

$p(e,e'\pi)n$ 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: _____

Heep Coin

E_{beam} : 5.579 GeV

I_{beam} : _____ μA

Purpose:

- ☒ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☐ Other: _____

Raster: ☒ On ☐ Off
Size: 2x2

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 728.36 A 0.96570 T	I-SET (from PSU) B-HALL 1238.35 A -7.879 kG	HB
Q2	I-SET (from PSU) B-HALL 543.03 A -1.14135 T	I-SET (from PSU) B-HALL 783.72 A +5.608 kG	Q1
Q3	I-SET (from PSU) B-HALL 281.53 A 0.56638 T	I-SET (from PSU) B-HALL 1316.96 A -12.431 kG	Q2
D	I-READ B-NMR 1780.02 A 1.53693 T	I-SET (from PSU) B-HALL 865.68 A -8.448 kG	Q3
	If momentum increased: ☒ HMS cycled? ☐ SHMS cycled?	I-SET (from PSU) B-NMR 1170.30 A +8.653 kG	D

Run Number:

16162

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

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

HMS prescale
pretrig: 169 k
 $e-\pi n$ evts: 15891

SHMS prescale
pretrig: 206 k
 $\Sigma e-\pi n$ evts:

COIN pretrig: 48 k
☒ Data ok
☐ Junk

Comments:

Heep

$Q = 81.092$

Run Number:

16163

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ 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:

Need to kcode & startcodes

Run Number:

16164

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

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

HMS prescale
pretrig: 95 k
 $e-\pi n$ evts: 8829

SHMS prescale
pretrig: 116 k
 $\Sigma e-\pi n$ evts:

COIN pretrig: 24 k
☐ Data ok
☐ Junk

Comments:

$Q = 46.075$

Run Number:

16165

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: 3
PS2: -1
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

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

HMS prescale
pretrig: 94 k
 $e-\pi n$ evts: 204

SHMS prescale
pretrig: 109 k
 $\Sigma e-\pi n$ evts:

COIN pretrig: 88 k
☒ Data ok
☐ Junk

Comments:

$Q = 27.946 \text{ mC}$

$p(e, e'\pi)n$ 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: _____

Heep
COIN + Singles #1

E_{beam} : 8.458 GeV

I_{beam} : 80 μA

Purpose:

- ☒ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☐ 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 T	I-SET (from PSU) B-HALL A kG	HB
Q2	I-SET (from PSU) B-HALL A T	I-SET (from PSU) B-HALL A kG	Q1
Q3	I-SET (from PSU) B-HALL A T	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: ☐ HMS cycled? ☐ SHMS cycled?	I-SET (from PSU) B-NMR A kG	D

Run Number:

16166

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 6
PS2: -1
PS3: -1
PS4: 2
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

13:37:29

Stop time (RC GUI):

- ☒ 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:

Magnets were changing Junk

Run Number:

16167

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 6
PS2: -1
PS3: -1
PS4: 2
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

13:56:56

Stop time (RC GUI):

14:26

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

HMS prescale
pretrig: k

$e-\pi n$ evts:

14,564

SHMS prescale
pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☒ Data ok
☐ Junk

Comments:

$Q = 113.772 \text{ mC}$

Run Number:

16168

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: 6
PS2: -1
PS3: -1
PS4: 2
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

14:26:37

Stop time (RC GUI):

14:32:57

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

HMS prescale
pretrig: k

$e-\pi n$ evts:

14,564

SHMS prescale
pretrig: k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☒ Data ok
☐ Junk

Comments:

$Q = 250.475 \text{ mC}$

3289

Run Number:

16169

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ 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' π)n Run Sheet

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

Date: 22 / 08 / 14
yy mm dd

Initials: _____

Continuation of Configuration:

Heep
COIN & Singles #1.

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

Run Number: 16170	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: 3 PS2: -1 PS3: -1 PS4: 0 PS5: -2 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 14:44:38 Stop time (RC GUI): 14:56:00	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 53 k $e-\pi n$ evts: 112	SHMS prescale pretrig: 96 k $\Sigma e-\pi n$ evts:	COIN pretrig: 7 k ☒ Data ok ☐ Junk
Comments: Q = 24.177 mC							

Run Number: 16171	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: -1 PS2: -6 PS3: -1 PS4: 0 PS5: -1 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 15:38:53 Stop time (RC GUI): 15:59	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 476 k $e-\pi n$ evts:	SHMS prescale pretrig: 880 k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☒ Data ok ☐ Junk
Comments: Heep singles #1, I=10mA, $N_{HMS.el.} = 36691$, $N_{SHMS.el.} = 29505$, $Q = 5.536 mC$							

Run Number: 16172	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: -1 PS2: -6 PS3: -1 PS4: 0 PS5: -1 PS6: -1 Mode10: cer / fadc	Start time (RC GUI): 15:59:33 Stop time (RC GUI): 16:13	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: 379 k $e-\pi n$ evts:	SHMS prescale pretrig: 828 k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☒ Data ok ☐ Junk
Comments: $\Theta_{HMS} = 15.05^\circ$, $\Theta_{SHMS} = 9.530^\circ$, $P_{SHMS} = -6.477$, $P_{SHMS} = -7.5590$, $E = 8.487$, $I = 20 \mu A$, Actual $\Theta_{HMS} = 15.065^\circ$, $\Theta_{SHMS} = 9.455^\circ$							

Run Number: 16172	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: 379 k $e-\pi n$ evts:	SHMS prescale pretrig: 828 k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☒ Data ok ☐ Junk
Comments: For 16172: $N_{HMS.el.} = 5676$, $N_{SHMS.el.} = 6161$, $Q = 15.162 mC$							

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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 ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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:							

Singles #1

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

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

Date: 22.08.14
yy mm dd

Initials: I.U.S.

Use a separate sheet for each configuration.

Configuration Name: _____

Keep Singles #2
SHMS neg. polarity

E_{beam}: 8.487 GeV

I_{beam}: 1510 μ A

Purpose:

☒ Production

☐ Test (e.g. DAQ, Detector)

☐ Optics (SHMS / HMS)

☒ Other: Keep Sing

Raster: ☒ On ☐ Off
Size: 2x2 mm

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:	<u>-0.03</u>	<u>-0.3</u>
3H07C	X	Y
	mm	mm
Nomin:	<u>-0.68</u>	<u>-0.49</u>

HMS

SHMS

Q1	I-SET (from PSU) <u>766.9900</u> B-HALL <u>1.0200</u> T	A	I-SET (from PSU) <u>2409.7500</u> B-HALL <u>15.232</u> T	A	HB
Q2	I-SET (from PSU) <u>616.9550</u> B-HALL <u>-1.20403</u> T	A	I-SET (from PSU) <u>1498.4500</u> B-HALL <u>-10.582</u> T	A	Q1
Q3	I-SET (from PSU) <u>296.2330</u> B-HALL <u>0.59386</u> T	A	I-SET (from PSU) <u>2506.1600</u> B-HALL <u>23.465</u> T	A	Q2
D	I-READ <u>1912.7000</u> B-NMR <u>-1.6216300</u> T	A	I-SET (from PSU) <u>1649.8300</u> 1649.8300 B-HALL <u>-16.532</u> 16.532 T	A	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?		I-SET (from PSU) <u>2267.200</u> B-NMR <u>-16.532</u> T		D

Run Number:

16173

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 4
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

16:45

Stop time (RC GUI):

16:47

- ☒ 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

SHMS-Q3 mis-set.

Run Number:

16174

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 4
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

16:48

Stop time (RC GUI):

17:01

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

HMS prescale
pretrig: 502 k
 $e-\pi n$ evts: /

SHMS prescale
pretrig: 545 k
 $\Sigma e-\pi n$ evts: /

COIN pretrig: / k
☒ Data ok
☐ Junk

Comments:

dummy, 20 μ A

N_{HMS}.el. = 1353
N_{SHMS}.el. = 2412

Q = 12.345 mC

Run Number:

16175

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 4
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

17:07

Stop time (RC GUI):

17:11

- ☒ 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, no beam

Junk

Junk

Run Number:

16176

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 4
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

17:11

Stop time (RC GUI):

17:20

- ☒ 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, no beam

Junk

Junk

p(e,e' π)n Run Sheet

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

Date: 22/08/14
yy mm dd

Initials: Iu.S.

Continuation of Configuration:

Singles #2

SHMS neg. p.darity

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

Run Number: <u>16177</u>	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: <u>-1</u> PS2: <u>4</u> PS3: <u>-1</u> PS4: <u>0</u> PS5: <u>-1</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ 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
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DAQ disconnected Junk Junk

Run Number: <u>16178</u>	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: <u>-1</u> PS2: <u>4</u> PS3: <u>-1</u> PS4: <u>0</u> PS5: <u>-1</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): <u>18:19</u> Stop time (RC GUI): <u>18:26</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: <u>599</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>578</u> k $\Sigma e-\pi n$ evts:	☒ Data ok ☐ Junk
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10 mA

$N_{xms_{ee}} = 6647$ $Q = 4.342mc$
 $N_{shms_{ee}} = 11893$

Run Number: <u>16179</u>	☒ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: <u>-1</u> PS2: <u>4</u> PS3: <u>-1</u> PS4: <u>0</u> PS5: <u>-1</u> PS6: <u>-1</u> Mode10: cer / fadc	Start time (RC GUI): <u>18:27</u> Stop time (RC GUI): <u>18:45</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: <u>1045</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>1206</u> k $\Sigma e-\pi n$ evts:	☒ Data ok ☐ Junk
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10 mA

$N_{xms_{el}} = 6846$ $Q = 7.557mc$
 $N_{shms_{el}} = 20672$ $\Sigma Q =$

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	☐ Data ok ☐ Junk
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Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	☐ Data ok ☐ Junk
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Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ____cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ Settings Verified? ☐ HV OK? ☐ 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	☐ Data ok ☐ Junk
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$p(e,e'\pi)n$ Run Sheet

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

Date: 22 / 08 / 14
yy mm dd

Initials: I.U.S.

Use a separate sheet for each configuration.

Configuration Name: _____

Heap Singles #3

SHMS Neg. polarity

E_{beam} : 8.487 GeV

I_{beam} : 55 μA

Purpose:

- ☒ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☒ Other: Keep Sing

Raster: ☒ On ☐ Off
Size: 2x2mm

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:	-0.09	Nomin: -0.3
3H07C	X	Y
	mm	mm
Nomin:	-0.68	Nomin: -0.49

HMS

SHMS

Q1	I-SET (from PSU) B-HALL <u>unch</u> <u>1.01700</u>	A T 14.401	HB
Q2	I-SET (from PSU) B-HALL <u>unch</u> <u>-1.20727</u>	A T -9.967	Q1
Q3	I-SET (from PSU) B-HALL <u>unch</u> <u>0.59366</u>	A T 22.243	Q2
D	I-READ B-NMR <u>1913.00</u> <u>1.6217700</u>	A T 1559.4500 15.009	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?	I-SET (from PSU) B-NMR <u>2144.0900</u> <u>-15.632</u>	D

Run Number:

16180

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -4
PS2: 5
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

18:16

Stop time (RC GUI):

18:32

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

HMS prescale
pretrig: 1055 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1274 k

$\Sigma e-\pi n$ evts:

COIN
pretrig: k

- ☒ Data ok
☐ Junk

Comments:

55mA

$N_{\text{HMS}, \text{el}} = 62668$
 $N_{\text{SHMS}, \text{el}} = 17307$

$Q = 49.764 \text{ mC}$

Run Number:

16181

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -4
PS2: 5
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

19:33

Stop time (RC GUI):

19:51

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

HMS prescale
pretrig: 1023 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1232 k

$\Sigma e-\pi n$ evts:

COIN
pretrig: k

- ☒ Data ok
☐ Junk

Comments:

55mA

$N_{\text{HMS}, \text{el}} = 60281$
 $N_{\text{SHMS}, \text{el}} = 16831$

$Q = 48.087 \text{ mC}$

Run Number:

16182

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -4
PS2: 5
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

19:57

Stop time (RC GUI):

20:08

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

HMS prescale
pretrig: 150 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 187 k

$\Sigma e-\pi n$ evts:

COIN
pretrig: k

- ☒ Data ok
☐ Junk

Comments:

dummy 40 mA

$N_{\text{HMS}, \text{el}} = 1886$
 $N_{\text{SHMS}, \text{el}} = 585$

$Q_{\text{dummy}} = 22.761 \text{ mC}$

Run Number:

- ☐ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ 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/

Date: 22 / 08 / 14
yy mm dd

Initials: In.S.

Use a separate sheet for each configuration.

Configuration Name: _____

Singles #4
SHMS Neg. polarity

E_{beam} : 8.187 GeV

I_{beam} : _____ μA

Purpose:

- ☐ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☒ Other: keeping

Raster: ☒ On ☐ Off
Size: _____

Beam position and angle on target:

3H07A	X	Y
	mm	mm
Nomin:	-0.09	-0.3
3H07C	X	Y
	mm	mm
Nomin:	-0.68	-0.49

HMS

SHMS

Q1	I-SET (from PSU) <u>unch</u> B-HALL <u>1.01410</u>	A T	I-SET (from PSU) <u>2206.7000</u> B-HALL <u>13.942</u>	A T	HB
Q2	I-SET (from PSU) <u>unch</u> B-HALL <u>-1.20625</u>	A T	I-SET (from PSU) <u>1376.5800</u> B-HALL <u>-9.221</u>	A T	Q1
Q3	I-SET (from PSU) <u>unch</u> B-HALL <u>0.59794</u>	A T	I-SET (from PSU) <u>2305.8300</u> B-HALL <u>21.589</u>	A T	Q2
D	I-READ <u>unch</u> B-NMR <u>1.6217500</u>	A T	I-SET (from PSU) <u>1517.2200</u> B-HALL <u>14.600</u>	A T	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?		I-SET (from PSU) <u>2086.6200</u> B-NMR <u>-15.223</u>		D

Run Number:

16183

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____cm
☐ _____cm

PS1: -1
PS2: 4
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

20:21

Stop time (RC GUI):

20:35:58

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

HMS prescale
pretrig: 24 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 225 k

$\Sigma e-\pi n$ evts:

COIN pretrig: _____ k

- ☒ Data ok
☐ Junk

Comments:

dummy, 40mA

$N_{\text{HMS}, \text{el}} = 375$
 $N_{\text{SHMS}, \text{el}} = 559$

$Q = 22.164 \text{ mC}$
dummy

Run Number:

16184

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____cm
☐ _____cm

PS1: -1
PS2: 5
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

20:45

Stop time (RC GUI):

20:55

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

HMS prescale
pretrig: 79 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 645 k

$\Sigma e-\pi n$ evts:

COIN pretrig: _____ k

- ☒ Data ok
☐ Junk

Comments:

80mA

723k evts

$N_{\text{HMS}, \text{el}} = 8027$
 $N_{\text{SHMS}, \text{el}} = 7329$

$Q = 38.171 \text{ mC}$

Run Number:

16185

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____cm
☐ _____cm

PS1: -1
PS2: 5
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

20:55

Stop time (RC GUI):

21:10:52

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

HMS prescale
pretrig: 131 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1082 k

$\Sigma e-\pi n$ evts:

COIN pretrig: _____ k

- ☒ Data ok
☐ Junk

Comments:

80mA

1.21k evts

$N_{\text{HMS}, \text{el}} = 13191$
 $N_{\text{SHMS}, \text{el}} = 12084$

$Q = 64.173 \text{ mC}$

Run Number:

- ☐ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____cm
☐ _____cm

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ 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/

Date: 22/08/14
yy mm dd

Initials: Tu.S.

Use a separate sheet for each configuration.

Configuration Name: _____

Carbon-Sieve Optics

E_{beam}: 8.487 GeV

I_{beam}: 5080 μ A

Purpose:

- ☐ Production
☐ Test (e.g. DAQ, Detector)
☒ Optics (SHMS / HMS)
☐ Other: _____

Raster: ☒ On ☐ Off
Size: 2x2 mm

Beam position and angle on target:

3H07A	X	Y
<u>-0.11</u> mm	<u>-0.30</u> mm	
Nomin: <u>-0.09</u>	Nomin: <u>-0.3</u>	
3H07C	X	Y
<u>-0.68</u> mm	<u>-0.50</u> mm	
Nomin: <u>-0.68</u>	Nomin: <u>-0.49</u>	

HMS

SHMS

Q1	I-SET (from PSU) <u>766.9900</u> B-HALL <u>1.01380</u> T	A	I-SET (from PSU) B-HALL kG	HB
Q2	I-SET (from PSU) <u>616.9550</u> B-HALL <u>-1.20371</u> T	A	I-SET (from PSU) B-HALL kG	Q1
Q3	I-SET (from PSU) <u>296.2330</u> B-HALL <u>0.59665</u> T	A	I-SET (from PSU) B-HALL kG	Q2
D	I-READ <u>1913.0000</u> B-NMR <u>1.6217900</u> T	A	I-SET (from PSU) B-HALL kG	Q3
	If momentum increased: ☐ HMS cycled? ☐ SHMS cycled?		I-SET (from PSU) B-NMR kG	D

Run Number:

16186

- ☐ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☒ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: -1
PS2: -1
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

21:34

Stop time (RC GUI):

21:59

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

HMS prescale
pretrig: k

e- π n evts:

SHMS prescale
pretrig: k

Σ e- π n evts:

COIN
pretrig: k

- ☐ Data ok
☐ Junk

Comments:

358k events

Current values at beginning, then 80k.

Run Number:

16187

- ☐ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☒ Optics 18 cm
☐ _____

PS1: -1
PS2: -1
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

22:09

Stop time (RC GUI):

23:21

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

HMS prescale
pretrig: k

e- π n evts:

SHMS prescale
pretrig: k

Σ e- π n evts:

COIN
pretrig: k

- ☐ Data ok
☐ Junk

Comments:

50 μ A

609k events

Run Number:

- ☐ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

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

HMS prescale
pretrig: k

e- π n evts:

SHMS prescale
pretrig: k

Σ e- π n evts:

COIN
pretrig: k

- ☐ Data ok
☐ Junk

Comments:

Run Number:

- ☐ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics _____ cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

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

HMS prescale
pretrig: k

e- π n evts:

SHMS prescale
pretrig: k

Σ e- π 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: 22 / 08 / 14
yy mm dd

Initials: Ins.

Use a separate sheet for each configuration.

Configuration Name: _____

Singles #5

E_{beam} : 8.487 GeV

I_{beam} : 25 μA

Purpose:

- ☐ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☒ Other: keeping

Raster: ☒ On ☐ Off
Size: 2mm x 2mm

Beam position and angle on target:

3H07A	X	Y
<u>-0.092</u>	mm	<u>-0.309</u> mm
Nomin:	<u>-0.09</u>	Nomin: <u>-0.3</u>
3H07C	X	Y
<u>-0.701</u>	mm	<u>-0.483</u> mm
Nomin:	<u>-0.68</u>	Nomin: <u>-0.49</u>

HMS

SHMS

Q1	I-SET (from PSU) <u>728.3840</u> A B-HALL <u>0.96840</u> T 728.3840	I-SET (from PSU) <u>2016.83</u> A B-HALL <u>12.745</u> kg	HB
Q2	I-SET (from PSU) <u>583.0760</u> A B-HALL <u>-1.13988</u> T 583.0760	I-SET (from PSU) <u>1259.82</u> A B-HALL <u>-8.992</u> kg	Q1
Q3	I-SET (from PSU) <u>281.5540</u> A B-HALL <u>0.56777</u> T 281.5540	I-SET (from PSU) <u>2116.09</u> A B-HALL <u>19.878</u> kg	Q2
D	I-READ <u>1778.8</u> A B-NMR <u>1.53703</u> T 1778.8	I-SET (from PSU) <u>1392.37</u> A B-HALL <u>13.452</u> kg	Q3
	If momentum increased: ☐ HMS cycled? ☒ SHMS cycled?	I-SET (from PSU) <u>1914.36</u> A B-NMR <u>-13.996</u> kg	D

Run Number:

16188

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -1
PS2: 3
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

23:50

Stop time (RC GUI):

00:00

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

HMS prescale
pretrig: 697 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 524 k

$\Sigma e-\pi n$ evts:

COIN pretrig: 524 k

- ☒ Data ok
☐ Junk

Comments:

25 mA

$N_{\text{HMS, elastic}} = 7559$

$N_{\text{SHMS, elastic}} = 2895$

$Q = 13.660 \text{ mC}$

Run Number:

16189

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -1
PS2: 3
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

00:03

Stop time (RC GUI):

00:30:00

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

HMS prescale
pretrig: 1640 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1077 k

$\Sigma e-\pi n$ evts:

COIN pretrig: _____ k

- ☒ Data ok
☐ Junk

Comments:

25 mA

$N_{\text{HMS, elastic}} = 15449$

$N_{\text{SHMS, elastic}} = 4321$

Run Number:

16190

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ 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:

40 mA

Junk

Run Number:

16191

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- ☐ 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

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

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

Date: 22 / 08 / 195
yy mm dd

Initials: N.S.

Continuation of Configuration:

Singles # 5

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

Run Number: <u>16192</u>	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: <u>-1</u> PS2: <u>3</u> PS3: <u>-1</u> PS4: <u>9</u> PS5: <u>-1</u> PS6: <u>-1</u> Mode10: <u>cer</u> / fadc	Start time (RC GUI): <u>01:20:12</u> Stop time (RC GUI): <u>01:32:34</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: <u>553</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>338</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: _____ k ☒ Data ok ☐ Junk
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Comments:

40 MA

$N_{HMS, elastic} = 1410$
 $N_{SHMS, elastic} = 1472$

Run Number: <u>16193</u>	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): _____ Stop time (RC GUI): _____	☐ 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
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Comments:

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

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

Date: 22 / 08 / 195
yy mm dd

Initials: N.S.

Use a separate sheet for each configuration.

Configuration Name: _____

Singles # 6

E_{beam}: 8.487 GeV

I_{beam}: 40 MA μ A

Purpose:

- ☐ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☒ Other: HeePSSing

Raster: ☒ On ☐ Off
Size: 2mm X 2mm

Beam position and angle on target:

3H07A	X	Y	
<u>-0.997</u>	mm	<u>-0.294</u>	mm
Nomin:		Nomin:	
3H07C	X	Y	
<u>-0.706</u>	mm	<u>-0.512</u>	mm
Nomin:		Nomin:	

HMS

SHMS

Q1	I-SET (from PSU) <u>728.384</u>	A	I-SET (from PSU) <u>1893.11</u>	A	HB
	B-HALL <u>0.96530</u>	T	B-HALL <u>12.01</u>	kG	
Q2	I-SET (from PSU) <u>583.076</u>	A	I-SET (from PSU) <u>1185.49</u>	A	Q1
	B-HALL <u>-1.13897</u>	T	B-HALL <u>-8.369</u>	kG	
Q3	I-SET (from PSU) <u>281.554</u>	A	I-SET (from PSU) <u>1991.24</u>	A	Q2
	B-HALL <u>0.56741</u>	T	B-HALL <u>18.654</u>	kG	
D	I-READ <u>1778.8</u>	A	I-SET (from PSU) <u>1310.22</u>	A	Q3
	B-NMR <u>1.53701</u>	T	B-HALL <u>12.636</u>	kG	
	If momentum increased: ☐ HMS cycled? ☒ SHMS cycled?		I-SET (from PSU) <u>1801.41</u>	A	D
			B-NMR <u>-13.178</u>	kG	

Run Number:

16193

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -1
PS2: 0
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: ce / fadc

Start time (RC GUI):
02:44:59

Stop time (RC GUI):
02:54:51

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

HMS prescale 75 k
pretrig:

$e-\pi n$ evts:

SHMS prescale 348 k
pretrig:

$\Sigma e-\pi n$ evts:

COIN pretrig: k
☒ Data ok
☐ Junk

Comments:

40 MA

Q = 21.190

$N_{HMS, elastic} = 944$

$N_{SHMS, elastic} = 542$

Run Number:

16194

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -1
PS2: 2
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: ce / fadc

Start time (RC GUI):
03:08:22

Stop time (RC GUI):
03:20:18

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

HMS prescale 495 k
pretrig:

$e-\pi n$ evts:

SHMS prescale 818 k
pretrig:

$\Sigma e-\pi n$ evts:

COIN pretrig: k
☒ Data ok
☐ Junk

Comments:

80 MA

$N_{HMS, elastic} = 25796$

$N_{SHMS, elastic} = 0? 4167$

Run Number:

16195

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -1
PS2: 2
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: ce / fadc

Start time (RC GUI):
03:21:01

Stop time (RC GUI):
03:35:04

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

HMS prescale 541 k
pretrig:

$e-\pi n$ evts:

SHMS prescale 979 k
pretrig:

$\Sigma e-\pi n$ evts:

COIN pretrig: k
☒ Data ok
☐ Junk

Comments:

80 MA

$N_{HMS, elastic} = 31140$

$N_{SHMS, elastic} = 0? 4951$

Run Number:

16196

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____cm
☐ _____

PS1: -1
PS2: 2
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: ce / fadc

Start time (RC GUI):
03:35:49

Stop time (RC GUI):
03:43:16

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

HMS prescale 304 k
pretrig:

$e-\pi n$ evts:

SHMS prescale 502 k
pretrig:

$\Sigma e-\pi n$ evts:

COIN pretrig: k
☒ Data ok
☐ Junk

Comments:

80 MA

$N_{HMS, elastic} = 15773$

$N_{SHMS, elastic} = 2620$

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

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

Date: 22 / 08 / 18
yy mm dd

Initials: NS

Use a separate sheet for each configuration.

Configuration Name: _____

Singles # 7

E_{beam} : 8.487 GeV

I_{beam} : 80 μA

Purpose:

- ☐ Production
☐ Test (e.g. DAQ, Detector)
☐ Optics (SHMS / HMS)
☒ Other: HeePSing

Raster: ☒ On ☐ Off
Size: 2mm X 2mm

Beam position and angle on target:

3H07A	X	Y
<u>-0.995</u> mm		<u>-0.309</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.691</u> mm		<u>-0.597</u> mm
Nomin:		Nomin:

HMS

SHMS

Q1	I-SET (from PSU) <u>728.384</u> A B-HALL <u>0.96840</u> T	I-SET (from PSU) <u>1636.22</u> A B-HALL <u>10.357</u> kG	HB
Q2	I-SET (from PSU) <u>583.076</u> A B-HALL <u>-1.13842</u> T	I-SET (from PSU) <u>1029.27</u> A B-HALL <u>-7.265</u> kG	Q1
Q3	I-SET (from PSU) <u>281.554</u> A B-HALL <u>0.56408</u> T	I-SET (from PSU) <u>1728.85</u> A B-HALL <u>16.207</u> kG	Q2
D	I-READ <u>1781.60</u> A B-NMR <u>1.53700</u> T	I-SET (from PSU) <u>1137.56</u> A B-HALL <u>10.995</u> kG	Q3
	If momentum increased: ☐ HMS cycled? ☒ SHMS cycled?	I-SET (from PSU) <u>1564.03</u> A B-NMR <u>-11.460</u> kG	D

Run Number:

16197

Comments:

80 MA

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 0
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

04:42:47

Stop time (RC GUI):

05:03:55

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

HMS prescale
pretrig: 95 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1445 k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☒ Data ok
☐ Junk

$Q = 78.351$

$N_{\text{HMS, elastic}} = 8598$

$N_{\text{SHMS, elastic}} = 3610$

Run Number:

16198

Comments:

80 MA

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 0
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

05:04:33

Stop time (RC GUI):

05:23:59

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

HMS prescale
pretrig: 96 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1484 k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☒ Data ok
☐ Junk

$Q = 80.475$

$N_{\text{HMS, elastic}} = 8727$

$N_{\text{SHMS, elastic}} = 3770$

Run Number:

16199

Comments:

80 MA

- ☒ LH2 10cm
☐ LD2 10cm
☐ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 0
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

05:24:57

Stop time (RC GUI):

05:43:25

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

HMS prescale
pretrig: 91 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 1421 k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☒ Data ok
☐ Junk

$Q = 77.071$

$N_{\text{HMS, elastic}} = 8457$

$N_{\text{SHMS, elastic}} = 3629$

Run Number:

16200

Comments:

40 MA

- ☐ LH2 10cm
☐ LD2 10cm
☒ Dummy 10cm
☐ C 0.5% r.l.
☐ Optics ____ cm
☐ _____

PS1: -1
PS2: 0
PS3: -1
PS4: 0
PS5: -1
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

05:55:33

Stop time (RC GUI):

06:06:43

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

HMS prescale
pretrig: 9 k

$e-\pi n$ evts:

SHMS prescale
pretrig: 38 k

$\Sigma e-\pi n$ evts:

COIN pretrig: k

- ☒ Data ok
☐ Junk

$N_{\text{HMS, elastic}} = 39$

$N_{\text{SHMS, elastic}} = 38$

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

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

Date: 22 / 08 / 15
yy mm dd

Initials: NIS

Continuation of Configuration:

Singles # 7

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

Run Number: <u>16201</u>	☐ LH2 10cm ☐ LD2 10cm ☒ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: <u>-1</u> PS2: <u>0</u> PS3: <u>-1</u> PS4: <u>0</u> PS5: <u>-1</u> PS6: <u>-1</u> Mode10: <u>cer</u> / fadc	Start time (RC GUI): <u>06:11:37</u> Stop time (RC GUI): <u>06:15:49</u>	☒ Settings Verified? ☒ HV OK? ☒ 50k OK?	HMS prescale pretrig: <u>6</u> k $e-\pi n$ evts:	SHMS prescale pretrig: <u>58</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: k ☒ Data ok ☐ Junk
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Comments:

40 MA

$N_{HMS, ewsh2} = 109$
 $N_{SHMS, ewsh2} = 58$

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ 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
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Comments:

Run Number:	☐ LH2 10cm ☐ LD2 10cm ☐ Dummy 10cm ☐ C 0.5% r.l. ☐ Optics ___ cm ☐ _____	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: <u>cer</u> / fadc	Start time (RC GUI): Stop time (RC GUI):	☐ 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
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Comments: