
































































































ID	Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atllis	HA list	Hot Work	TOSP, RWP, Lift plan
1	G2P installation	Mon 5/16/11	Fri 11/18/11	XXXXXX						
2	Radcon	Mon 5/16/11	Mon 5/16/11							
3	Alignment	Mon 5/16/11	Mon 5/16/11							
4	Engineering electronics or electrical	Mon 5/16/11	Mon 5/16/11							
5	Engineering mechanical	Mon 5/16/11	Mon 5/16/11							
6	engineering Vacuum	Mon 5/16/11	Mon 5/16/11							
7	Hall A techs or users	Mon 5/16/11	Mon 5/16/11							
8	target group	Mon 5/16/11	Mon 5/16/11							
9	Ops software	Mon 5/16/11	Mon 5/16/11							
10										
11										
12	beam line prep work	Mon 5/16/11	Mon 7/11/11	XXXXXX						
13	QA raster, calorimeter and magnet stands	Mon 5/16/11	Mon 5/16/11	SOT						
14	install power for slow raster and calorimeter	Mon 5/16/11	Mon 5/16/11	SOT						
15	install power in Hall for FZ magnets	Mon 5/16/11	Mon 5/16/11							
16	fab water manifolds for FZ magnets	Mon 5/16/11	Mon 5/16/11							
17	rework power connections for septum magnet	Mon 5/16/11	Mon 5/16/11							
18	rework water manifolds for septum magnet	Mon 5/16/11	Mon 5/16/11							
19	design and fab new electrical shields for septum magnet	Mon 5/16/11	Mon 5/16/11							
20	fab new beam pipe for septum magnet	Mon 5/16/11	Mon 5/16/11							
21	field map septum magnet	Mon 5/16/11	Mon 5/16/11							
22	pre survey beam dump	Mon 5/16/11	Mon 5/16/11							
23	pre survey target can	Mon 5/16/11	Mon 5/16/11							
24	pre survey target magnet	Mon 5/16/11	Mon 5/16/11							
25	close and unplug beam line vacuum valves	Mon 5/16/11	Mon 5/16/11	SOT			N			
26	turn off and valve off turbo pumps	Mon 5/16/11	Mon 5/16/11	SOT			N			
27	turn off diff pump station	Mon 5/16/11	Mon 5/16/11	SOT			N			
28	bleed up entrance beam line from diff pump to target	Mon 5/16/11	Mon 5/16/11	SOT			N			
29	reposition all metal beam line valve	Mon 5/16/11	Mon 5/16/11	SOT			N			
30	Platform - layout reference lines Mar 11	Mon 5/16/11	Mon 5/16/11							
31	Target fiduc. 1.Mag:Top March 11	Mon 5/16/11	Mon 5/16/11							
32	Target fiduc. 2.Top:Can Mar 11	Mon 5/16/11	Mon 5/16/11							
33	Septa fiduc.(new locations) March 11	Mon 5/16/11	Mon 5/16/11							
34	Platform - check target mount	Fri 6/10/11	Fri 6/10/11							
35	Target top flange tube align	Fri 6/10/11	Fri 6/10/11							
36	Target fiduc. 2.Top:Can	Mon 7/11/11	Mon 7/11/11							
37	Dump / Sieve fid.	Mon 7/11/11	Mon 7/11/11							
38										
39	RadCon Hold	Mon 5/16/11	Fri 5/20/11	SOT						
40	post beam checklist	Mon 5/16/11	Mon 5/16/11	SOT						
41										
42	LCW work	Mon 5/23/11	Mon 6/20/11	XXXXXX						
43	install new manifold to facilitate FZ power supplies	Mon 5/23/11	Mon 6/6/11	SOT			N			































ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atllis	HA list	Hot Work	TOSP, RWP, Lift plan
44	 	install new manifolds to facilitate FZ magnets	Tue 6/7/11	Mon 6/20/11	SOT			N			
45											
46											
47		remove EP	Mon 5/23/11	Tue 6/7/11							
48		Radcon coverage	Mon 5/23/11	Mon 5/23/11							
49	 	disconnect cables	Mon 5/23/11	Tue 5/24/11	SOT			N			
50	 	remove external detectors	Wed 5/25/11	Wed 5/25/11	SOT			N			
51	 	disconnect vacuum system	Thu 5/26/11	Thu 5/26/11	SOT			N			
52	 	disconnect beam line	Fri 5/27/11	Fri 5/27/11	SOT			N			
53	 	remove upper detector section	Tue 5/31/11	Tue 5/31/11				N			
54	 	remove target section	Wed 6/1/11	Wed 6/1/11				N			
55	 	remove lower detector system	Thu 6/2/11	Thu 6/2/11				N			
56	 	remove EP stands	Fri 6/3/11	Fri 6/3/11							
57	 	remove stand foundations	Mon 6/6/11	Mon 6/6/11	SOT						
58	 	move EP system to ESB	Tue 6/7/11	Tue 6/7/11	SOT			N			
59											
60		Compton maintenance	Mon 5/16/11	Fri 11/18/11							
61		Radcon hold	Tue 7/5/11	Tue 7/5/11	SOT						
62		bleed up beam line	Tue 7/5/11	Tue 7/5/11	SOT						
63		remove blank flange for detector installation	Wed 7/6/11	Wed 7/6/11	SOT						
64	 	install electron detector package	Thu 7/7/11	Thu 7/7/11							
65		pump down vacuum system	Fri 7/8/11	Mon 7/11/11	SOT						
66		leak check	Tue 7/12/11	Tue 7/12/11	SOT						
67		bake affected areas bleed up for maintenance	Wed 7/13/11	Wed 7/13/11	SOT						
68		connect electronics	Thu 7/14/11	Mon 7/18/11	SOT			N			
69		operational checkout of electronics	Tue 7/19/11	Fri 7/29/11	SOT			N			
70		open laser enclosure for work	Fri 7/8/11	Fri 7/8/11				N			
71		replace laser mirrors	Mon 7/11/11	Fri 7/15/11				N			
72		align detector and laser as requested (to be defined later)	Mon 7/18/11	Tue 7/19/11							
73											
74		install slow raster	Mon 6/6/11	Wed 8/3/11	XXXXXX						
75	 	survey holes for stand	Mon 6/6/11	Thu 6/9/11	SOT						
76	 	Drill holes	Fri 6/10/11	Mon 6/13/11	SOT						
77		mount stand	Tue 6/14/11	Wed 6/15/11							
78	 	survey stand	Thu 6/16/11	Tue 6/21/11	SOT						
79	 	grout stand	Wed 6/22/11	Thu 6/23/11	SOT						
80		grout set up time	Fri 6/24/11	Mon 6/27/11	SOT						
81	 	install slow raster	Tue 6/28/11	Tue 6/28/11							
82		pump down beam line	Thu 6/30/11	Fri 7/1/11	SOT						
83		connect beam line	Wed 6/29/11	Wed 6/29/11	SOT						
84	 	survey slow raster	Tue 7/5/11	Fri 7/8/11	SOT						
85		install coils	Mon 7/11/11	Mon 7/11/11	SOT			N			
86		install and connect raster controls and power	Tue 7/12/11	Tue 7/12/11	SOT			N			

ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atllis	HA list	Hot Work	TOSP, RWP, Lift plan
87		ops check slow raster	Wed 7/13/11	Wed 7/13/11	SOT			N			
88		software checkout and ops check	Mon 8/1/11	Wed 8/3/11							
89											
90		install calorimeter	Mon 6/6/11	Fri 8/12/11	XXXXXX						
91		survey holes for stand	Mon 6/6/11	Tue 6/7/11	SOT						
92		Drill holes	Wed 6/8/11	Thu 6/9/11	SOT						
93		mount stand	Fri 6/10/11	Mon 6/13/11							
94		survey stand	Tue 6/14/11	Wed 6/15/11	SOT						
95		grout stand	Thu 6/16/11	Fri 6/17/11	SOT						
96		set up time	Mon 6/20/11	Tue 6/21/11	SOT						
97		install calorimeter	Wed 6/22/11	Wed 6/22/11							
98		connect beam line	Thu 6/23/11	Thu 6/23/11							
99		pump down beam line	Fri 6/24/11	Fri 6/24/11							
100		leak check beam line	Mon 6/27/11	Mon 6/27/11	SOT						
101		connect motion and cooling lines	Tue 6/28/11	Tue 6/28/11							
102		survey calorimeter	Wed 6/29/11	Wed 6/29/11	SOT						
103		install controls	Tue 7/5/11	Wed 7/6/11							
104		ops check	Thu 7/7/11	Thu 7/7/11	SOT						
105		software checkout and ops check	Mon 8/8/11	Fri 8/12/11							
106											
107		remove dual quads & short girder	Thu 7/7/11	Wed 8/10/11	XXXXXX						
108		Radcon support	Thu 7/7/11	Thu 7/7/11							
109		disconnect water and power on dual quad assembly	Thu 7/7/11	Thu 7/7/11	SOT						
110		bleed up vacuum	Fri 7/8/11	Fri 7/8/11	SOT						
111		disconnect vacuum lines	Mon 7/11/11	Tue 7/12/11	SOT						
112		remove quad girder	Wed 7/13/11	Wed 7/13/11							
113		remove lead from 3 inch beam line	Thu 7/14/11	Thu 7/14/11							
114		install new 3 inch beam line	Fri 7/15/11	Fri 7/15/11							
115		install beam line and corrector support girder	Mon 7/18/11	Mon 7/18/11	SOT						
116		install controls and power cabling	Tue 7/19/11	Fri 7/22/11							
117		install BLM	Mon 7/25/11	Mon 7/25/11	SOT						
118		install controls	Tue 7/26/11	Wed 7/27/11							
119		connect beam line	Thu 7/28/11	Thu 7/28/11							
120		install vacuum pump and controls	Fri 7/29/11	Tue 8/2/11							
121		pump down and leak check girder	Wed 8/3/11	Thu 8/4/11							
122		survey beam line	Fri 8/5/11	Fri 8/5/11							
123		reinstall lead removed for 3 inch beam pipe	Wed 8/10/11	Wed 8/10/11							
124		ops check	Mon 8/8/11	Tue 8/9/11	SOT						
125											
126		remove girder	Tue 5/31/11	Mon 6/13/11	XXXXXX						
127		Radcon support	Tue 5/31/11	Tue 5/31/11							
128		remove lead shielding	Tue 5/31/11	Mon 6/6/11							
129		disconnect beam line diagnostics	Tue 5/31/11	Tue 5/31/11							

ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atllis	HA list	Hot Work	TOSP, RWP, Lift plan
130		disconnect vacuum equipment	Wed 6/1/11	Thu 6/2/11	SOT						
131		remove water and control lines	Fri 6/3/11	Mon 6/6/11	SOT						
132		remove girder	Tue 6/7/11	Tue 6/7/11							
133		remove girder stands	Wed 6/8/11	Thu 6/9/11							
134		remove stand grout	Fri 6/10/11	Mon 6/13/11							
135											
136		install FZ magnets	Mon 5/16/11	Fri 11/4/11	XXXXXX						
137		survey holes for stands	Mon 6/6/11	Tue 6/7/11	SOT						
138		Drill holes	Wed 6/8/11	Thu 6/9/11	SOT						
139		mount stands	Fri 6/10/11	Mon 6/13/11							
140		survey stands	Tue 6/14/11	Wed 6/15/11	SOT						
141		grout stands	Thu 6/16/11	Fri 6/17/11	SOT						
142		grout set up time	Mon 6/20/11	Tue 6/21/11	SOT						
143		install cable tray	Wed 8/3/11	Fri 8/5/11				N			
144		run magnet power cables	Mon 8/8/11	Tue 8/9/11				N			
145		run instrumentation cables	Wed 8/10/11	Thu 8/11/11							
146		connect AC power to power supplies	Fri 8/12/11	Mon 8/15/11	SOT						
147											
148		install FZ magnets	Tue 8/16/11	Mon 8/29/11							
149		survey FZ magnets	Tue 8/30/11	Fri 9/2/11							
150		install and connect DC power to magnets	Tue 9/6/11	Tue 9/6/11							
151		ops check magnets	Wed 9/7/11	Tue 9/13/11							
152		install FZ beam line supports	Wed 9/14/11	Fri 9/16/11							
153		install beam lines and beam diagnostics	Mon 9/19/11	Fri 9/23/11	SOT						
154		install vacuum system	Mon 9/26/11	Fri 9/30/11	SOT						
155		reposition all metal valve	Mon 10/3/11	Mon 10/3/11	SOT						
156		install instrumentation	Tue 10/4/11	Fri 10/7/11	SOT						
157		pump down beam line	Mon 10/10/11	Tue 10/11/11	SOT						
158		leak check beam lines	Wed 10/12/11	Thu 10/13/11	SOT						
159		survey beam lines	Fri 10/14/11	Tue 10/18/11	SOT						
160		ops check	Wed 10/19/11	Fri 10/21/11	SOT						
161		software checkout and ops check	Mon 10/31/11	Fri 11/4/11							
162											
163		Hall A from here down	Mon 5/16/11	Mon 5/16/11							
164											
165		target / septa prep work	Mon 5/16/11	Mon 5/16/11	XXXXXX						
166		modify septa platform	Mon 5/16/11	Mon 5/16/11	SOT			N			
167		install 3rd coil set in septum magnet	Mon 5/16/11	Mon 5/16/11	SOT			N			
168		pre assemble align target support on septa platform	Mon 5/16/11	Mon 5/16/11	SOT			N			
169											
170		cryo work	Mon 5/16/11	Fri 9/16/11	XXXXXX						
171		warm up both spectrometers	Mon 5/16/11	Fri 5/20/11	SOT			N			
172		pump all magnets	Tue 5/31/11	Mon 6/6/11	SOT			N			

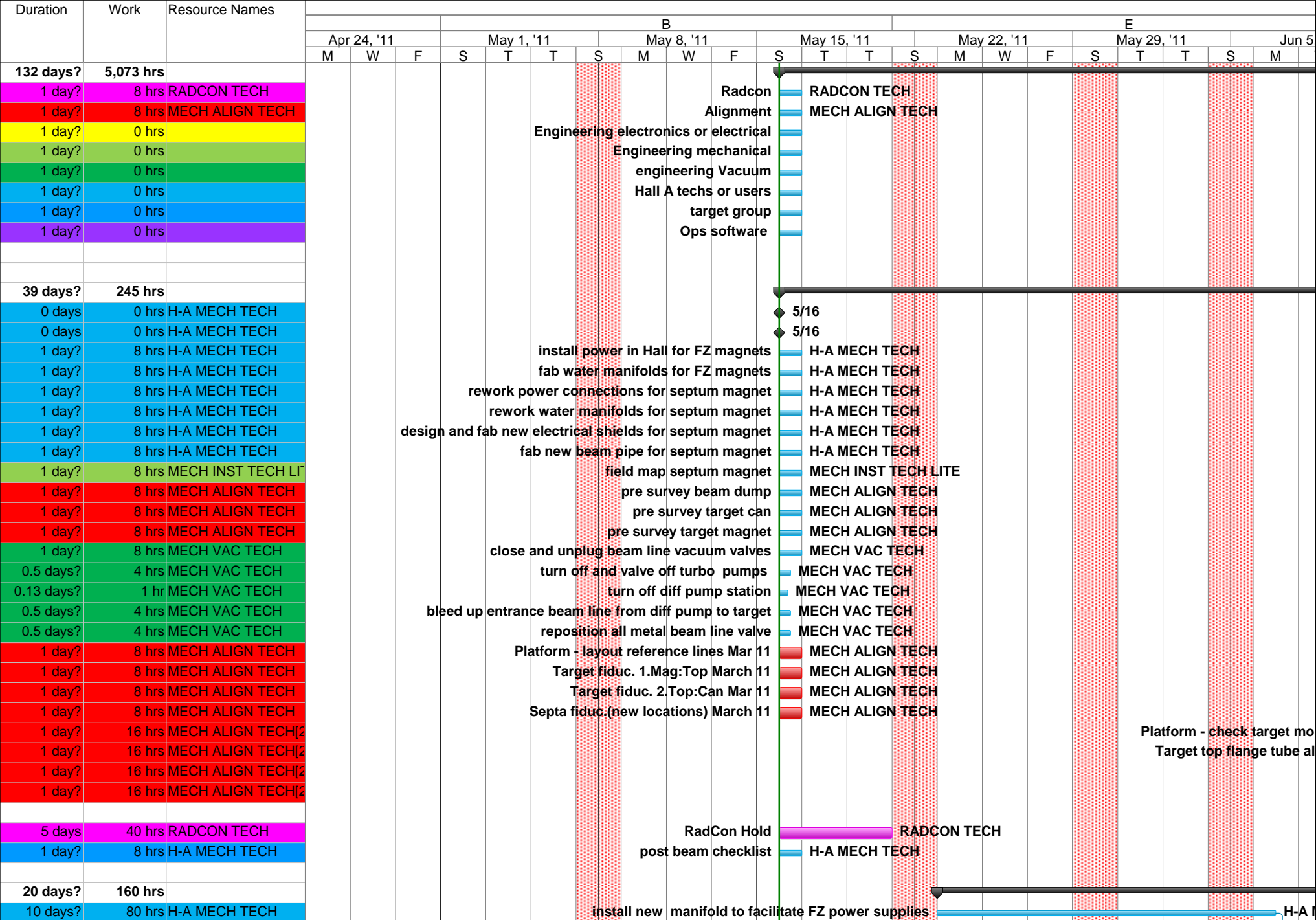
ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atllis	HA list	Hot Work	TOSP, RWP, Lift plan
173	 	pump all cryo lines	Mon 6/13/11	Fri 6/17/11				N			
174	 	replace Q1 JT valve heads with JLab valves	Mon 6/27/11	Fri 7/1/11	SOT			N			
175	 	replace dipole LN2 probes	Tue 7/5/11	Tue 7/5/11	SOT			N			
176	 	replace magnet pressure gauges	Thu 7/7/11	Mon 7/11/11	SOT			N			
177	 	repair left Q1 leads	Thu 7/14/11	Wed 7/20/11	SOT			N			
178	 	replace left Q1 vacuum seals	Thu 7/28/11	Tue 8/2/11	SOT			N			
179	 	replace all Q1 110 vac plugs due to radiation damage	Thu 8/4/11	Mon 8/8/11	SOT			N			
180		calibrate Ln2 II probes	Mon 8/15/11	Wed 8/17/11							
181		Calibrate weha valves	Mon 8/29/11	Fri 9/2/11							
182		repair dipole He LL probe	Mon 9/12/11	Fri 9/16/11							
183											
184		Detector work	Mon 6/6/11	Fri 7/29/11	XXXXXX						
185	 	roll out left detector	Mon 6/6/11	Mon 6/6/11	SOT			N			
186	 	pull out SRC detectors	Mon 6/13/11	Tue 6/14/11				N			
187	 	install G2P detectors	Mon 6/20/11	Fri 6/24/11				N			
188	 	roll in left detector	Mon 6/27/11	Mon 6/27/11	SOT			N			
189	 	clear balcony and close doors	Wed 6/29/11	Wed 6/29/11				N			
190											
191	 	roll out right detector	Tue 7/5/11	Tue 7/5/11	SOT			N			
192	 	pull out SRC detectors	Mon 7/11/11	Tue 7/12/11				N			
193	 	install G2P detectors	Mon 7/18/11	Thu 7/21/11				N			
194		roll in left detector	Mon 7/25/11	Mon 7/25/11	SOT			N			
195	 	clear balcony and close doors	Fri 7/29/11	Fri 7/29/11				N			
196											
197		remove target	Mon 5/16/11	Wed 7/6/11	XXXXXX						
198	 	Radcon support	Fri 5/20/11	Fri 5/20/11							
199		warm up target	Mon 5/16/11	Thu 5/19/11	SOT			N			
200	 	bleed up chamber	Fri 5/20/11	Fri 5/20/11	SOT			N			
201		de-sting cryo	Mon 5/23/11	Mon 5/23/11				N			
202	 	disconnect target	Tue 5/24/11	Fri 6/3/11	SOT			N			
203	 	remove target from chamber	Mon 6/6/11	Mon 6/6/11				N			
204	 	remove vacuum system	Tue 6/7/11	Tue 6/7/11	SOT			N			
205	 	remove beam pipes	Wed 6/8/11	Wed 6/8/11	SOT			N			
206	 	remove upper chamber	Thu 6/9/11	Thu 6/9/11				N			
207	 	remove lower chamber	Fri 6/10/11	Fri 6/10/11				N			
208	 	remove chamber support spool	Mon 6/13/11	Mon 6/13/11				N			
209	 	reconfigure target lines and cables for new target	Mon 6/13/11	Wed 6/22/11	SOT			N			
210											
211		remove Big Bite	Mon 5/16/11	Wed 7/6/11	XXXXXX						
212		Radcon Support	Mon 5/16/11	Mon 5/16/11							
213	 	disconnect BB detector	Mon 5/16/11	Fri 5/20/11	SOT			N			
214	 	disconnect water	Mon 5/23/11	Mon 5/23/11	SOT			N			
215	 	disconnect and move inst. Interlocks etc	Tue 5/24/11	Wed 5/25/11	SOT			N			

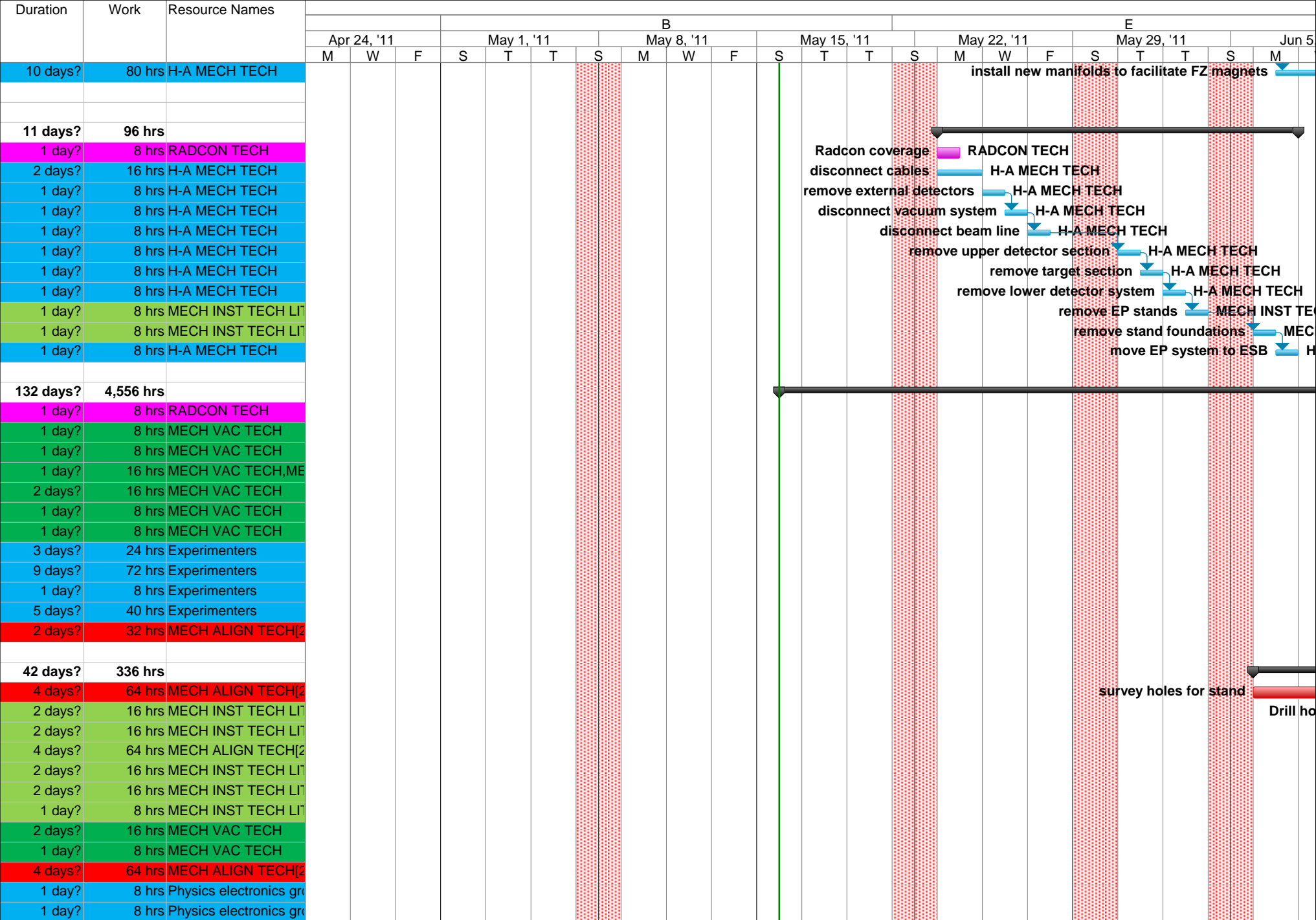
ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan
216		disconnect BB power	Thu 5/26/11	Fri 5/27/11	SOT			N			
217		install extension rails on BB stand	Tue 5/31/11	Tue 5/31/11				N			
218		reroute BB power lines for septum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

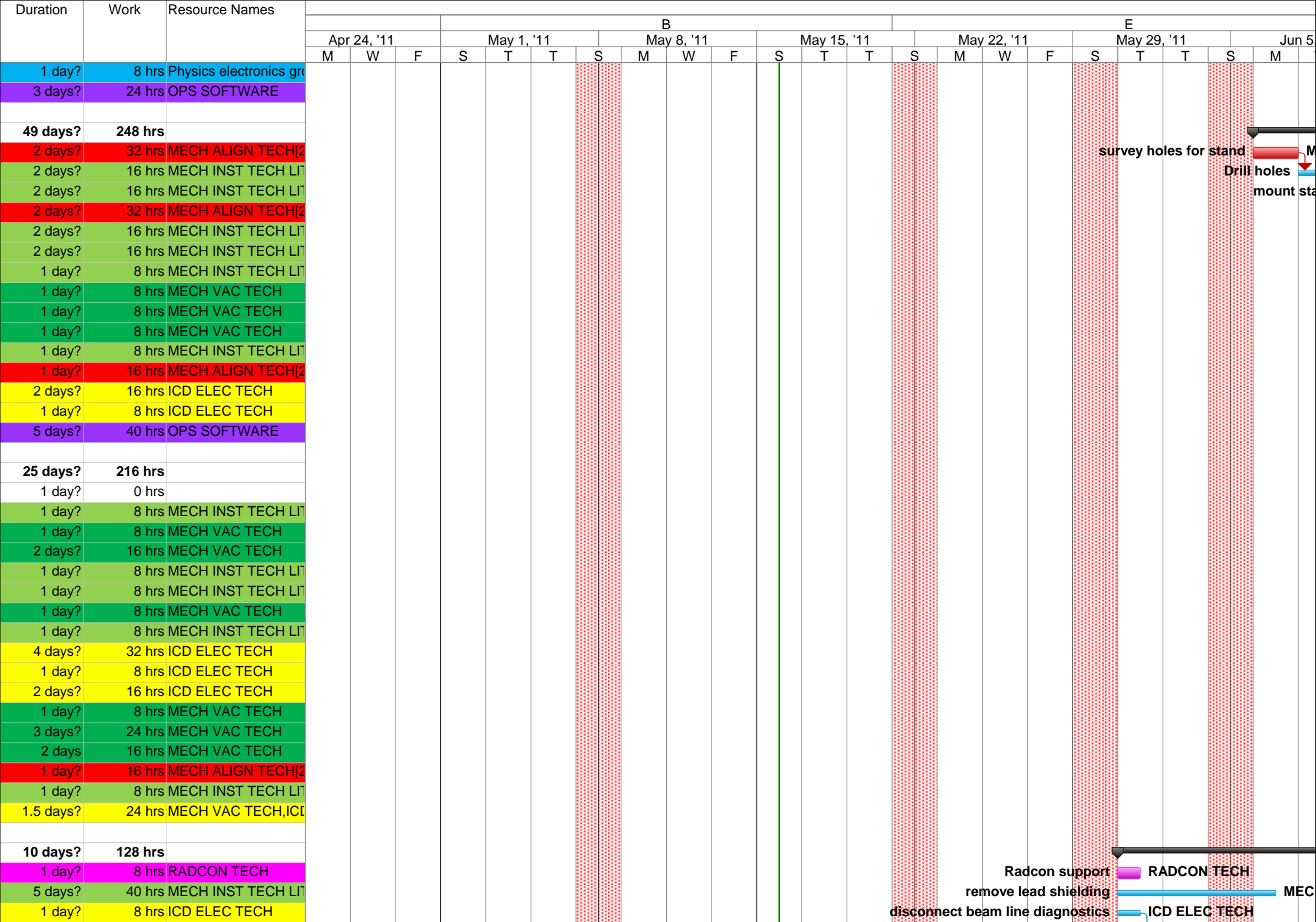
ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan
258	 	install target chamber into chamber support	Fri 7/29/11	Fri 7/29/11				N			
259	 	roll septum/target platform into position	Mon 8/1/11	Mon 8/1/11				N			
260	 	lower and position septum platform	Tue 8/2/11	Tue 8/2/11				N			
261		install catwalk on right access platform	Wed 8/3/11	Wed 8/3/11				N			
262		install upper platform stairs	Thu 8/4/11	Thu 8/4/11				N			
263											
264	 	install target dewar and stand	Fri 8/5/11	Fri 8/5/11				N			
265		connect dewar controls	Mon 8/8/11	Tue 8/9/11				N			
266		install dewar U tubes and return lines	Wed 8/10/11	Thu 8/11/11				N			
267		install beam lines	Fri 8/12/11	Fri 8/12/11	SOT			N			
268		install Helium bags	Mon 8/15/11	Mon 8/15/11	SOT			N			
269		install target vacuum pump power	Tue 8/16/11	Wed 8/17/11				N			
270		install target vacuum pump plumbing	Thu 8/18/11	Tue 8/23/11				N			
271		install target vacuum system instr. and controls	Wed 8/24/11	Fri 8/26/11	SOT			N			
272											
273		re-assemble target assembly in Hall	Mon 8/29/11	Thu 9/15/11							
274		move target parts to Hall	Mon 8/29/11	Mon 8/29/11							
275		install chamber into rotating support ring	Tue 8/30/11	Tue 8/30/11							
276		install shield in chamber	Wed 8/31/11	Thu 9/1/11							
277		install magnet into chamber	Fri 9/2/11	Tue 9/6/11				N			
278		align magnet in chamber (check as found)	Wed 9/7/11	Thu 9/8/11	SOT						
279		install refrigerator	Fri 9/9/11	Fri 9/9/11							
280		install target and refrig. Inst, and controls	Mon 9/12/11	Tue 9/13/11	SOT			N			
281		test magnet rotation system	Wed 9/14/11	Wed 9/14/11	SOT			N			
282		Ops software support	Thu 9/15/11	Thu 9/15/11							
283		ops check motion mechanism	Thu 9/15/11	Thu 9/15/11							
284											
285		install target assembly on pivot	Fri 9/16/11	Fri 11/18/11							
286		install refrigerator pump on upper target balcony	Fri 9/16/11	Fri 9/16/11				N			
287		roll septum/target platform into position	Mon 9/19/11	Mon 9/19/11				N			
288		lower and position septum platform	Tue 9/20/11	Tue 9/20/11				N			
289	 	align septum magnet	Wed 9/21/11	Thu 9/22/11	SOT						
290	 	align target chamber	Fri 9/23/11	Mon 9/26/11	SOT						
291		align magnet in chamber (check as found)	Tue 9/27/11	Tue 9/27/11	SOT						
292		final alignment of Dump	Wed 9/28/11	Fri 9/30/11							
293		install catwalk on right access platform	Mon 10/3/11	Mon 10/3/11				N			
294		install upper platform stairs	Tue 10/4/11	Tue 10/4/11				N			
295		install beam lines	Wed 10/5/11	Wed 10/5/11	SOT			N			
296		align beam lines	Thu 10/6/11	Thu 10/6/11	SOT						
297		install Helium bags	Fri 10/7/11	Fri 10/7/11	SOT			N			
298		install target vacuum pump power	Mon 10/10/11	Wed 10/12/11				N			
299		install target vacuum pump plumbing	Thu 10/13/11	Fri 10/14/11				N			
300		install target vacuum system instr. and controls	Mon 10/17/11	Tue 10/18/11	SOT			N			

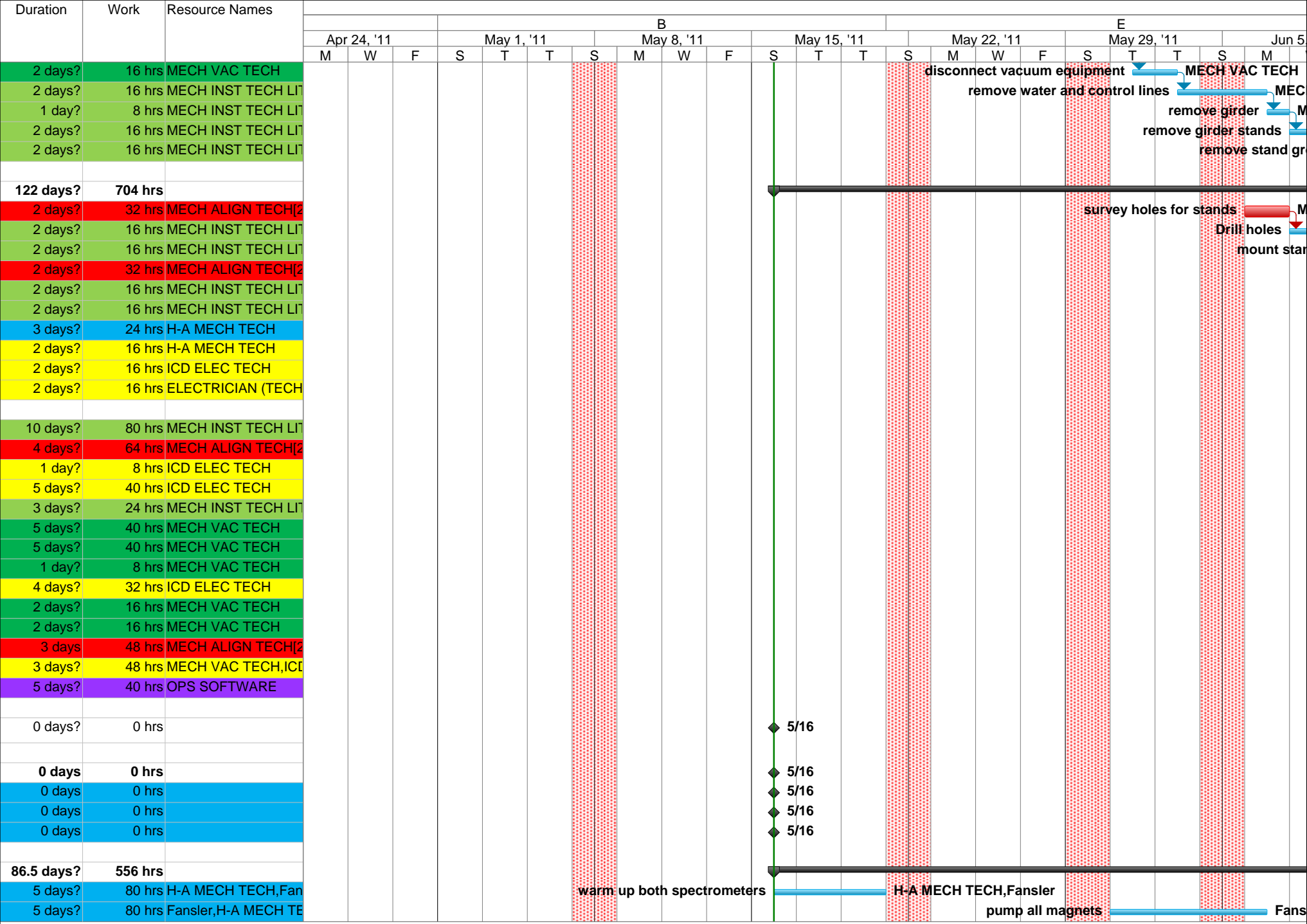
ID		Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atlis	HA list	Hot Work	TOSP, RWP, Lift plan
301		connect target vacuum system	Wed 10/19/11	Fri 10/21/11				N			
302		leak check target vacuum system	Mon 10/24/11	Tue 10/25/11	SOT			N			
303		install target chamber windows	Wed 10/26/11	Wed 10/26/11				N			
304		pump down chamber	Thu 10/27/11	Fri 10/28/11	SOT			N			
305	 	leak check chamber	Mon 10/31/11	Mon 10/31/11	SOT			N			
306		insert target refrigerator	Tue 11/1/11	Thu 11/3/11				N			
307		sting dewar to refrig and refrig to target	Fri 11/4/11	Fri 11/4/11				N			
308		pump and purge target cryo system	Mon 11/7/11	Tue 11/8/11	SOT			N			
309		fill dewar	Wed 11/9/11	Fri 11/11/11	SOT			N			
310	 	cool down target cryo system	Mon 11/14/11	Tue 11/15/11	SOT			N			
311	 	test target refrigerator	Tue 11/15/11	Wed 11/16/11	SOT			N			
312		ops check target system	Thu 11/17/11	Fri 11/18/11	SOT			N			
313		software checkout and ops check	Mon 11/14/11	Fri 11/18/11							
314											
315											
316											
317											
318		end stuff	Mon 10/31/11	Fri 11/18/11	XXXXXX						
319		inspect beam dump as requested by RADCON	Mon 10/31/11	Mon 10/31/11							
320	 	final removal	Mon 10/31/11	Fri 11/11/11	SOT			N			
321	 	start power supplies	Mon 11/7/11	Tue 11/8/11	SOT			N			
322	 	cleanup	Mon 10/31/11	Fri 11/11/11	SOT			N			
323	 	hot check out checklist	Thu 11/10/11	Thu 11/10/11	SOT			N			
324		restore beam	Tue 11/15/11	Tue 11/15/11	SOT			N			
325		final checklist	Wed 11/16/11	Wed 11/16/11	SOT			N			
326		run beam	Fri 11/18/11	Fri 11/18/11	OPS			N			
327											
328		stuff to do	Mon 5/16/11	Wed 6/29/11	XXXXXX						
329		grease bogies	Mon 6/27/11	Tue 6/28/11	SOT			N			
330		grease central bearing	Wed 6/29/11	Wed 6/29/11	SOT			N			
331		install water manifold on upper LCW	Mon 5/16/11	Mon 5/16/11				N			
332		install water manifold on PS balconies	Mon 5/16/11	Mon 5/16/11				N			
333		install new guards and heaters	Mon 5/16/11	Mon 5/16/11				N			
334		complete BB rigid water lines	Mon 5/16/11	Mon 5/16/11				N			
335		calibrate LL meters	Mon 5/16/11	Mon 5/16/11				N			
336		warm up Q-1 magnets	Mon 5/16/11	Mon 5/16/11	SOT			N			
337		de-sting Q-1 magnets	Mon 5/16/11	Mon 5/16/11				N			
338		rework leads on left Q1	Mon 5/16/11	Mon 5/16/11				N			
339		clean out cable trays	Mon 5/16/11	Mon 5/16/11	SOT			N			
340		install manual flow meters on Q2/Q3	Mon 5/16/11	Mon 5/16/11	SOT			N			
341		grease shield house doors	Mon 5/16/11	Mon 5/16/11				N			
342		re-insulate warm return lines	Mon 5/16/11	Mon 5/16/11				N			
343		repair leaks in exit beam pipe	Mon 5/16/11	Mon 5/16/11				N			

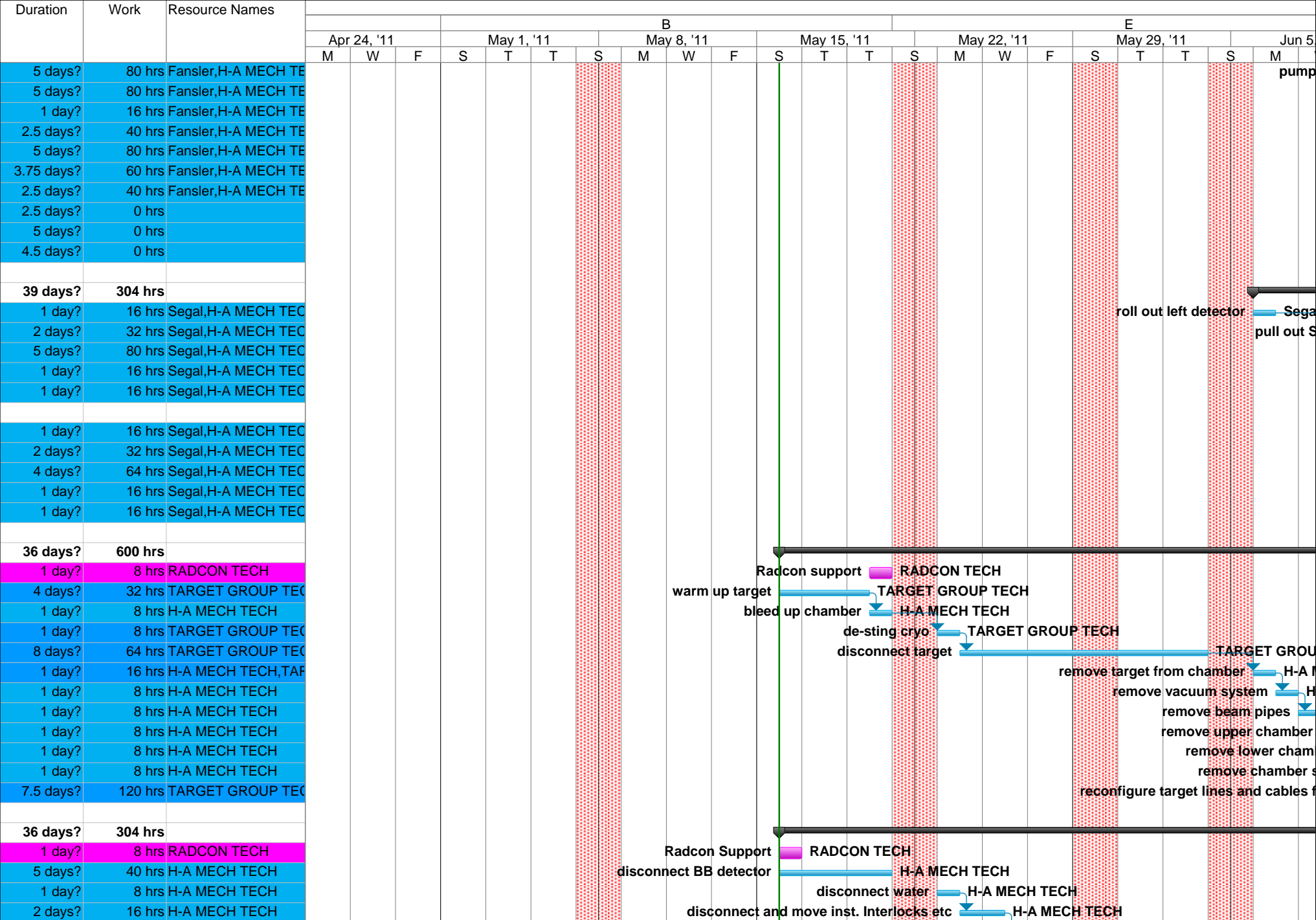
ID	Task Name	Start	Finish	Risk code pre THA	Task Hazard Analysis	Risk code post THA	Atllis	HA list	Hot Work	TOSP, RWP, Lift plan
344	install DP gauges on LCW system	Mon 5/16/11	Mon 5/16/11				N			
345	install DP gauge on BB water system	Mon 5/16/11	Mon 5/16/11				N			
346	new lead guards on Q2/Q3	Mon 5/16/11	Mon 5/16/11	SOT			N			
347	new lead guards on Dipoles	Mon 5/16/11	Mon 5/16/11	SOT			N			
348	new lead guards on Q1s	Mon 5/16/11	Mon 5/16/11	SOT			N			
349	Lt Q1 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
350	Lt Q2 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
351	Lt Dipole power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
352	Rt Q1 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
353	Rt Q2 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
354	Rt Dipole power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
355	Rt Q3 power supply maintenance	Mon 5/16/11	Mon 5/16/11				N			
356	repair right transfer line	Mon 5/16/11	Mon 5/16/11				N			
357	replace left Q2 016 weka valve	Mon 5/16/11	Mon 5/16/11				N			
358	remove maintenance jacks from both spectrometers	Mon 5/16/11	Mon 5/16/11				N			
359	finish vacuum line extension on Rt Q3	Mon 5/16/11	Mon 5/16/11				N			
360	visual inspection of exit BP diffuser	Mon 5/16/11	Mon 5/16/11				N			
361	Upgrade/ reinforce BB support arm and extensions	Mon 5/16/11	Mon 5/16/11				N			
362	Rework PHPK cryo cans for pivot distribution	Mon 5/16/11	Mon 5/16/11				N			
363	modify and install stairs	Mon 5/16/11	Mon 5/16/11				N			







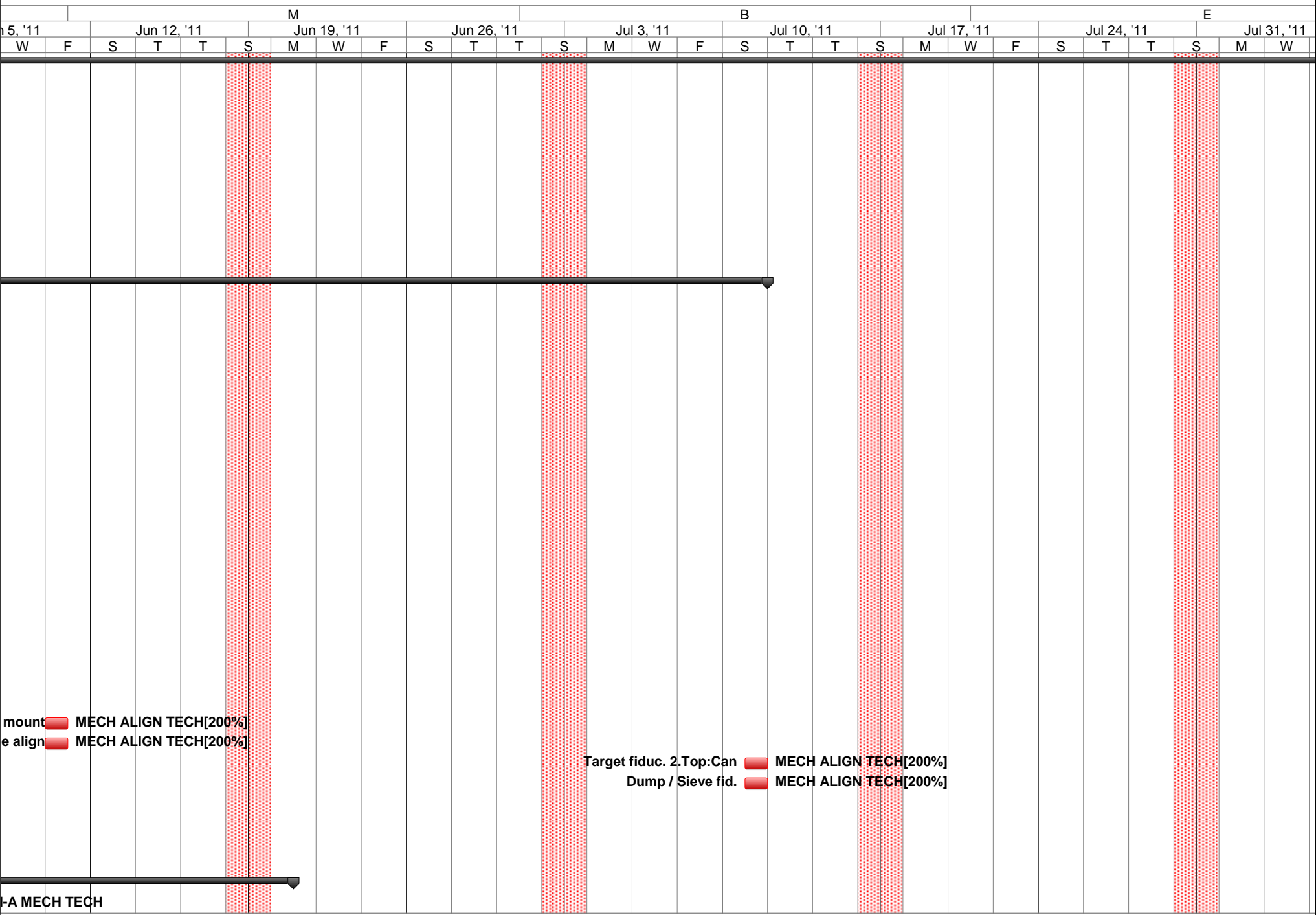




Duration	Work	Resource Names	B														E							
			Apr 24, '11				May 1, '11			May 8, '11				May 15, '11			May 22, '11			May 29, '11			Jun 5	
			M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M
1 day?	16 hrs	H-A MECH TECH,TAF																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	16 hrs	H-A MECH TECH,TAF																						
2 days?	16 hrs	TARGET GROUP TEC																						
2 days?	16 hrs	TARGET GROUP TEC																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
2 days?	16 hrs	ELECTRICIAN (TECH																						
4 days?	64 hrs	TARGET GROUP TEC																						
3 days?	24 hrs	TARGET GROUP TEC																						
13 days?	72 hrs																							
1 day?	0 hrs																							
1 day?	0 hrs																							
2 days?	0 hrs																							
2 days?	16 hrs	TARGET GROUP TEC																						
2 days?	32 hrs	MECH ALIGN TECH[2																						
1 day?	0 hrs																							
2 days?	16 hrs	TARGET GROUP TEC																						
1 day?	8 hrs	TARGET GROUP TEC																						
1 day?	0 hrs																							
1 day?	0 hrs																							
46 days?	512 hrs																							
1 day?	8 hrs	TARGET GROUP TEC																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
2 days?	32 hrs	MECH ALIGN TECH[2																						
2 days?	32 hrs	MECH ALIGN TECH[2																						
1 day?	16 hrs	MECH ALIGN TECH[2																						
3 days?	48 hrs	MECH ALIGN TECH[2																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	8 hrs	H-A MECH TECH																						
1 day?	16 hrs	MECH ALIGN TECH[2																						
1 day?	8 hrs	H-A MECH TECH																						
3 days?	24 hrs	ELECTRICIAN (TECH																						
2 days?	32 hrs	TARGET GROUP TEC																						
2 days?	16 hrs	TARGET GROUP TEC																						

Duration	Work	Resource Names	B														E						
			Apr 24, '11			May 1, '11			May 8, '11			May 15, '11			May 22, '11			May 29, '11			Jun 5		
			M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S
3 days?	24 hrs	TARGET GROUP TEC																					
2 days?	16 hrs	TARGET GROUP TEC																					
1 day?	8 hrs	H-A MECH TECH																					
2 days?	16 hrs	H-A MECH TECH																					
1 day?	16 hrs	H-A MECH TECH, TAF																					
3 days?	24 hrs	TARGET GROUP TEC																					
1 day?	8 hrs	TARGET GROUP TEC																					
2 days?	16 hrs	TARGET GROUP TEC																					
3 days?	24 hrs	TARGET GROUP TEC																					
2 days?	16 hrs	TARGET GROUP TEC																					
2 days?	16 hrs	TARGET GROUP TEC																					
2 days?	16 hrs	TARGET GROUP TEC																					
5 days	40 hrs	OPS SOFTWARE																					
15 days?	200 hrs																						
1 day?	8 hrs	RADCON TECH																					
10 days?	80 hrs	H-A MECH TECH																					
2 days?	16 hrs	H-A MECH TECH																					
10 days?	80 hrs	H-A MECH TECH																					
1 day?	8 hrs	H-A MECH TECH																					
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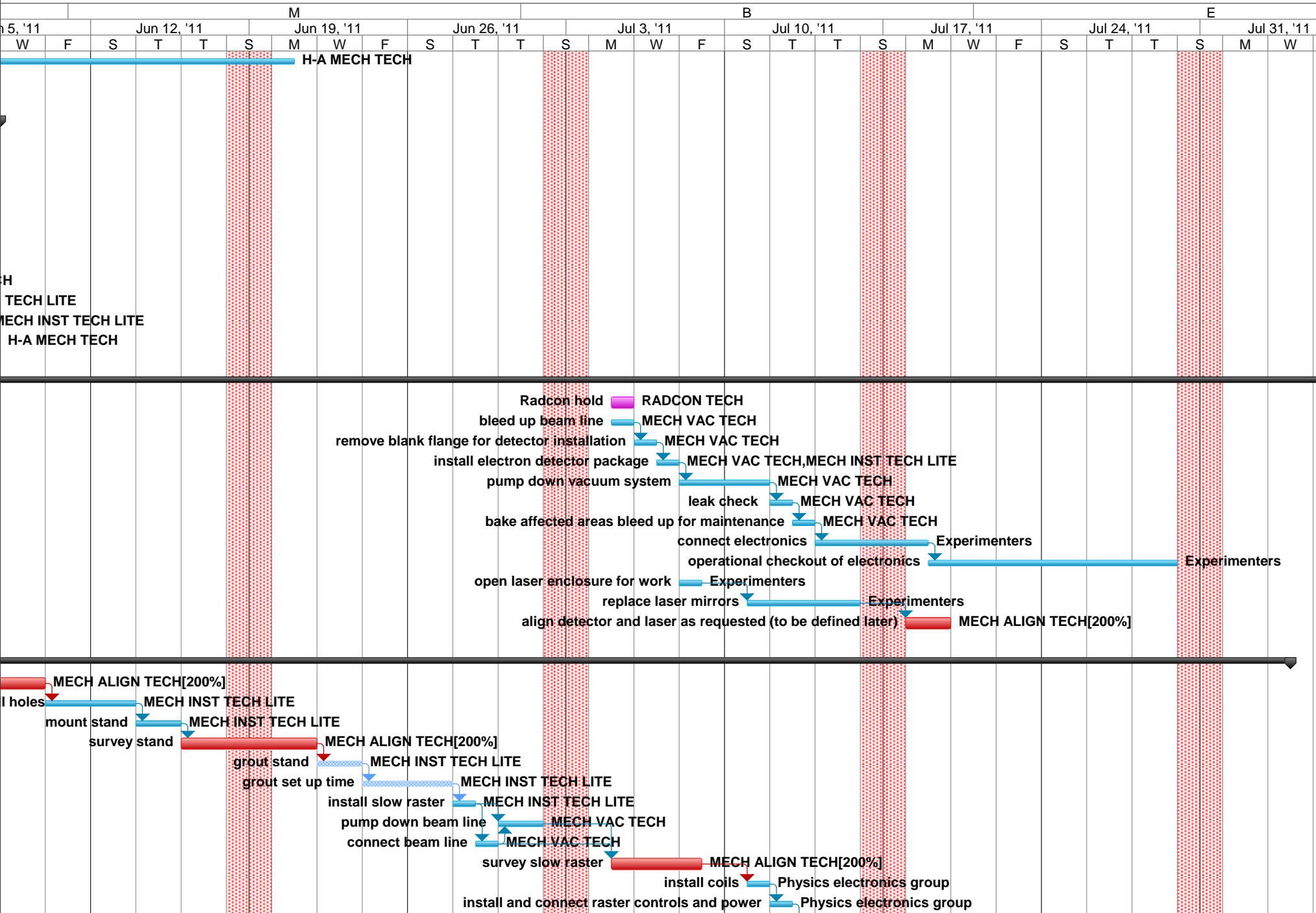
Duration	Work	Resource Names	B														E								
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			M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	
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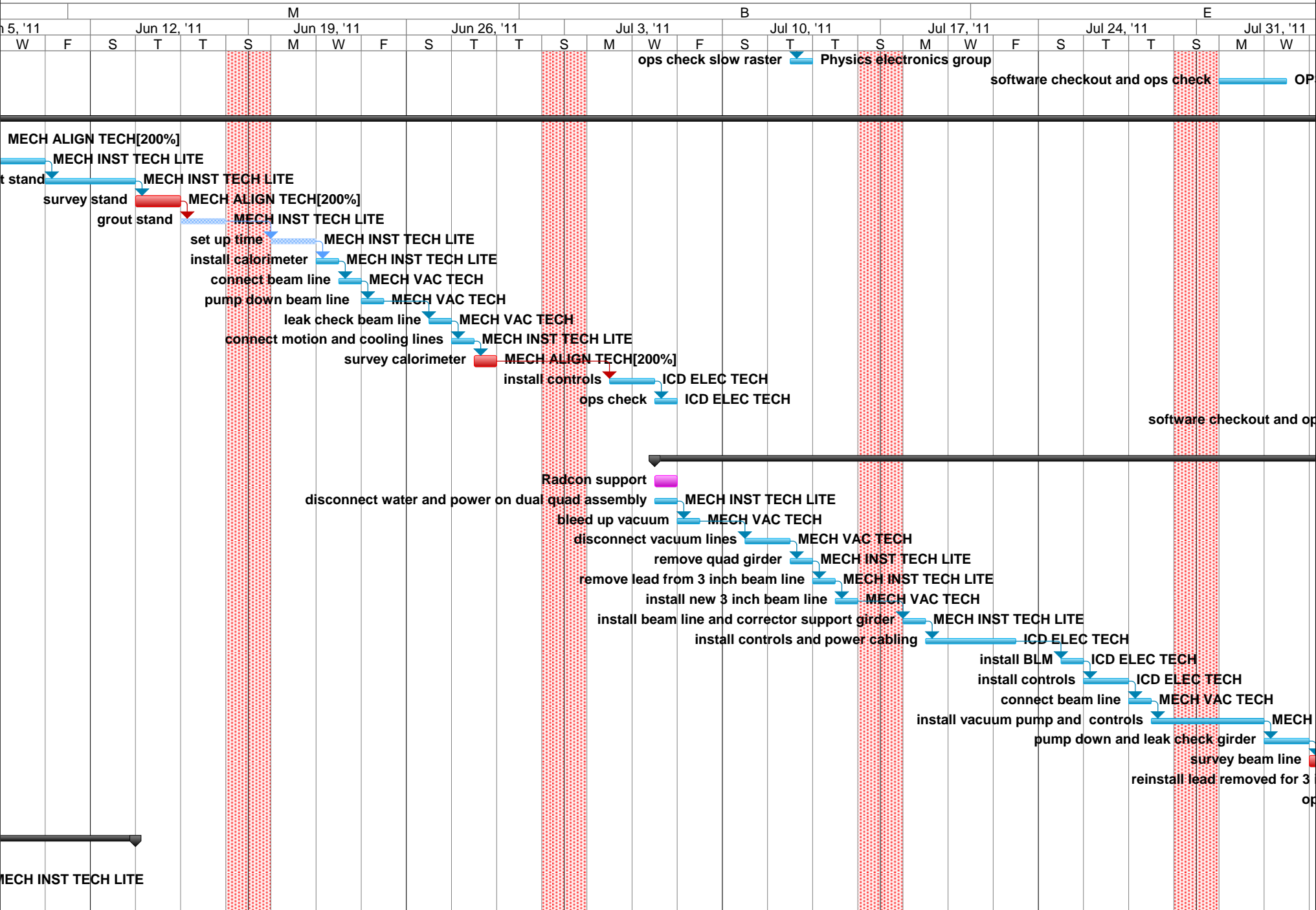


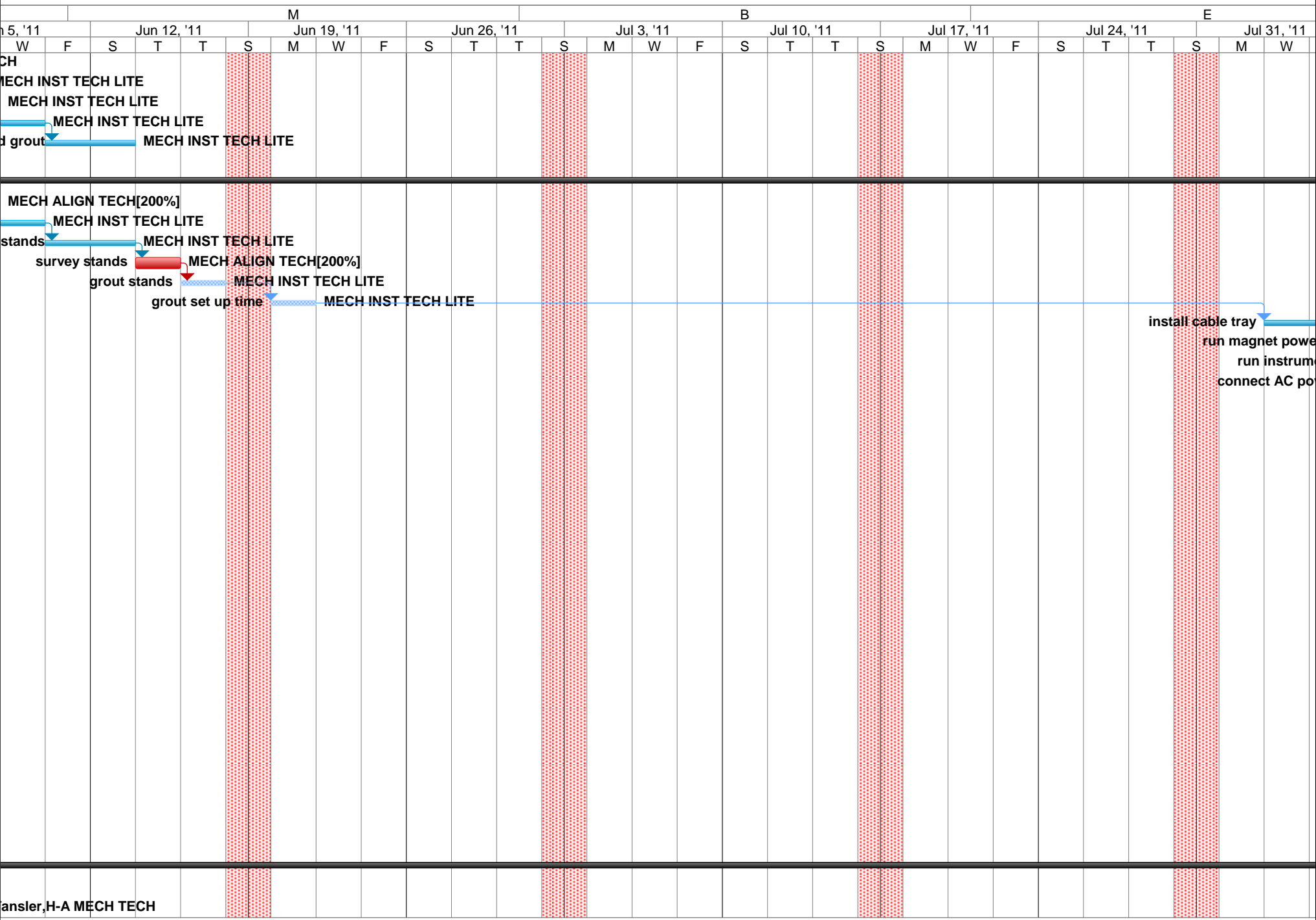
mount MECH ALIGN TECH[200%]
 e align MECH ALIGN TECH[200%]

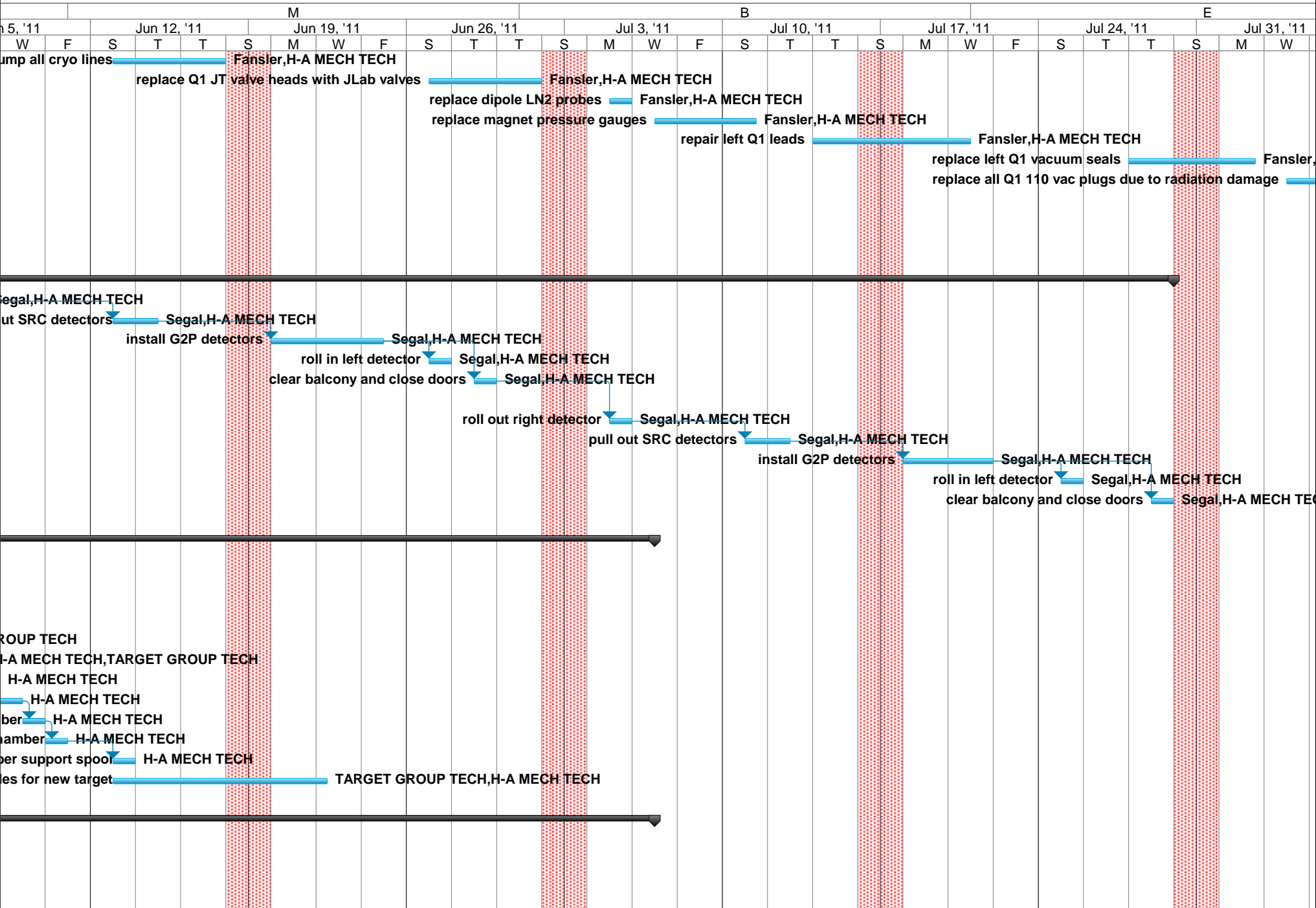
Target fiduc. 2.Top:Can MECH ALIGN TECH[200%]
 Dump / Sieve fid. MECH ALIGN TECH[200%]

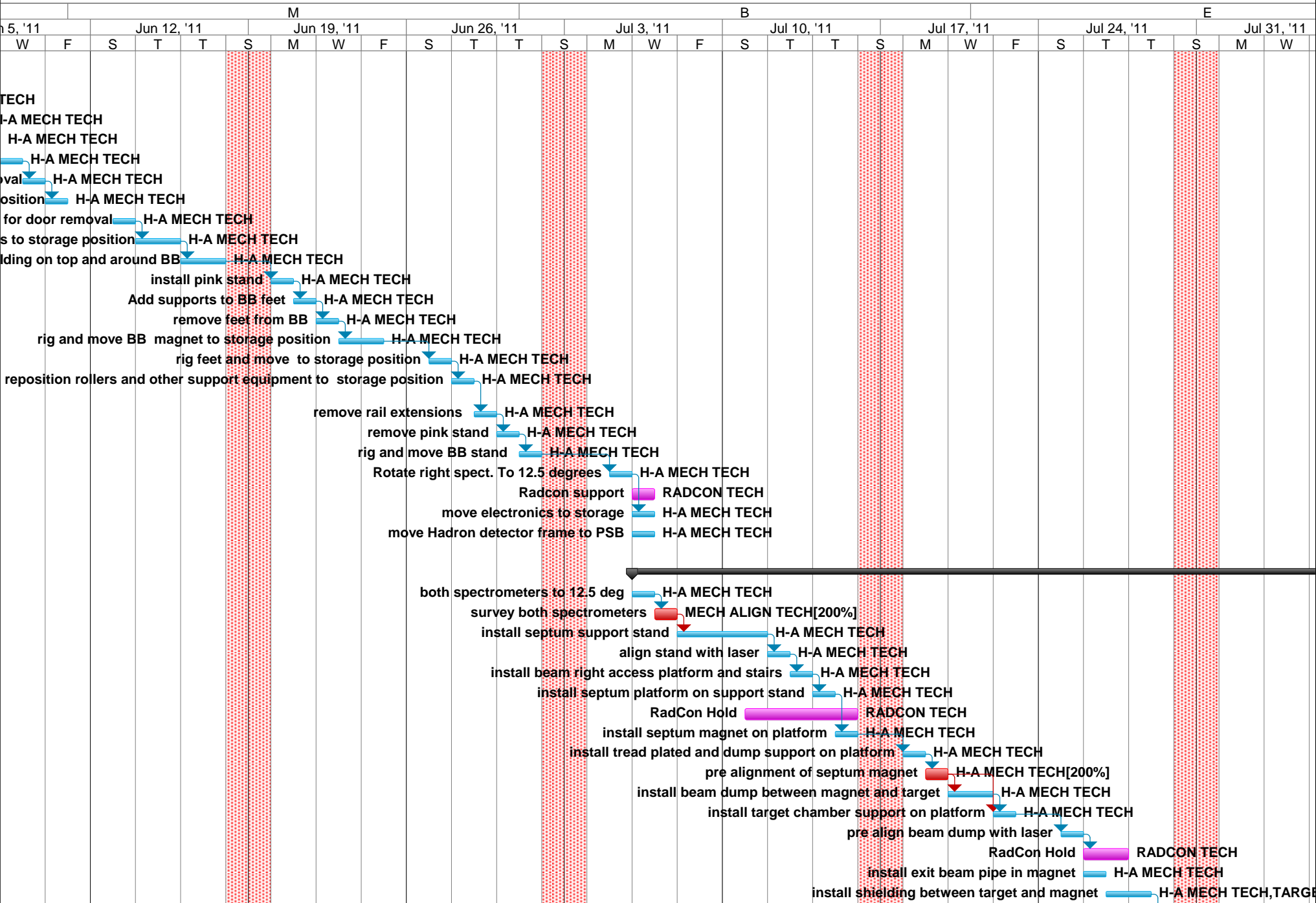
A MECH TECH

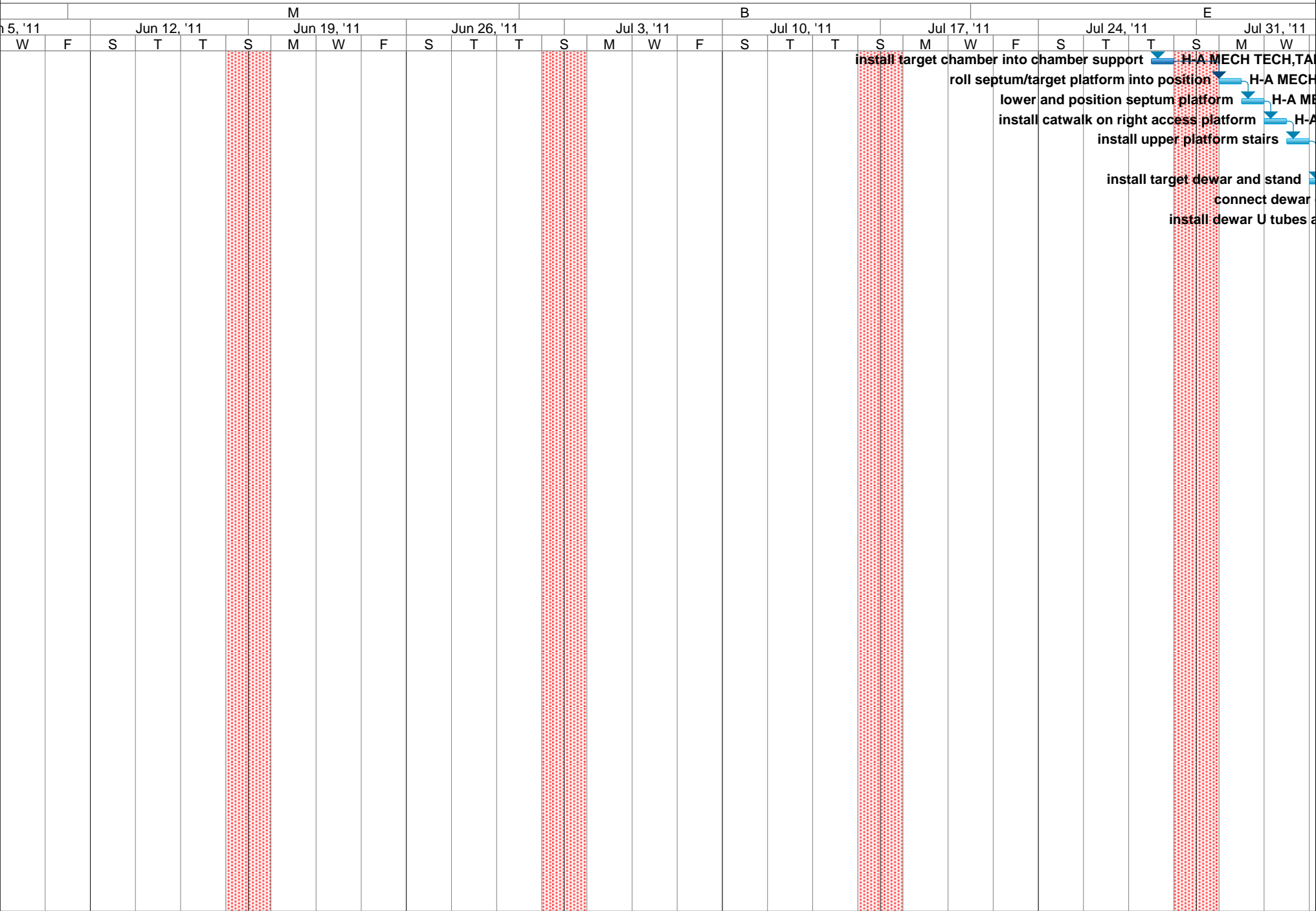














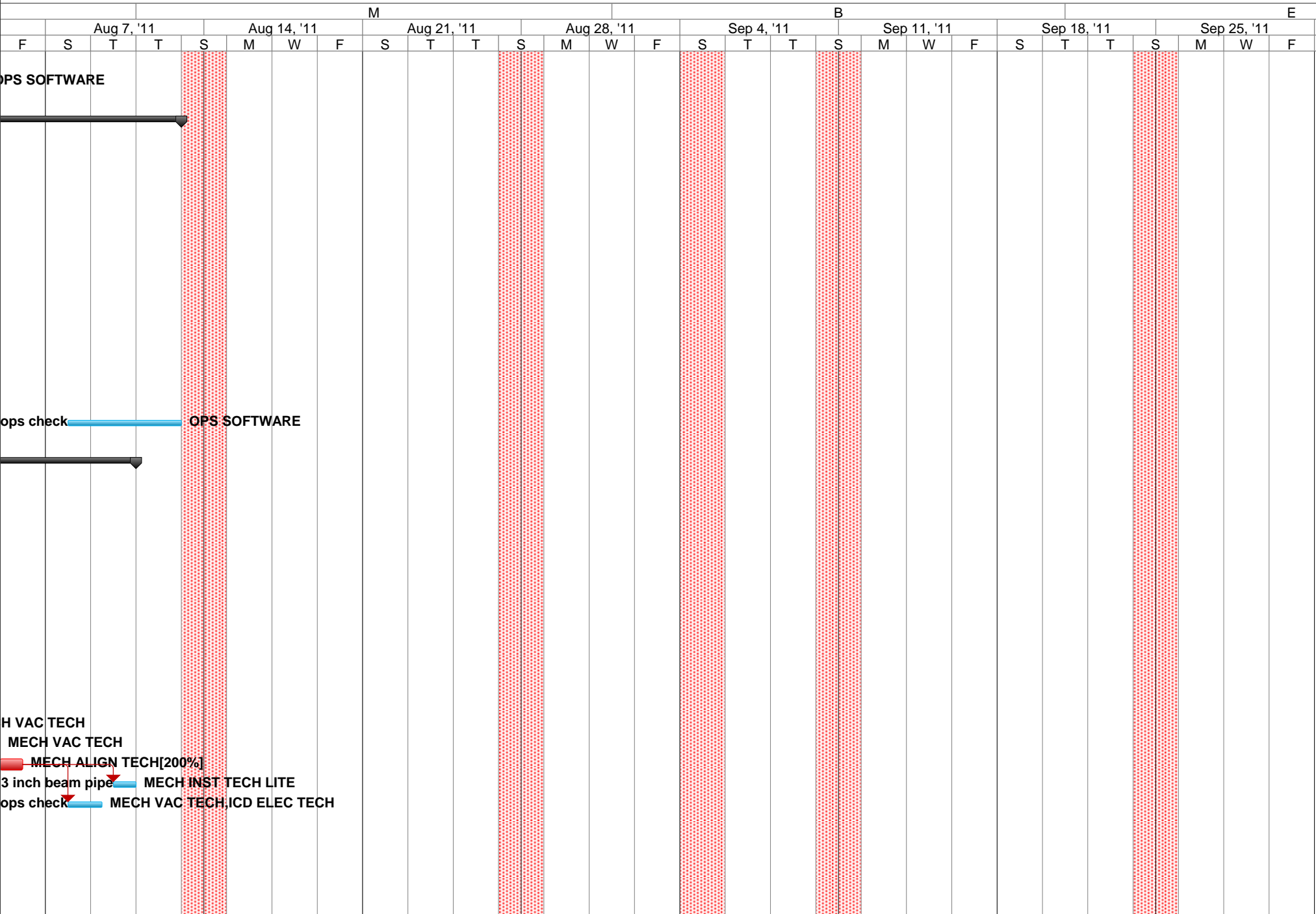
h 5, '11			Jun 12, '11			M Jun 19, '11			Jun 26, '11			B Jul 3, '11			Jul 10, '11			Jul 17, '11			E Jul 24, '11			Jul 31, '11				
W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W

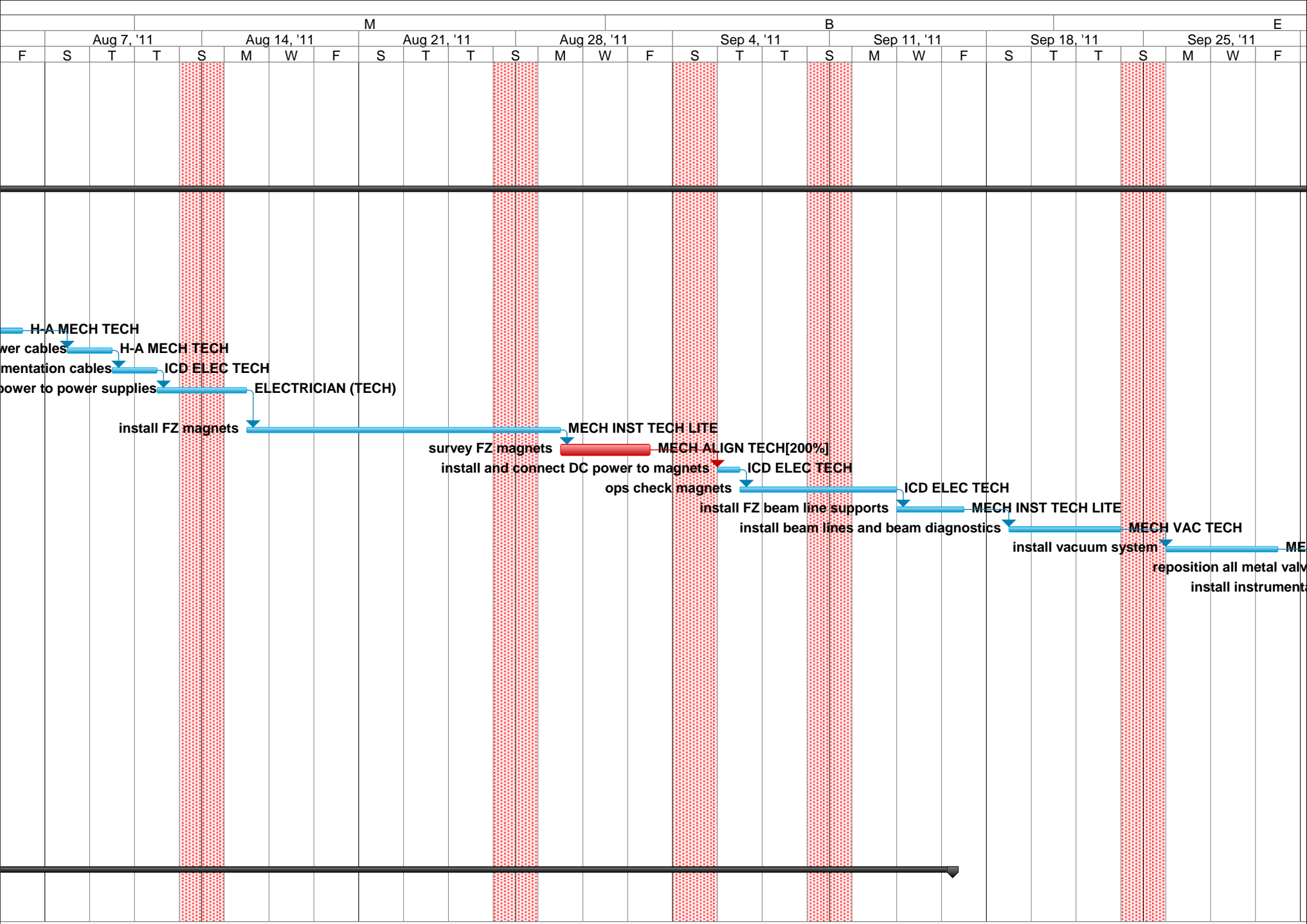
grease bogies 
grease central bearing 

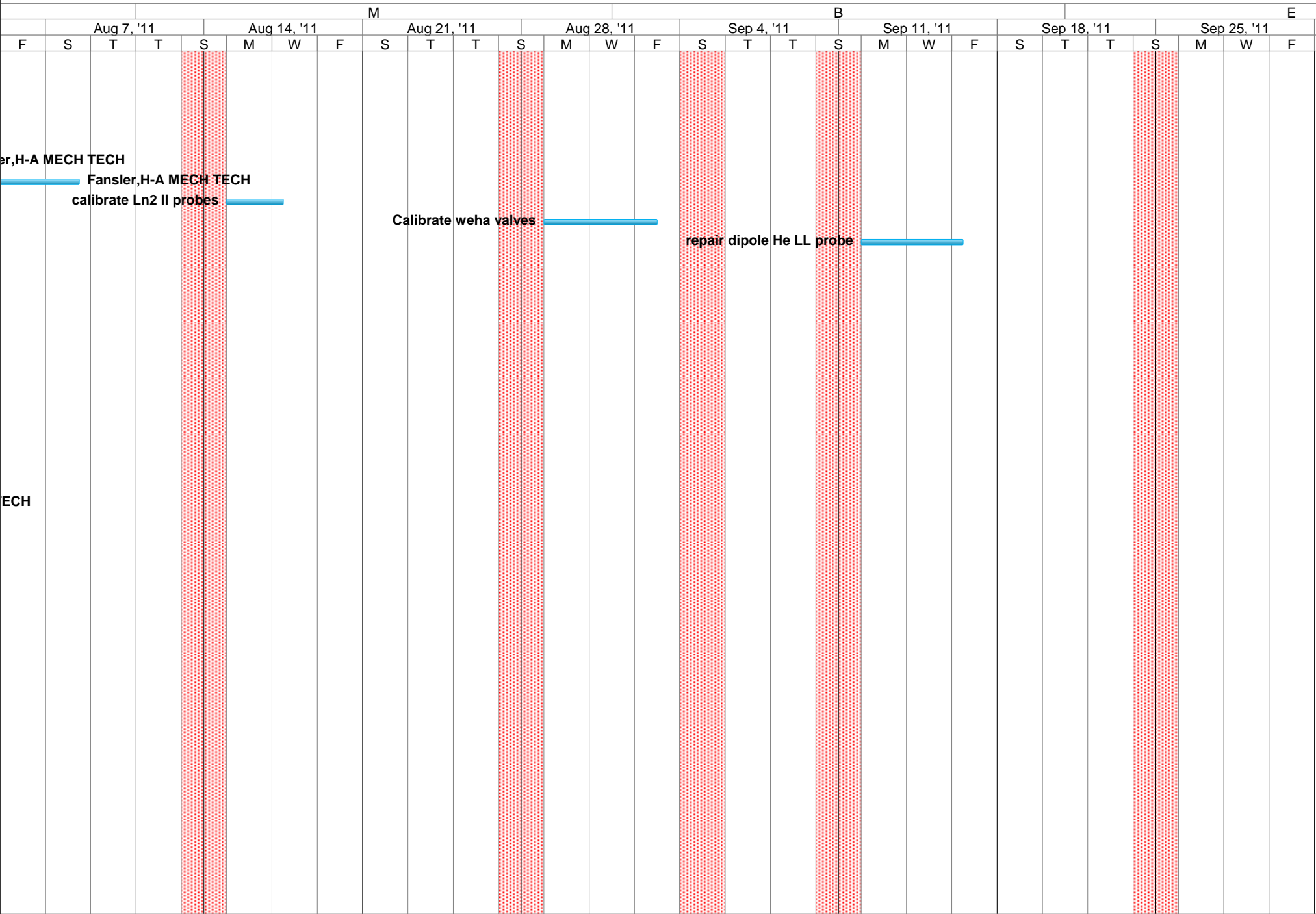
h 5, '11			Jun 12, '11				M Jun 19, '11				Jun 26, '11				B Jul 3, '11				Jul 10, '11				Jul 17, '11				E Jul 24, '11				Jul 31, '11		
W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W					

Aug 7, '11					Aug 14, '11			M	Aug 21, '11			Aug 28, '11			B	Sep 4, '11			Sep 11, '11			Sep 18, '11			Sep 25, '11			E	
F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	

Aug 7, '11				Aug 14, '11			M	Aug 21, '11			Aug 28, '11			Sep 4, '11			B	Sep 11, '11			Sep 18, '11			Sep 25, '11			E		
F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	



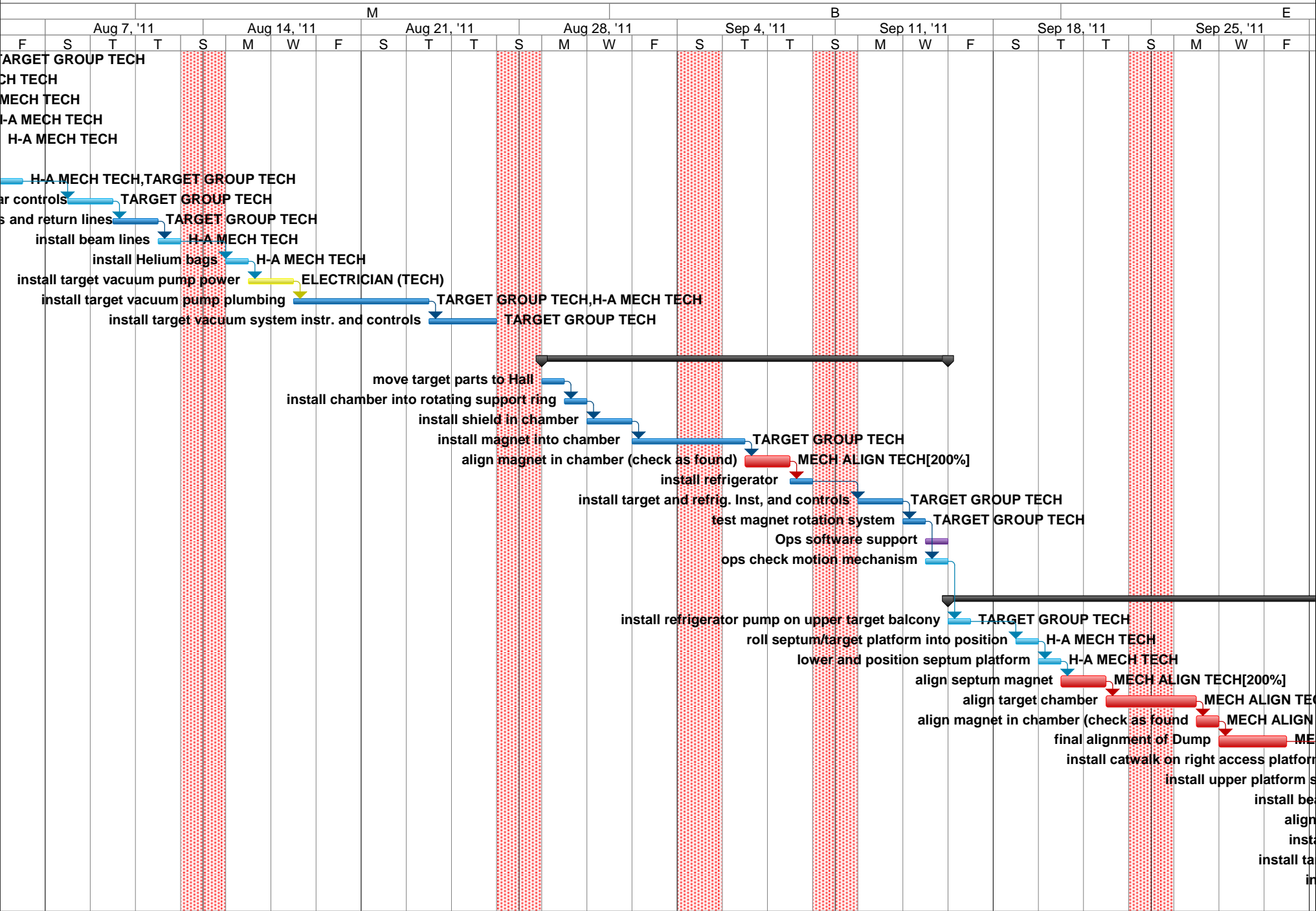




Aug 7, '11					Aug 14, '11			M			Aug 21, '11			Aug 28, '11			B			Sep 4, '11			Sep 11, '11			Sep 18, '11			Sep 25, '11			E				
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GET GROUP TECH



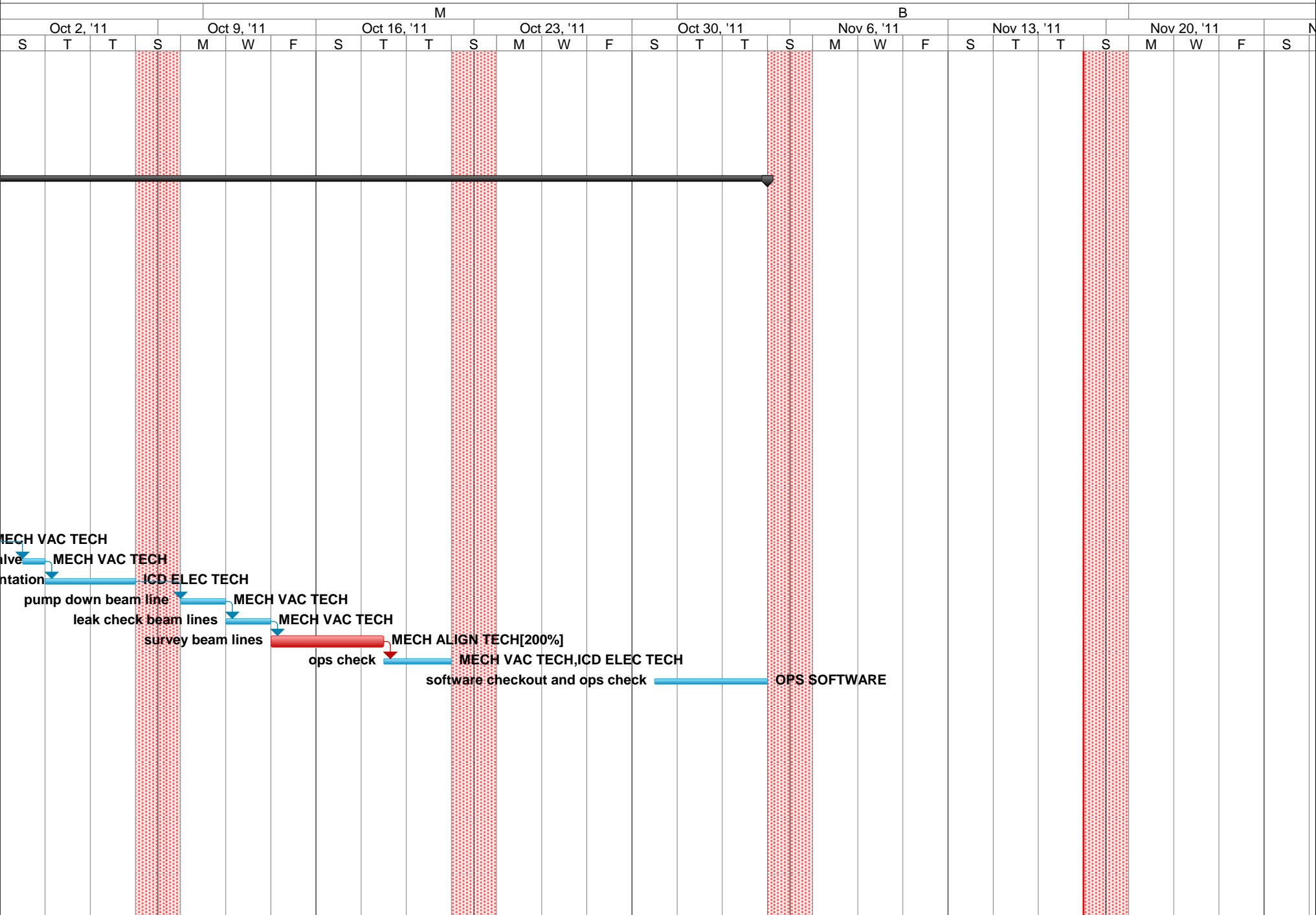
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Aug 7, '11				Aug 14, '11				Aug 21, '11				Aug 28, '11				Sep 4, '11				Sep 11, '11				Sep 18, '11				Sep 25, '11				
F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F				

Oct 2, '11			Oct 9, '11			Oct 16, '11			Oct 23, '11			Oct 30, '11			Nov 6, '11			Nov 13, '11			Nov 20, '11			N									
S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S					

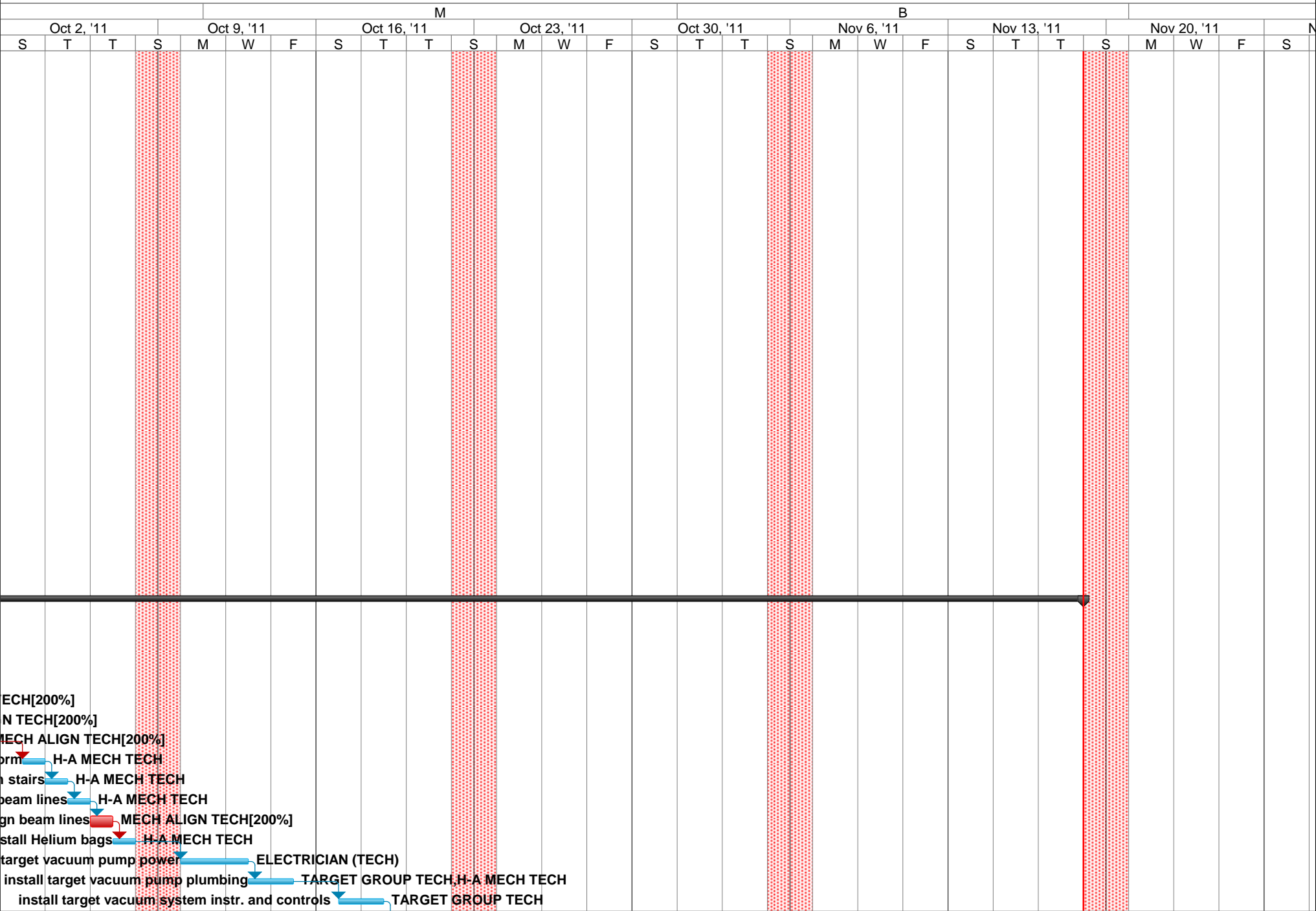
Oct 2, '11			Oct 9, '11				Oct 16, '11				Oct 23, '11				Oct 30, '11				Nov 6, '11				Nov 13, '11				Nov 20, '11																
S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F									

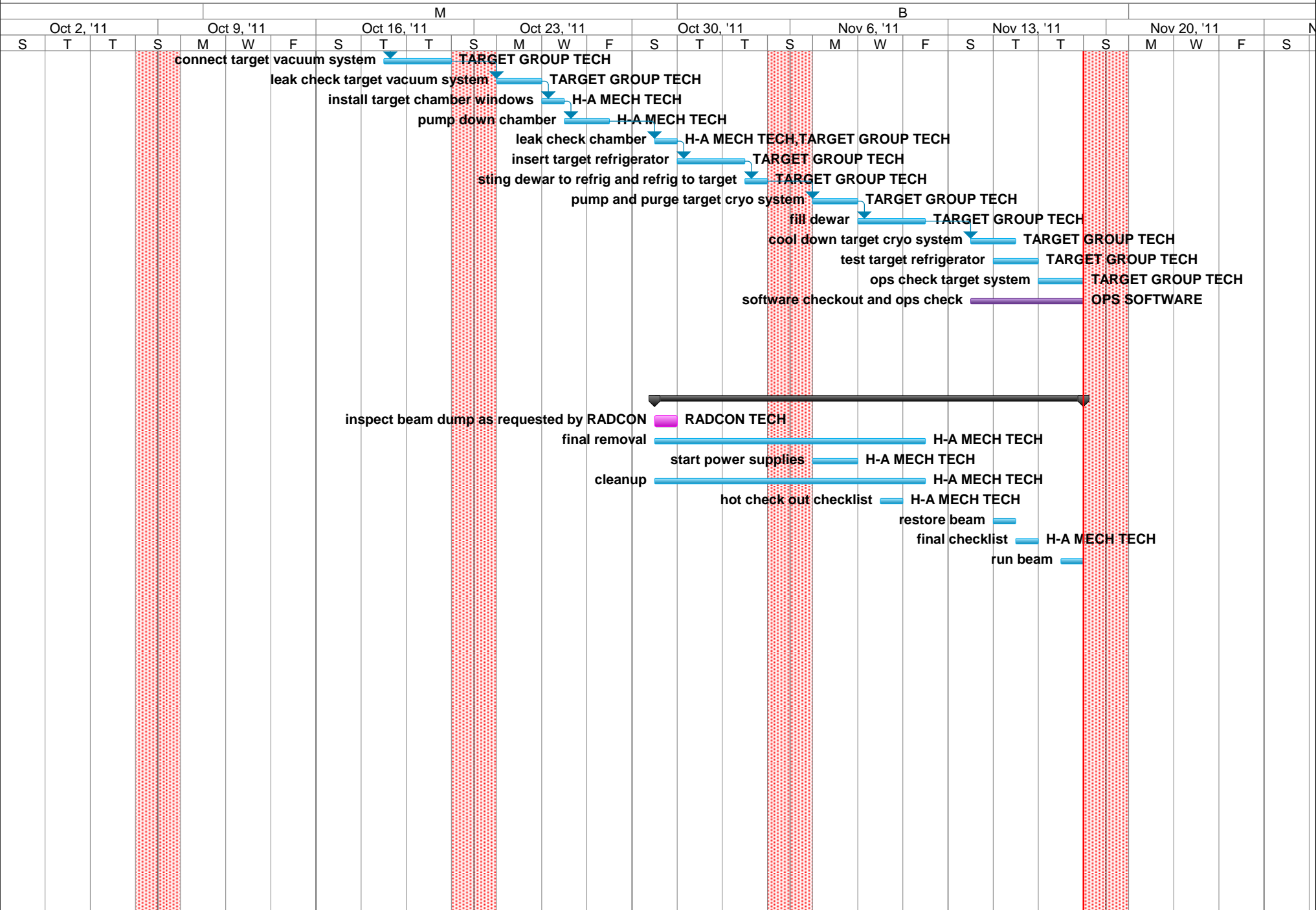
Oct 2, '11			Oct 9, '11				Oct 16, '11			Oct 23, '11			Oct 30, '11			Nov 6, '11			Nov 13, '11			Nov 20, '11			N				
S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	



Oct 2, '11			Oct 9, '11				Oct 16, '11			Oct 23, '11			Oct 30, '11			Nov 6, '11			Nov 13, '11			Nov 20, '11			N				
S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	

Oct 2, '11			Oct 9, '11				Oct 16, '11			Oct 23, '11			Oct 30, '11			Nov 6, '11			Nov 13, '11			Nov 20, '11			N				
S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	





Oct 2, '11			Oct 9, '11				Oct 16, '11			Oct 23, '11			Oct 30, '11			Nov 6, '11			Nov 13, '11			Nov 20, '11			N				
S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	T	T	S	M	W	F	S	