Beam Line 14-1 Summary

Mask 2

X= -.001
Y= -.003
Z= 630.2
Roll= 0

Mask 3

X= -.014
Y= .000
Z= -.012
Roll= 0

Vert. Slits

Top X= .020 Y= -.019
Bottom X= -.027 Y= -.006
Z= -.012

Graphite Filter

X= .003
Y= .000
Z= -.012
Roll = +.2 mr
Yaw= .000 mr

Slit Package Tanks

Y = .001
X = .003
Z = -.012

U/S Be Window

Y's (+)= .004, (+)= .007

D/S Be Window

X = .006
Y = -.002
Roll = .000

Mono

X = .003
Y = -.002
Z = .005
Roll= .000
Yaw = .23 mr
Pitch = 0.04 mr

M1Mirror Tank

X = .000
Y = -.001

M1 Mirror Plate

X = .004
Y = Moveable ?
Z = .013
Roll = .36 mr
Yaw = .04 mr
Pitch= .04 mr

Hutch Stopper

X= .054
Y= .000

Collimator

X= -.005
Y= -.001
Roll = 1 mr
Yaw = 2.8 mr
Pitch = .5 mr

(4)

SSRL

2-19-09
M.R., L.G.

BL14F19

574.74004 EL
-575.7911 BL
-1.05106 M
-41.380"/

17.271
40.750
58.021/
41.380
16.641/

HRLS105

574.72709
-575.7911
-1.06401 M
-41.890/

17.779
46.750
58.529/
41.890
16.639/

$\bar{M}$ = 16.640"/

SLIT TANK

1) 16.640
-2.208
18.848/
i.
17.848 S/R/
-.156
17.692 S/R
17.691
+.001

G.F. TANK

1) 16.640
-2.333
18.973/
i.
17.973 S/R
17.971
+002

3) 16.640
-2.252
18.892/
i.
17.892 S/R/
17.891
+001

PIVOT MASK 2 SN 451-091-47

16.640
2.250 ℄ APEX FROM FLAT
14.390/
-1.512 offset (slope
15.902 S/R/

(+) 15,905 (-) 15,965
-003 -003

SSRL
BL 14-1

2-20-09
M.R., L.G.

MASK 3 w/s Vert SLIT TANK

(Y) +16.640 HI

(+) 16.640
2.258
14.382
-2.107
16.489 S/R
16.489
0

(-) 16.640
2.257 FLAT
14.383
-2.107 OFFSET FROM SPEAR
16.490 S/R
16.489
+001

(X) +25.591 LOS

+SIDE TOP
25.591
2.249 FLAT
23.342
-5.533 OFFSET FROM 14-2
28.875
28.889
-.014

SSRL
BL 14-1
VERT. SLIT. PACKAGE
& MASK 2

2-20-09
M.R., L.G.

(X) .65M = ±25.591/LOS

MASK 2

25.591
-5.039 OFFSET (629.921 x .008)
30.630
2.309 R (4.618 ϕ)
28.321 S/R
28.322
-001

VST

3) 25.591
-1.074
26.665
13.—
13.665 S/R
13.655

VERT. SLIT TANK

1) 25.591
-2.026
27.617
13.000 SUCKEFT
14.617 S/R
14.620
-003

2) 25.591
-2.092
27.683
13.—
14.683 S/R
14.685
-002

SLITS

(T) 5) 25.591
-3.586
29.177
13.—
16.177 S/R
16.157
+.020

(B) 6) 25.591
-3.584
29.175
13.—
16.175 S/R
16.202
-.027

G.F. TANK

1) 25.591
-1.886
27.477
13.—
14.477 S/R
14.467
+.010

G.F.

A) 25.591
-5.997
31.588
13.—
18.588 S/R
18.584
+.004

D) 25.591
-5.953
31.544
13.—
18.544 S/R
18.542
+.002

SSRL
BL 4-1

2-20-09
M.R., L.G.

(Y) 16.640 HI

VERT SLITS

5) 16.640
9.567
7.073
1. ——
6.073 S/R
6.092
-019

6.210

6) 16.640
-13.900
30.540
23.496
7.044
1250 ½ T/3
6.794 S/R
6.800
- -006

TANK

2) 16.640
-2.377
19.017
1. ——
18.017 S/R
18.027
-010

3) 16.640

23.496

SSRL
BL 14-1

2-20-09
M.R., L.G.

(1) +16.640 HI

FIX GRAPHITE FILTER

A) 16.640
4.029
12.611
1.
11.611 S/R
11.611
Ø

B) 16.640
4.071
12.569
1.
11.569 S/R
11.569
Ø

C) 16.640
4.048
12.592
1.
11.592 S/R
11.590
+002

D) 16.640
4.098
12.542
1.
11.542 S/R
11.542
Ø

(2) 18M = 708.661"

708.661
(-).058
708.603 OS

G.F. TANK

1) 708.603
711.118
2.515
1.
1.515 S/R
1.527
-012

U.S. TANK

1) 694.087 VAL.
63.875
630.212
629.721 S/B
+.291

SSRL
BL 14-1
MANO

3-2-09

J.M., L.G.

(Y)

HRLS105

7.344
57.750
65.094
-41.890 EL.
23.204

BL14F19

6.835
57.750
64,585
-41.380
23.205

$\bar{M}$ = 23.205 HI

D/S Be
-2.367 Y
719.000 Z

U/S Be
-2.341 Y
716.278 Z

PINS

U/S 23.205
-2.496
25.701
.126
25.575
(+) .107
25,468 S/R
25.468
0 1

D/S 23.205
-2.496 & SPINDLE
25.701
.126 R DOWEL PIN
25,575
(→) .107 PITCH = 9.6MR
25.682 S/R
25.681
+001

PITCH
.104MR

2.162 Be WINDOWS 2.108

D/S 23.205
-2.367
25.572
2.162
23.410 S/R

+) 23.412
-002

-) 23.412
-002

U/S 23.205
-2.341 &
25.546
2.108 TO TOP
23.438
.138 TO &
23.300 S/R

+) 23.296
+004

-) 23.293
+.007

SSRL
BL14-1
MONO

2-27-09
J.M., B.R., L.G.

(Y) +23.211 HI

4620 ϕ U/S

PINS

22.288 ΔZ = .214 ΔY

FLANGES
U/S

U/S) 23.211
2.496
25.707
.126
25.581
CA .107
25.474 S/R
25.475
-1.

D/S) 23.211
-2.496 ℄ SPINDLE
25.707
.126 R. PIN
25.581
(-).107 PITCH 9.6MR
25.688 S/R
25.687
+1

Y=
Z= 719.000

D/S
Y=
Z= 745.482

PITCH:
.09MR

(X) -27.559" LOS 3-2-09

3-2-09

(Z) 19.25M = 757.874"

Roll (MONO FACE PLATE)

TOP) 16.627 BOT) 16.627

757.874
745.482 D/S FL FACE
12.392
.750 FACE OF FL COVER
11.642
6.700 SPACER
4.942 S/R
4.937
+005

ROLL
TOP
16.627

BOT
16.627

YAW
.23MR

FLANGES
D/S BZ

U/S) 27.559
2.310
25.249
-5.752
19.497
3.500
22.997 S/R
23.003
+.006

D/S) 27.559
2.310 RAD.
25.249
-5.964 YAW
19.285
3.500 BUCKER
22.785 S/R
22.785
0

SSRL
BL 14-1
M1-MIRROR

2-26-09
B.R., J.M., L.G.

(Y)

HRLS105

7.350
57.750
65.100
41.890
23.210

BL14F19

6.841
57.750
64.591
41.380
23.211

$\bar{M} = 23.211$ HI

M1-MIRROR TANK

1) 23.211
-11.842
35.053
1.
34.053 S/R
34.054
-.001

2) 23.211
-11.824
35.035
1.
34.035 S/R
34.037
-.002

3) 23.211
-11.875
35.086
21.227
13.859 S/R
13.858
+.001

(X) .7M = 27.559" WS

3) 27.559
-11.914
15.645
1.
14.645 S/R
14.645
0

4) 27.559
-12.255
15.304
1.
14.304 S/R
14.304
0

SSRL
BL 14-1
M1-MIRROR
TILT PLATE

2-26-09
B.R., J.M., L.G.,

(4)

23.211 HI

TILT PLATE

A) 23.211
-19.452
42.663
21.227
21.436
18.000
3.436 S/R
3.433
+.003

B) 23.211
-19.427
42.638
21.227
21.411
18.000
3.411 S/R
3.415
+.004

C) 23.211
-19.464 VAL
42.675
21.227 ft
21448
18.000 SPLICE
3.448 S/R
3.448
0

Roll
.36 MR

(8) -27.559"

C) 27.559
10.356
17.203
12.528
4.675 S/R
4.678
+.003

D) 27.559
10.443 VAL
17.116
1. ——
16.116 S/R
16.120
+004

678 +3
120 +4

SSRL
BL 14-1
M1 MIRROR

2-26-09

J.M., B.R., L.G.

(Z) 19.25M = 757.874 WOS

TANK

3) 757.874
765.343
7.469
1.
6.469 S/R
6.456
+.013

TILT PLATE

c) 757.874
776.178
18.304
1.
17.304 S/R
17.291
+.013

2-27-09
BR, JM, LG

SSRL
BL 14-1
M1 MIRROR
LIMITS

(X)

-27.559LOS

(+) LIMIT

C) 4.678
4.675 S/R

D) 16.163
16.116
.047 - .004 = .043 Δ START
✓

(-) LIMIT

C)

D) 16.082
16.120 START
-038 ✓

✓BR
2/27/09

FINAL Ø YAW @ -8 MR

C) 27.559
10.356
17.203
12.528 off H
4.675 S/R
4.678
+003 ✓

D) 27.559
10.443
17.116
1. ——
16.116 S/R
16.120
+004 ✓

SSRL
BL14-1
M1 MIRROR

2-27-09
JM, BR, LG

SETUP & CHECKING LIMITS

(Y)

PITCH ±.5MR

Z
A) 11.232
B) 14.004
25.236 X .5MR = .0126" ΔY

A) -.006 B) +.006

✓ BR 2/27/09

25.236 X 11.1MR = .280" ΔY

A) 3.436 S/R ⌀ +.140 = 3.296 S/R ✓

B) 3.411 S/R ⌀ (-).140 = 3.551 S/R ✓ PITCH ON 11.1MR

FINAL - 9.6MR X 25.236 = .242 ΔY

A) 3.436 + .121 = 3.315 S/R
3.315 ⌀ ✓

B) 3.411 + .121 = 3.532 S/R
3.532 ⌀ ✓

LIMITS

A) 3.000 READ
3.436 S/R
+.436 ✓

B) 3.118 READ
3.411 S/R
+.293 ✓

A) 3.770
3.436 S/R
+.334 ✓

B) 3.905
3.411 S/R
-494 ✓

SSRL

BL 14-1

HUTCH STOPPER

3-2-09

(Y) +23.205 HI

1) 23.205
.224
22.979
1.
21.979 S/R
21.980
-001

2) 23.205
.234
22.971
1
21.971 S/R
21.971
0

3) 23.205
.781
22.424
1
21.424 S/R
21.424
0

4) 23.205
.781
22.424
1
21.424 S/R

(X) +25.591 LOS

1) 25.591
←14.285
29.876
1.
28.876
25.
3.876 S/R
3.880
-004

3-12-09
3.785
+091

2) 25.591
→4.562
30.153
1
29.153
25. SLICE
4.153 S/R
4.158
-005

3-12-09
4.170
-017

(Z)

815.901 D/S #1
820.792 U/S #5
4.891
.875 FL. COVER
4016
750 FL COVER
3.266

7/8 3/4

3-12-09
USED STOPPER TO SET O/S COLLIMATOR "X"

SSRL
BL14-1
COLLIMATOR

3-12-09
J.M., M.R., L.G.

(Y)

BL14F19	HRLS10S
6.270	6.778
57.750	57.750
64.020	64.528
-41.380	-41.890
22.640	22.638

u/s .900
d/s) .892

$\bar{M}$ = 22.639 HI

Y's
u/s) (+) .875 (-)
d/s) (+) .890 (-) .882

COLLIMATOR

u/s

(+) 22.639
-2.588
25.227
.438 ½ coll.
24.789 s/r
24.799
-.010

d/s

(+) 22.639
-2.588
25.227
.445
24.782 s/r
24.777
+.005

(-) 22.639
-2.588
25.227
.441
24.786 s/r
24.783
+.003

+5

(X) .65M = 25.591 11

X's
u/s) 2.010
d/s) 2.010

u/s) 25.591
1.005 ½
24.586
(-) 6.702 YAW
31.288
20. — SPACER
11.288 s/r
11.294
-.006

d/s) 25.591
1.005
24.584
(-) 6.780
31.364
20. —
11.364 s/r
11.369
-.003

Z's

u/s	d/s
835.799	849.528
472. —	-2. —
837.799	847.528

Δz = 9.729

YAW -6.702 -6.780

SSRL
BL 14-1

3-12-09
JM, MR, LG

(1) +22,639 HI

3" Pipe

u/s
22.639
1.500 R
21.139
-2.588 offset
23.727 s/R
23.710
+.017

HI
OS HZ
23.727 s/R
690
+037

(X) +25.591 WOS HI .75H = +29.528 HZ WOS

u/s
+7
25.591
1.500 R
24.091
-6.852 YAW
30.943
30.958
-.015

MID
+105
29.528
1.500
28.028
-7.692
35.720
35.798
+022

D/S
+213
29.528
1.500
28.028
-8.500
36.528
36.509
+019

(Z)
849.528
u/s 856.528
MID 961.528
D/S 1062.528

SSRL
BL14-1

3-12-09
MR, JM, LG

(4)

BF1429

574.72718
575.7911
-1.06392 M
-41.887"
9.769
40.750
50.519
-41.887 EL
8.632

ARCS 110

574.72994
575.7911
-1.06116 M
-41.778"
9.663
40.750
50.413
-41.778
8.635

M = 8.634 HI PIPE

HUTCH 2

MID

8.634
1.500 R
7.134
-2.588
9.722 S/R
9.713
+.009

D/S

8.634
1.500
7.134
-2.588
9.722 S/R
9.720
+002

H2 OSH3

9.728
-006

H1 OSH2

14.039

PIPE @ FLANGE

9815
-093