ID T	sk Name	Start Finish	Risk code rask Hazard Risk Atlis HA list code	st Hot Work TOSP, RWP, Lift Work Resource Names	May	2011			June 2011			July 2011	
1 6	2P installation	Mon 5/16/11 Fri 11/18/1	post THA	plan	11 May 8, '11 5 6 7 8 9 10 11 12 13 14 15 1	May 15, '11 May 22	2, '11	Jun 5, '11 5 6 7 8 9 10 11 12	Jun 12, '11	Jun 19, '11 Jun 2 19 20 21 22 23 24 25 26 27 28 2	26, '11 Jul 3, '11 29 30 1 2 3 4 5 6 7 8 9	Jul 10, '11	Jul 17, '11 18 19 20 21 22
2	Radcon Alignment	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 8 hrs RADCON TECH		RADCON TECH MECH ALIGN TECH							
4	Engineering electronics or electrical Engineering mechanical	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 0 hrs 1 day? 0 hrs	Engineering electronics or electrical Engineering mechanical	_							
6 7	engineering Vacuum Hall A techs or users	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 0 hrs 1 day? 0 hrs	engineering Vacuum Hall A techs or users	_							
8 9	target group Ops software	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 0 hrs 1 day? 0 hrs	target group. Ops software.								
10 11													
12 13	beam line prep work QA raster, calorimeter and magnet stands	Mon 5/16/11 Mon 7/11/1 Mon 5/16/11 Mon 5/16/1	11 SOT	39 days? 237 hrs 0 days 0 hrs H-A MECH TECH		5/16							
14 15 •	install power for slow raster and calorimeter install power in Hall for FZ magnets	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	0 days 0 hrs H-A MECH TECH 1 day? 8 hrs H-A MECH TECH	install power in Hall for FZ magnets								
16 † 17 †	fab water manifolds for FZ magnets rework power connections for septum magnet	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 8 hrs H-A MECH TECH 1 day? 8 hrs H-A MECH TECH	fab water manifolds for FZ magnets rework power connections for septum magnet	- H-A MECH TECH							
18 • 19 •	rework water manifolds for septum magnet design and fab new electrical shields for septum magnet	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11		rework water manifolds for septum magnet lesign and fab new electrical shields for septum magnet	- H-A MECH TECH							
20 1	fab new beam pipe for septum magnet field map septum magnet	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 8 hrs H-A MECH TECH 1 day? 8 hrs MECH INST TECH	fab new beam pipe for septum magnet field map septum magnet	MECH INST TECH LITE							
22 23	pre survey beam dump pre survey target can	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 8 hrs MECH ALIGN TECH 1 day? 8 hrs MECH ALIGN TECH	pre survey be <mark>am dump.</mark> pre survey t <mark>arget can.</mark>	MECH ALIGN TECH							
24 25	pre survey target magnet close and unplug beam line vacuum valves	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11 SOT N	1 day? 8 hrs MECH ALIGN TECH 1 day? 8 hrs MECH VAC TECH	pre survey target magnet close and unplug beam line vacuum valves	MECH VAC TECH							
26	turn off and valve off turbo pumps turn off diff pump station	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11 SOT N	0.5 days? 4 hrs MECH VAC TECH 0.13 days? 1 hr MECH VAC TECH	turn off and valve off turbo pumps turn off diff pump station	MECH VAC TECH							
28	bleed up entrance beam line from diff pump to target reposition all metal beam line valve	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11 SOT N	0.5 days? 4 hrs MECH VAC TECH 0.5 days? 4 hrs MECH VAC TECH	bleed up entrance beam line from diff pump to target reposition all metal beam line valve	MECH VAC TECH							
30 31 32	Target fiduc. 1.Mag:Top March 11 Target fiduc. 2.Top:Can Mar 11 Septa fiduc. (new locations) March 11	Mon 5/16/11 Mon 5/16/1 Mon 5/16/11 Mon 5/16/1	11	1 day? 8 hrs MECH ALIGN TECH 1 day? 8 hrs MECH ALIGN TECH	Target fiduc. 1.Mag:Top March 11 Target fiduc. 2.Top:Can Mar 11 Sonta fiduc (now locations) March 11	MECH ALIGN TECH							
32 1 33 1 34 1	Platform - check target mount	Mon 5/16/11 Mon 5/16/1 Fri 6/10/11 Fri 6/10/1	11	1 day? 8 hrs MECH ALIGN TECH 1 day? 16 hrs MECH ALIGN TECH 1 day? 16 hrs MECH ALIGN TECH	Septa fiduc.(new locations) March 11	MEGN ALIGN LEGIT	F0000000000000000000000000000000000000	form - check target mount MECH A					
34 **** 35 **** 36 ****	Target top flange tube align Target fiduc. 2.Top:Can Dump / Sieve fid	Fri 6/10/11 Fri 6/10/1 Mon 7/11/11 Mon 7/11/11 Mon 7/11/11	11	1 day? 16 hrs MECH ALIGN FECH 1 day? 16 hrs MECH ALIGN TECH 1 day? 16 hrs MECH ALIGN TECH				MECHA	I E011[20070]			Can MECH ALIGN TECH[200%]	
37	RadCon Hold	Mon 5/16/11 Fri 5/20/1		1 day? 16 hrs MECH ALIGN TECH 5 days 40 hrs RADCON TECH	RadCon Hold	RADCON TECH					bump / sieve	III. LOTI ALIGN EURIZOO76]	
39	post beam checklist	Mon 5/16/11 Mon 5/16/1		1 day? 8 hrs H-A MECH TECH	post beam checklist)	01							
41 42	LCW work install new manifold to facilitate FZ power supplies	Mon 5/23/11 Mon 6/20/1 Mon 5/23/11 Mon 6/6/1		20 days? 160 hrs 10 days? 80 hrs H-A MECH TECH	install new manifo	old to facilitate FZ power supplies		H-A MECH TECH					
43	install new manifolds to facilitate FZ magnets	Tue 6/7/11 Mon 6/20/1		10 days? 80 hrs H-A MECH TECH			install new manifolds to facilitate F			H-A MECH TECH			
45 46	remove EP	Mon 5/23/11 Mon 6/6/1	11	10 days? 88 hrs									
47 III 48 III 1	Radcon coverage disconnect cables	Mon 5/23/11 Mon 5/23/1 Mon 5/23/11 Mon 5/23/1	11 SOT N	1 day? 8 hrs RADCON TECH 1 day? 8 hrs H-A MECH TECH		Radcon coverage RADCO disconnect cables H-A ME	ECH TECH						
49 III 50 III	remove external detectors disconnect vacuum system	Tue 5/24/11 Tue 5/24/1 Wed 5/25/11 Wed 5/25/11	11 SOT N	1 day? 8 hrs H-A MECH TECH 1 day? 8 hrs H-A MECH TECH		remove external detectors H- disconnect vacuum system	H-A MECHTECH						
51 === 52 ===	disconnect beam line remove upper detector section	Thu 5/26/11 Thu 5/26/1 Fri 5/27/11 Fri 5/27/11	11 N	1 day? 8 hrs H-A MECH TECH 1 day? 8 hrs H-A MECH TECH			e H-A MECH TECH ection H-A MECH TECH						
53 IIII • 54 IIII • 55	remove target section remove lower detector system	Tue 5/31/11 Tue 5/31/1 Wed 6/1/11 Wed 6/1/1	11 N	1 day? 8 hrs H-A MECH TECH 1 day? 8 hrs H-A MECH TECH			remove target section H-A MECH TECH remove lower detector system H-A MECH TE	ECH					
55 III 1	remove EP stands remove stand foundations	Thu 6/2/11 Thu 6/2/1 Fri 6/3/11 Fri 6/3/1	11 SOT	1 day? 8 hrs MECH INST TECH 1 day? 8 hrs MECH INST TECH			remove EP stands MECH II						
58 50	move EP system to ESB Compton maintenance	Mon 6/6/11 Mon 6/6/1 Mon 5/16/11 Fri 11/18/1		1 day? 8 hrs H-A MECH TECH 132 days? 4,420 hrs			move EP system to	n-A MECH TECH					
60 111	Radcon hold bleed up beam line	Tue 7/5/11 Tue 7/5/1 Tue 7/5/11 Tue 7/5/1	11 SOT	1 day? 4,420 firs 4,420 firs 8 hrs RADCON TECH 1 day? 8 hrs MECH VAC TECH							Radcon hold RADCON TECH		
62	remove blank flange for detector installation install electron detector package	Wed 7/6/11 Wed 7/6/1 Thu 7/7/11 Thu 7/7/1	11 SOT	1 day? 8 hrs MECH VAC TECH 1 day? 16 hrs MECH VAC TECH,						remove blar	nk flange for detector installation MECH VAC TE MECH VA		
64	pump down vacuum system leak check	Fri 7/8/11 Mon 7/11/1 Tue 7/12/11 Tue 7/12/1	11 SOT	2 days? 16 hrs MECH VAC TECH, 1 day? 8 hrs MECH VAC TECH							pump down vacuum system		
66 67	bake affected areas bleed up for maintenance connect electronics	Wed 7/13/11 Wed 7/13/1 Thu 7/14/11 Mon 7/18/1	11 SOT	1 day? 8 hrs MECH VAC TECH 3 days? 24 hrs Experimenters							bake affected areas bleed up fo	r maintenance MECH VAC TECH	Experimenters
68 69	operational checkout of electronics open laser enclosure for work	Tue 7/19/11 Fri 7/29/1 Fri 7/8/11 Fri 7/8/1	11 SOT N	9 days? 72 hrs Experimenters 1 day? 8 hrs Experimenters							open laser enclosure for work	operational checkout of electronics erimenters	11 -1
70 1 71	replace laser mirrors align detector and laser as requested (to be defined later)	Mon 7/11/11 Fri 7/15/1 Mon 7/18/11 Tue 7/19/1		5 days? 40 hrs Experimenters 2 days? 32 hrs MECH ALIGN TECH							replace laser mir		
72 73	install slow raster	Mon 6/6/11 Wed 8/3/1	11 XXXXXX	42 days? 240 hrs									
74 III 75 III 1	survey holes for stand Drill holes	Mon 6/6/11 Tue 6/7/1 Wed 6/8/11 Thu 6/9/1		2 days? 32 hrs MECH ALIGN TECH 2 days? 16 hrs MECH INST TECH			survey holes for a	MECH ALIGN TECH[200 Drill holes MECH INST T	ECH LITE				
76 III I	mount stand survey stand	Fri 6/10/11 Mon 6/13/1 Tue 6/14/11 Wed 6/15/1	11 SOT	2 days? 16 hrs MECH INST TECH 2 days? 32 hrs MECH ALIGN TECH				mount stand survey s	tand MECH ALIGN TE				
78 III 1	grout stand grout set up time	Thu 6/16/11 Fri 6/17/1 Mon 6/20/11 Tue 6/21/1	11 SOT	2 days? 16 hrs MECH INST TECH 2 days? 16 hrs MECH INST TECH					grout set up tin	606060 HECCOSCICTOR HECCOSCICTOR			
80 III II I	install slow raster pump down beam line	Wed 6/22/11 Wed 6/22/1 Fri 6/24/11 Mon 6/27/1 Thu 6/23/11 Thu 6/23/1	11 SOT	1 day? 8 hrs MECH INST TECH 2 days? 16 hrs MECH VAC TECH						MECH INST TECH LITE pump down beam line MECH VAC TECH	VAC TECH		
82 *** 83 *** 84 ***	connect beam line survey slow raster install coils	Thu 6/23/11	11 SOT	1 day? 8 hrs MECH VAC TECH 2 days? 32 hrs MECH ALIGN TECH 1 day? 8 hrs Physics electronics of					ic	survey slow raster	MECH ALIGN TECH[200%] Is Physics electronics group		
85 IIII 86 IIII	install colls install and connect raster controls and power ops check slow raster	Fri 7/1/11 Fri 7/1/1 Tue 7/5/11 Tue 7/5/1	11 SOT N	1 day? 8 hrs Physics electronics of the second seco							power Physics electronics group ops check slow raster Physics electronics	aroup	
87	ops check slow raster software checkout and ops check	Mon 8/1/11		3 days? 24 hrs OPS SOFTWARE							Trysics electronics		
89	install calorimeter survey holes for stand	Mon 6/6/11 Fri 8/12/1 Mon 6/6/11 Tue 6/7/1		49 days? 248 hrs 2 days? 32 hrs MECH ALIGN TECH			survey holes för s	stand MECH ALIGN TECH[200	%]				
91 111 92	Drill holes mount stand	Wed 6/8/11 Thu 6/9/1 Fri 6/10/11 Mon 6/13/1	11 SOT	2 days? 16 hrs MECH INST TECH 2 days? 16 hrs MECH INST TECH				Drill holes MECH INST T	ECH LITE MECH INST TECH LITE				
93 III 94 III	survey stand grout stand	Tue 6/14/11 Wed 6/15/1 Thu 6/16/11 Fri 6/17/1		2 days? 32 hrs MECH ALIGN TECH 2 days? 16 hrs MECH INST TECH				survey s	tand MECH ALIGN TE	INST TECH LITE			
95 96 ## • 97	set up time install calorimeter	Mon 6/20/11 Tue 6/21/1 Wed 6/22/11 Wed 6/22/1	11 SOT 11	2 days? 16 hrs MECH INST TECH 1 day? 8 hrs MECH INST TECH						I calorimeter MECH INST TECH LITE			
98	connect beam line pump down beam line	Thu 6/23/11 Thu 6/23/1 Fri 6/24/11 Fri 6/24/1	11	1 day? 8 hrs MECH VAC TECH 1 day? 8 hrs MECH VAC TECH						pump down beam line MECH VAC TECH MECH VAC TECH			
99 † 100 *** 101 *** †	leak check beam line connect motion and cooling lines	Mon 6/27/11 Mon 6/27/1 Tue 6/28/11 Tue 6/28/1	11	1 day? 8 hrs MECH VAC TECH 1 day? 8 hrs MECH INST TECH						leak check beam line MECH connect motion and cooling lines	MECH INST TECH LITE		
101 III I	survey calorimeter install controls	Wed 6/29/11 Wed 6/29/1 Tue 7/5/11 Wed 7/6/1	11	1 day? 16 hrs MECH ALIGN TECH 2 days? 16 hrs ICD ELEC TECH						survey calorimeter)	MECH ALIGN TECH[200%] install controls ICD ELEC TEC		
103	ops check software checkout and ops check	Thu 7/7/11 Thu 7/7/1 Mon 8/8/11 Fri 8/12/1		1 day? 8 hrs ICD ELEC TECH 5 days? 40 hrs OPS SOFTWARE							ops check ICD ELEC	FEECH	
105	remove dual quads & short girder	Thu 7/7/11 Wed 8/10/1		25 days? 216 hrs									
107 III 108 III 1	Radcon support disconnect water and power on dual quad assembly	Thu 7/7/11 Thu 7/7/1 Thu 7/7/11 Thu 7/7/1 Fri 7/8/11 Fri 7/8/11	11 SOT	1 day? 0 hrs 1 day? 8 hrs MECH INST TECH						disconnect wa	Radcon support Iter and power on dual quad assembly MECH IN bleed up vacuum		
109 † 110 •• 111 ••	bleed up vacuum disconnect vacuum lines remove quad girder	Fri 7/8/11 Fri 7/8/1 Mon 7/11/11 Tue 7/12/1 Wed 7/13/11 Wed 7/13/1	11 SOT	1 day? 8 hrs MECH VAC TECH 2 days? 16 hrs MECH VAC TECH 1 day? 8 hrs MECH INST TECH							disconnect vacuum I	INES MECH VAC TECH Ve quad girder MECH INST TECH LITE	
112	remove quad girder remove lead from 3 inch beam line install new 3 inch beam line	Wed 7/13/11 Wed 7/13/1 Thu 7/14/11 Thu 7/14/1		1 day? 8 hrs MECH INST TECH 1 day? 8 hrs MECH INST TECH 1 day? 8 hrs MECH VAC TECH							remove lead fro	om 3 inch beam line MECH INST TECH tall new 3 inch beam line MECH VAC	H LITE
113 114 III 115	install new 3 inch beam line install beam line and corrector support girder install controls and power cabling	Fri //15/11 Fri //15/1 Mon 7/18/11 Mon 7/18/1 Tue 7/19/11 Fri 7/22/1		1 day? 8 hrs MECH VAC TECH 1 day? 8 hrs MECH INST TECH 4 days? 32 hrs ICD ELEC TECH							Ins Instal	I beam line and corrector support girder install controls and power cabling	MECH INST TECH LIT
116 117	install BLM install controls	Mon 7/25/11 Mon 7/25/1 Tue 7/26/11 Wed 7/27/1	11 SOT	1 day? 8 hrs ICD ELEC TECH 2 days? 16 hrs ICD ELEC TECH									inst
118	connect beam line install vacuum pump and controls	Thu 7/28/11 Thu 7/28/1 Fri 7/29/11 Tue 8/2/1	11	1 day? 8 hrs MECH VAC TECH 3 days? 24 hrs MECH VAC TECH									install
120	pump down and leak check girder survey beam line	Wed 8/3/11 Thu 8/4/1 Fri 8/5/11 Fri 8/5/1	11	2 days 16 hrs MECH VAC TECH 1 day? 16 hrs MECH ALIGN TECH									
121 111 122 111 123 111	reinstall lead removed for 3 inch beam pipe ops check	Wed 8/10/11 Wed 8/10/1 Mon 8/8/11 Tue 8/9/1	11	1 day? 8 hrs MECH INST TECH 1.5 days? 24 hrs MECH VAC TECH,I									
					860000000	Page 1		1 1 185500000000000000000000000000000000		i i i i i i i i i i i i i i i i i i i		Executionist	
This schedul	is managed by Ed Folts Ph # 7857 Wed 3/23/11					- 							

Task Name	Start Finish Risk code Task Hazard Ris pre THA Analysis co	sk Atlis HA list Hot Work TOSP, Duration Work Resource Note plan	11 May 8, '11	May 2011 May 15, '11 May 22, '11	May 29, '11	Jun 5, '11	June 2011 Jun 12, '11 Jun 19, '1	1 Jun 26, '11	Jul 3, '11	July 2011 Jul 10, '11	Jul 17, '11
remove girder	Mon 5/23/11 Thu 6/2/11 XXXXXX		5 6 7 8 9 10 11 12 13 14	May 15, 11 May 22, 11 15 16 17 18 19 20 21 22 23 24 25 26	27 28 29 30 31 1 2 3 4	5 6 7 8 9 10 11 12 1	3 14 15 16 17 18 19 20 21 22	Jun 26, 11 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9	10 11 12 13 14 15 16 17	7 18 19 20 21 :
Radcon support remove lead shielding	Mon 5/23/11	8 days? 112 hrs 1 day? 8 hrs RADCON 5 days? 40 hrs MECH INS	120202020202020	Radcon support RADCON TE	MECH INST TECH LITE						
disconnect beam line diagnostics disconnect vacuum equipment	Mon 5/23/11 Mon 5/23/11 Tue 5/24/11 Wed 5/25/11 SOT	1 day? 8 hrs ICD ELEC 2 days? 16 hrs MECH VAC	TECH STECH	disconnect beam line diagnostics ICD ELEC TE	IECH VAC TECH						
remove water and control lines remove girder remove girder stands	Thu 5/26/11 Fri 5/27/11 SOT Tue 5/31/11 Tue 5/31/11 Wed 6/1/11 Wed 6/1/11	2 days? 16 hrs MECH INS 1 day? 8 hrs MECH INS 1 day? 8 hrs MECH INS	T TECH LI'	remove water and control lines	remove girder MECH INST TECH remove girder stands MECH INST T						
remove stand grout	Thu 6/2/11 Thu 6/2/11	1 day? 8 hrs MECH INS	(**************************************		remove stand grout MECH III						
install FZ magnets survey holes for stands Drill holes	Mon 5/16/11 Fri 11/4/11 XXXXXX Mon 6/6/11 Tue 6/7/11 SOT Wed 6/8/11 Thu 6/9/11 SOT	122 days? 704 hrs 2 days? 32 hrs MECH ALI 2 days? 16 hrs MECH INS			survey holes for s	MECH ALIGN TECH[200%] Drill holes MECH INST TEC					
Drill holes mount stands survey stands	Wed 6/8/11 Thu 6/9/11 SOT Fri 6/10/11 Mon 6/13/11 Tue 6/14/11 Wed 6/15/11 SOT	2 days? 16 hrs MECH INS 2 days? 16 hrs MECH INS 2 days? 32 hrs MECH ALI	T TECH LI'			mount stands					
grout stands grout set up time	Thu 6/16/11 Fri 6/17/11 SOT Mon 6/20/11 Tue 6/21/11 SOT	2 days? 16 hrs MECH INS 2 days? 16 hrs MECH INS	T TECH LI'			\$242525555 \$25252555555	grout stands MECH INST TECH LITE	HINST TECHLITE			
install cable tray run magnet power cables	Wed 8/3/11 Fri 8/5/11 Mon 8/8/11 Tue 8/9/11 Wed 8/10/11 Thu 8/11/11	N 3 days? 24 hrs H-A MECH N 2 days? 16 hrs H-A MECH 2 days? 16 hrs ICD ELEC	TECH								
run instrumentation cables connect AC power to power supplies	Wed 8/10/11 Thu 8/11/11 Fri 8/12/11 Mon 8/15/11 SOT	2 days? 16 hrs ICD ELEC 2 days? 16 hrs ELECTRIC									
install FZ magnets survey FZ magnets	Tue 8/30/11 Mon 8/29/11 Tue 8/30/11 Fri 9/2/11	10 days? 80 hrs MECH INS 4 days? 64 hrs MECH ALI	ON TECH[2								
install and connect DC power to magnets ops check magnets install FZ beam line supports	Tue 9/6/11 Tue 9/6/11 Wed 9/7/11 Tue 9/13/11 Wed 9/14/11 Fri 9/16/11	1 day? 8 hrs ICD ELEC 5 days? 40 hrs ICD ELEC 3 days? 24 hrs MECH INS	TECH								
install beam lines and beam diagnostics install vacuum system	Mon 9/19/11 Fri 9/23/11 SOT Mon 9/26/11 Fri 9/30/11 SOT	5 days? 24 his MECH INS 5 days? 40 hrs MECH VAC 5 days? 40 hrs MECH VAC	TECH								
reposition all metal valve install instrumentation	140 10, 1, 11	1 day? 8 hrs MECH VAC 4 days? 32 hrs ICD ELEC	TECH								
pump down beam line leak check beam lines	Mon 10/10/11 Tue 10/11/11 SOT Wed 10/12/11 Thu 10/13/11 SOT Fri 10/14/11 Tue 10/18/11 SOT	2 days? 16 hrs MECH VA(2 days? 16 hrs MECH VA(124242424242								
ops check software checkout and ops check	Wed 10/19/11 Fri 10/21/11 SOT Mon 10/31/11 Fri 11/4/11	3 days? 48 hrs MECH VA0 5 days? 40 hrs OPS SOFT									
Hall A from here down	Mon 5/16/11 Mon 5/16/11	0 days? 0 hrs		♦ 5/16							
target / septa prep work	Mon 5/16/11 Mon 5/16/11 XXXXXX	0 days 0 hrs		◆ 5/16							
modify septa platform install 3rd coil set in septum magnet	Mon 5/16/11 Mon 5/16/11 SOT Mon 5/16/11 Mon 5/16/11 SOT	N 0 days 0 hrs N 0 days 0 hrs		◆ 5/16 ◆ 5/16							
pre assemble align target support on septa platform	Mon 5/16/11 Mon 5/16/11 SOT	N 0 days 0 hrs		♦ 5/16							
cryo work warm up both spectrometers pump all magnets	Mon 5/16/11 Fri 9/16/11 XXXXXX Mon 5/16/11 Fri 5/20/11 SOT Tue 5/31/11 Mon 6/6/11 SOT	86.5 days? 556 hrs N 5 days? 80 hrs H-A MECH N 5 days? 80 hrs Fansler,H-/	100000000000000000000000000000000000000	ers H-A MECH TECH,Fansler	pump all magnets	Fansler,H-A MECH TECH					
pump all cryo lines replace Q1 JT valve heads with JLab valves	Mon 6/13/11 Fri 6/17/11 Mon 6/27/11 Fri 7/1/11 SOT	N 5 days? 80 hrs Fansler,H-/ N 5 days? 80 hrs Fansler,H-/	MECH TE			pump all cryo lines	Fanster,H-A MECH TECH replace Q1 JT valve head		Fansier,H-A MECH TECH		
replace dipole LN2 probes replace magnet pressure gauges	Tue 7/5/11 Tue 7/5/11 SOT Thu 7/7/11 Mon 7/11/11 SOT	N 1 day? 16 hrs Fansler,H-/ N 2.5 days? 40 hrs Fansler,H-/	MECH TE					repla	ce dipole LN2 probes Fansler,H-A MECI eplace magnet pressure gauges	Fansler,H-A MECH TECH	
repair left Q1 leads replace left Q1 vacuum seals replace all Q1 110 vac plugs due to radiation damage	Thu 7/14/11 Wed 7/20/11 SOT Thu 7/28/11 Tue 8/2/11 SOT Thu 8/4/11 Mon 8/8/11 SOT	N 5 days? 80 hrs Fansler,H-/ N 3.75 days? 60 hrs Fansler,H-/ N 2.5 days? 40 hrs Fansler,H-/	MECH TE							repair left Q1 leads	Fansi
replace all Q1 110 vac plugs due to radiation damage calibrate Ln2 II probes Calibrate weha valves	Mon 8/4/11 Mon 8/8/11 SOT Mon 8/15/11 Wed 8/17/11 Mon 8/29/11 Fri 9/2/11	2.5 days? 40 hrs Fansler,H-/ 2.5 days? 0 hrs 5 days? 0 hrs									
repair dipole He LL probe	Mon 9/12/11 Fri 9/16/11	4.5 days? 0 hrs									
Detector work roll out left detector	Mon 6/6/11 Fri 7/29/11 XXXXXX Mon 6/6/11 Mon 6/6/11 SOT Mon 6/3/14 Tup 6/4/14	39 days? 304 hrs N 1 day? 16 hrs Segal,H-A			roll out left de	Segal,H-A MECH TECH					
pull out SRC detectors install G2P detectors roll in left detector	Mon 6/13/11 Tue 6/14/11 Mon 6/20/11 Fri 6/24/11 Mon 6/27/11 Mon 6/27/11 SOT	N 2 days? 32 hrs Segal,H-A N 5 days? 80 hrs Segal,H-A N 1 day? 16 hrs Segal,H-A	MECH TEC			pull out SRC detectors	Segal,H-A MECH TECH install G2P detectors	Segal, H-A-MECH-TECH roll in left detector Segal, H-A-M	ECH TECH		
clear balcony and close doors	Wed 6/29/11 Wed 6/29/11	N 1 day? 16 hrs Segal,H-A	MECH TEC					ear balcony and close doors	gal,H-A MECH TECH		
roll out right detector pull out SRC detectors	Tue 7/5/11 Tue 7/5/11 SOT Mon 7/11/11 Tue 7/12/11	N 1 day? 16 hrs Segal,H-A N 2 days? 32 hrs Segal,H-A	MECH TEC						oll out right detector Segal,H-A MECH pull out SRC dete	ectors Segal,H-A MECH TECH	
install G2P detectors roll in left detector	Mon 7/18/11 Thu 7/21/11 Mon 7/25/11 Mon 7/25/11 SOT Fri 7/29/11 Fri 7/29/11	N 4 days? 64 hrs Segal,H-A N 1 day? 16 hrs Segal,H-A N 1 day? 16 hrs Segal,H-A	MECH TEC							install G2P detectors	roll
clear halcony and close doors		N 1 day? 16 hrs Segal,H-A 37 days? 600 hrs									
clear balcony and close doors emove target	Mon 5/16/11 Thu 7/7/11 XXXXXX	J. 44.	150595959595959	TARTET INCOME INCOME IN THE PROPERTY OF THE PR	1242424			remarkater at a factor a			
	Mon 5/16/11 Thu 7/7/11 XXXXXX Mon 5/16/11 Thu 5/19/11 SOT Fri 5/20/11 Fri 5/20/11 Fri 5/20/11 Fri 5/20/11 SOT	N 4 days? 32 hrs TARGET C 1 day? 8 hrs RADCON N 1 day? 8 hrs H-A MECH	TECH CONTROL C	TARGET GROUP TECH Radcon support RADCON TECH bleed up chamber H-A MECH TECH							

ID Tas	k Name	Start Finish Risk code pre THA Analysis Risk code pos		ion Work Resource Names	May 2011 May 8, '11 May 15, '11 May 22, '11 May 29, '11 Jun 5, '11 Jun 12, '11 Jun 19, '11 Jun 26, '11 Jul 3, '11 Jul 10, '11 Jul 17, '11
247 == 248 ==	de-sting cryo disconnect target	Mon 5/23/11 Mon 5/23/11 Tue 5/24/11 Fri 6/3/11 SOT	N 1	day? 8 hrs TARGET GROUP TEC	11
248 111 249 111 250 111	remove target from chamber remove vacuum system	Mon 6/6/11	N 1	day? 16 hrs H-A MECH TECH,TAF day? 8 hrs H-A MECH TECH	remove target from chamber H-A MECH TECH, TARGET GROUP TECH remove vacuum: system H-A MECH TECH
251 III I	remove beam pipes remove upper chamber	Wed 6/8/11 Wed 6/8/11 SOT Thu 6/9/11 Thu 6/9/11	N 1 1 N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	remove beam pipes H-A MECH TECH remove upper chamber H-A MECH TECH
253	remove lower chamber remove chamber support spool reconfigure target lines and cables for new target	Fri 6/10/11 Fri 6/10/11 Mon 6/13/11 Mon 6/13/11 Tue 6/14/11 Thu 6/23/11 SOT		day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH days? 120 hrs TARGET GROUP TEC	remove lower chamber H-A MECH TECH remove chamber support spool H-A MECH TECH reconfigure target lines and cables for new target TARGET GROUP TECH,H-A MECH TECH
256 257	remove Big Bite	Mon 5/16/11 Thu 7/7/11 XXXXXX		lays? 304 hrs	
258 † 259 • •	Radcon Support disconnect BB detector	Mon 5/16/11 Mon 5/16/11 SOT	N 5 d	day? 8 hrs RADCON TECH days? 40 hrs H-A MECH TECH	Radcon Support RADCON TECH disconnect BB detector) disconnect water H-A MECH TECH
260 = 1 261 = 1 262 = 1	disconnect water disconnect and move inst. Interlocks etc disconnect BB power	Mon 5/23/11	N 2 d	day? 8 hrs H-A MECH TECH days? 16 hrs H-A MECH TECH days? 16 hrs H-A MECH TECH	disconnect water H-A MECH TECH disconnect and move inst. Interlocks etc H-A MECH TECH disconnect BB power H-A MECH TECH
263 == • 264 == •	install extension rails on BB stand reroute BB power lines for septum	Tue 5/31/11 Tue 5/31/11 Thu 6/2/11 Fri 6/3/11	N 1	day? 8 hrs H-A MECH TECH days? 16 hrs H-A MECH TECH	install extension rails on BB stand H-A MECH TECH reroute BB power lines for septum H-A MECH TECH
265 = 	role back detector platform rig and move detector	Mon 6/6/11 Mon 6/6/11 SOT Tue 6/7/11 Tue 6/7/11	N 1 N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	role back detector platform H-A MECH TECH rig and move detector H-A MECH TECH remove detector platform H-A MECH TECH
266	remove detector platform partial rollback of BB for field clamp removal rig and move field clamp including collimator to storage position	Wed 6/8/11 Wed 6/8/11 Thu 6/9/11 Thu 6/9/11 SOT Fri 6/10/11 Fri 6/10/11	N 1 1 N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	remove detector platform partial rollback of BB for field clamp removal partial rollback of BB for field clamp removal rig and move field clamp including collimator to storage position H-A MECH TECH ### H-A MECH TECH
270	rollback BB for door removal remove shielding doors to storage position	Mon 6/13/11 Mon 6/13/11 SOT Tue 6/14/11 Wed 6/15/11	N 1 1 2 d	day? 8 hrs H-A MECH TECH days? 16 hrs H-A MECH TECH	rollback BB for door removal H-A MECH TECH remove shielding doors to storage position H-A MECH TECH
272	remove shielding on top and around BB install pink stand Add supports to BB feet	Thu 6/16/11 Fri 6/17/11 Mon 6/20/11 Mon 6/20/11 Tue 6/21/11 Tue 6/21/11 SOT	N 2 d	days? 16 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	remove shielding on top and around BB install pink stand h-A MECH TECH Add supports: to BB feet h-A MECH TECH
274 275 276 	remove feet from BB rig and move BB magnet to storage position	Wed 6/22/11 Wed 6/22/11 Thu 6/23/11 Fri 6/24/11	N 1 1 N 2 d	day? 8 hrs H-A MECH TECH days? 16 hrs H-A MECH TECH	remove feet from BB H-A MECH TECH rig and move BB magnet to storage position H-A MECH TECH
277 III 278 III	rig feet and move to storage position reposition rollers and other support equipment to storage position	Mon 6/27/11 Mon 6/27/11	N 1 N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	rig feet and move to storage position H-A MECH TECH reposition rollers and other support equipment to storage position H-A MECH TECH
279 280 	remove rail extensions remove pink stand	Wed 6/29/11 Wed 6/29/11 Thu 6/30/11 Thu 6/30/11	N 1 N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	remove rail extensions H-A MECH TECH remove pink stand H-A MECH TECH
281 III 282 III 283 III 284 III	rig and move BB stand Rotate right spect. To 12.5 degrees	Fri 7/1/11 Fri 7/1/11 Tue 7/5/11 SOT	N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	rig and move BB stand H-A MECH TECH Rotate right spect. To 12.5 degrees H-A MECH TECH
283	Radcon support move electronics to storage move Hadron detector frame to PSB	Wed 7/6/11 Wed 7/6/11 Wed 7/6/11 Wed 7/6/11 Thu 7/7/11 Thu 7/7/11		day? 8 hrs RADCON TECH day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	Radcon support HANGE HECH move electronics to storage H-A MECH TECH move Hadron detector frame to PSB H-A MECH TECH
286 287	install septum and target	Tue 7/5/11 Thu 9/1/11 XXXXXX	42 d	lays? 408 hrs	
288	install septum support stand align stand with laser	Tue 7/5/11 Wed 7/6/11 Thu 7/7/11 Thu 7/7/11 SOT	N 2 d N 1	days? 16 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	install septum support stand H-A MECH TECH align stand with laser H-A MECH TECH
290	install beam right access platform and stairs RadCon Hold install septum platform on support stand	Fri 7/8/11 Fri 7/8/11 Mon 7/11/11 Fri 7/15/11 SOT Mon 7/11/11 Mon 7/11/11	N 5 d	day? 8 hrs H-A MECH TECH days? 40 hrs RADCON TECH day? 8 hrs H-A MECH TECH	install beam right access platform and stairs RadCon Hold RADCON TECH install septum platform on support stands—H-A MECH TECH
293 III 1	install septum platform on support stand install septum magnet on platform install tread plated and dump support on platform	Mon //11/11 Mon //11/11 Tue 7/12/11 Tue 7/12/11 Wed 7/13/11 Wed 7/13/11		day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	install septum magnet on platform H-A MECH TECH install tread plated and dump support on platform H-A MECH TECH
295 III • 296 III •	pre alignment of septum magnet install beam dump between magnet and target	Thu 7/14/11 Thu 7/14/11 SOT Fri 7/15/11 Mon 7/18/11	N 2 d	day? 16 hrs H-A MECH TECH[200 days? 16 hrs H-A MECH TECH	pre alignment of septum magnet H-A MECH TECH[200%] install beam dump between magnet and target H-A MECH TECH
296	install target chamber support on platform pre align beam dump with laser RadCon Hold	Tue 7/19/11 Tue 7/19/11 Wed 7/20/11 Wed 7/20/11 Mon 7/25/11 Tue 7/26/11 SOT		day? 8 hrs H-A MECH TECH day? 0 hrs days? 16 hrs RADCON TECH	install target chamber support on platform H-A MECH T pre align beam dump with laser
300 301	install exit beam pipe in magnet install shielding between target and magnet	Tue 7/26/11 Tue 7/26/11 SOT Wed 7/27/11 Thu 7/28/11	N 1	day? 8 hrs H-A MECH TECH days? 32 hrs H-A MECH TECH,TAF	install exit bean
302 🔠	install target chamber into chamber support roll septum/target platform into position	Fri 7/29/11 Fri 7/29/11 Mon 8/1/11 Mon 8/1/11	N 1 N 1	day? 16 hrs H-A MECH TECH,TAF day? 8 hrs H-A MECH TECH	AI install target
304 III I I I I I I I I I I I I I I I I I	lower and position septum platform install catwalk on right access platform install upper platform stairs	Tue 8/2/11 Tue 8/2/11 Wed 8/3/11 Wed 8/3/11 Thu 8/4/11 Thu 8/4/11	N 1 N 1 N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	
307 308 III	install target dewar and stand	Fri 8/5/11 Fri 8/5/11	N 1	day? 16 hrs H-A MECH TECH,TAF	
309 310	connect dewar controls install dewar U tubes and return lines	Mon 8/8/11 Tue 8/9/11 Wed 8/10/11 Thu 8/11/11	N 2 d	days? 16 hrs TARGET GROUP TEC days? 16 hrs TARGET GROUP TEC	
311 IIII 312 IIII 313	install beam lines install Helium bags install target vacuum pump power	Fri 8/12/11 Fri 8/12/11 SOT Mon 8/15/11 Mon 8/15/11 SOT Tue 8/16/11 Wed 8/17/11	N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH days? 16 hrs ELECTRICIAN (TECH	
314 315	install target vacuum pump plumbing install target vacuum system instr. and controls	Thu 8/18/11 Tue 8/23/11 Wed 8/24/11 Fri 8/26/11 SOT	N 4 d	days? 64 hrs TARGET GROUP TEC days? 24 hrs TARGET GROUP TEC	
316 === 317	milestone for moving magnetto the Hall re-assemble target assembly in Hall	Thu 9/1/11 Thu 9/1/11 Thu 9/1/11 Thu 9/15/11		days? 0 hrs 48 hrs	
318 319 320 320	move target parts to Hall install chamber into rotating support ring install shield in chamber	Thu 9/1/11 Thu 9/1/11 Fri 9/2/11 Fri 9/2/11 Tue 9/6/11 Tue 9/6/11	1 1	day? 0 hrs day? 0 hrs day? 0 hrs	
321 322 323	install magnet into chamber align magnet in chamber (check as found)	Wed 9/7/11 Wed 9/7/11 Thu 9/8/11 Thu 9/8/11 SOT		day? 8 hrs TARGET GROUP TEC 1 day 16 hrs MECH ALIGN TECH[2	
323 324 325	install refrigerator install target and refrig. Inst, and controls	Fri 9/9/11 Fri 9/9/11 Mon 9/12/11 Tue 9/13/11 SOT	N 2 d	day? 0 hrs days? 16 hrs TARGET GROUP TE	
325 326 327 	test magnet rotation system Ops software support ops check motion mechanism	Wed 9/14/11 Wed 9/14/11 SOT Thu 9/15/11 Thu 9/15/11 Thu 9/15/11 Thu 9/15/11	1	day? 8 hrs TARGET GROUP TEI day? 0 hrs day? 0 hrs	
328 329	install target assembly on pivot	Fri 9/16/11 Fri 11/18/11	46 da	lays? 536 hrs	
330 == 331 == 332 ==	install refrigerator pump on upper target balcony roll septum/target platform into position lower and position septum platform	Fri 9/16/11 Fri 9/16/11 Mon 9/19/11 Mon 9/19/11 Tue 9/20/11 Tue 9/20/11	N 1 N 1	day? 8 hrs TARGET GROUP TEC day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	
333	align septum magnet align target chamber	Tue 9/20/11 Tue 9/20/11 Wed 9/21/11 Thu 9/22/11 SOT Fri 9/23/11 Mon 9/26/11 SOT	2 2	days 32 hrs MECH ALIGN TECH[2 days 32 hrs MECH ALIGN TECH[2 days 32 hrs MECH ALIGN TECH[2	
335 336 337	align magnet in chamber (check as found final alignment of Dump	Tue 9/27/11 Tue 9/27/11 SOT Wed 9/28/11 Fri 9/30/11		day? 16 hrs MECH ALIGN TECH[2 days? 48 hrs MECH ALIGN TECH[2	
337	both spectrometers to 12.5 deg install catwalk on right access platform survey both spectrometers	Mon 10/3/11	N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH day? 16 hrs MECH ALIGN TECH[2	
340 == 341 ==	install upper platform stairs install beam lines	Tue 10/4/11 Tue 10/4/11 Wed 10/5/11 Wed 10/5/11 SOT	N 1	day? 8 hrs H-A MECH TECH day? 8 hrs H-A MECH TECH	
342 i 343 iii	align beam lines install Helium bags	Thu 10/6/11 Thu 10/6/11 SOT Fri 10/7/11 Fri 10/7/11 SOT	N 1	day? 16 hrs MECH ALIGN TECH[2 day? 8 hrs H-A MECH TECH	
344 345 346	install target vacuum pump power install target vacuum pump plumbing install target vacuum system instr. and controls	Mon 10/10/11 Wed 10/12/11 Thu 10/13/11 Fri 10/14/11 Mon 10/17/11 Tue 10/18/11 SOT	N 2 d	days? 24 hrs ELECTRICIAN (TECH days? 32 hrs TARGET GROUP TEC days? 16 hrs TARGET GROUP TEC	
347 == 348 ==	connect target vacuum system	Wed 10/19/11 Fri 10/21/11 SOT Mon 10/24/11 Tue 10/25/11 SOT	N 3 d	days? 24 hrs TARGET GROUP TEC days? 16 hrs TARGET GROUP TEC	
349 == 350 == 351 == •	pump down chamber	Wed 10/26/11 Wed 10/26/11 Thu 10/27/11 Fri 10/28/11 SOT Mon 10/21/11 Mon 10/21/11 SOT	N 1 N 2 d	day? 8 hrs H-A MECH TECH days? 16 hrs H-A MECH TECH	
351 7 352 353	leak check chamber insert target refrigerator sting dewar to refrig and refrig to target	Mon 10/31/11 Mon 10/31/11 SOT Tue 11/1/11 Thu 11/3/11 Fri 11/4/11 Fri 11/4/11	N 3 d	day? 16 hrs H-A MECH TECH,TAF days? 24 hrs TARGET GROUP TEC day? 8 hrs TARGET GROUP TEC	
354 355	pump and purge target cryo system fill dewar	Mon 11/7/11 Tue 11/8/11 SOT Wed 11/9/11 Fri 11/11/11 SOT		days? 16 hrs TARGET GROUP TEG days? 24 hrs TARGET GROUP TEG	
356 III 1	test target refrigerator	Mon 11/14/11 Tue 11/15/11 SOT Tue 11/15/11 Wed 11/16/11 SOT The 11/17/14 Fri 11/19/14 SOT	N 2 d	days? 16 hrs TARGET GROUP TEI days? 16 hrs TARGET GROUP TEI	
358 IIII 359 IIII 1	ops check target system software checkout and ops check	Thu 11/17/11 Fri 11/18/11 SOT Mon 10/31/11 Fri 11/4/11		days? 16 hrs TARGET GROUP TEG days 40 hrs OPS SOFTWARE	
360 361 362 363 364	outages May power outage Saterday	Fri 5/20/11 Mon 6/6/11 Fri 5/20/11 Mon 5/23/11	2 d	lays? 0 hrs days? 0 hrs	May power outage Saterday
363 IIII 364	June power outage Saterday	Fri 6/3/11 Mon 6/6/11	2 d	days? 0 hrs	June power outage Saterday Saterday
365 366 367	inspect beam dump as requested by RADCON	Mon 10/31/11 Fri 11/18/11 XXXXXX Mon 10/31/11 Mon 10/31/11 Mon 10/31/11 Fri 11/11/11 SOT	1	days? 200 hrs day? 8 hrs RADCON TECH days? 80 hrs H-A MECH TECH	
365 366 367 368 369	start power supplies	Mon 11/7/11 Tue 11/8/11 SOT Mon 10/31/11 Fri 11/11/11 SOT	N 2 d	days? 60 hrs H-A MECH TECH days? 80 hrs H-A MECH TECH	
	is managed by Ed Folts Ph # 7857 Wed 3/23/11				Page 3
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ID Ta	sk Name	Start	Finish	Risk code Task Hazard Ris	sk Atlis HA list I	Hot Work TOSP	, Duration	Work Resource Names													
				pre THA Analysis cod		RWP, L	ift			May 2011					June 2011					July 2	
6				po TL	st	plan			1 May 8, '11	May 15, '11	May 22, '11	May 29,	'11 Ju	ın 5, '11	Jun 12, '11	Jun 19, '11	Jun 26, '11		Jul 3, '11	Jul 10, '11	Jul 17, '11
370	hot check out checklist	Thu 11/10/11	Thu 11/10/11		N		1 day?	8 hrs H-A MECH TECH	5 6 7 8 9 10 11 12	13 14 15 16 17 18 19 20 21	22 23 24 25 26	0 27 28 29 30 31 1	2 3 4 5 6 7	8 9 10 11 12	13 14 15 16 17 18	19 20 21 22 23 24 2	25 26 27 28 29 30	1 2 3 4	5 6 7 8 9 10	11 12 13 14 15 16	5 17 18 19 20 21 22 2
371	restore beam		Tue 11/15/11		N		1 day?														
372	final checklist		Thu 11/17/11		N			8 hrs H-A MECH TECH													
373	run beam		Fri 11/18/11		N		0 days?														
374	Turi beam	F11 1 1/10/11	FII 11/10/11	OF3	IN		0 days :	UTIIS													
375	stuff to do	Mon 5/16/11	Wed 6/29/11	XXXXXX			32 days?	0 hrs													
376	grease bogies		Tue 6/28/11		N		2 days?									grease	bogies				
377	grease central bearing		Wed 6/29/11		N		1 day?	0 hrs									se central bearing				
378	install water manifold on upper LCW		Mon 5/16/11		N		1 day?		install water manifold o	on upper I CW						9.7					
379	install water manifold on PS balconies		Mon 5/16/11		N		1 day?		install water manifold on	***************************************											
380	install new guards and heaters		Mon 5/16/11		N		1 day?		install new guard:	60000000000000000000000000000000000000											
381	complete BB rigid water lines		Mon 5/16/11		N		1 day?		complete BB rig												
382	calibrate LL meters		Mon 5/16/11		N		1 day?		(50000000000000000000000000000000000000	ate LL meters											
383	warm up Q-1 magnets		Mon 5/16/11		N		1 day?			Q-1 magnets											
384	de-sting Q-1 magnets		Mon 5/16/11		N		1 day?		100000000000000000000000000000000000000	Q-1 magnets											
385	rework leads on left Q1		Mon 5/16/11		N		1 day?			ads on left Q1											
386	clean out cable trays		Mon 5/16/11		N		1 day?			ut cable trays											
387	install manual flow meters on Q2/Q3		Mon 5/16/11		N		1 day?		install manual flow met	PROPERTY											
388	grease shield house doors		Mon 5/16/11		N		1 day?	0 hrs	100000000000000000000000000000000000000	house doors											
389	re-insulate warm return lines		Mon 5/16/11		N		1 day?		100000000000000000000000000000000000000	n return lines											
390	repair leaks in exit beam pipe		Mon 5/16/11		N		1 day?	- · · · ·	repair leaks in e	F0000000000000000000000000000000000000											
391	install DP gauges on LCW system		Mon 5/16/11		N		1 day?		install DP gauges on	0+											
392	install DP gauge on BB water system		Mon 5/16/11		N		1 day?		install DP gauge on BB												
393	new lead guards on Q2/Q3		Mon 5/16/11		N		1 day?			irds on Q2/Q3											
394	new lead guards on Dipoles		Mon 5/16/11		N		1 day?		new lead guard												
395	new lead guards on Q1s		Mon 5/16/11		N		1 day?			uards on Q1s											
396	Lt Q1 power supply maintenance		Mon 5/16/11		N		1 day?		Lt Q1 power supply												
397	Lt Q2 power supply maintenance		Mon 5/16/11		N		1 day?		Lt Q2 power supply												
398	Lt Dipole power supply maintenance		Mon 5/16/11		N		1 day?		Lt Dipole power supply	PD-0-0-0-0-0-0-0-0-0-0-1											
399	Rt Q1 power supply maintenance		Mon 5/16/11		N		1 day?		Rt Q1 power supply												
400	Rt Q2 power supply maintenance		Mon 5/16/11		N		1 day?		Rt Q2 power supply												
401	Rt Dipole power supply maintenance		Mon 5/16/11		N		1 day?	0 hrs	Rt Dipole power supply	20000000000000000000000000000000000000											
402	Rt Q3 power supply maintenance		Mon 5/16/11		N		1 day?	0 hrs	Rt Q3 power supply	PORTRO RESIDENCE DE LA CONTRA DE											
403	repair right transfer line		Mon 5/16/11		N		1 day?		202020202020202020	t transfer line											
404	replace left Q2 016 weka valve		Mon 5/16/11		N		1 day?	0 hrs	replace left Q2 01	[00]00]00[00]00[00]00[00]											
405	remove maintenance jacks from both spectrometers		Mon 5/16/11		N		1 day?	0 hrs	remove maintenance jacks from both s												
406	finish vacuum line extension on Rt Q3		Mon 5/16/11		N		1 day?	0 hrs	finish vacuum line extens	sion on Rt Q3											
407	visual inspection of exit BP diffuser	Mon 5/16/11	Mon 5/16/11		N		1 day?	0 hrs	visual inspection of ex	cit BP diffuser											
408	Upgrade/ reinforce BB support arm and extensions		Mon 5/16/11		N		1 day?		Upgrade/ reinforce BB support arm an	nd extensions											
409	Rework PHPK cryo cans for pivot distribution		Mon 5/16/11		N		1 day?	0 hrs	Rework PHPK cryo cans for pivo												
410	modify and install stairs		Mon 5/16/11		N		1 day?			l install stairs											
411	install local valve controler to exit beam pipe valve		Mon 5/16/11				1 day?	0 hrs	install local valve controler to exit bea	PC-00-00-1-00-00-00-1 PC-00-00-1											
						1			, indicated actions	accordates to the second secon	arararararara	paramagna and Schools	(canocacid 1 1893	according to the second	,		1 1 505050	ateleteredal







