	--	---

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 11/06/25 Initials: _____
 yy mm dd

Use a separate sheet for each configuration.

HMS same SHMS

Configuration Name: _____
HMS pointing

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam} : 2.772 GeV I_{beam} : 5 μA

Raster: On Off
 Size: _____

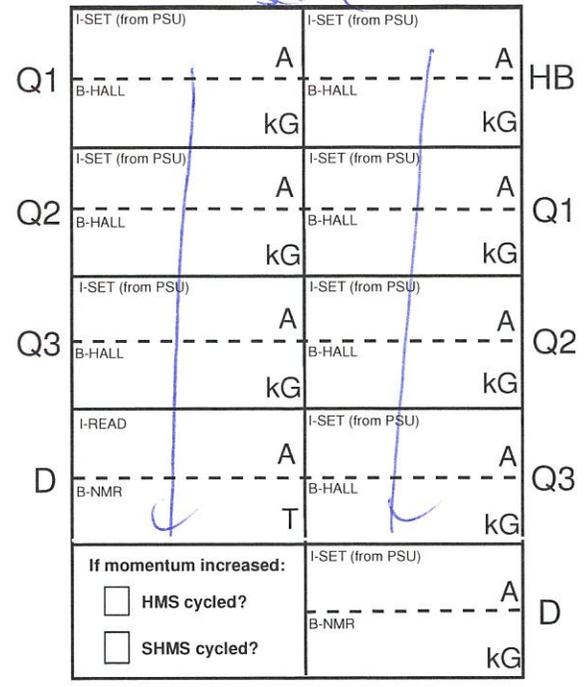
HMS
 p : +1.5 $\theta(\text{TV})$: 20.0
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		Nomin:
3H07C	X	Y
	mm	mm
Nomin:		Nomin:

SHMS
 p : +2.770 $\theta(\text{TV})$: 6.0
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve



Run Number: 8446
 LH2 10cm LD2 10cm MT thick 10cm C 1.5% r.l. C 0.5% r.l.
 PS1: 1 PS2: 0 PS3: 0 PS4: 1 PS5: 1 PS6: 1
 Start time (from RC): _____ Stop time (from RC): _____
 Settings Verified? HV OK? 50k OK?
 HMS prescale pretrig: _____ k $e-\pi n$ evts: _____
 SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____
 COIN pretrig: _____ k Data ok Junk

Run Number: _____
 LH2 10cm LD2 10cm MT thick 10cm C 1.5% r.l. C 0.5% r.l.
 PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____
 Start time (from RC): _____ Stop time (from RC): _____
 Settings Verified? HV OK? 50k OK?
 HMS prescale pretrig: _____ k $e-\pi n$ evts: _____
 SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____
 COIN pretrig: _____ k Data ok Junk

Run Number: _____
 LH2 10cm LD2 10cm MT thick 10cm C 1.5% r.l. C 0.5% r.l.
 PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____
 Start time (from RC): _____ Stop time (from RC): _____
 Settings Verified? HV OK? 50k OK?
 HMS prescale pretrig: _____ k $e-\pi n$ evts: _____
 SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____
 COIN pretrig: _____ k Data ok Junk

Run Number: _____
 LH2 10cm LD2 10cm MT thick 10cm C 1.5% r.l. C 0.5% r.l.
 PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____
 Start time (from RC): _____ Stop time (from RC): _____
 Settings Verified? HV OK? 50k OK?
 HMS prescale pretrig: _____ k $e-\pi n$ evts: _____
 SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____
 COIN pretrig: _____ k Data ok Junk

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: / /
yy mm dd

Initials:

Use a separate sheet for each configuration.

Configuration Name: HMS pointing

Purpose:
 Production
 Test
 Optics
 Other:

E_{beam}: 2.77 GeV **I_{beam}:** 5 μ A

HMS
p: +6.5 **θ (TV):** 2998
From GUI Nearest 0.005

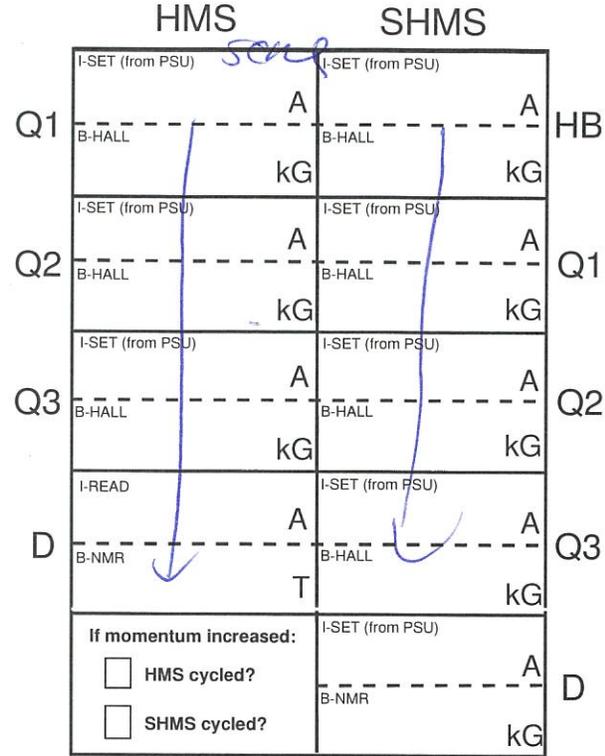
SHMS
p: +6.2770 **θ (TV):** 6.0
From GUI Nearest 0.005

Collimator: **HMS:** Large Sieve **SHMS:** Large Sieve

Raster: On Off
Size:

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:		
3H07C	X	Y
	mm	mm
Nomin:		



Run Number: <u>8448</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> <u> </u>	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u> </u> Stop time (from RC): <u> </u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> $e-\pi n$ evts:	SHMS prescale pretrig: k <u> </u> $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	--	---	---	---

JUNK? Pointing Scan?

Run Number: <u>8449</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Home	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>20:08</u> Stop time (from RC): <u>20:40</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> $e-\pi n$ evts:	SHMS prescale pretrig: k <u> </u> $\Sigma e-\pi n$ evts:	COIN pretrig: k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	--	---	---	--

BCM Calibrations. (stopped bcz mcc was having problems @ after 3000 mVA)

Run Number: <u>8450</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Home	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>0</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>21:50</u> Stop time (from RC): <u>03:42</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> $e-\pi n$ evts:	SHMS prescale pretrig: k <u> </u> $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	--	--	---	--	---	---	---

BCM Calibrations.

Run Number: <u> </u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> <u> </u>	PS1: <u> </u> PS2: <u> </u> PS3: <u> </u> PS4: <u> </u> PS5: <u> </u> PS6: <u> </u>	Start time (from RC): <u> </u> Stop time (from RC): <u> </u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k <u> </u> $e-\pi n$ evts:	SHMS prescale pretrig: k <u> </u> $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
----------------------------------	---	--	---	--	---	---	---

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 14/6/26
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name: _____
SHMS δ Scan #3

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam} : 2.758 GeV I_{beam} : 5 μ A

Raster: On Off
 Size: _____

HMS
 p : 1.5 $\theta(\text{TV})$: 35.005
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>-0.005</u> mm		<u>0.194</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.765</u> mm		<u>0.607</u> mm
Nomin:		Nomin:

SHMS 500
 p : 2.000 $\theta(\text{TV})$: 6.00
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Q1	I-SET (from PSU) <u>195.834</u> A B-HALL <u>0.189</u> KG	I-SET (from PSU) <u>826.85</u> A B-HALL <u>5.228</u> KG	HB
Q2	I-SET (from PSU) <u>155.2226</u> A B-HALL <u>-0.274</u> KG	I-SET (from PSU) <u>524.84</u> A B-HALL <u>-3.697</u> KG	Q1
Q3	I-SET (from PSU) <u>75.8158</u> A B-HALL <u>0.144</u> KG	I-SET (from PSU) <u>882.24</u> A B-HALL <u>8.296</u> KG	Q2
D	I-READ <u>456.67</u> A B-NMR <u>0.4106550</u> T	I-SET (from PSU) <u>580</u> A B-HALL <u>5.631</u> KG	Q3
	If momentum increased: <input type="checkbox"/> HMS cycled? <input checked="" type="checkbox"/> SHMS cycled?	I-SET (from PSU) <u>797.84</u> A B-NMR <u>-5.852</u> KG	D

Run Number: <u>8454</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>-1</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>06:07</u> Stop time (from RC): <u>07:36</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
----------------------------	---	---	---	---	--	--	---

SHMS SIX 1-75 and 52X1-6 off

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------	--	--	---	--	--	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------	--	--	---	--	--	--	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
-------------	--	--	---	--	--	--	--

$p(e, e'\pi)n$ Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 14/6/26
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

HMS

SHMS

Configuration Name: _____
SHMS δ Scan #4

Purpose:
 Production
 Test
 Optics
 Other: _____

E_{beam}: 2.758 GeV **I_{beam}:** 5 μ A

Raster: On Off
 Size: _____

HMS
p: 1.500 **θ (TV):** 35.005
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>6.625</u> mm		<u>0.225</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.841</u> mm		<u>0.665</u> mm
Nomin:		Nomin:

SHMS
p: 2.376 **θ (TV):** 6.06
From GUI Nearest 0.005

Collimator: HMS: Large Sieve SHMS: Large Sieve

Q1	I-SET (from PSU)	A	I-SET (from PSU)	A	HB
	<u>195.8</u>		<u>783.60</u>		
Q2	B-HALL	kg	B-HALL	kg	Q1
	<u>0.192</u>		<u>4.955</u>		
Q3	I-SET (from PSU)	A	I-SET (from PSU)	A	Q2
	<u>155.12</u>		<u>447.56</u>		
D	B-HALL	kg	B-HALL	kg	Q3
	<u>-0.275</u>		<u>-3.442</u>		
D	I-SET (from PSU)	A	I-SET (from PSU)	A	D
	<u>75.30</u>		<u>836.40</u>		
D	B-HALL	kg	B-HALL	kg	D
	<u>0.150</u>		<u>7.806</u>		
D	I-READ	A	I-SET (from PSU)	A	D
	<u>457.62</u>		<u>549.92</u>		
D	B-NMR	kg	B-HALL	kg	D
	<u>0.4106557</u>		<u>5.381</u>		
If momentum increased:				I-SET (from PSU)	A
<input type="checkbox"/> HMS cycled?				<u>756.28</u>	
<input type="checkbox"/> SHMS cycled?				B-NMR	kg
				<u>-5.519</u>	

Run Number: <u>8455</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input checked="" type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>-1</u> PS4: <u>-1</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>07:42</u> Stop time (from RC): <u>8:42</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: k e- π evts:	SHMS prescale pretrig: k Σ e- π evts:	COIN pretrig: k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
-----------------------------------	---	---	--	---	---	---	---

SHMS \rightarrow SIX1-6 and SIX31-7 off

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k e- π evts:	SHMS prescale pretrig: k Σ e- π evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k e- π evts:	SHMS prescale pretrig: k Σ e- π evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	---	--

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k e- π evts:	SHMS prescale pretrig: k Σ e- π evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
--------------------	--	--	---	--	---	---	--