

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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: 19/06/22  
yy mm dd

Initials: Deb

HMS

SHMS

Q1	I-SET (from PSU) <u>195.83</u> A B-HALL <u>0.191</u> kG	I-SET (from PSU) <u>995.15</u> A B-HALL <u>3.132</u> kG	HB
Q2	I-SET (from PSU) <u>155.16</u> A B-HALL <u>-0.274</u> kG	I-SET (from PSU) <u>314.80</u> A B-HALL <u>-2.232</u> kG	Q1
Q3	I-SET (from PSU) <u>75.31</u> A B-HALL <u>0.148</u> kG	I-SET (from PSU) <u>529.56</u> A B-HALL <u>4.957</u> kG	Q2
D	I-READ <u>457.98</u> A B-NMR <u>0.4106735</u> T	I-SET (from PSU) <u>397.96</u> A B-HALL <u>8.400</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>-3.486</u> kG	

Configuration Name: sieve at 1.5 GeV

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

E<sub>beam</sub>: 2.76 GeV

I<sub>beam</sub>: 5  $\mu$ A

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

HMS

p: +/- -1.500  $\theta$ (TV): 11.500  
From GUI Nearest 0.005

SHMS

p: +/- -1.500  $\theta$ (TV): 9.500  
From GUI Nearest 0.005

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:	

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

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

$e-\pi n$  evts:

SHMS

prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN

pretrig: k

☒ 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

$e-\pi n$  evts:

SHMS

prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN

pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS

prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN

pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS

prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN

pretrig: k

☐ Data ok

☐ Junk

Comments:

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

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Date: 19/06/22  
yy mm dd

Initials: Deb

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

Trigger PID Legs study

E<sub>beam</sub>: \_\_\_\_\_ GeV

I<sub>beam</sub>: 5.00  $\mu$ A

HMS

p: +/- -1.5  
From GUI

$\theta$ (TV): 11.500  
Nearest 0.005

SHMS

p: +/- -0.448  
From GUI

$\theta$ (TV): 9.500  
Nearest 0.005

Collimator:

HMS: Large ☒ Sieve ☐

SHMS: Large ☒ Sieve ☐

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: Trig PID Legs study

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)  
495.58 A  
B-HALL

I-SET (from PSU)  
495.25 A  
B-HALL

HB

Q2

I-SET (from PSU)  
45.89 A  
B-HALL

I-SET (from PSU)  
314.16 A  
B-HALL

Q1

Q3

I-SET (from PSU)  
22.43 A  
B-HALL

I-SET (from PSU)  
529.56 A  
B-HALL

Q2

D

I-READ  
136.14 A  
B-NMR

I-SET (from PSU)  
348.08 A  
B-HALL

Q3

0.12265 T

3.400 kg

If momentum increased:

☐ HMS cycled?

☐ SHMS cycled?

I-SET (from PSU)

478.64 A

B-NMR

-3.474 kg

D

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

Comments:

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

Comments:

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

Comments:

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

Comments:

1.5 M total events



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

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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
Comments:							

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
Comments:							

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
Comments:							

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
Comments:							

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
Comments:							

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
Comments:							

2.6 M events

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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 19/06/22  
yy mm dd

Initials: Feb

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

Sieve at 0.448 GeV

$E_{\text{beam}}$ : 2.774 GeV

$I_{\text{beam}}$ : 5  $\mu\text{A}$

HMS

$p$ : +/- \_\_\_\_\_  
From GUI

$\theta(\text{TV})$ : 11.500  
Nearest 0.005

SHMS

$p$ : +/- \_\_\_\_\_  
From GUI

$\theta(\text{TV})$ : 9.500  
Nearest 0.005

Collimator:

HMS: Large Sieve ☐

SHMS: Large Sieve ☒

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

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:

HMS

SHMS

Q1	I-SET (from PSU) <u>58.21</u> A	I-SET (from PSU) <u>495.15</u> A	HB
	B-HALL <u>0.055</u> kG	B-HALL <u>3.134</u> kG	
Q2	I-SET (from PSU) <u>15.89</u> A	I-SET (from PSU) <u>314.84</u> A	Q1
	B-HALL <u>-0.053</u> kG	B-HALL <u>-2.232</u> kG	
Q3	I-SET (from PSU) <u>22.44</u> A	I-SET (from PSU) <u>529.60</u> A	Q2
	B-HALL <u>0.041</u> kG	B-HALL <u>4.951</u> kG	
D	I-READ <u>136.14</u> A	I-SET (from PSU) <u>348.12</u> A	Q3
	B-NMR <u>0.12265</u> T	B-HALL <u>3.400</u> kG	
If momentum increased:		I-SET (from PSU)	D
<input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?		<u>478.64</u> A B-NMR <u>-3.480</u> kG	

Run Number:

8387

- ☐ 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

Comments:

junk : Mcc switch the Raster ON!

Run Number:

8388

- ☐ 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: -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

Comments:

2.7 M events

Run Number:

8389

- ☐ 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: -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

Comments:

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

Run Number:

8390

- ☐ 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: -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

Comments:

1.6 M events



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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 19, 06, 22  
yy mm dd

Initials: JEB

## 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: -1 PS2: 2 PS3: 0 PS4: -1 PS5: -1 PS6: -1	Start time (from RC): 06:44 Stop time (from RC): 06:44	<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:							

1.8 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:							

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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: 19/6/22  
yy mm dd

Initials: SK

Configuration Name: \_\_\_\_\_

Sieve at 0.8 GeV/c  
HMS

E<sub>beam</sub>: 2.774 GeV

I<sub>beam</sub>: 5  $\mu$ A

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

Beam position and angle  
on target:

3H07A	X	Y
-0.002 mm		0.197 mm
Nomin:		Nomin:
3H07C	X	Y
-0.785 mm		0.60 mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) 104.28 A B-HALL 0.10 kG	I-SET (from PSU) 445.15 A B-HALL 3.134 kG	HB
Q2	I-SET (from PSU) 82.46 A B-HALL kG	I-SET (from PSU) 314.84 A B-HALL -2.232 kG	Q1
Q3	I-SET (from PSU) 40.13 A B-HALL 0.077 kG	I-SET (from PSU) 529.60 A B-HALL 4.951 kG	Q2
D	I-READ 243.7 A B-NMR 0.219086 T	I-SET (from PSU) 348.12 A B-HALL 3.400 kG	Q3
	If momentum increased: <input checked="" type="checkbox"/> HMS cycled? <input checked="" type="checkbox"/> SHMS cycled?	I-SET (from PSU) 478.64 A B-NMR -3.480 kG	D

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:

SHMS prescale  
601 k  
pretrig:

COIN pretrig: k

$e-\pi n$  evts:

$\Sigma e-\pi n$  evts:

☐ 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:

SHMS prescale  
832 k  
pretrig:

COIN pretrig: k

$e-\pi n$  evts:

$\Sigma e-\pi n$  evts:

☒ 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:

SHMS prescale  
882 k  
pretrig:

COIN pretrig: k

$e-\pi n$  evts:

$\Sigma e-\pi n$  evts:

☒ 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:

SHMS prescale  
537 k  
pretrig:

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/](http://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

E<sub>beam</sub>: 2.774 GeV

I<sub>beam</sub>: 5  $\mu$ A

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

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>-0.740</u> mm		<u>0.546</u> mm
Nomin:		Nomin:

HMS

SHMS

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

Run Number:

8396

- ☐ 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):

10:10

Stop time (from RC):

10:12

☒ Settings Verified?

☒ HV OK?

☐ 50k OK?

HMS prescale  
pretrig: 712 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 601 k

$\Sigma e-\pi n$  evts:

COIN pretrig: ✓ k

☐ Data ok

☒ Junk

Comments:

HMS pipole drifted out of range

Run Number:

8397

- ☐ 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):

10:12

Stop time (from RC):

10:29

☒ Settings Verified?

☒ HV OK?

☒ 50k OK?

HMS prescale  
pretrig: 390 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 616 k

$\Sigma e-\pi n$  evts:

COIN pretrig: ✓ k

☒ Data ok

☐ Junk

Comments:

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

Run Number:

8398

- ☐ 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):

10:29

Stop time (from RC):

10:49

☒ 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:

HMS pipole more stable

Run Number:

8399

- ☐ 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):

10:50

Stop time (from RC):

11:34

☒ 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:

8398/8399 best runs ~

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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://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:							



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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://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  
# 1

E<sub>beam</sub>: 2.883 GeV

I<sub>beam</sub>: 5  $\mu$ A

HMS

p: +/- -0.000  $\theta$ (TV): 11.500  
From GUI Nearest 0.005

SHMS

p: +/- 1.500  $\theta$ (TV): 7.598  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

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:

HMS

SHMS

Q1	I-SET (from PSU) <u>130.40</u> A	I-SET (from PSU) <u>495.20</u> A	HB
	B-HALL <u>0.25</u> KG	B-HALL <u>3.135</u> KG	
Q2	I-SET (from PSU) <u>103.15</u> A	I-SET (from PSU) <u>314.76</u> A	Q1
	B-HALL <u>-0.169</u> KG	B-HALL <u>-2.232</u> KG	
Q3	I-SET (from PSU) <u>50.18</u> A	I-SET (from PSU) <u>529.6</u> A	Q2
	B-HALL <u>0.097</u> KG	B-HALL <u>4.951</u> KG	
D	I-READ <u>305.07</u> A	I-SET (from PSU) <u>348.0</u> A	Q3
	B-NMR <u>0.277777</u> KG	B-HALL <u>3.402</u> KG	
If momentum increased:		I-SET (from PSU) <u>478.64</u> A	D
<input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?		B-NMR <u>-3.484</u> KG	

Run Number:

8403

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Opt 1

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

Comments:

Junk

Run Number:

8404

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Opt 1

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

Start time (from RC):

Stop time (from RC):

- ☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 3/2 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 925 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/](http://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<sub>beam</sub>: 2.783 GeV

I<sub>beam</sub>: 5  $\mu$ A

HMS

p: +/- Same  
From GUI

$\theta$ (TV): 11.500  
Nearest 0.005

SHMS

p: +/- Same  
From GUI

$\theta$ (TV): 10.990  
Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: Pointingscan

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

Run Number:

8405

- ☐ 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: 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: 467

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ Data ok

☐ Junk

Comments:

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:

- ☐ 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

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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  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/](http://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  
# 3

E<sub>beam</sub>: same GeV

I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

HMS

p: +/- same  $\theta$ (TV): \_\_\_\_\_  
From GUI Nearest 0.005

SHMS

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

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: pointing scan

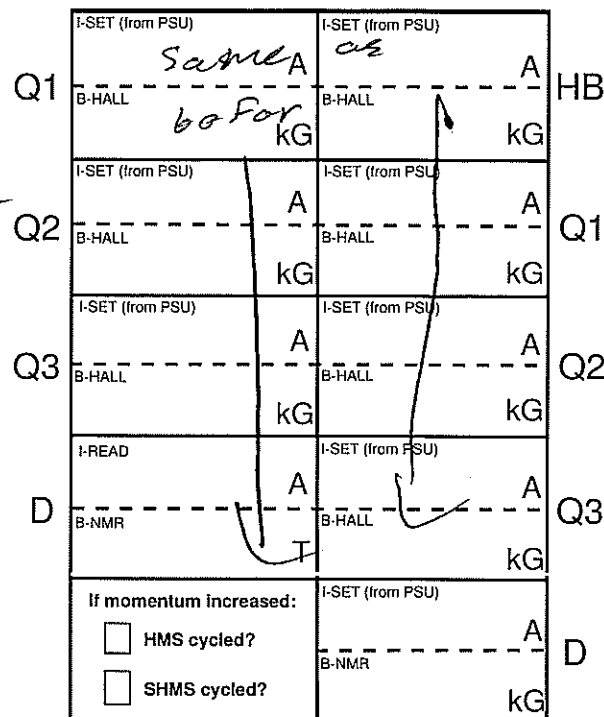
Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

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:

HMS

SHMS



Run Number:

8407

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

PS1: -1  
PS2: 0  
PS3: \_\_\_\_\_  
PS4: X  
PS5: \_\_\_\_\_  
PS6: \_\_\_\_\_

Start time (from RC):

18:24:40

Stop time (from RC):

18:33:44

☐ Settings  
Verified?

☐ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig: 32k

$e-\pi n$  evts:

SHMS  
prescale  
pretrig: 233k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ Data ok

☐ Junk

Comments:

Run Number:

8408

- ☐ 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: \_\_\_\_\_

Start time (from RC):

18:34:22

Stop time (from RC):

18:40:33

☐ Settings  
Verified?

☐ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig: 17k

$e-\pi n$  evts:

SHMS  
prescale  
pretrig: 36k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS  
prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS  
prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ Data ok

☐ Junk

Comments:

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

can be found at [lichen.phys.uregina.ca/~huberg/ipl/](http://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

E<sub>beam</sub>: 5.000 GeV I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

HMS

p: +/- 5.000  $\theta$ (TV): \_\_\_\_\_  
From GUI Nearest 0.005

SHMS

p: +/- \_\_\_\_\_  $\theta$ (TV): 14.990  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: pointing scan

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

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>0.52</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) B-HALL	I-SET (from PSU) B-HALL	A	HB
Q2	I-SET (from PSU) B-HALL	I-SET (from PSU) B-HALL	A	Q1
Q3	I-SET (from PSU) B-HALL	I-SET (from PSU) B-HALL	A	Q2
D	I-READ B-NMR	I-SET (from PSU) B-HALL	A	Q3
			A	D

If momentum increased:

☐ HMS cycled?

☐ SHMS cycled?

Run Number:

8409

- ☐ 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):

18:45:59

Stop time (from RC):

19:02:32

☐ Settings Verified?

☐ HV OK?

☒ 50k OK?

HMS prescale  
pretrig: 486 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 630 k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 19/06/22  
yy mm dd

Initials: WHL

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

SHMS Pointing scan #5

E<sub>beam</sub>: same GeV I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

HMS

p: +/- same  $\theta$ (TV): \_\_\_\_\_  
From GUI Nearest 0.005

SHMS

p: +/- \_\_\_\_\_  $\theta$ (TV): 16.940  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☐

SHMS: Large ☐  
Sieve ☐

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

Beam position and angle  
on target:

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

HMS

SHMS

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

Run Number:

8410

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

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

Start time (from RC):

19:08:41

Stop time (from RC):

19:16:25

- ☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 223 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 178 k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ Data ok

☐ Junk

Comments:

ended b/c SHMS dipole tripped

Run Number:

8411

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

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

Start time (from RC):

19:35:19

Stop time (from RC):

19:48:36

- ☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 389 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 322 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/lpi/](http://lichen.phys.uregina.ca/~huberg/lpi/)

Date: 19/06/22  
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

SHMS Pointing scan  
#6

E<sub>beam</sub>: same GeV I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

HMS

p: +/- same  $\theta$ (TV): \_\_\_\_\_  
From GUI Nearest 0.005

SHMS

p: +/- same  $\theta$ (TV): 19.985  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☐

SHMS: Large ☐  
Sieve ☐

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

Beam position and angle  
on target:

3H07A	X	Y
<u>-0.019</u> mm		<u>0.22</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.787</u> mm		<u>0.623</u> mm
Nomin:		Nomin:

HMS

SHMS

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

Run Number:

8412

☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

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

Start time (from RC):

19:55:13

Stop time (from RC):

19:57:33

☐ Settings  
Verified?

☐ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig:

50k

$e-\pi n$  evts:

SHMS  
prescale  
pretrig:

21k

$\Sigma e-\pi n$  evts:

COIN  
pretrig:

k

☒ Data ok

☐ Junk

Comments:

Stopped b/c no beam  
beam ended

Run Number:

8413

☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

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

Start time (from RC):

20:02:58

Stop time (from RC):

20:27:20

☐ Settings  
Verified?

☐ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig:

716k

$e-\pi n$  evts:

SHMS  
prescale  
pretrig:

308k

$\Sigma e-\pi n$  evts:

COIN  
pretrig:

k

☐ 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

$e-\pi n$  evts:

SHMS  
prescale  
pretrig:

\_\_\_\_\_ k

$\Sigma e-\pi n$  evts:

COIN  
pretrig:

\_\_\_\_\_ k

☐ 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

$e-\pi n$  evts:

SHMS  
prescale  
pretrig:

\_\_\_\_\_ k

$\Sigma e-\pi n$  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/](http://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

E<sub>beam</sub>: \_\_\_\_\_

same  
GeV

I<sub>beam</sub>: \_\_\_\_\_

μA

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off

Size: \_\_\_\_\_

Beam position and angle on target:

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

HMS

SHMS

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

Run Number:

8414

- ☐ 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):

20:35:10

Stop time (from RC):

20:36

- ☐ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: k  
e-πn evts:

SHMS prescale  
pretrig: k  
Σ e-πn evts:

COIN pretrig: k  
☐ Data ok  
☒ Junk

Comments:

wrong trigger setting

Run Number:

8415

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ optics!

PS1: -1  
PS2: 0  
PS3: 3  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

20:36:52

Stop time (from RC):

20:41:21

- ☐ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: k  
e-πn evts:

SHMS prescale  
pretrig: k  
Σ e-πn evts:

COIN pretrig: k  
☒ Data ok  
☐ Junk

Comments:

Ended b/c lost beam

Run Number:

8416

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ optics!

PS1: -1  
PS2: 0  
PS3: 3  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

20:42:50

Stop time (from RC):

21:08:22

- ☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: k  
143  
e-πn evts:

SHMS prescale  
pretrig: k  
112  
Σ e-πn evts:

COIN pretrig: k  
☒ 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  
e-πn evts:

SHMS prescale  
pretrig: k  
Σ e-πn 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/](http://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

E<sub>beam</sub>: \_\_\_\_\_ GeV  
I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: \_\_\_\_\_

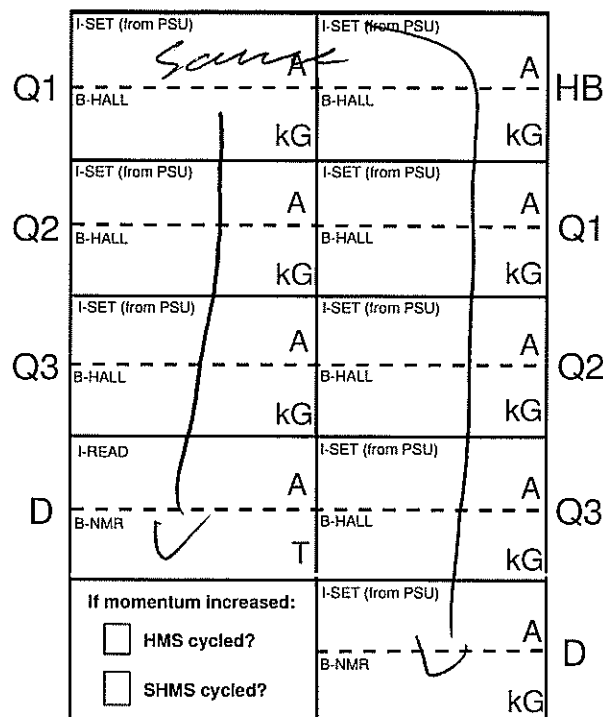
Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

Beam position and angle  
on target:

3H07A	X	Y
0.05 mm		0.19 mm
Nomin:		Nomin:
3H07C	X	Y
-0.78 mm		0.56 mm
Nomin:		Nomin:

HMS

SHMS



Run Number:

8417

☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

PS1: -1  
PS2: 0  
PS3: 3  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

21:16:37

Stop time (from RC):

21:17:51

☐ 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:

Stopped b/c beam off

Run Number:

8418

☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

PS1: -1  
PS2: 0  
PS3: 3  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

21:18:43

Stop time (from RC):

21:55:53

☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 197 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 70 k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☒ Data ok  
☐ Junk

Comments:

Stopped b/c beam off

Run Number:

8419

☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

PS1: -1  
PS2: 0  
PS3: 3  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

21:56:32

Stop time (from RC):

22:16:38

☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 115 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 40 k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  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/](http://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

E<sub>beam</sub>: same GeV I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

HMS

p: +/- same  $\theta$ (TV): \_\_\_\_\_  
From GUI Nearest 0.005

SHMS

p: +/- same  $\theta$ (TV): 34.995  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

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:

HMS

SHMS

Q1	I-SET (from PSU) B-HALL	<u>same</u> A	I-SET (from PSU) B-HALL	A	HB
Q2	I-SET (from PSU) B-HALL	A	I-SET (from PSU) B-HALL	A	Q1
Q3	I-SET (from PSU) B-HALL	A	I-SET (from PSU) B-HALL	A	Q2
D	I-READ B-NMR	A	I-SET (from PSU) B-HALL	A	Q3
		T		kG	D
				A	
				kG	

If momentum increased:

☐ HMS cycled?

☐ SHMS cycled?

Run Number:

8420

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

PS1: -1  
PS2: 0  
PS3: 4  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

22:24:37

Stop time (from RC):

22:38:53

☐ Settings Verified?

☐ HV OK?

☒ 50k OK?

HMS prescale  
pretrig: 45 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 16 k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ Data ok

☐ Junk

Comments:

ended b/c beam off

Run Number:

8421

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ Optics!

PS1: -1  
PS2: 0  
PS3: 4  
PS4: -1  
PS5: X  
PS6: X

Start time (from RC):

22:40:11

Stop time (from RC):

23:59:11

☐ Settings Verified?

☐ HV OK?

☒ 50k OK?

HMS prescale  
pretrig: 233 k

$e-\pi n$  evts:

SHMS prescale  
pretrig: 91 k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☒ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN pretrig: k

☐ Data ok

☐ Junk

Comments:



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

can be found at [lichen.phys.uregina.ca/~huberg/tpi/](http://lichen.phys.uregina.ca/~huberg/tpi/)

Date:      /      /       
yy mm dd

Initials:     

Use a separate sheet for each configuration.

Configuration Name: SHMS Pointing  
Scan #108

Purpose:

- ☐ Production  
☐ Test  
☐ Optics  
☐ Other:

E<sub>beam</sub>:      GeV

I<sub>beam</sub>:       $\mu$ A

Raster: ☐ On ☒ Off

Size:     

HMS

p: +/-       $\theta$ (TV):       
From GUI Nearest 0.005

SHMS

p: +/-       $\theta$ (TV): 38.725  
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:

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

HMS

SHMS

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

Run Number:

8422

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

PS1: -1  
PS2: 0  
PS3: 4  
PS4: -1  
PS5: -1  
PS6:     

Start time (from RC):

00:06:59

Stop time (from RC):

1:08:06

- ☐ Settings Verified?  
☐ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 196 k

$e\pi n$  evts:

SHMS prescale  
pretrig: 54 k

$\Sigma e\pi n$  evts:

COIN  
pretrig:      k

☐ Data ok

☐ Junk

Comments:

Run Number:

8423

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

PS1: -1  
PS2: 0  
PS3: 4  
PS4: -1  
PS5: -1  
PS6:     

Start time (from RC):

1:13

Stop time (from RC):

1:35

- ☐ 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:

JUNK

Run Number:

8424

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

PS1: -1  
PS2: 0  
PS3: 4  
PS4: -1  
PS5: -1  
PS6:     

Start time (from RC):

2:47

Stop time (from RC):

2:50

- ☐ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: 204 k

$e\pi n$  evts:

SHMS prescale  
pretrig: 56 k

$\Sigma e\pi n$  evts:

COIN  
pretrig:      k

☐ Data ok

☐ Junk

Comments:

Run Number:

8425

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

PS1: -1  
PS2: 0  
PS3: 4  
PS4: -1  
PS5: -1  
PS6:     

Start time (from RC):

2:51

Stop time (from RC):

3:56

- ☐ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: 206 k

$e\pi n$  evts:

SHMS prescale  
pretrig: 57 k

$\Sigma e\pi n$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
yy mm dd

Initials: \_\_\_\_

Configuration Name: \_\_\_\_\_

BPM Calibration

E<sub>beam</sub>: \_\_\_\_\_ GeV

I<sub>beam</sub>: \_\_\_\_\_  $\mu$ A

HMS

p: +/- \_\_\_\_\_  $\theta$ (TV): \_\_\_\_\_  
From GUI Nearest 0.005

SHMS

p: +/- \_\_\_\_\_  $\theta$ (TV): 38.795  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☐

SHMS: Large ☐  
Sieve ☐

Purpose:

☐ Production

☐ Test

☐ Optics

☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off

Size: \_\_\_\_\_

Beam position and angle  
on target:

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

HMS

SHMS

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

Run Number:

8426

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

PS1: \_\_\_\_\_  
PS2: \_\_\_\_\_  
PS3: \_\_\_\_\_  
PS4: \_\_\_\_\_  
PS5: \_\_\_\_\_  
PS6: \_\_\_\_\_

Start time (from RC):

4:29

Stop time (from RC):

4:44

- ☐ 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:

8427

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

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

Comments:

Run 8426 through 8435 were for BPM Calibration  
No replays were done for these runs.

Run Number:

8436

- ☐ 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):

12:28

Stop time (from RC):

12:44

- ☐ 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:

HMS pointing scan NMR unstable?

Run Number:

8437

- ☐ 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):

12:45

Stop time (from RC):

12:58

- ☐ 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:

HMS pointing scan NMR unstable?



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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 19/06/25  
yy mm dd

Initials: MM

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

HMS parting scan

E<sub>beam</sub>: 2.72 GeV

I<sub>beam</sub>: 5  $\mu$ A

HMS

p: +0.15  $\theta$ (TV): 13.50  
From GUI Nearest 0.005

SHMS

p: +0.2770  $\theta$ (TV): 6.00  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐ Sieve ☒

SHMS: Large ☐ Sieve ☒

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

Beam position and angle on target:

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

HMS

SHMS

Q1	I-SET (from PSU) B-HALL	195.79 A 0.189 kG	I-SET (from PSU) B-HALL	916.85 A 5.867 kG	HB
Q2	I-SET (from PSU) B-HALL	-155.16 A -0.275 kG	I-SET (from PSU) B-HALL	581.44 A -4.103 kG	Q1
Q3	I-SET (from PSU) B-HALL	75.30 A 0.149 kG	I-SET (from PSU) B-HALL	977.48 A 9.194 kG	Q2
D	I-READ B-NMR	-458.04 A 0.41065 T	I-SET (from PSU) B-HALL	642.84 A 6.208 kG	Q3
	If momentum increased:		I-SET (from PSU) B-NMR	283.88 A -6.419 kG	D
	<input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?				

Run Number:

8438

- ☐ 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):

12:58

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

Comments:

NMR may not have been stable all run

Run Number:

8439

- ☐ 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):

13:08

Stop time (from RC):

13:19

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:

8440

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☒ C 1.5% r.l.  
☐ C 0.5% r.l.  
☐ \_\_\_\_\_

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

Start time (from RC):

13:20

Stop time (from RC):

13:26

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 during HMS angle rotation

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

Comments:



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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: 19 / 06 / 25  
yy mm dd

Initials: TH

Configuration Name: \_\_\_\_\_

HMS pointing

E<sub>beam</sub>: 2.772 GeV

I<sub>beam</sub>: 5  $\mu$ A

HMS

p: +0.15  $\theta$ (TV): 15.5  
From GUI Nearest 0.005

SHMS

p: +0.2770  $\theta$ (TV): 6.0  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

Purpose:

☐ Production

☐ Test

☐ Optics

☒ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

Beam position and angle  
on target:

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

HMS

SHMS

Q1	I-SET (from PSU) B-HALL	A kG	I-SET (from PSU) B-HALL	A kG	HB
Q2	I-SET (from PSU) B-HALL	A kG	I-SET (from PSU) B-HALL	A kG	Q1
Q3	I-SET (from PSU) B-HALL	A kG	I-SET (from PSU) B-HALL	A kG	Q2
D	I-READ B-NMR	A T kG	I-SET (from PSU) B-HALL	A kG	Q3
					D

Run Number:

8441

- ☐ 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):

13:27

Stop time (from RC):

13:38

- ☐ 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:

8442

- ☐ 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):

13:38

Stop time (from RC):

13:52

- ☐ 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:

8443

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☒ C 1.5% r.l.  
☐ C 0.5% r.l.  
☐ \_\_\_\_\_

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

Start time (from RC):

13:53

Stop time (from RC):

13:56

- ☐ 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

Comments:

Run during HMS angle watch

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

Comments:

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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: 19/06/25  
yy mm dd

Initials: \_\_\_\_\_

Configuration Name: \_\_\_\_\_

Purpose:

- ☐ Production  
☐ Test  
☒ Optics  
☐ Other: \_\_\_\_\_

E<sub>beam</sub>: 2.772 GeV

I<sub>beam</sub>: 5  $\mu$ A

Raster: ☐ On ☐ Off

Size: \_\_\_\_\_

HMS

p: +/- 1.5  $\theta$ (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  $\theta$ (TV): 6.0  
From GUI Nearest 0.005

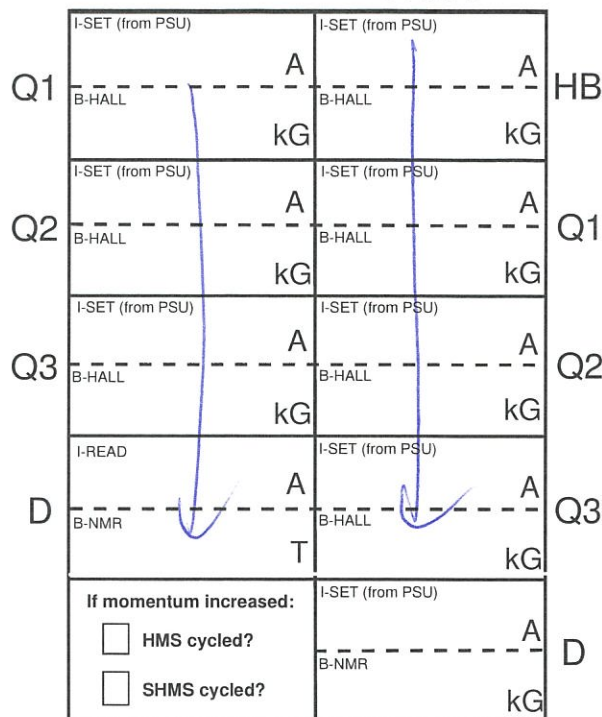
Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

HMS

SHMS



Run Number:

8444

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☒ C 1.5% r.l.  
☐ C 0.5% r.l.  
☐ \_\_\_\_\_

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

Start time (from RC):

13:57

Stop time (from RC):

14:09

☐ 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:

8445

- ☐ 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):

14:09

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

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

$e\pi n$  evts:

SHMS  
prescale  
pretrig: k

$\Sigma e\pi n$  evts:

COIN  
pretrig: k

☐ 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

$e\pi n$  evts:

SHMS  
prescale  
pretrig: k

$\Sigma e\pi n$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: 11/06/25  
yy mm dd

Initials: \_\_\_\_\_

HMS same SHMS

Configuration Name: \_\_\_\_\_

HMS pointing

E<sub>beam</sub>: 2.772 GeV

I<sub>beam</sub>: 5  $\mu$ A

Purpose:

- ☐ Production  
☐ Test  
☒ Optics  
☐ Other: \_\_\_\_\_

Raster: ☐ On ☐ Off

Size: \_\_\_\_\_

Beam position and angle on target:

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

HMS

p: +1.5  $\theta$ (TV): 20.0  
From GUI Nearest 0.005

SHMS

p: +2.770  $\theta$ (TV): 6.0  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

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

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

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

$e\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e\pi n$  evts:

COIN  
pretrig: k

- ☐ 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

$e\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e\pi n$  evts:

COIN  
pretrig: k

- ☐ 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

$e\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e\pi n$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Use a separate sheet for each configuration.

Date: 19 / 06 / 25  
yy mm dd

Initials: \_\_\_\_\_

Configuration Name: \_\_\_\_\_

HMS posn

E<sub>beam</sub>: 2772 GeV

I<sub>beam</sub>: 5  $\mu$ A

HMS

p: +0.15  $\theta$ (TV): 24.99  
From GUI Nearest 0.005

SHMS

p: +0.2770  $\theta$ (TV): 6.0  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☐

SHMS: Large ☐  
Sieve ☒

Purpose:

- ☐ Production  
☐ Test  
☒ Optics  
☐ Other: \_\_\_\_\_

Raster: ☐ On ☐ Off  
Size: \_\_\_\_\_

Beam position and angle  
on target:

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

HMS SHMS

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

Run Number:

8467

- ☐ 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):

14:44

Stop time (from RC):

14:57

- ☐ 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:

- ☐ 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

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

$e-\pi n$  evts:

SHMS  
prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

- ☐ 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

$e-\pi n$  evts:

SHMS  
prescale  
pretrig: k

$\Sigma e-\pi n$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date:     /     /      
yy mm dd

Initials:    

Use a separate sheet for each configuration.

Configuration Name:                     

HMS pointing

E<sub>beam</sub>: 2.77 GeV

I<sub>beam</sub>: 5  $\mu$ A

HMS

p: +61.5  
From GUI

$\theta$ (TV): 2998  
Nearest 0.005

SHMS

p: +2.770  
From GUI

$\theta$ (TV): 6.0  
Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

Purpose:

☐ Production

☐ Test

☐ Optics

☐ Other:                     

Raster: ☐ On ☐ Off

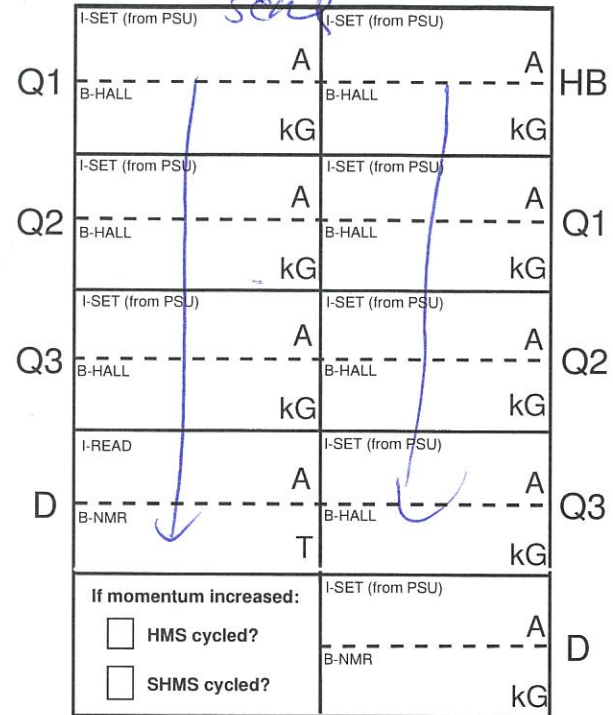
Size:                     

Beam position and angle  
on target:

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

HMS

SHMS



Run Number:

8448

- ☐ 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

Comments:

JUNK? Pointing Scan?

Run Number:

8449

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ None

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

Comments:

BCM Calibrations. (stopped bcz mcc was having problems @ after 2210 mVA)

Run Number:

8450

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☐ C 1.5% r.l.  
☐ C 0.5% r.l.  
☒ None

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

Comments:

BCM Calibrations.

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

Comments:

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

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 19/6/26  
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

HMS Pointing  $35^\circ$   
and SHMS 8 Sec

E<sub>beam</sub>: 2.758 GeV

I<sub>beam</sub>: 5  $\mu$ A

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

Raster: ☒ On ☒ Off

Size: 222

Beam position and angle  
on target:

3H07A	X	Y
<u>-6.637</u> mm		<u>0.219</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.766</u> mm		<u>0.601</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) <u>195.34</u> A B-HALL	A	I-SET (from PSU) <u>870.464</u> A B-HALL	A	HB
	<u>0.192</u> kG		<u>5.502</u> kG		
Q2	I-SET (from PSU) <u>155.2226</u> A B-HALL	A	I-SET (from PSU) <u>552.220</u> A B-HALL	A	Q1
	<u>-0.274</u> kG		<u>-3.900</u> kG		
Q3	I-SET (from PSU) <u>75.8168</u> A B-HALL	A	I-SET (from PSU) <u>927.553</u> A B-HALL	A	Q2
	<u>0.147</u> kG		<u>8.705</u> kG		
D	I-READ <u>457.62</u> A B-NMR	A	I-SET (from PSU) <u>610.3210</u> A B-HALL	A	Q3
	<u>0.4406553</u> T		<u>5.960</u> kG		
	If momentum increased:		I-SET (from PSU) <u>839.129</u> A B-NMR		D
	<input checked="" type="checkbox"/> HMS cycled?		<u>-6.098</u> kG		
	<input checked="" type="checkbox"/> SHMS cycled?				

Run Number:

8451

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

PS1: -1  
PS2: 8  
PS3: -1  
PS4: -1  
PS5: -1  
PS6: -1

Start time (from RC):

03:56

Stop time (from RC):

04:47

☒ Settings  
Verified?

☒ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig: k

0  $e-\pi$  evts:

SHMS  
prescale  
pretrig: k

0  $\Sigma e-\pi$  evts:

COIN  
pretrig: k

☒ Data ok

☐ Junk

Comments:

SHMS SIX 1 $\rightarrow$ 4 and SIX 1 $\rightarrow$ 5 off

Run Number:

8452

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

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

Start time (from RC):

04:48

Stop time (from RC):

04:57

☒ Settings  
Verified?

☒ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig: k

0  $e-\pi$  evts:

SHMS  
prescale  
pretrig: k

0  $\Sigma e-\pi$  evts:

COIN  
pretrig: k

☐ Data ok

☐ Junk

Comments:

Run Number:

8453

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

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

Start time (from RC):

04:58

Stop time (from RC):

05:57

☒ Settings  
Verified?

☒ HV OK?

☒ 50k OK?

HMS  
prescale  
pretrig: k

0  $e-\pi$  evts:

SHMS  
prescale  
pretrig: k

0  $\Sigma e-\pi$  evts:

COIN  
pretrig: k

☒ 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

\_\_\_\_\_  $e-\pi$  evts:

SHMS  
prescale  
pretrig: k

\_\_\_\_\_  $\Sigma e-\pi$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 14/6/26  
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

SHMS 8 Scan #3

E<sub>beam</sub>: 2.758 GeV

I<sub>beam</sub>: 5  $\mu$ A

Purpose:

- ☐ Production  
☐ Test  
☒ Optics  
☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off  
Size: \_\_\_\_\_

HMS

p: 1.5  $\theta$ (TV): 35.005  
From GUI Nearest 0.005

SHMS 500

p: 2.000  $\theta$ (TV): 6.00  
From GUI Nearest 0.005

Collimator:

HMS: Large ☐  
Sieve ☒

SHMS: Large ☐  
Sieve ☒

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:

HMS

SHMS

Q1	I-SET (from PSU) <u>195.434</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>586</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:

8454

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☒ C 1.5% r.l.  
☐ C 0.5% r.l.  
☐ \_\_\_\_\_

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

Start time (from RC):

06:07

Stop time (from RC):

07:36

☒ 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:

SHMS SIX 1-75 and 52X1-6 off

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

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

e- $\pi$ n evts:

SHMS  
prescale  
pretrig: k

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

COIN  
pretrig: k

☐ 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

e- $\pi$ n evts:

SHMS  
prescale  
pretrig: k

$\Sigma$  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/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 14 / 6 / 26  
yy mm dd

Initials: SK

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

SHMS  $\delta$  Scan #4

E<sub>beam</sub>: 2.758 GeV

I<sub>beam</sub>: 5  $\mu$ A

Purpose:

☐ Production

☐ Test

☒ Optics

☐ Other: \_\_\_\_\_

Raster: ☐ On ☒ Off

Size: \_\_\_\_\_

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>-0.84</u> mm		<u>0.665</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) <u>195.8</u> A	A	I-SET (from PSU) <u>783.60</u> A	A	HB
	B-HALL <u>0.192</u> kG		B-HALL <u>4.455</u> kG		
Q2	I-SET (from PSU) <u>155.12</u> A	A	I-SET (from PSU) <u>447.56</u> A	A	Q1
	B-HALL <u>-0.275</u> kG		B-HALL <u>-3.442</u> kG		
Q3	I-SET (from PSU) <u>75.30</u> A	A	I-SET (from PSU) <u>836.40</u> A	A	Q2
	B-HALL <u>0.150</u> kG		B-HALL <u>7.806</u> kG		
D	I-READ <u>457.62</u> A	A	I-SET (from PSU) <u>549.92</u> A	A	Q3
	B-NMR <u>0.4106557</u> T		B-HALL <u>5.381</u> kG		
	If momentum increased:		I-SET (from PSU) <u>756.28</u> A	A	D
	<input type="checkbox"/> HMS cycled?		B-NMR <u>-5.519</u> kG		
	<input type="checkbox"/> SHMS cycled?				

Run Number:

8455

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ MT thick 10cm  
☒ C 1.5% r.l.  
☐ C 0.5% r.l.  
☐ \_\_\_\_\_

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

Start time (from RC):

07:42

Stop time (from RC):

8:42

☒ 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:

SHMS  $\rightarrow$  SIX1-6 and SIX31-7 off

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

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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ 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

$e-\pi n$  evts:

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts:

COIN  
pretrig: k

☐ Data ok

☐ Junk

Comments: