	0	Task Name	Start	Finish	pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	RWP, Lift plan	
1		G2P installation		Mon 11/21/11	XXXXXX							132.5 days?
2			Mon 5/16/11	Mon 5/16/11								1 day?
3		RadCon Hold	Mon 5/16/11	Fri 5/27/11								10 days?
4	•	post beam checklist	Mon 5/16/11	Mon 5/16/11	SOT							1 day?
5												
6		beam line prep work	Mon 5/16/11	Mon 7/11/11								39 days?
7		QA raster, calorimeter and magnet stands	Mon 5/16/11	Mon 5/16/11	SOT							0 days
8		install power for slow raster and calorimeter	Mon 5/16/11	Mon 5/16/11	SOT							0 days
9		install power in Hall for FZ magnets	Mon 5/16/11	Mon 5/16/11								1 day?
10		fab water manifolds for FZ magnets	Mon 5/16/11	Mon 5/16/11								1 day?
11		rework power connections for septum magnet	Mon 5/16/11	Mon 5/16/11								1 day?
12		rework water manifolds for septum magnet	Mon 5/16/11	Mon 5/16/11								1 day?
13		design and fab new electrical shields for septum magnet	Mon 5/16/11	Mon 5/16/11								1 day?
14		fab new beam pipe for septum magnet	Mon 5/16/11	Mon 5/16/11								1 day?
15		field map septum magnet	Mon 5/16/11	Mon 5/16/11								1 day?
16		pre survey beam dump	Mon 5/16/11	Mon 5/16/11								1 day?
17		pre survey target can	Mon 5/16/11	Mon 5/16/11								1 day?
18		pre survey target magnet	Mon 5/16/11	Mon 5/16/11								1 day?
19	•	close and unplug beam line vacuum valves	Mon 5/16/11	Mon 5/16/11	SOT			N	1			1 day?
20	•	turn off and valve off turbo pumps	Mon 5/16/11	Mon 5/16/11	SOT			N	1			1 day?
21	•	turn off diff pump station	Mon 5/16/11	Mon 5/16/11	SOT			N	1			1 day?
22	•	bleed up entrance beam line from diff pump to target	Mon 5/16/11	Mon 5/16/11	SOT			N	1			1 day?
23	•	reposition all metal beam line valve	Mon 5/16/11	Mon 5/16/11	SOT			N	1			1 day?
24		Platform - layout reference lines Mar 11	Mon 5/16/11	Mon 5/16/11								1 day?
25		Target fiduc. 1.Mag:Top March 11	Mon 5/16/11	Mon 5/16/11								1 day?
26		Target fiduc. 2.Top:Can Mar 11	Mon 5/16/11	Mon 5/16/11								1 day?
27		Septa fiduc.(new locations) March 11	Mon 5/16/11	Mon 5/16/11								1 day?
28	8882	Platform - check target mount	Fri 6/10/11	Fri 6/10/11								1 day?
29	888	Target top flange tube align	Fri 6/10/11	Fri 6/10/11								1 day?
30		Target fiduc. 2.Top:Can	Mon 7/11/11	Mon 7/11/11								1 day?
31		Dump / Sieve fid.	Mon 7/11/11	Mon 7/11/11								1 day?
32								_				
33		LCW work	Mon 5/23/11	Mon 6/20/11	XXXXXX							20 days?
		install new manifold to facilitate FZ power supplies	Mon 5/23/11	Mon 6/6/11				N	1			10 days?
35		install new manifolds to facilitate FZ magnets		Mon 6/20/11	SOT			N	1			10 days?
36		¥										
37		***From here to line 116 is eng installation and electroni	Mon 5/16/	Mon 5/16/	xxxxxx	4						0 days?
38		-		Mon 5/16/								0 days?
39												-
		***Neil Wilson, John Heckman, and electronics group***	WOT 5/16/	WUT 5/10/	~~^^^							0 days?
40		remove ED	Man 5/00/44	Tue 0/2/44								11 days
41		remove EP	Mon 5/23/11					•	1			11 days?
42		disconnect cables	Mon 5/23/11	Tue 5/24/11	SOT			N	1			2 days?

10	0			pre THA	Analysis	code post THA			RWP, Lift plan	
ΔΔ III	remove external detectors	Wed 5/25/11	Wed 5/25/11				N			1 day?
	disconnect vacuum system	Thu 5/26/11	Thu 5/26/11	SOT			N			1 day?
10	disconnect beam line	Fri 5/27/11	Fri 5/27/11	SOT			N	 		1 day?
40	remove upper detector section	Tue 5/31/11	Tue 5/31/11				N			1 day?
	remove target section	Wed 6/1/11	Wed 6/1/11				N			1 day?
40	remove lower detector system	Thu 6/2/11	Thu 6/2/11				N			1 day?
-10	remove EP stands	Fri 6/3/11	Fri 6/3/11							1 day?
00	remove stand foundations	Mon 6/6/11	Mon 6/6/11	SOT						1 day?
01	move EP system to ESB	Tue 6/7/11	Tue 6/7/11	SOT			N			1 day?
52										
53	Compton maintenance		Mon 11/21/11							132.5 days?
54	Radcon hold	Tue 7/5/11	Tue 7/5/11	SOT						1 day?
55	bleed up beam line	Tue 7/5/11	Tue 7/5/11							1 day?
56	remove blank flange for detector installation	Wed 7/6/11	Wed 7/6/11	SOT						1 day?
01	install electron detector package	Thu 7/7/11	Thu 7/7/11							1 day?
58	pump down vacuum system	Fri 7/8/11	Mon 7/11/11	SOT						2 days?
59	leak check	Tue 7/12/11	Tue 7/12/11	SOT						1 day?
60	bake affected areas bleed up for maintenance	Wed 7/13/11	Wed 7/13/11	SOT						1 day?
61	connect electronics	Thu 7/14/11	Mon 7/18/11	SOT			N			3 days?
62	operational checkout of electronics	Tue 7/19/11	Fri 7/29/11	SOT			N			9 days?
05	open laser enclosure for work	Fri 7/8/11	Fri 7/8/11				N			1 day?
64	replace laser mirrors	Mon 7/11/11	Fri 7/15/11				N			5 days?
65	align detector and laser as requested (to be defined later)	Mon 7/18/11	Tue 7/19/11							2 days?
66										
67										
68	install slow raster	Mon 6/6/11	Wed 8/3/11							42 days?
00	survey holes for stand	Mon 6/6/11	Thu 6/9/11	SOT						4 days?
10	Drill holes	Fri 6/10/11	Mon 6/13/11	SOT						2 days?
11	mount stand	Tue 6/14/11	Wed 6/15/11							2 days?
72	survey stand	Thu 6/16/11	Tue 6/21/11	SOT						4 days?
10	grout stand	Wed 6/22/11	Thu 6/23/11	SOT						2 days?
74	giour ser up time	Fri 6/24/11	Mon 6/27/11	SOT						2 days?
10	install slow raster	Tue 6/28/11	Tue 6/28/11	0.07						1 day?
76	connect beam line	Wed 6/29/11	Wed 6/29/11							1 day?
	pump down beam line	Thu 6/30/11								2 days?
10	survey slow raster	Tue 7/5/11	Fri 7/8/11							4 days?
10	install coils	Mon 7/11/11					N			1 day?
00	install and connect raster controls and power	Tue 7/12/11					N			1 day?
01	ops check slow raster	Wed 7/13/11					N			1 day?
02	software checkout and ops check	Mon 8/1/11	Wed 8/3/11							3 days?
83										
84										

ID	0	Task Name	Start		pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan	Duration
85		install calorimeter	Mon 6/6/11	Fri 8/12/11								49 days?
00		survey holes for stand	Mon 6/6/11	Tue 6/7/11								2 days?
0.	····	Drill holes	Wed 6/8/11	Thu 6/9/11	SOT							2 days?
00	··· •	mount stand	Fri 6/10/11	Mon 6/13/11								2 days?
00		survey stand	Tue 6/14/11	Wed 6/15/11								2 days?
00	III 🕴	grout stand	Thu 6/16/11	Fri 6/17/11								2 days?
91	•	set up time	Mon 6/20/11	Tue 6/21/11	SOT							2 days?
52		install calorimeter	Wed 6/22/11	Wed 6/22/11								1 day?
55		connect beam line	Thu 6/23/11	Thu 6/23/11								1 day?
94		pump down beam line	Fri 6/24/11	Fri 6/24/11								1 day?
95		leak check beam line	Mon 6/27/11	Mon 6/27/11	SOT							1 day?
50		connect motion and cooling lines	Tue 6/28/11	Tue 6/28/11								1 day?
97	111	survey calorimeter	Wed 6/29/11	Wed 6/29/11	SOT							1 day?
30		install controls	Tue 7/5/11	Wed 7/6/11								2 days?
99	111	ops check	Thu 7/7/11	Thu 7/7/11	SOT							1 day?
100	111	software checkout and ops check	Mon 8/8/11	Fri 8/12/11								5 days?
101												
102												
103		remove dual quads & short girder	Thu 7/7/11	Wed 8/10/11								25 days?
104	III •	disconnect water and power on dual quad assembly	Thu 7/7/11	Thu 7/7/11								1 day?
105		bleed up vacuum	Fri 7/8/11	Fri 7/8/11								1 day?
100		disconnect vacuum lines	Mon 7/11/11	Tue 7/12/11	SOT							2 days?
107		remove quad girder	Wed 7/13/11	Wed 7/13/11								1 day?
108		remove lead from 3 inch beam line	Thu 7/14/11	Thu 7/14/11								1 day?
109		install new 3 inch beam line	Fri 7/15/11	Fri 7/15/11								1 day?
110		install beam line and corrector support girder	Mon 7/18/11	Mon 7/18/11	SOT							1 day?
111		install controls and power cabling	Tue 7/19/11	Fri 7/22/11								4 days?
112		install BLM	Mon 7/25/11	Mon 7/25/11	SOT							1 day?
113		install controls	Tue 7/26/11	Wed 7/27/11								2 days?
114		connect beam line	Thu 7/28/11	Thu 7/28/11								1 day?
115		install vacuum pump and controls	Fri 7/29/11	Tue 8/2/11								3 days?
116		pump down and leak check girder	Wed 8/3/11	Thu 8/4/11								2 days
117		survey beam line	Fri 8/5/11	Fri 8/5/11								1 day?
118		reinstall lead removed for 3 inch beam pipe	Wed 8/10/11	Wed 8/10/11								1 day?
119	111	ops check	Mon 8/8/11	Tue 8/9/11	SOT							1.5 days?
120												
121		remove girder	Tue 5/31/11	Mon 6/13/11	XXXXXX							10 days?
·		remove lead shielding	Tue 5/31/11	Mon 6/6/11								5 days?
123		disconnect beam line diagnostics	Tue 5/31/11	Tue 5/31/11								1 day?
		disconnect vacuum equipment	Wed 6/1/11	Thu 6/2/11								2 days?
125	III •	remove water and control lines	Fri 6/3/11	Mon 6/6/11	SOT							2 days?
126		remove girder	Tue 6/7/11	Tue 6/7/11								1 day?

ID	0	Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan	Duration
127	III	remove girder stands	Wed 6/8/11	Thu 6/9/11				_				2 days?
128	III I	remove stand grout	Fri 6/10/11	Mon 6/13/11								2 days?
129												
130		install FZ magnets	Mon 5/16/11	Fri 11/4/11	XXXXXX							122 days?
131		survey holes for stands	Mon 6/6/11	Tue 6/7/11	SOT							2 days?
132		Drill holes	Wed 6/8/11	Thu 6/9/11	SOT							2 days?
133	III I	mount stands	Fri 6/10/11	Mon 6/13/11								2 days?
134		survey stands	Tue 6/14/11	Wed 6/15/11	SOT							2 days?
135	III I	grout stands	Thu 6/16/11	Fri 6/17/11	SOT							2 days?
136	III 🛉	grout set up time	Mon 6/20/11	Tue 6/21/11	SOT							2 days?
137		install cable tray	Wed 8/3/11	Fri 8/5/11				N	I			3 days?
138	ŧ	run magnet power cables	Mon 8/8/11	Tue 8/9/11				N	I			2 days?
139		run instrumentation cables	Wed 8/10/11	Thu 8/11/11								2 days?
140		connect AC power to power supplies	Fri 8/12/11	Mon 8/15/11	SOT							2 days?
141												
142		install FZ magnets	Tue 8/16/11	Mon 8/29/11								10 days?
143		survey FZ magnets	Tue 8/30/11	Fri 9/2/11								4 days?
144		install and connect DC power to magnets	Tue 9/6/11	Tue 9/6/11								1 day?
145		ops check magnets	Wed 9/7/11	Tue 9/13/11								5 days?
146		install FZ beam line supports	Wed 9/14/11	Fri 9/16/11								3 days?
147		install beam lines and beam diagnostics	Mon 9/19/11	Fri 9/23/11	SOT							5 days?
148		install vacuum system	Mon 9/26/11	Fri 9/30/11	SOT							5 days?
149		reposition all metal valve	Mon 10/3/11	Mon 10/3/11	SOT							1 day?
150		install instrumentation	Tue 10/4/11	Fri 10/7/11	SOT							4 days?
151		pump down beam line	Mon 10/10/11	Tue 10/11/11	SOT							2 days?
152		leak check beam lines	Wed 10/12/11	Thu 10/13/11	SOT							2 days?
153		survey beam lines	Fri 10/14/11	Tue 10/18/11	SOT							3 days?
154		ops check	Wed 10/19/11	Fri 10/21/11	SOT							3 days?
155		software checkout and ops check	Mon 10/31/11	Fri 11/4/11								5 days?
156												
157												
158												
159												
160		***Hall A and target group staff work starts here***	Mon 5/16/	Mon 5/16/	XXXXXX	(						1 day
161												
162												
163		target / septa prep work	Mon 5/16/11	Mon 5/16/11	XXXXXX							0 days
164		modify septa platform	Mon 5/16/11	Mon 5/16/11	SOT			N	1			0 days
165		install 3rd coil set in septum magnet	Mon 5/16/11					N	1			0 days
166		pre assemble align target support on septa platform	Mon 5/16/11					N	1			0 days
167												
168		cryo work	Mon 5/16/11	Mon 8/8/11	XXXXXX							58.5 days?

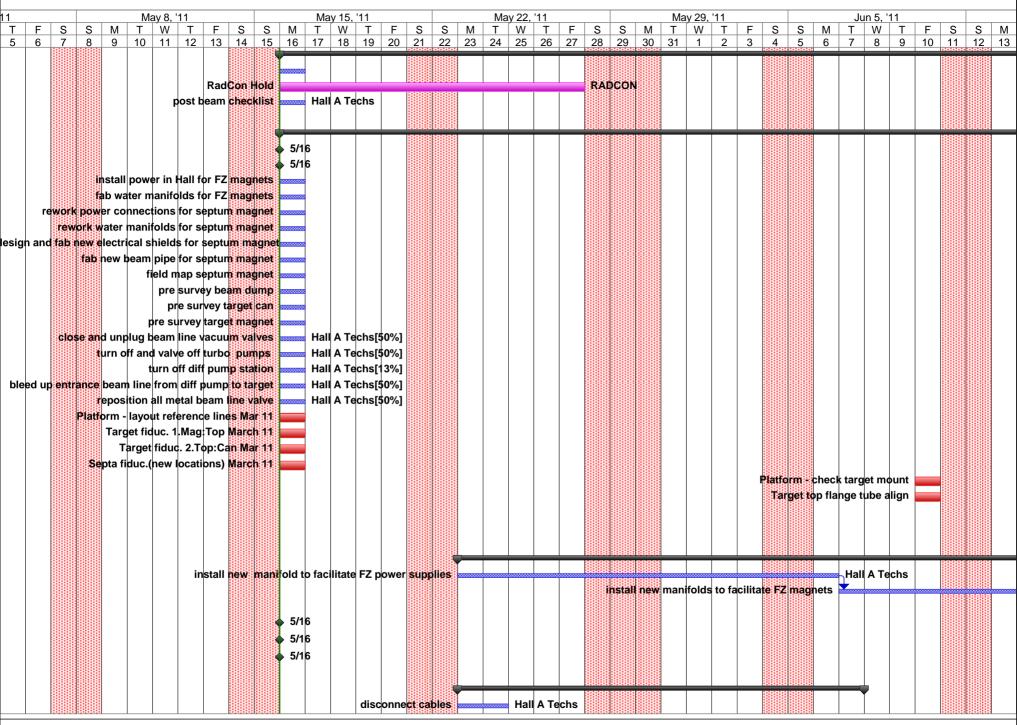
	<u>o</u>	Task Name	Start	Finish	pre THA	Task Hazard Analysis	Risk code post THA	Atlis		Hot Work	TOSP, RWP, Lift plan		ay '
169	•	warm up both spectrometers	Mon 5/16/11	Fri 5/20/11				N				5 days?	
	•	pump all magnets	Tue 5/31/11	Mon 6/6/11				N				5 days?	
	··· •	pump all cryo lines	Mon 6/13/11	Fri 6/17/11				N				5 days?	
	···· •	replace Q1 JT valve heads with JLab valves	Mon 6/27/11	Fri 7/1/11				N				5 days?	
		replace dipole LN2 probes	Tue 7/5/11	Tue 7/5/11				N				1 day?	
		replace magnet pressure gauges	Thu 7/7/11	Mon 7/11/11				N				2.5 days?	
		repair left Q1 leads	Thu 7/14/11	Wed 7/20/11				N				5 days?	
	···· •	replace left Q1 vacuum seals	Thu 7/28/11	Tue 8/2/11				N				3.75 days?	
		replace all Q1 110 vac plugs due to radiation damage	Thu 8/4/11	Mon 8/8/11	SOT			N				2.5 days?	
178													
179													
180	-	Detector work	Mon 6/6/11	Fri 7/29/11								39 days?	
101	••••••••••••••••••••••••••••••••••••••	roll out left detector	Mon 6/6/11	Mon 6/6/11	SOT			N				1 day?	
TOL		pull out SRC detectors	Mon 6/13/11	Tue 6/14/11				N				2 days?	
100		install G2P detectors	Mon 6/20/11	Fri 6/24/11				N				5 days?	
101	··· •	roll in left detector	Mon 6/27/11	Mon 6/27/11	SOT			N				1 day?	
100		clear balcony and close doors	Wed 6/29/11	Wed 6/29/11				N				1 day?	
186													
101	··· •	roll out right detector	Tue 7/5/11	Tue 7/5/11				N				1 day?	
	··· •	pull out SRC detectors	Mon 7/11/11	Tue 7/12/11				N				2 days?	
100	··· •	install G2P detectors	Mon 7/18/11	Thu 7/21/11				N				4 days?	
100	···· •	roll in left detector	Mon 7/25/11	Mon 7/25/11	SOT			N				1 day?	
101		clear balcony and close doors	Fri 7/29/11	Fri 7/29/11				Ν				1 day?	
192			<b>N F</b> /10/14										-
193		remove target	Mon 5/16/11	Thu 7/7/11								37 days?	
194		warm up target	Mon 5/16/11	Thu 5/19/11				N				4 days?	
100	···· •	bleed up chamber	Fri 5/20/11	Fri 5/20/11	SOT			N				1 day?	-
130		de-sting cryo	Mon 5/23/11	Mon 5/23/11	00T			N				1 day?	
157	····	disconnect target	Tue 5/24/11 Mon 6/6/11	Fri 6/3/11 Mon 6/6/11	SOT			N				8 days?	-
100		remove target from chamber		Tue 6/7/11	SOT			N				1 day?	-
100		remove vacuum system	Tue 6/7/11 Wed 6/8/11	Wed 6/8/11				N				1 day?	
200		remove beam pipes	Thu 6/9/11	Thu 6/9/11	301			N				1 day?	-
201		remove upper chamber remove lower chamber	Fri 6/10/11	Fri 6/10/11				N				1 day?	
				Mon 6/13/11				N				1 day?	
		remove chamber support spool reconfigure target lines and cables for new target		Wed 6/22/11				N				1 day? 7.5 days?	
204		reconfigure larger fines and cables for new larger	10/13/11	Weu 0/22/11	301							1.5 days?	
205		remove Big Bite	Mon 5/16/11	Thu 7/7/11	~~~~							37 days?	
		disconnect BB detector	Mon 5/16/11 Mon 5/16/11	Fri 5/20/11				N	1			5 days?	
		disconnect bb detector		Mon 5/23/11								1 day?	
			Mon 5/23/11					N					
200		disconnect and move inst. Interlocks etc	Tue 5/24/11	Wed 5/25/11				N				2 days?	
210		disconnect BB power	Thu 5/26/11	Fri 5/27/11	SOT			N				2 days?	L

ID	0	Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan	Duration
211		install extension rails on BB stand	Tue 5/31/11	Tue 5/31/11				N	l			1 day?
212		reroute BB power lines for septum	Thu 6/2/11	Fri 6/3/11				N	1			2 days?
213	III 🛉	role back detector platform	Mon 6/6/11	Mon 6/6/11	SOT			N	I			1 day?
214		rig and move detector	Tue 6/7/11	Tue 6/7/11				N	l			1 day?
215	III 🛉	remove detector platform	Wed 6/8/11	Wed 6/8/11				N	I			1 day?
216	III 🛉	partial rollback of BB for field clamp removal	Thu 6/9/11	Thu 6/9/11	SOT							1 day?
217		rig and move field clamp including collimator to storage position	Fri 6/10/11	Fri 6/10/11				N	l			1 day?
218		rollback BB for door removal	Mon 6/13/11	Mon 6/13/11	SOT			N	I			1 day?
219		remove shielding doors to storage position	Tue 6/14/11	Wed 6/15/11				N	l			2 days?
220		remove shielding on top and around BB	Thu 6/16/11	Fri 6/17/11				N	1			2 days?
221		install pink stand	Mon 6/20/11	Mon 6/20/11				N	1			1 day?
222		Add supports to BB feet	Tue 6/21/11	Tue 6/21/11	SOT			N	1			1 day?
223		remove feet from BB	Wed 6/22/11	Wed 6/22/11				N	1			1 day?
224		rig and move BB magnet to storage position	Thu 6/23/11	Fri 6/24/11				N	1			2 days?
225		rig feet and move to storage position	Mon 6/27/11	Mon 6/27/11				N	l			1 day?
226	III †	reposition rollers and other support equipment to storage position	Tue 6/28/11	Tue 6/28/11				N	I			1 day?
227	III 🛉	remove rail extensions	Wed 6/29/11	Wed 6/29/11				N	I			1 day?
228	III 🛉	remove pink stand	Thu 6/30/11	Thu 6/30/11				N	I			1 day?
229		rig and move BB stand	Fri 7/1/11	Fri 7/1/11				N	l			1 day?
230		Rotate right spect. To 12.5 degrees	Tue 7/5/11	Tue 7/5/11	SOT			N	1			1 day?
231		move electronics to storage	Wed 7/6/11	Wed 7/6/11				N	l			1 day?
232		move Hadron detector frame to PSB	Thu 7/7/11	Thu 7/7/11				N	I			1 day?
233												
234		install septum and target	Fri 7/8/11	Mon 11/21/11	XXXXXX							95.5 days?
235	III 🛉	both spectrometers to 12.5 deg	Fri 7/8/11	Fri 7/8/11	SOT			N	I			1 day?
236		survey both spectrometers	Mon 7/11/11	Mon 7/11/11	SOT							1 day?
237		install septum support stand	Tue 7/12/11	Wed 7/13/11				N	I			2 days?
238	III 🛉	align stand	Thu 7/14/11	Thu 7/14/11	SOT			N	I			1 day?
239	III 🛉	install beam right access platform and stairs	Fri 7/15/11	Fri 7/15/11				N	I			1 day?
240	III 🛉	install septum platform on support stand	Mon 7/18/11	Mon 7/18/11				N	I			1 day?
241		RadCon Hold	Mon 7/11/11	Fri 7/15/11	SOT			N	l			5 days?
242		install septum magnet on platform	Tue 7/19/11	Tue 7/19/11				N	I			1 day?
243		install tread plated and dump support on platform	Wed 7/20/11	Wed 7/20/11				N	l			1 day?
244	III 🛉	pre alignment of septum magnet	Thu 7/21/11	Thu 7/21/11	SOT							1 day?
245		install beam dump between magnet and target	Fri 7/22/11	Mon 7/25/11				N	l			2 days?
246		install target chamber support on platform	Tue 7/26/11	Tue 7/26/11				N	I			1 day?
247		install exit beam pipe in magnet	Wed 7/27/11	Wed 7/27/11	SOT			N	l			1 day?
248		RadCon Hold	Tue 7/26/11	Thu 7/28/11	SOT			N	I			3 days?
249		align beam dump	Thu 7/28/11	Fri 7/29/11								2 days?
250		install shielding between target and magnet	Mon 8/1/11	Mon 8/1/11				N	l			1 day?
251		install target chamber into chamber support	Tue 8/2/11					N	1			1 day?
252	ŧ	install magnet into chamber	Wed 8/3/11					N				1 day?

ID	0	Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan	Duration
253	· · · ·	test magnet rotation system	Thu 8/4/11	Thu 8/4/11	SOT			N	l			1 day?
254												
255	111	install refrigerator pump on upper target balcony	Fri 8/5/11	Fri 8/5/11				N	l			1 day?
256		roll septum/target platform into position	Mon 8/8/11	Mon 8/8/11				N	I			1 day?
257	III 🕴	lower and position septum platform	Tue 8/9/11	Tue 8/9/11				N	l			1 day?
258		align septum magnet	Wed 8/10/11	Thu 8/11/11	SOT							2 days?
259		align target chamber	Fri 8/12/11	Mon 8/15/11	SOT							2 days?
260		align magnet in chamber	Tue 8/16/11	Tue 8/16/11	SOT							1 day?
261		install catwalk on right access platform	Wed 8/17/11	Wed 8/17/11				N	l			1 day?
262		install upper platform stairs	Thu 8/18/11	Thu 8/18/11				N	I			1 day?
263												
264		install target dewar and stand	Fri 8/19/11	Fri 8/19/11				N	I			1 day?
265		connect dewar controls	Mon 8/22/11	Tue 8/23/11				N	I			2 days?
266		install dewar U tubes and return lines	Wed 8/24/11	Thu 8/25/11				N	I			2 days?
267	818	install beam lines	Fri 8/26/11	Fri 8/26/11	SOT			N	l			1 day?
268		align beam lines	Mon 8/29/11	Mon 8/29/11	SOT							1 day?
269		install Helium bags	Tue 8/30/11	Tue 8/30/11	SOT			N	I			1 day?
270		install target vacuum pump power	Wed 8/31/11	Fri 9/2/11				N	I			3 days?
271		install target vacuum pump plumbing	Tue 9/6/11	Fri 9/9/11				N	I			4 days?
272		install target vacuum system instr. and controls	Mon 9/12/11	Fri 9/16/11	SOT			N	I			5 days?
273		connect chamber vacuum system	Mon 9/19/11	Tue 9/20/11				N	I			2 days?
274		leak check and ops check target vacuum system	Wed 9/21/11	Wed 9/21/11	SOT			N	I			1 day?
275		install target	Thu 9/22/11	Fri 9/23/11				N	I			2 days?
276		align target	Mon 9/26/11	Wed 9/28/11	SOT							3 days?
277		install target and refrig. Inst, and controls	Thu 9/29/11	Wed 10/5/11	SOT			N	I			5 days?
278		connect target vacuum system	Thu 10/6/11	Wed 10/12/11				N	I			5 days?
279		leak check target vacuum system	Thu 10/13/11	Fri 10/14/11	SOT			N	I			2 days?
280	888	install target chamber windows	Mon 10/17/11	Mon 10/17/11				N	I			1 day?
281		pump down chamber	Tue 10/18/11	Wed 10/19/11	SOT			N	I			2 days?
282	818.	leak check chamber	Thu 10/20/11	Thu 10/20/11	SOT			N	I			0.5 days?
283	111	insert target refrigerator	Thu 10/20/11	Thu 10/27/11				N	I			5 days?
284		sting dewar to refrig and refrig to target	Thu 10/27/11	Fri 10/28/11				N				1 day?
285		pump and purge target cryo system	Fri 10/28/11	Tue 11/1/11				N				2 days?
286		fill dewar	Tue 11/1/11	Fri 11/4/11				N	I			3 days?
287		cool down target cryo system	Fri 11/4/11	Tue 11/8/11	SOT			N				2 days?
200	111	test target refrigerator		Tue 11/15/11				N				5 days?
289		ops check target system	Tue 11/15/11	Mon 11/21/11	SOT			N				4 days?
290		software checkout and ops check	Mon 8/1/11	Mon 8/1/11								1 day?
291												
292												
293												
294		end stuff	Mon 10/31/11	Fri 11/18/11	XXXXXX							15 days?

	0	Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan	-
235		inspect beam dump as requested by RADCON		Mon 10/31/11								1 day?
200	····	final removal	Mon 10/31/11	Fri 11/11/11				N				10 days?
201	··· •	start power supplies	Mon 11/7/11					N				2 days?
200		cleanup	Mon 11/7/11					N				10 days?
200	··· •	hot check out checklist	Thu 11/10/11					N				1 day?
300		restore beam	Fri 11/11/11					N				1 day?
001	···· •	final checklist		Wed 11/16/11	SOT			N				1 day?
502		run beam	Fri 11/18/11	Fri 11/18/11	OPS			N				1 day?
303												
304		stuff to do	Mon 5/16/11	Wed 6/29/11								32 days?
305		grease bogies	Mon 6/27/11	Tue 6/28/11				N				2 days?
306		grease central bearing	Wed 6/29/11	Wed 6/29/11	SOT			N				1 day?
307		install water manifold on upper LCW	Mon 5/16/11	Mon 5/16/11				N				1 day?
308		install water manifold on PS balconies	Mon 5/16/11	Mon 5/16/11				N				1 day?
309		install new guards and heaters	Mon 5/16/11	Mon 5/16/11				N				1 day?
310		complete BB rigid water lines	Mon 5/16/11	Mon 5/16/11				N				1 day?
311		calibrate LL meters	Mon 5/16/11	Mon 5/16/11				N				1 day?
312		warm up Q-1 magnets	Mon 5/16/11	Mon 5/16/11	SOT			N				1 day?
313		de-sting Q-1 magnets	Mon 5/16/11	Mon 5/16/11				N				1 day?
314		rework leads on left Q1	Mon 5/16/11	Mon 5/16/11				N				1 day?
315		clean out cable trays	Mon 5/16/11	Mon 5/16/11	SOT			N				1 day?
316		install manual flow meters on Q2/Q3	Mon 5/16/11	Mon 5/16/11	SOT			N				1 day?
317		grease shield house doors	Mon 5/16/11	Mon 5/16/11				N				1 day?
318		re-insulate warm return lines	Mon 5/16/11	Mon 5/16/11				N				1 day?
319		repair leaks in exit beam pipe	Mon 5/16/11	Mon 5/16/11				N				1 day?
320		install DP gauges on LCW system	Mon 5/16/11	Mon 5/16/11				N				1 day?
321		install DP gauge on BB water system	Mon 5/16/11	Mon 5/16/11				N				1 day?
322		new lead guards on Q2/Q3	Mon 5/16/11	Mon 5/16/11	SOT			N				1 day?
323		new lead guards on Dipoles	Mon 5/16/11	Mon 5/16/11	SOT			N				1 day?
324		new lead guards on Q1s	Mon 5/16/11	Mon 5/16/11	SOT			N				1 day?
325		Lt Q1 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N				1 day?
326		Lt Q2 power supply maintenance	Mon 5/16/11					N				1 day?
327		Lt Dipole power supply maintenance	Mon 5/16/11	Mon 5/16/11				N				1 day?
328		Rt Q1 power supply maintenance	Mon 5/16/11					N				1 day?
329		Rt Q2 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N				1 day?
330		Rt Dipole power supply maintenance	Mon 5/16/11					N				1 day?
331		Rt Q3 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N				1 day?
332		repair right transfer line	Mon 5/16/11					N				1 day?
333		replace left Q2 016 weka valve	Mon 5/16/11	Mon 5/16/11				N				1 day?
334		remove maintenance jacks from both spectrometers	Mon 5/16/11	Mon 5/16/11				N	l			1 day?
335		finish vacuum line extension on Rt Q3	Mon 5/16/11	Mon 5/16/11				N				1 day?
336		visual inspection of exit BP diffuser	Mon 5/16/11	Mon 5/16/11				N	ĺ			1 day?

ID		Task Name	Start	Finish	Risk code	Task Hazard	Risk	Atlis	HA list	Hot Work	TOSP,	Duration	
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	0						THA						
337		Upgrade/ reinforce BB support arm and extensions	Mon 5/16/11	Mon 5/16/11				N				1 day?	
338		Rework PHPK cryo cans for pivot distribution	Mon 5/16/11	Mon 5/16/11				N				1 day?	2
339		modify and install stairs	Mon 5/16/11	Mon 5/16/11				N				1 day?	2

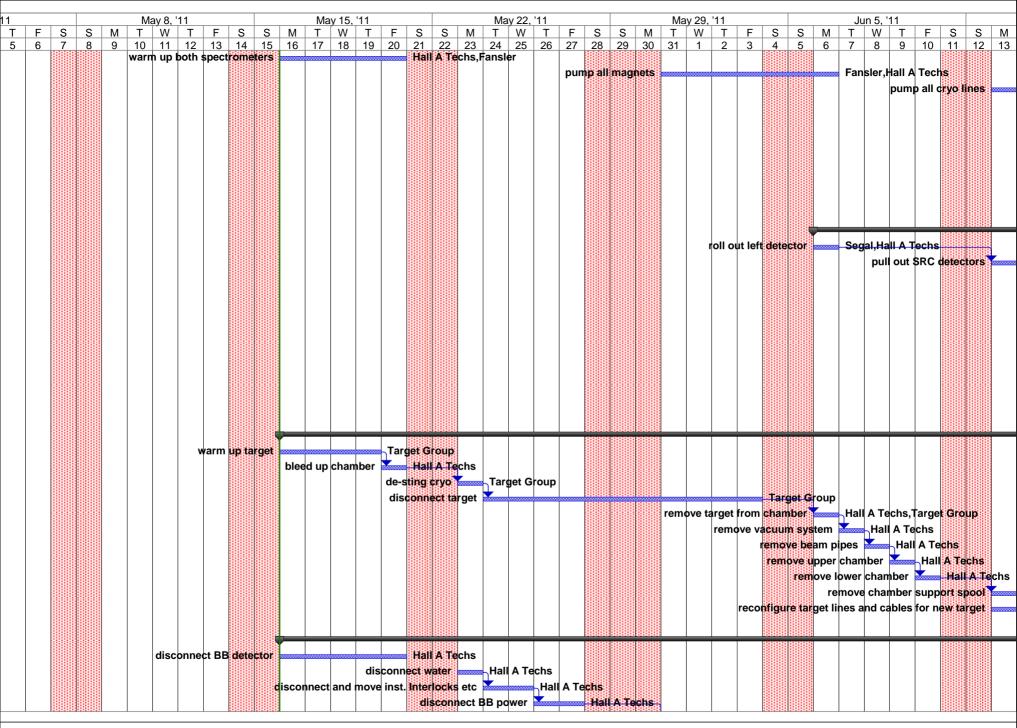


Page 10

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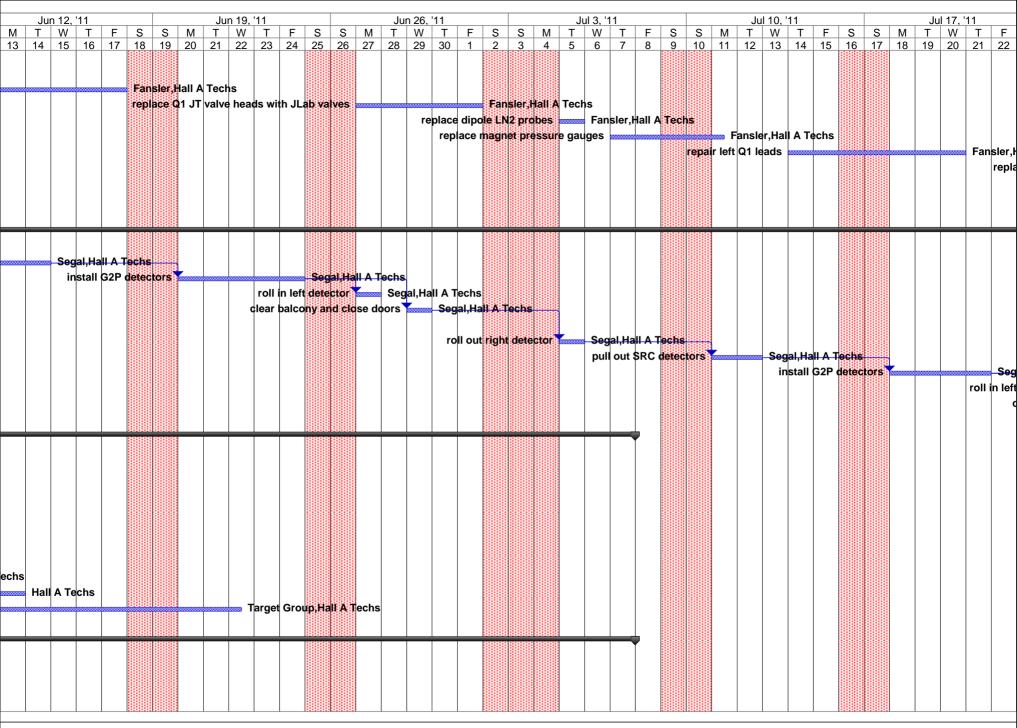
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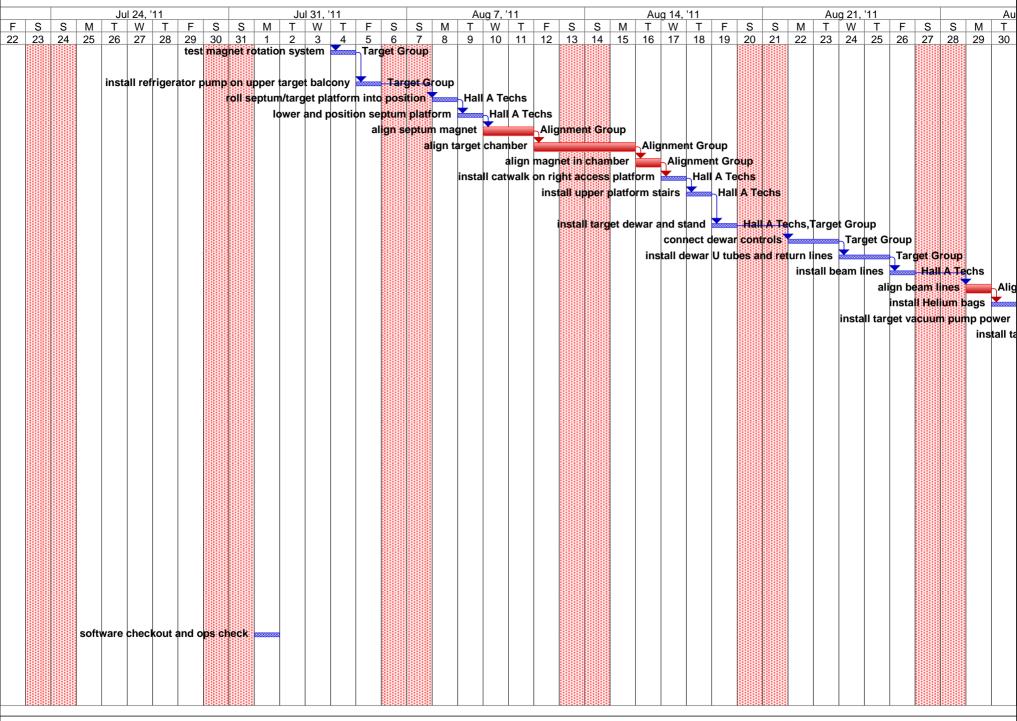
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