

AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
1	AHCAL Barrel Installation Mountain Side		180 days	02.01.20 08:00	09.09.20 17:00	
2	Install AHCAL Base Moving Unit		6 days	02.01.20 08:00	09.01.20 17:00	
3	transport AHCAL Base Moving Unit to cavern	Tunnel Transport 1	1 day	02.01.20 08:00	02.01.20 17:00	
4	Install AHCAL Base Moving Unit	AHCAL M1;Crane 1	1 day	03.01.20 08:00	03.01.20 17:00	3
5	adjust and survey AHCAL Base Moving Unit	AHCAL I1	2 days	06.01.20 08:00	07.01.20 17:00	4
6	test AHCAL Base Moving Unit	AHCAL I1	2 days	08.01.20 08:00	09.01.20 17:00	5
7	Install AHCAL Base Moving Frame		4 days	09.01.20 08:00	14.01.20 17:00	
8	transport AHCAL Base Moving Frame to cavern	Tunnel Transport 1	1 day	09.01.20 08:00	09.01.20 17:00	6FF
9	Install AHCAL Base Moving Frame to Base Moving Unit	AHCAL M1;Crane 1	1 day	10.01.20 08:00	10.01.20 17:00	8
10	adjust and survey AHCAL Base Moving Frame	AHCAL I1	2 days	13.01.20 08:00	14.01.20 17:00	9
11	Install AHCAL Barrel Mounting Frame		4 days	15.01.20 08:00	20.01.20 17:00	
12	transport AHCAL Barrel Mounting Frame to cavern	Tunnel Transport 1	1 day	15.01.20 08:00	15.01.20 17:00	7
13	Install AHCAL Barrel Mounting Frame to Base Moving Frame	AHCAL M1;Crane 1	1 day	16.01.20 08:00	16.01.20 17:00	12
14	adjust and survey AHCAL Base Moving Frame to Coil Cryostat	AHCAL I1	2 days	17.01.20 08:00	20.01.20 17:00	13
15	Install AHCAL Barrel -z		112 days	09.01.20 17:00	15.06.20 17:00	
16	Install AHCAL Barrel Submodule 12		8 days	13.01.20 08:00	22.01.20 17:00	
17	System pretest AHCAL Barrel Submodul 12	AHCAL P1	5 days	13.01.20 08:00	20.01.20 08:00	18SF
18	transport AHCAL Barrel Submodul 12 to cavern	Tunnel Transport 1	1 day	20.01.20 08:00	21.01.20 08:00	19SF
19	install AHCAL Barrel Submodul 12 to mounting frame		2 days	21.01.20 08:00	22.01.20 17:00	
20	connect AHCAL Barrel Submodul 12 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	21.01.20 08:00	21.01.20 10:00	14
21	move AHCAL Barrel Submodul 12 to Mounting Frame	Crane 2;Crane 1	1 hr	21.01.20 10:00	21.01.20 11:00	20
22	connect AHCAL Barrel Submodul 12 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	21.01.20 11:00	21.01.20 15:00	21
23	disconnect AHCAL Barrel Submodul 12 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	21.01.20 15:00	21.01.20 17:00	22
24	adjust AHCAL Barrel Submodul 12	AHCAL M1	1 day	22.01.20 08:00	22.01.20 17:00	23
25	Install AHCAL Barrel Submodule 13		9 days	15.01.20 08:00	27.01.20 17:00	
26	System pretest AHCAL Barrel Submodul 13	AHCAL P2	5 days	15.01.20 08:00	22.01.20 08:00	27SF
27	transport AHCAL Barrel Submodul 13 to cavern	Tunnel Transport 1	1 day	22.01.20 08:00	22.01.20 17:00	24FF
28	install AHCAL Barrel Submodul 13 to mounting frame		3 days	23.01.20 08:00	27.01.20 17:00	
29	connect AHCAL Barrel Submodul 13 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	23.01.20 08:00	23.01.20 10:00	27
30	move AHCAL Barrel Submodul 13 to Mounting Frame	Crane 1;Crane 2	1 hr	23.01.20 10:00	23.01.20 11:00	29
31	connect AHCAL Barrel Submodul 13 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	23.01.20 11:00	23.01.20 15:00	30
32	disconnect AHCAL Barrel Submodul 13 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	23.01.20 15:00	23.01.20 17:00	31
33	adjust AHCAL Barrel Submodul 13	AHCAL M1	1 day	24.01.20 08:00	24.01.20 17:00	32
34	connect AHCAL Barrel Submodul 13 to Submodul 12	AHCAL M1	1 day	27.01.20 08:00	27.01.20 17:00	33
35	Install AHCAL Barrel Submodule 11		9 days	20.01.20 08:00	30.01.20 17:00	
36	System pretest AHCAL Barrel Submodul 11	AHCAL P1	5 days	20.01.20 08:00	27.01.20 08:00	37SF
37	transport AHCAL Barrel Submodul 11 to cavern	Tunnel Transport 1	1 day	27.01.20 08:00	27.01.20 17:00	34FF
38	install AHCAL Barrel Submodul 11 to mounting frame		3 days	28.01.20 08:00	30.01.20 17:00	37

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ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
39	connect AHCAL Barrel Submodul 11 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	28.01.20 08:00	28.01.20 10:00	
40	move AHCAL Barrel Submodul 11 to Mounting Frame	Crane 1;Crane 2	1 hr	28.01.20 10:00	28.01.20 11:00	39
41	connect AHCAL Barrel Submodul 11 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	28.01.20 11:00	28.01.20 15:00	40
42	disconnect AHCAL Barrel Submodul 11 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	28.01.20 15:00	28.01.20 17:00	41
43	adjust AHCAL Barrel Submodul 11	AHCAL M1	1 day	29.01.20 08:00	29.01.20 17:00	42
44	connect AHCAL Barrel Submodul 11 to Submodul 12	AHCAL M1	1 day	30.01.20 08:00	30.01.20 17:00	43
45	Install AHCAL Barrel Submodule 14		9 days	23.01.20 08:00	04.02.20 17:00	
46	System pretest AHCAL Barrel Submodul 14	AHCAL P2	5 days	23.01.20 08:00	30.01.20 08:00	47SF
47	transport AHCAL Barrel Submodul 14 to cavern	Tunnel Transport 1	1 day	30.01.20 08:00	30.01.20 17:00	44FF
48	install AHCAL Barrel Submodul 14 to mounting frame		3 days	31.01.20 08:00	04.02.20 17:00	
49	connect AHCAL Barrel Submodul 14 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	31.01.20 08:00	31.01.20 10:00	47
50	move AHCAL Barrel Submodul 14 to Mounting Frame	Crane 1;Crane 2	1 hr	31.01.20 10:00	31.01.20 11:00	49
51	connect AHCAL Barrel Submodul 14 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	31.01.20 11:00	31.01.20 15:00	50
52	disconnect AHCAL Barrel Submodul 14 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	31.01.20 15:00	31.01.20 17:00	51
53	adjust AHCAL Barrel Submodul 14	AHCAL M1	1 day	03.02.20 08:00	03.02.20 17:00	52
54	connect AHCAL Barrel Submodul 14 to Submodul 13	AHCAL M1	1 day	04.02.20 08:00	04.02.20 17:00	53
55	Install AHCAL Barrel Submodule 10		9 days	28.01.20 08:00	07.02.20 17:00	
56	System pretest AHCAL Barrel Submodul 10	AHCAL P1	5 days	28.01.20 08:00	04.02.20 08:00	57SF
57	transport AHCAL Barrel Submodul 10 to cavern	Tunnel Transport 1	1 day	04.02.20 08:00	04.02.20 17:00	54FF
58	install AHCAL Barrel Submodul 10 to mounting frame		3 days	05.02.20 08:00	07.02.20 17:00	
59	connect AHCAL Barrel Submodul 10 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	05.02.20 08:00	05.02.20 10:00	57
60	move AHCAL Barrel Submodul 10 to Mounting Frame	Crane 1;Crane 2	1 hr	05.02.20 10:00	05.02.20 11:00	59
61	connect AHCAL Barrel Submodul 10 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	05.02.20 11:00	05.02.20 15:00	60
62	disconnect AHCAL Barrel Submodul 10 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	05.02.20 15:00	05.02.20 17:00	61
63	adjust AHCAL Barrel Submodul 10	AHCAL M1	1 day	06.02.20 08:00	06.02.20 17:00	62
64	connect AHCAL Barrel Submodul 10 to Submodul 11	AHCAL M1	1 day	07.02.20 08:00	07.02.20 17:00	63
65	Install AHCAL Barrel Submodule 15		9 days	31.01.20 08:00	12.02.20 17:00	
66	System pretest AHCAL Barrel Submodul 15	AHCAL P2	5 days	31.01.20 08:00	07.02.20 08:00	67SF
67	transport AHCAL Barrel Submodul 15 to cavern	Tunnel Transport 1	1 day	07.02.20 08:00	07.02.20 17:00	64FF
68	install AHCAL Barrel Submodul 15 to mounting frame		3 days	10.02.20 08:00	12.02.20 17:00	67
69	connect AHCAL Barrel Submodul 15 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	10.02.20 08:00	10.02.20 10:00	
70	move AHCAL Barrel Submodul 15 to Mounting Frame	Crane 1;Crane 2	1 hr	10.02.20 10:00	10.02.20 11:00	69
71	connect AHCAL Barrel Submodul 15 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	10.02.20 11:00	10.02.20 15:00	70
72	disconnect AHCAL Barrel Submodul 15 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	10.02.20 15:00	10.02.20 17:00	71
73	adjust AHCAL Barrel Submodul 15	AHCAL M1	1 day	11.02.20 08:00	11.02.20 17:00	72
74	connect AHCAL Barrel Submodul 14 to Submodul 14	AHCAL M1	1 day	12.02.20 08:00	12.02.20 17:00	73
75	Install AHCAL Barrel Submodule 9		9 days	05.02.20 08:00	17.02.20 17:00	
76	System pretest AHCAL Barrel Submodul 9	AHCAL P1	5 days	05.02.20 08:00	12.02.20 08:00	77SF

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ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
77	transport AHCAL Barrel Submodul 9 to cavern	Tunnel Transport 1	1 day	12.02.20 08:00	12.02.20 17:00	74FF
78	install AHCAL Barrel Submodul 9 to mounting frame		3 days	13.02.20 08:00	17.02.20 17:00	
79	connect AHCAL Barrel Submodul 9 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	13.02.20 08:00	13.02.20 10:00	77
80	move AHCAL Barrel Submodul 9 to Mounting Frame	Crane 1;Crane 2	1 hr	13.02.20 10:00	13.02.20 11:00	79
81	connect AHCAL Barrel Submodul 9 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	13.02.20 11:00	13.02.20 15:00	80
82	disconnect AHCAL Barrel Submodul 9 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	13.02.20 15:00	13.02.20 17:00	81
83	adjust AHCAL Barrel Submodul 9	AHCAL M1	1 day	14.02.20 08:00	14.02.20 17:00	82
84	connect AHCAL Barrel Submodul 9 to Submodul 10	AHCAL M1	1 day	17.02.20 08:00	17.02.20 17:00	83
85	Install AHCAL Barrel Submodule 16		9 days	10.02.20 08:00	20.02.20 17:00	
86	System pretest AHCAL Barrel Submodul 16	AHCAL P2	5 days	10.02.20 08:00	17.02.20 08:00	87SF
87	transport AHCAL Barrel Submodul 16 to cavern	Tunnel Transport 1	1 day	17.02.20 08:00	17.02.20 17:00	84FF
88	install AHCAL Barrel Submodul 16 to mounting frame		3 days	18.02.20 08:00	20.02.20 17:00	
89	connect AHCAL Barrel Submodul 16 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	18.02.20 08:00	18.02.20 10:00	87
90	move AHCAL Barrel Submodul 16 to Mounting Frame	Crane 1;Crane 2	1 hr	18.02.20 10:00	18.02.20 11:00	89
91	connect AHCAL Barrel Submodul 16 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	18.02.20 11:00	18.02.20 15:00	90
92	disconnect AHCAL Barrel Submodul 16 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	18.02.20 15:00	18.02.20 17:00	91
93	adjust AHCAL Barrel Submodul 16	AHCAL M1	1 day	19.02.20 08:00	19.02.20 17:00	92
94	connect AHCAL Barrel Submodul 16 to Submodul 15	AHCAL M1	1 day	20.02.20 08:00	20.02.20 17:00	93
95	Install AHCAL Barrel Submodule 8		9 days	13.02.20 08:00	25.02.20 17:00	
96	System pretest AHCAL Barrel Submodul 8	AHCAL P1	5 days	13.02.20 08:00	20.02.20 08:00	97SF
97	transport AHCAL Barrel Submodul 8 to cavern	Tunnel Transport 1	1 day	20.02.20 08:00	20.02.20 17:00	94FF
98	install AHCAL Barrel Submodul 8 to mounting frame		3 days	21.02.20 08:00	25.02.20 17:00	
99	connect AHCAL Barrel Submodul 8 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	21.02.20 08:00	21.02.20 10:00	97
100	move AHCAL Barrel Submodul 8 to Mounting Frame	Crane 1;Crane 2	1 hr	21.02.20 10:00	21.02.20 11:00	99
101	connect AHCAL Barrel Submodul 8 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	21.02.20 11:00	21.02.20 15:00	100
102	disconnect AHCAL Barrel Submodul 8 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	21.02.20 15:00	21.02.20 17:00	101
103	adjust AHCAL Barrel Submodul 8	AHCAL M1	1 day	24.02.20 08:00	24.02.20 17:00	102
104	connect AHCAL Barrel Submodul 8 to Submodul 9	AHCAL M1	1 day	25.02.20 08:00	25.02.20 17:00	103
105	Install AHCAL Barrel Submodule 1		9 days	18.02.20 08:00	28.02.20 17:00	
106	System pretest AHCAL Barrel Submodul 1	AHCAL P2	5 days	18.02.20 08:00	25.02.20 08:00	107SF
107	transport AHCAL Barrel Submodul 1 to cavern	Tunnel Transport 1	1 day	25.02.20 08:00	25.02.20 17:00	104FF
108	install AHCAL Barrel Submodul 1 to mounting frame		3 days	26.02.20 08:00	28.02.20 17:00	
109	connect AHCAL Barrel Submodul 1 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	26.02.20 08:00	26.02.20 10:00	107
110	move AHCAL Barrel Submodul 1 to Mounting Frame	Crane 1;Crane 2	1 hr	26.02.20 10:00	26.02.20 11:00	109
111	connect AHCAL Barrel Submodul 1 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	26.02.20 11:00	26.02.20 15:00	110
112	disconnect AHCAL Barrel Submodul 1 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	26.02.20 15:00	26.02.20 17:00	111
113	adjust AHCAL Barrel Submodul 1	AHCAL M1	1 day	27.02.20 08:00	27.02.20 17:00	112
114	connect AHCAL Barrel Submodul 1 to Submodul 16	AHCAL M1	1 day	28.02.20 08:00	28.02.20 17:00	113

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ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
115	Install AHCAL Barrel Submodule 7		9 days	21.02.20 08:00	04.03.20 17:00	
116	System pretest AHCAL Barrel Submodul 7	AHCAL P1	5 days	21.02.20 08:00	28.02.20 08:00	117SF
117	transport AHCAL Barrel Submodul 7 to cavern	Tunnel Transport 1	1 day	28.02.20 08:00	28.02.20 17:00	114FF
118	install AHCAL Barrel Submodul 7 to mounting frame		3 days	02.03.20 08:00	04.03.20 17:00	
119	connect AHCAL Barrel Submodul 7 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	02.03.20 08:00	02.03.20 10:00	117
120	move AHCAL Barrel Submodul 7 to Mounting Frame	Crane 1;Crane 2	1 hr	02.03.20 10:00	02.03.20 11:00	119
121	connect AHCAL Barrel Submodul 7 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	02.03.20 11:00	02.03.20 15:00	120
122	disconnect AHCAL Barrel Submodul 7 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	02.03.20 15:00	02.03.20 17:00	121
123	adjust AHCAL Barrel Submodul 7	AHCAL M1	1 day	03.03.20 08:00	03.03.20 17:00	122
124	connect AHCAL Barrel Submodul 7 to Submodul 8	AHCAL M1	1 day	04.03.20 08:00	04.03.20 17:00	123
125	Install AHCAL Barrel Submodule 2		9 days	26.02.20 08:00	09.03.20 17:00	
126	System pretest AHCAL Barrel Submodul 2	AHCAL P2	5 days	26.02.20 08:00	04.03.20 08:00	127SF
127	transport AHCAL Barrel Submodul 2 to cavern	Tunnel Transport 1	1 day	04.03.20 08:00	04.03.20 17:00	124FF
128	install AHCAL Barrel Submodul 2 to mounting frame		3 days	05.03.20 08:00	09.03.20 17:00	
129	connect AHCAL Barrel Submodul 2 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	05.03.20 08:00	05.03.20 10:00	127
130	move AHCAL Barrel Submodul 2 to Mounting Frame	Crane 1;Crane 2	1 hr	05.03.20 10:00	05.03.20 11:00	129
131	connect AHCAL Barrel Submodul 2 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	05.03.20 11:00	05.03.20 15:00	130
132	disconnect AHCAL Barrel Submodul 2 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	05.03.20 15:00	05.03.20 17:00	131
133	adjust AHCAL Barrel Submodul 2	AHCAL M1	1 day	06.03.20 08:00	06.03.20 17:00	132
134	connect AHCAL Barrel Submodul 2 to Submodul 1	AHCAL M1	1 day	09.03.20 08:00	09.03.20 17:00	133
135	Install AHCAL Barrel Submodule 6		9 days	02.03.20 08:00	12.03.20 17:00	
136	System pretest AHCAL Barrel Submodul 6	AHCAL P1	5 days	02.03.20 08:00	09.03.20 08:00	137SF
137	transport AHCAL Barrel Submodul 6 to cavern	Tunnel Transport 1	1 day	09.03.20 08:00	09.03.20 17:00	134FF
138	install AHCAL Barrel Submodul 6 to mounting frame		3 days	10.03.20 08:00	12.03.20 17:00	
139	connect AHCAL Barrel Submodul 6 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	10.03.20 08:00	10.03.20 10:00	137
140	move AHCAL Barrel Submodul 6 to Mounting Frame	Crane 1;Crane 2	1 hr	10.03.20 10:00	10.03.20 11:00	139
141	connect AHCAL Barrel Submodul 6 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	10.03.20 11:00	10.03.20 15:00	140
142	disconnect AHCAL Barrel Submodul 6 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	10.03.20 15:00	10.03.20 17:00	141
143	adjust AHCAL Barrel Submodul 6	AHCAL M1	1 day	11.03.20 08:00	11.03.20 17:00	142
144	connect AHCAL Barrel Submodul 6 to Submodul 7	AHCAL M1	1 day	12.03.20 08:00	12.03.20 17:00	143
145	Install AHCAL Barrel Submodule 3		9 days	05.03.20 08:00	17.03.20 17:00	
146	System pretest AHCAL Barrel Submodul 3	AHCAL P2	5 days	05.03.20 08:00	12.03.20 08:00	147SF
147	transport AHCAL Barrel Submodul 3 to cavern	Tunnel Transport 1	1 day	12.03.20 08:00	12.03.20 17:00	144FF
148	install AHCAL Barrel Submodul 3 to mounting frame		3 days	13.03.20 08:00	17.03.20 17:00	
149	connect AHCAL Barrel Submodul 3 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	13.03.20 08:00	13.03.20 10:00	147
150	move AHCAL Barrel Submodul 3 to Mounting Frame	Crane 1;Crane 2	1 hr	13.03.20 10:00	13.03.20 11:00	149
151	connect AHCAL Barrel Submodul 3 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	13.03.20 11:00	13.03.20 15:00	150
152	disconnect AHCAL Barrel Submodul 3 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	13.03.20 15:00	13.03.20 17:00	151

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ID	Task Name	Resource Names	Duration	Start	Finish	Predecessor
153	adjust AHCAL Barrel Submodul 3	AHCAL M1	1 day	16.03.20 08:00	16.03.20 17:00	152
154	connect AHCAL Barrel Submodul 3 to Submodul 2	AHCAL M1	1 day	17.03.20 08:00	17.03.20 17:00	153
155	Install AHCAL Barrel Submodule 5		9 days	10.03.20 08:00	20.03.20 17:00	
156	System pretest AHCAL Barrel Submodul 5	AHCAL P1	5 days	10.03.20 08:00	17.03.20 08:00	157SF
157	transport AHCAL Barrel Submodul 5 to cavern	Tunnel Transport 1	1 day	17.03.20 08:00	17.03.20 17:00	154FF
158	install AHCAL Barrel Submodul 5 to mounting frame		3 days	18.03.20 08:00	20.03.20 17:00	
159	connect AHCAL Barrel Submodul 5 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	18.03.20 08:00	18.03.20 10:00	157
160	move AHCAL Barrel Submodul 5 to Mounting Frame	Crane 1;Crane 2	1 hr	18.03.20 10:00	18.03.20 11:00	159
161	connect AHCAL Barrel Submodul 5 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	18.03.20 11:00	18.03.20 15:00	160
162	disconnect AHCAL Barrel Submodul 5 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	18.03.20 15:00	18.03.20 17:00	161
163	adjust AHCAL Barrel Submodul 5	AHCAL M1	1 day	19.03.20 08:00	19.03.20 17:00	162
164	connect AHCAL Barrel Submodul 5 to Submodul 6	AHCAL M1	1 day	20.03.20 08:00	20.03.20 17:00	163
165	Install AHCAL Barrel Submodule 4		10 days	13.03.20 08:00	26.03.20 17:00	
166	System pretest AHCAL Barrel Submodul 4	AHCAL P2	5 days	13.03.20 08:00	20.03.20 08:00	167SF
167	transport AHCAL Barrel Submodul 4 to cavern	Tunnel Transport 1	1 day	20.03.20 08:00	20.03.20 17:00	164FF
168	install AHCAL Barrel Submodul 4 to mounting frame		4 days	23.03.20 08:00	26.03.20 17:00	
169	connect AHCAL Barrel Submodul 4 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	23.03.20 08:00	23.03.20 10:00	167
170	move AHCAL Barrel Submodul 4 to Mounting Frame	Crane 1;Crane 2	1 hr	23.03.20 10:00	23.03.20 11:00	169
171	connect AHCAL Barrel Submodul 4 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	23.03.20 11:00	23.03.20 15:00	170
172	disconnect AHCAL Barrel Submodul 4 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	23.03.20 15:00	23.03.20 17:00	171
173	adjust AHCAL Barrel Submodul 4	AHCAL M1	1 day	24.03.20 08:00	24.03.20 17:00	172
174	connect AHCAL Barrel Submodul 4 to Submodul 3 and 5	AHCAL M1	2 days	25.03.20 08:00	26.03.20 17:00	173
175	move AHCAL barrel -z into coil cryostat		9 days	26.03.20 08:00	07.04.20 17:00	
176	transport push/pull device to cavern	Tunnel Transport 1	1 day	26.03.20 08:00	26.03.20 17:00	174FF
177	install push/pull device to Mounting Frame	AHCAL M1;Crane 1	1 day	27.03.20 08:00	27.03.20 17:00	176
178	connect push/pull device to AHCAL barrel -z	AHCAL M1	1 day	30.03.20 08:00	30.03.20 17:00	177
179	disconnect AHCAL barrel -z from Mounting Frame	AHCAL M1	1 day	31.03.20 08:00	31.03.20 17:00	178
180	push AHCAL barrel -z into Coil Cryostat	AHCAL M1	2 days	01.04.20 08:00	02.04.20 17:00	179
181	survey AHCAL barrel -z	AHCAL I1	1 day	03.04.20 08:00	03.04.20 17:00	180
182	retract push/pull device	AHCAL M1	4 hrs	06.04.20 08:00	06.04.20 12:00	181
183	remove push/pull device from mounting frame	AHCAL M1;Crane 1	4 hrs	06.04.20 13:00	06.04.20 17:00	182
184	transport push/pull device out of cavern	Tunnel Transport 1	1 day	07.04.20 08:00	07.04.20 17:00	183
185	Install AHCAL barrel -z supply infrastructure		112 days	09.01.20 17:00	15.06.20 17:00	
186	install AHCAL barrel -z inner cooling lines		48 days	06.04.20 08:00	10.06.20 17:00	
187	install inner cooling lines AHCAL barrel Submodule 12	AHCAL M2	3 days	06.04.20 08:00	08.04.20 17:00	181
188	install inner cooling lines AHCAL barrel Submodule 4	AHCAL M2	3 days	09.04.20 08:00	13.04.20 17:00	187
189	install inner cooling lines AHCAL barrel Submodule 11	AHCAL M2	3 days	14.04.20 08:00	16.04.20 17:00	188
190	install inner cooling lines AHCAL barrel Submodule 3	AHCAL M2	3 days	17.04.20 08:00	21.04.20 17:00	189

AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecess
191	install inner cooling lines AHCAL barrel Submodule 10	AHCAL M2	3 days	22.04.20 08:00	24.04.20 17:00	190
192	install inner cooling lines AHCAL barrel Submodule 2	AHCAL M2	3 days	27.04.20 08:00	29.04.20 17:00	191
193	install inner cooling lines AHCAL barrel Submodule 9	AHCAL M2	3 days	30.04.20 08:00	04.05.20 17:00	192
194	install inner cooling lines AHCAL barrel Submodule 1	AHCAL M2	3 days	05.05.20 08:00	07.05.20 17:00	193
195	install inner cooling lines AHCAL barrel Submodule 8	AHCAL M2	3 days	08.05.20 08:00	12.05.20 17:00	194
196	install inner cooling lines AHCAL barrel Submodule 16	AHCAL M2	3 days	13.05.20 08:00	15.05.20 17:00	195
197	install inner cooling lines AHCAL barrel Submodule 7	AHCAL M2	3 days	18.05.20 08:00	20.05.20 17:00	196
198	install inner cooling lines AHCAL barrel Submodule 15	AHCAL M2	3 days	21.05.20 08:00	25.05.20 17:00	197
199	install inner cooling lines AHCAL barrel Submodule 6	AHCAL M2	3 days	26.05.20 08:00	28.05.20 17:00	198
200	install inner cooling lines AHCAL barrel Submodule 14	AHCAL M2	3 days	29.05.20 08:00	02.06.20 17:00	199
201	install inner cooling lines AHCAL barrel Submodule 5	AHCAL M2	3 days	03.06.20 08:00	05.06.20 17:00	200
202	install inner cooling lines AHCAL barrel Submodule 13	AHCAL M2	3 days	08.06.20 08:00	10.06.20 17:00	201
203	Install AHCAL barrel -z inner cableing		48 days	09.04.20 08:00	15.06.20 17:00	
204	install inner cableing AHCAL barrel Submodule 12	AHCAL E1	3 days	09.04.20 08:00	13.04.20 17:00	187
205	install inner cableing AHCAL barrel Submodule 4	AHCAL E1	3 days	14.04.20 08:00	16.04.20 17:00	188
206	install inner cableing AHCAL barrel Submodule 11	AHCAL E1	3 days	17.04.20 08:00	21.04.20 17:00	189
207	install inner cableing AHCAL barrel Submodule 3	AHCAL E1	3 days	22.04.20 08:00	24.04.20 17:00	190
208	install inner cableing AHCAL barrel Submodule 10	AHCAL E1	3 days	27.04.20 08:00	29.04.20 17:00	191
209	install inner cableing AHCAL barrel Submodule 2	AHCAL E1	3 days	30.04.20 08:00	04.05.20 17:00	192
210	install inner cableing AHCAL barrel Submodule 9	AHCAL E1	3 days	05.05.20 08:00	07.05.20 17:00	193
211	install inner cableing AHCAL barrel Submodule 1	AHCAL E1	3 days	08.05.20 08:00	12.05.20 17:00	194
212	install inner cableing AHCAL barrel Submodule 8	AHCAL E1	3 days	13.05.20 08:00	15.05.20 17:00	195
213	install inner cableing AHCAL barrel Submodule 16	AHCAL E1	3 days	18.05.20 08:00	20.05.20 17:00	196
214	install inner cableing AHCAL barrel Submodule 7	AHCAL E1	3 days	21.05.20 08:00	25.05.20 17:00	197
215	install inner cableing AHCAL barrel Submodule 15	AHCAL E1	3 days	26.05.20 08:00	28.05.20 17:00	198
216	install inner cableing AHCAL barrel Submodule 6	AHCAL E1	3 days	29.05.20 08:00	02.06.20 17:00	199
217	install inner cableing AHCAL barrel Submodule 14	AHCAL E1	3 days	03.06.20 08:00	05.06.20 17:00	200
218	install inner cableing AHCAL barrel Submodule 5	AHCAL E1	3 days	08.06.20 08:00	10.06.20 17:00	201
219	install inner cableing AHCAL barrel Submodule 13	AHCAL E1	3 days	11.06.20 08:00	15.06.20 17:00	202
220	Install AHCAL barrel-z outer supply infrastructure		61 days	09.01.20 17:00	06.04.20 08:00	
221	start Installation AHCAL barrel -z outer supply infrastructure		0 days	09.01.20 17:00	09.01.20 17:00	2
222	install AHCAL barrel -z outer cooling lines	AHCAL M2	61 days	10.01.20 08:00	03.04.20 17:00	221
223	Install AHCAL barrel -z outerr cableing	AHCAL E1	61 days	10.01.20 08:00	03.04.20 17:00	221
224	finisch Installtion AHCAL barrel -z outer supply infrastructure		0 days	06.04.20 08:00	06.04.20 08:00	186SF
225	System Test AHCAL barrel -z	AHCAL P3	5 days	06.04.20 08:00	10.04.20 17:00	224
226	Install AHCAL Barrel +z		118 days	30.03.20 08:00	09.09.20 17:00	
227	Install AHCAL Barrel Submodule 12		8 days	30.03.20 08:00	08.04.20 17:00	
228	System pretest AHCAL Barrel Submodul 12	AHCAL P1	5 days	30.03.20 08:00	06.04.20 08:00	229SF

AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
229	transport AHCAL Barrel Submodul 12 to cavern	Tunnel Transport 1	1 day	06.04.20 08:00	07.04.20 08:00	230SF
230	install AHCAL Barrel Submodul 12 to mounting frame		2 days	07.04.20 08:00	08.04.20 17:00	
231	connect AHCAL Barrel Submodul 12 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	07.04.20 08:00	07.04.20 10:00	183
232	move AHCAL Barrel Submodul 12 to Mounting Frame	Crane 2;Crane 1	1 hr	07.04.20 10:00	07.04.20 11:00	231
233	connect AHCAL Barrel Submodul 12 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	07.04.20 11:00	07.04.20 15:00	232
234	disconnect AHCAL Barrel Submodul 12 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	07.04.20 15:00	07.04.20 17:00	233
235	adjust AHCAL Barrel Submodul 12	AHCAL M1	1 day	08.04.20 08:00	08.04.20 17:00	234
236	Install AHCAL Barrel Submodule 13		9 days	01.04.20 08:00	13.04.20 17:00	
237	System pretest AHCAL Barrel Submodul 13	AHCAL P2	5 days	01.04.20 08:00	08.04.20 08:00	238SF
238	transport AHCAL Barrel Submodul 13 to cavern	Tunnel Transport 1	1 day	08.04.20 08:00	08.04.20 17:00	235FF
239	install AHCAL Barrel Submodul 13 to mounting frame		3 days	09.04.20 08:00	13.04.20 17:00	
240	connect AHCAL Barrel Submodul 13 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	09.04.20 08:00	09.04.20 10:00	238
241	move AHCAL Barrel Submodul 13 to Mounting Frame	Crane 1;Crane 2	1 hr	09.04.20 10:00	09.04.20 11:00	240
242	connect AHCAL Barrel Submodul 13 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	09.04.20 11:00	09.04.20 15:00	241
243	disconnect AHCAL Barrel Submodul 13 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	09.04.20 15:00	09.04.20 17:00	242
244	adjust AHCAL Barrel Submodul 13	AHCAL M1	1 day	10.04.20 08:00	10.04.20 17:00	243
245	connect AHCAL Barrel Submodul 13 to Submodul 12	AHCAL M1	1 day	13.04.20 08:00	13.04.20 17:00	244
246	Install AHCAL Barrel Submodule 11		9 days	06.04.20 08:00	16.04.20 17:00	
247	System pretest AHCAL Barrel Submodul 11	AHCAL P1	5 days	06.04.20 08:00	13.04.20 08:00	248SF
248	transport AHCAL Barrel Submodul 11 to cavern	Tunnel Transport 1	1 day	13.04.20 08:00	13.04.20 17:00	245FF
249	install AHCAL Barrel Submodul 11 to mounting frame		3 days	14.04.20 08:00	16.04.20 17:00	248
250	connect AHCAL Barrel Submodul 11 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	14.04.20 08:00	14.04.20 10:00	
251	move AHCAL Barrel Submodul 11 to Mounting Frame	Crane 1;Crane 2	1 hr	14.04.20 10:00	14.04.20 11:00	250
252	connect AHCAL Barrel Submodul 11 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	14.04.20 11:00	14.04.20 15:00	251
253	disconnect AHCAL Barrel Submodul 11 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	14.04.20 15:00	14.04.20 17:00	252
254	adjust AHCAL Barrel Submodul 11	AHCAL M1	1 day	15.04.20 08:00	15.04.20 17:00	253
255	connect AHCAL Barrel Submodul 11 to Submodul 12	AHCAL M1	1 day	16.04.20 08:00	16.04.20 17:00	254
256	Install AHCAL Barrel Submodule 14		9 days	09.04.20 08:00	21.04.20 17:00	
257	System pretest AHCAL Barrel Submodul 14	AHCAL P2	5 days	09.04.20 08:00	16.04.20 08:00	258SF
258	transport AHCAL Barrel Submodul 14 to cavern	Tunnel Transport 1	1 day	16.04.20 08:00	16.04.20 17:00	255FF
259	install AHCAL Barrel Submodul 14 to mounting frame		3 days	17.04.20 08:00	21.04.20 17:00	
260	connect AHCAL Barrel Submodul 14 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	17.04.20 08:00	17.04.20 10:00	258
261	move AHCAL Barrel Submodul 14 to Mounting Frame	Crane 1;Crane 2	1 hr	17.04.20 10:00	17.04.20 11:00	260
262	connect AHCAL Barrel Submodul 14 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	17.04.20 11:00	17.04.20 15:00	261
263	disconnect AHCAL Barrel Submodul 14 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	17.04.20 15:00	17.04.20 17:00	262
264	adjust AHCAL Barrel Submodul 14	AHCAL M1	1 day	20.04.20 08:00	20.04.20 17:00	263
265	connect AHCAL Barrel Submodul 14 to Submodul 13	AHCAL M1	1 day	21.04.20 08:00	21.04.20 17:00	264
266	Install AHCAL Barrel Submodule 10		9 days	14.04.20 08:00	24.04.20 17:00	

AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
267	System pretest AHCAL Barrel Submodul 10	AHCAL P1	5 days	14.04.20 08:00	21.04.20 08:00	268SF
268	transport AHCAL Barrel Submodul 10 to cavern	Tunnel Transport 1	1 day	21.04.20 08:00	21.04.20 17:00	265FF
269	install AHCAL Barrel Submodul 10 to mounting frame		3 days	22.04.20 08:00	24.04.20 17:00	
270	connect AHCAL Barrel Submodul 10 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	22.04.20 08:00	22.04.20 10:00	268
271	move AHCAL Barrel Submodul 10 to Mounting Frame	Crane 1;Crane 2	1 hr	22.04.20 10:00	22.04.20 11:00	270
272	connect AHCAL Barrel Submodul 10 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	22.04.20 11:00	22.04.20 15:00	271
273	disconnect AHCAL Barrel Submodul 10 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	22.04.20 15:00	22.04.20 17:00	272
274	adjust AHCAL Barrel Submodul 10	AHCAL M1	1 day	23.04.20 08:00	23.04.20 17:00	273
275	connect AHCAL Barrel Submodul 10 to Submodul 11	AHCAL M1	1 day	24.04.20 08:00	24.04.20 17:00	274
276	Install AHCAL Barrel Submodule 15		9 days	17.04.20 08:00	29.04.20 17:00	
277	System pretest AHCAL Barrel Submodul 15	AHCAL P2	5 days	17.04.20 08:00	24.04.20 08:00	278SF
278	transport AHCAL Barrel Submodul 15 to cavern	Tunnel Transport 1	1 day	24.04.20 08:00	24.04.20 17:00	275FF
279	install AHCAL Barrel Submodul 15 to mounting frame		3 days	27.04.20 08:00	29.04.20 17:00	278
280	connect AHCAL Barrel Submodul 15 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	27.04.20 08:00	27.04.20 10:00	
281	move AHCAL Barrel Submodul 15 to Mounting Frame	Crane 1;Crane 2	1 hr	27.04.20 10:00	27.04.20 11:00	280
282	connect AHCAL Barrel Submodul 15 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	27.04.20 11:00	27.04.20 15:00	281
283	disconnect AHCAL Barrel Submodul 15 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	27.04.20 15:00	27.04.20 17:00	282
284	adjust AHCAL Barrel Submodul 15	AHCAL M1	1 day	28.04.20 08:00	28.04.20 17:00	283
285	connect AHCAL Barrel Submodul 14 to Submodul 14	AHCAL M1	1 day	29.04.20 08:00	29.04.20 17:00	284
286	Install AHCAL Barrel Submodule 9		9 days	22.04.20 08:00	04.05.20 17:00	
287	System pretest AHCAL Barrel Submodul 9	AHCAL P1	5 days	22.04.20 08:00	29.04.20 08:00	288SF
288	transport AHCAL Barrel Submodul 9 to cavern	Tunnel Transport 1	1 day	29.04.20 08:00	29.04.20 17:00	285FF
289	install AHCAL Barrel Submodul 9 to mounting frame		3 days	30.04.20 08:00	04.05.20 17:00	
290	connect AHCAL Barrel Submodul 9 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	30.04.20 08:00	30.04.20 10:00	288
291	move AHCAL Barrel Submodul 9 to Mounting Frame	Crane 1;Crane 2	1 hr	30.04.20 10:00	30.04.20 11:00	290
292	connect AHCAL Barrel Submodul 9 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	30.04.20 11:00	30.04.20 15:00	291
293	disconnect AHCAL Barrel Submodul 9 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	30.04.20 15:00	30.04.20 17:00	292
294	adjust AHCAL Barrel Submodul 9	AHCAL M1	1 day	01.05.20 08:00	01.05.20 17:00	293
295	connect AHCAL Barrel Submodul 9 to Submodul 10	AHCAL M1	1 day	04.05.20 08:00	04.05.20 17:00	294
296	Install AHCAL Barrel Submodule 16		9 days	27.04.20 08:00	07.05.20 17:00	
297	System pretest AHCAL Barrel Submodul 16	AHCAL P2	5 days	27.04.20 08:00	04.05.20 08:00	298SF
298	transport AHCAL Barrel Submodul 16 to cavern	Tunnel Transport 1	1 day	04.05.20 08:00	04.05.20 17:00	295FF
299	install AHCAL Barrel Submodul 16 to mounting frame		3 days	05.05.20 08:00	07.05.20 17:00	
300	connect AHCAL Barrel Submodul 16 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	05.05.20 08:00	05.05.20 10:00	298
301	move AHCAL Barrel Submodul 16 to Mounting Frame	Crane 1;Crane 2	1 hr	05.05.20 10:00	05.05.20 11:00	300
302	connect AHCAL Barrel Submodul 16 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	05.05.20 11:00	05.05.20 15:00	301
303	disconnect AHCAL Barrel Submodul 16 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	05.05.20 15:00	05.05.20 17:00	302
304	adjust AHCAL Barrel Submodul 16	AHCAL M1	1 day	06.05.20 08:00	06.05.20 17:00	303

AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
305	connect AHCAL Barrel Submodul 16 to Submodul 15	AHCAL M1	1 day	07.05.20 08:00	07.05.20 17:00	304
306	Install AHCAL Barrel Submodule 8		9 days	30.04.20 08:00	12.05.20 17:00	
307	System pretest AHCAL Barrel Submodul 8	AHCAL P1	5 days	30.04.20 08:00	07.05.20 08:00	308SF
308	transport AHCAL Barrel Submodul 8 to cavern	Tunnel Transport 1	1 day	07.05.20 08:00	07.05.20 17:00	305FF
309	install AHCAL Barrel Submodul 8 to mounting frame		3 days	08.05.20 08:00	12.05.20 17:00	
310	connect AHCAL Barrel Submodul 8 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	08.05.20 08:00	08.05.20 10:00	308
311	move AHCAL Barrel Submodul 8 to Mounting Frame	Crane 1;Crane 2	1 hr	08.05.20 10:00	08.05.20 11:00	310
312	connect AHCAL Barrel Submodul 8 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	08.05.20 11:00	08.05.20 15:00	311
313	disconnect AHCAL Barrel Submodul 8 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	08.05.20 15:00	08.05.20 17:00	312
314	adjust AHCAL Barrel Submodul 8	AHCAL M1	1 day	11.05.20 08:00	11.05.20 17:00	313
315	connect AHCAL Barrel Submodul 8 to Submodul 9	AHCAL M1	1 day	12.05.20 08:00	12.05.20 17:00	314
316	Install AHCAL Barrel Submodule 1		9 days	05.05.20 08:00	15.05.20 17:00	
317	System pretest AHCAL Barrel Submodul 1	AHCAL P2	5 days	05.05.20 08:00	12.05.20 08:00	318SF
318	transport AHCAL Barrel Submodul 1 to cavern	Tunnel Transport 1	1 day	12.05.20 08:00	12.05.20 17:00	315FF
319	install AHCAL Barrel Submodul 1 to mounting frame		3 days	13.05.20 08:00	15.05.20 17:00	
320	connect AHCAL Barrel Submodul 1 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	13.05.20 08:00	13.05.20 10:00	318
321	move AHCAL Barrel Submodul 1 to Mounting Frame	Crane 1;Crane 2	1 hr	13.05.20 10:00	13.05.20 11:00	320
322	connect AHCAL Barrel Submodul 1 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	13.05.20 11:00	13.05.20 15:00	321
323	disconnect AHCAL Barrel Submodul 1 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	13.05.20 15:00	13.05.20 17:00	322
324	adjust AHCAL Barrel Submodul 1	AHCAL M1	1 day	14.05.20 08:00	14.05.20 17:00	323
325	connect AHCAL Barrel Submodul 1 to Submodul 16	AHCAL M1	1 day	15.05.20 08:00	15.05.20 17:00	324
326	Install AHCAL Barrel Submodule 7		9 days	08.05.20 08:00	20.05.20 17:00	
327	System pretest AHCAL Barrel Submodul 7	AHCAL P1	5 days	08.05.20 08:00	15.05.20 08:00	328SF
328	transport AHCAL Barrel Submodul 7 to cavern	Tunnel Transport 1	1 day	15.05.20 08:00	15.05.20 17:00	325FF
329	install AHCAL Barrel Submodul 7 to mounting frame		3 days	18.05.20 08:00	20.05.20 17:00	
330	connect AHCAL Barrel Submodul 7 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	18.05.20 08:00	18.05.20 10:00	328
331	move AHCAL Barrel Submodul 7 to Mounting Frame	Crane 1;Crane 2	1 hr	18.05.20 10:00	18.05.20 11:00	330
332	connect AHCAL Barrel Submodul 7 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	18.05.20 11:00	18.05.20 15:00	331
333	disconnect AHCAL Barrel Submodul 7 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	18.05.20 15:00	18.05.20 17:00	332
334	adjust AHCAL Barrel Submodul 7	AHCAL M1	1 day	19.05.20 08:00	19.05.20 17:00	333
335	connect AHCAL Barrel Submodul 7 to Submodul 8	AHCAL M1	1 day	20.05.20 08:00	20.05.20 17:00	334
336	Install AHCAL Barrel Submodule 2		9 days	13.05.20 08:00	25.05.20 17:00	
337	System pretest AHCAL Barrel Submodul 2	AHCAL P2	5 days	13.05.20 08:00	20.05.20 08:00	338SF
338	transport AHCAL Barrel Submodul 2 to cavern	Tunnel Transport 1	1 day	20.05.20 08:00	20.05.20 17:00	335FF
339	install AHCAL Barrel Submodul 2 to mounting frame		3 days	21.05.20 08:00	25.05.20 17:00	
340	connect AHCAL Barrel Submodul 2 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	21.05.20 08:00	21.05.20 10:00	338
341	move AHCAL Barrel Submodul 2 to Mounting Frame	Crane 1;Crane 2	1 hr	21.05.20 10:00	21.05.20 11:00	340
342	connect AHCAL Barrel Submodul 2 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	21.05.20 11:00	21.05.20 15:00	341

AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecessors
343	disconnect AHCAL Barrel Submodul 2 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	21.05.20 15:00	21.05.20 17:00	342
344	adjust AHCAL Barrel Submodul 2	AHCAL M1	1 day	22.05.20 08:00	22.05.20 17:00	343
345	connect AHCAL Barrel Submodul 2 to Submodul 1	AHCAL M1	1 day	25.05.20 08:00	25.05.20 17:00	344
346	Install AHCAL Barrel Submodule 6		9 days	18.05.20 08:00	28.05.20 17:00	
347	System pretest AHCAL Barrel Submodul 6	AHCAL P1	5 days	18.05.20 08:00	25.05.20 08:00	348SF
348	transport AHCAL Barrel Submodul 6 to cavern	Tunnel Transport 1	1 day	25.05.20 08:00	25.05.20 17:00	345FF
349	install AHCAL Barrel Submodul 6 to mounting frame		3 days	26.05.20 08:00	28.05.20 17:00	
350	connect AHCAL Barrel Submodul 6 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	26.05.20 08:00	26.05.20 10:00	348
351	move AHCAL Barrel Submodul 6 to Mounting Frame	Crane 1;Crane 2	1 hr	26.05.20 10:00	26.05.20 11:00	350
352	connect AHCAL Barrel Submodul 6 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	26.05.20 11:00	26.05.20 15:00	351
353	disconnect AHCAL Barrel Submodul 6 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	26.05.20 15:00	26.05.20 17:00	352
354	adjust AHCAL Barrel Submodul 6	AHCAL M1	1 day	27.05.20 08:00	27.05.20 17:00	353
355	connect AHCAL Barrel Submodul 6 to Submodul 7	AHCAL M1	1 day	28.05.20 08:00	28.05.20 17:00	354
356	Install AHCAL Barrel Submodule 3		9 days	21.05.20 08:00	02.06.20 17:00	
357	System pretest AHCAL Barrel Submodul 3	AHCAL P2	5 days	21.05.20 08:00	28.05.20 08:00	358SF
358	transport AHCAL Barrel Submodul 3 to cavern	Tunnel Transport 1	1 day	28.05.20 08:00	28.05.20 17:00	355FF
359	install AHCAL Barrel Submodul 3 to mounting frame		3 days	29.05.20 08:00	02.06.20 17:00	
360	connect AHCAL Barrel Submodul 3 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	29.05.20 08:00	29.05.20 10:00	358
361	move AHCAL Barrel Submodul 3 to Mounting Frame	Crane 1;Crane 2	1 hr	29.05.20 10:00	29.05.20 11:00	360
362	connect AHCAL Barrel Submodul 3 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	29.05.20 11:00	29.05.20 15:00	361
363	disconnect AHCAL Barrel Submodul 3 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	29.05.20 15:00	29.05.20 17:00	362
364	adjust AHCAL Barrel Submodul 3	AHCAL M1	1 day	01.06.20 08:00	01.06.20 17:00	363
365	connect AHCAL Barrel Submodul 3 to Submodul 2	AHCAL M1	1 day	02.06.20 08:00	02.06.20 17:00	364
366	Install AHCAL Barrel Submodule 5		9 days	26.05.20 08:00	05.06.20 17:00	
367	System pretest AHCAL Barrel Submodul 5	AHCAL P1	5 days	26.05.20 08:00	02.06.20 08:00	368SF
368	transport AHCAL Barrel Submodul 5 to cavern	Tunnel Transport 1	1 day	02.06.20 08:00	02.06.20 17:00	365FF
369	install AHCAL Barrel Submodul 5 to mounting frame		3 days	03.06.20 08:00	05.06.20 17:00	
370	connect AHCAL Barrel Submodul 5 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	03.06.20 08:00	03.06.20 10:00	368
371	move AHCAL Barrel Submodul 5 to Mounting Frame	Crane 1;Crane 2	1 hr	03.06.20 10:00	03.06.20 11:00	370
372	connect AHCAL Barrel Submodul 5 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	03.06.20 11:00	03.06.20 15:00	371
373	disconnect AHCAL Barrel Submodul 5 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	03.06.20 15:00	03.06.20 17:00	372
374	adjust AHCAL Barrel Submodul 5	AHCAL M1	1 day	04.06.20 08:00	04.06.20 17:00	373
375	connect AHCAL Barrel Submodul 5 to Submodul 6	AHCAL M1	1 day	05.06.20 08:00	05.06.20 17:00	374
376	Install AHCAL Barrel Submodule 4		10 days	29.05.20 08:00	11.06.20 17:00	
377	System pretest AHCAL Barrel Submodul 4	AHCAL P2	5 days	29.05.20 08:00	05.06.20 08:00	378SF
378	transport AHCAL Barrel Submodul 4 to cavern	Tunnel Transport 1	1 day	05.06.20 08:00	05.06.20 17:00	375FF
379	install AHCAL Barrel Submodul 4 to mounting frame		4 days	08.06.20 08:00	11.06.20 17:00	
380	connect AHCAL Barrel Submodul 4 to lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	08.06.20 08:00	08.06.20 10:00	378

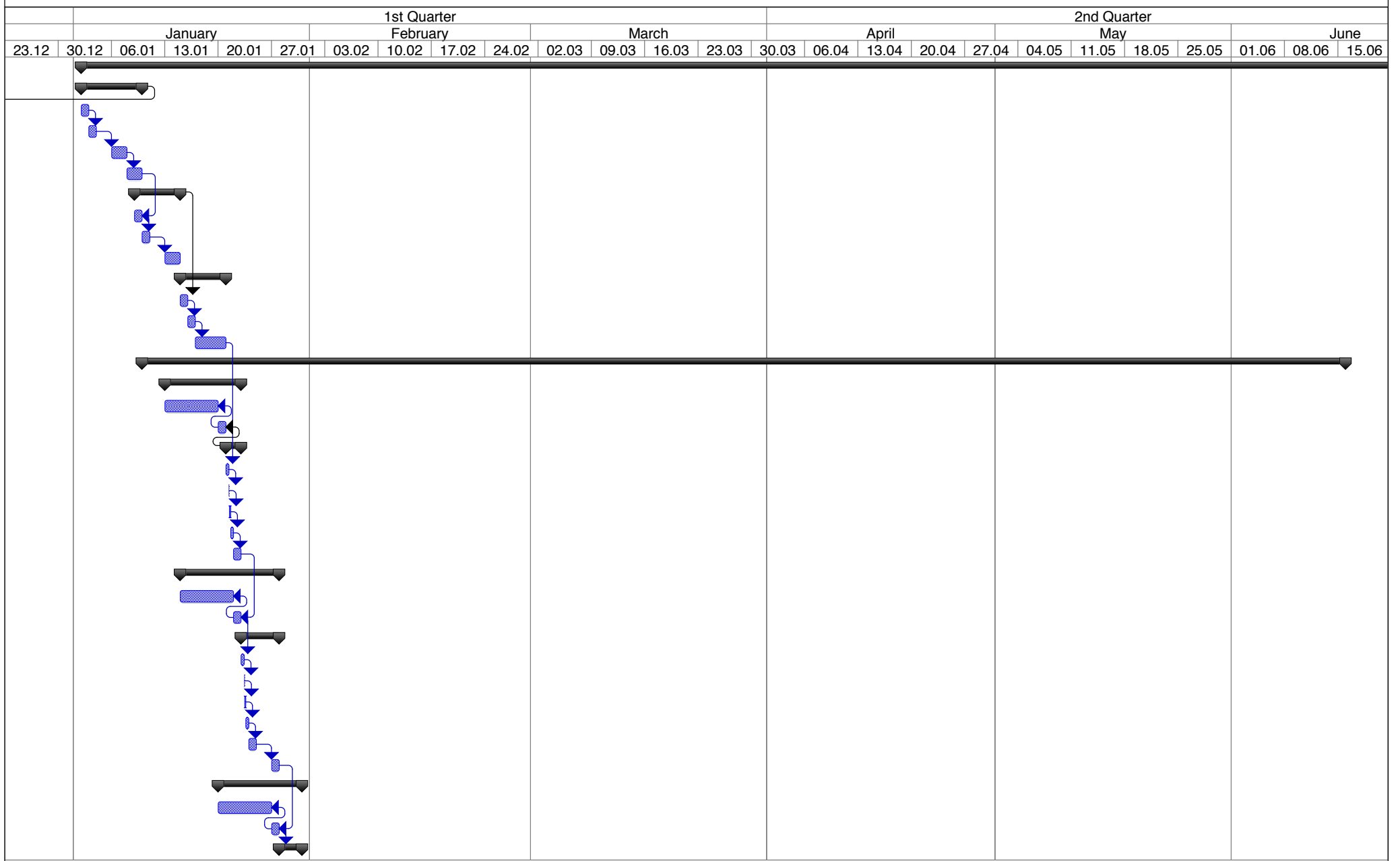
AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecessor
381	move AHCAL Barrel Submodul 4 to Mounting Frame	Crane 1;Crane 2	1 hr	08.06.20 10:00	08.06.20 11:00	380
382	connect AHCAL Barrel Submodul 4 to Mounting Frame	AHCAL M1;Crane 1;Crane 2	3 hrs	08.06.20 11:00	08.06.20 15:00	381
383	disconnect AHCAL Barrel Submodul 4 from lifting device	AHCAL M1;Crane 1;Crane 2	2 hrs	08.06.20 15:00	08.06.20 17:00	382
384	adjust AHCAL Barrel Submodul 4	AHCAL M1	1 day	09.06.20 08:00	09.06.20 17:00	383
385	connect AHCAL Barrel Submodul 4 to Submodul 3 and 5	AHCAL M1	2 days	10.06.20 08:00	11.06.20 17:00	384
386	move AHCAL barrel +z into coil cryostat		9 days	11.06.20 08:00	23.06.20 17:00	
387	transport push/pull device to cavern	Tunnel Transport 1	1 day	11.06.20 08:00	11.06.20 17:00	385FF
388	install push/pull device to Mounting Frame	AHCAL M1;Crane 1	1 day	12.06.20 08:00	12.06.20 17:00	387
389	connect push/pull device to AHCAL barrel +z	AHCAL M1	1 day	15.06.20 08:00	15.06.20 17:00	388
390	disconnect AHCAL barrel +z from Mounting Frame	AHCAL M1	1 day	16.06.20 08:00	16.06.20 17:00	389
391	push AHCAL barrel +z into Coil Cryostat	AHCAL M1	2 days	17.06.20 08:00	18.06.20 17:00	390
392	survey AHCAL barrel +z	AHCAL I1	1 day	19.06.20 08:00	19.06.20 17:00	391
393	retract push/pull device	AHCAL M1	4 hrs	22.06.20 08:00	22.06.20 12:00	392
394	remove push/pull device from mounting frame	AHCAL M1;Crane 1	4 hrs	22.06.20 13:00	22.06.20 17:00	393
395	transport push/pull device out of cavern	Tunnel Transport 1	1 day	23.06.20 08:00	23.06.20 17:00	394
396	Install AHCAL barrel +z supply infrastructure		113 days	06.04.20 08:00	09.09.20 17:00	
397	install AHCAL barrel +z inner cooling lines		48 days	22.06.20 08:00	26.08.20 17:00	
398	install inner cooling lines AHCAL barrel Submodule 12	AHCAL M2	3 days	22.06.20 08:00	24.06.20 17:00	392
399	install inner cooling lines AHCAL barrel Submodule 4	AHCAL M2	3 days	25.06.20 08:00	29.06.20 17:00	398
400	install inner cooling lines AHCAL barrel Submodule 11	AHCAL M2	3 days	30.06.20 08:00	02.07.20 17:00	399
401	install inner cooling lines AHCAL barrel Submodule 3	AHCAL M2	3 days	03.07.20 08:00	07.07.20 17:00	400
402	install inner cooling lines AHCAL barrel Submodule 10	AHCAL M2	3 days	08.07.20 08:00	10.07.20 17:00	401
403	install inner cooling lines AHCAL barrel Submodule 2	AHCAL M2	3 days	13.07.20 08:00	15.07.20 17:00	402
404	install inner cooling lines AHCAL barrel Submodule 9	AHCAL M2	3 days	16.07.20 08:00	20.07.20 17:00	403
405	install inner cooling lines AHCAL barrel Submodule 1	AHCAL M2	3 days	21.07.20 08:00	23.07.20 17:00	404
406	install inner cooling lines AHCAL barrel Submodule 8	AHCAL M2	3 days	24.07.20 08:00	28.07.20 17:00	405
407	install inner cooling lines AHCAL barrel Submodule 16	AHCAL M2	3 days	29.07.20 08:00	31.07.20 17:00	406
408	install inner cooling lines AHCAL barrel Submodule 7	AHCAL M2	3 days	03.08.20 08:00	05.08.20 17:00	407
409	install inner cooling lines AHCAL barrel Submodule 15	AHCAL M2	3 days	06.08.20 08:00	10.08.20 17:00	408
410	install inner cooling lines AHCAL barrel Submodule 6	AHCAL M2	3 days	11.08.20 08:00	13.08.20 17:00	409
411	install inner cooling lines AHCAL barrel Submodule 14	AHCAL M2	3 days	14.08.20 08:00	18.08.20 17:00	410
412	install inner cooling lines AHCAL barrel Submodule 5	AHCAL M2	3 days	19.08.20 08:00	21.08.20 17:00	411
413	install inner cooling lines AHCAL barrel Submodule 13	AHCAL M2	3 days	24.08.20 08:00	26.08.20 17:00	412
414	Install AHCAL barrel +z inner cableing		48 days	25.06.20 08:00	31.08.20 17:00	
415	install inner cableing AHCAL barrel Submodule 12	AHCAL E1	3 days	25.06.20 08:00	29.06.20 17:00	398
416	install inner cableing AHCAL barrel Submodule 4	AHCAL E1	3 days	30.06.20 08:00	02.07.20 17:00	399
417	install inner cableing AHCAL barrel Submodule 11	AHCAL E1	3 days	03.07.20 08:00	07.07.20 17:00	400
418	install inner cableing AHCAL barrel Submodule 3	AHCAL E1	3 days	08.07.20 08:00	10.07.20 17:00	401

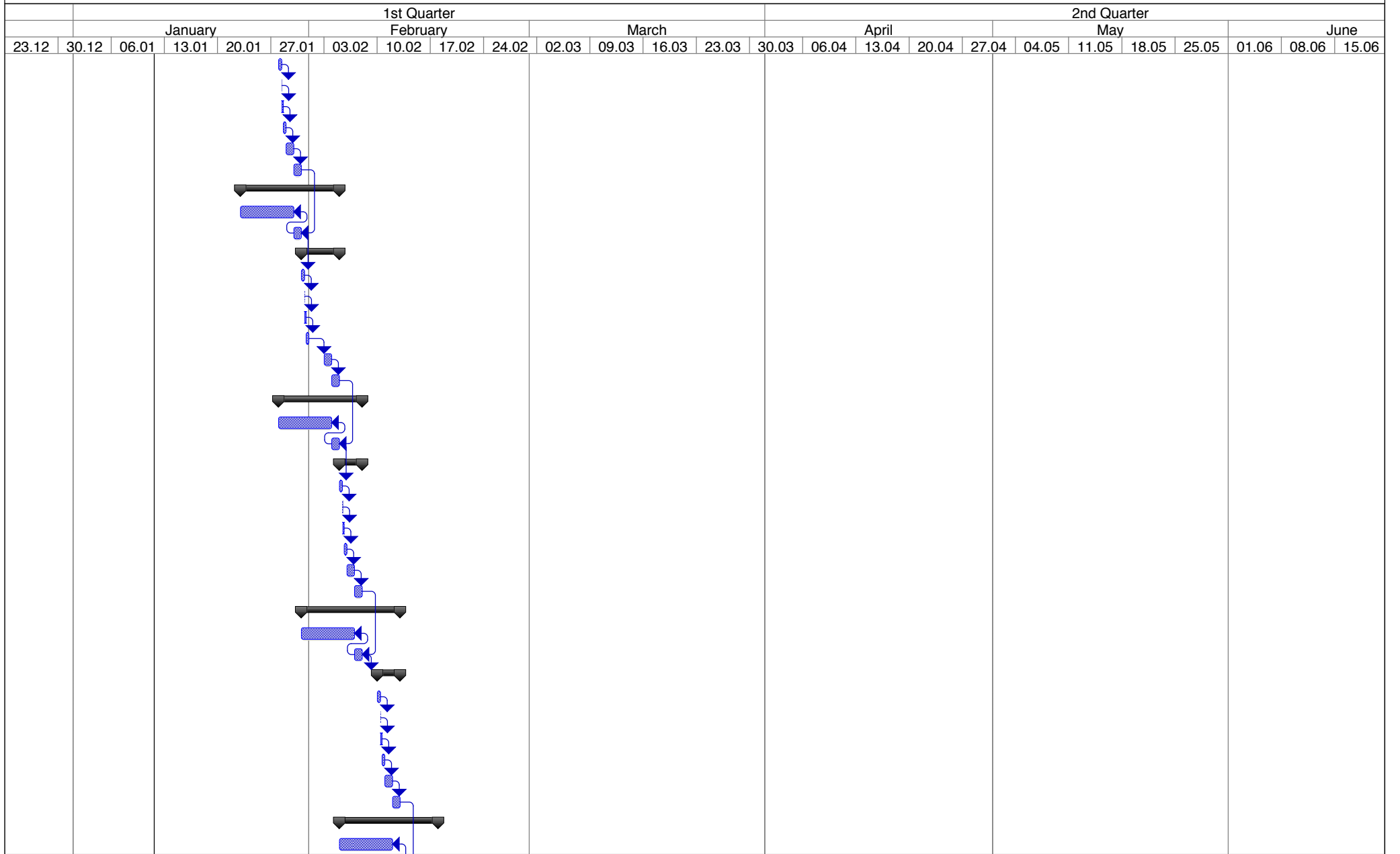
AHCAL Barrel Installation at Mountain Side

ID	Task Name	Resource Names	Duration	Start	Finish	Predecess
419	install inner cableing AHCAL barrel Submodule 10	AHCAL E1	3 days	13.07.20 08:00	15.07.20 17:00	402
420	install inner cableing AHCAL barrel Submodule 2	AHCAL E1	3 days	16.07.20 08:00	20.07.20 17:00	403
421	install inner cableing AHCAL barrel Submodule 9	AHCAL E1	3 days	21.07.20 08:00	23.07.20 17:00	404
422	install inner cableing AHCAL barrel Submodule 1	AHCAL E1	3 days	24.07.20 08:00	28.07.20 17:00	405
423	install inner cableing AHCAL barrel Submodule 8	AHCAL E1	3 days	29.07.20 08:00	31.07.20 17:00	406
424	install inner cableing AHCAL barrel Submodule 16	AHCAL E1	3 days	03.08.20 08:00	05.08.20 17:00	407
425	install inner cableing AHCAL barrel Submodule 7	AHCAL E1	3 days	06.08.20 08:00	10.08.20 17:00	408
426	install inner cableing AHCAL barrel Submodule 15	AHCAL E1	3 days	11.08.20 08:00	13.08.20 17:00	409
427	install inner cableing AHCAL barrel Submodule 6	AHCAL E1	3 days	14.08.20 08:00	18.08.20 17:00	410
428	install inner cableing AHCAL barrel Submodule 14	AHCAL E1	3 days	19.08.20 08:00	21.08.20 17:00	411
429	install inner cableing AHCAL barrel Submodule 5	AHCAL E1	3 days	24.08.20 08:00	26.08.20 17:00	412
430	install inner cableing AHCAL barrel Submodule 13	AHCAL E1	3 days	27.08.20 08:00	31.08.20 17:00	413
431	Install AHCAL barrel +z outer supply infrastructure		103 days	06.04.20 08:00	27.08.20 08:00	
432	start Installation AHCAL barrel +z outer supply infrastructure		0 days	06.04.20 08:00	06.04.20 08:00	224
433	install AHCAL barrel +z outer cooling lines	AHCAL M3	61 days	06.04.20 08:00	29.06.20 17:00	432
434	Install AHCAL barrel +z outerr cableing	AHCAL E2	61 days	06.04.20 08:00	29.06.20 17:00	432
435	finisch Installtion AHCAL barrel +z outer supply infrastructure		0 days	27.08.20 08:00	27.08.20 08:00	430SF
436	System Test AHCAL barrel +z	AHCAL P3	10 days	27.08.20 08:00	09.09.20 17:00	435
437	Remove AHCAL Barrel Mounting Frame		2 days	24.06.20 08:00	25.06.20 17:00	
438	dismount AHCAL Barrel Mounting Frame to Base Moving Frame	AHCAL M1;Crane 1	1 day	24.06.20 08:00	24.06.20 17:00	395
439	transport AHCAL Barrel Mounting Frame out of cavern	Tunnel Transport 1	1 day	25.06.20 08:00	25.06.20 17:00	438
440	Remove AHCAL Base Moving Frame		2 days	25.06.20 08:00	26.06.20 17:00	
441	dismount AHCAL Base Moving Frame to Base Moving Unit	AHCAL M1;Crane 1	1 day	25.06.20 08:00	25.06.20 17:00	438
442	transport AHCAL Base Moving Frame out of cavern	Tunnel Transport 1	1 day	26.06.20 08:00	26.06.20 17:00	441
443	Remove AHCAL Base Moving Unit		2 days	26.06.20 08:00	29.06.20 17:00	
444	dismount AHCAL Base Moving Unit	AHCAL M1;Crane 1	1 day	26.06.20 08:00	26.06.20 17:00	441
445	transport AHCAL Base Moving Unit out of cavern	Tunnel Transport 1	1 day	29.06.20 08:00	29.06.20 17:00	444

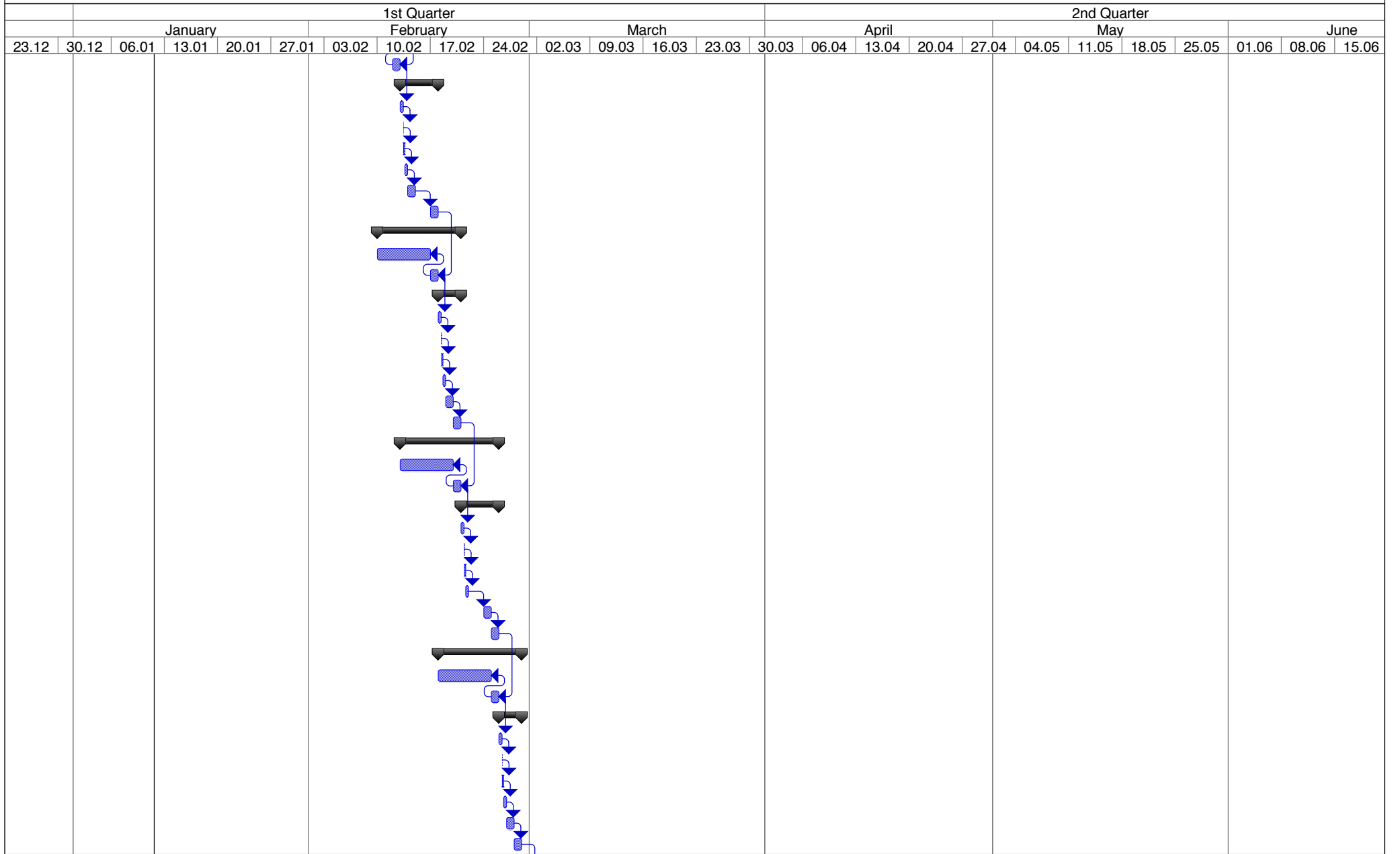
AHCAL Barrel Installation at Mountain Side



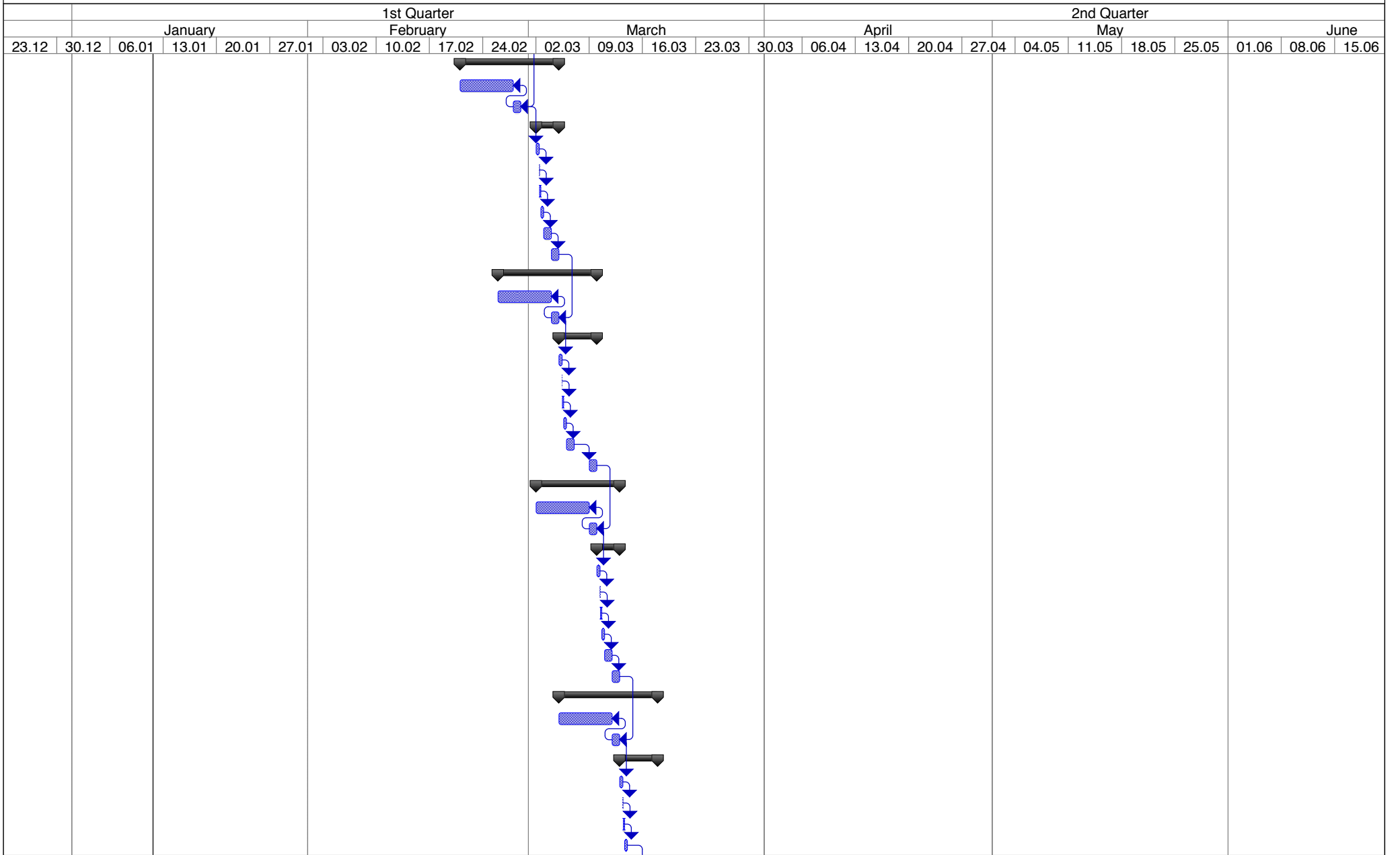
AHCAL Barrel Installation at Mountain Side



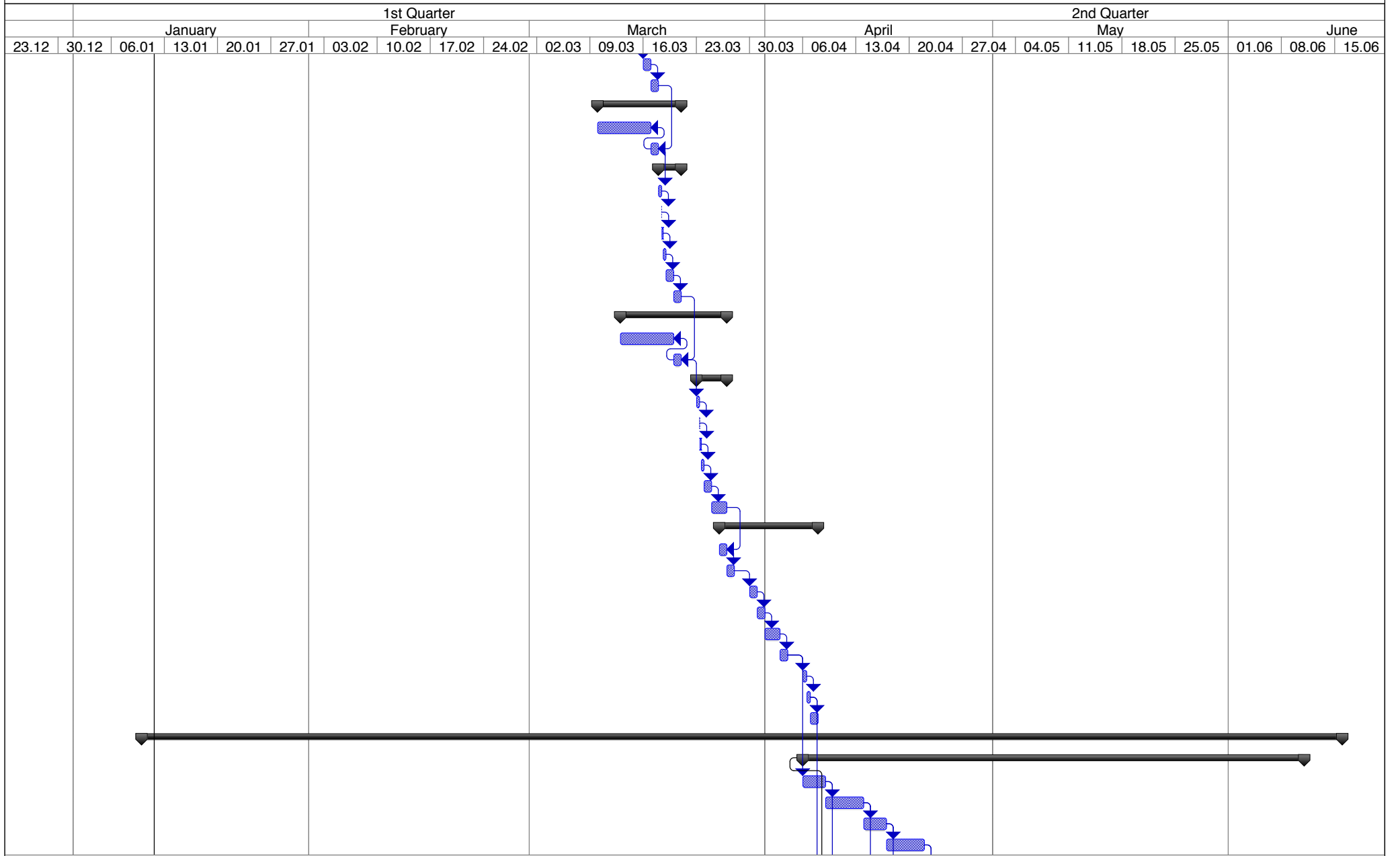
AHCAL Barrel Installation at Mountain Side



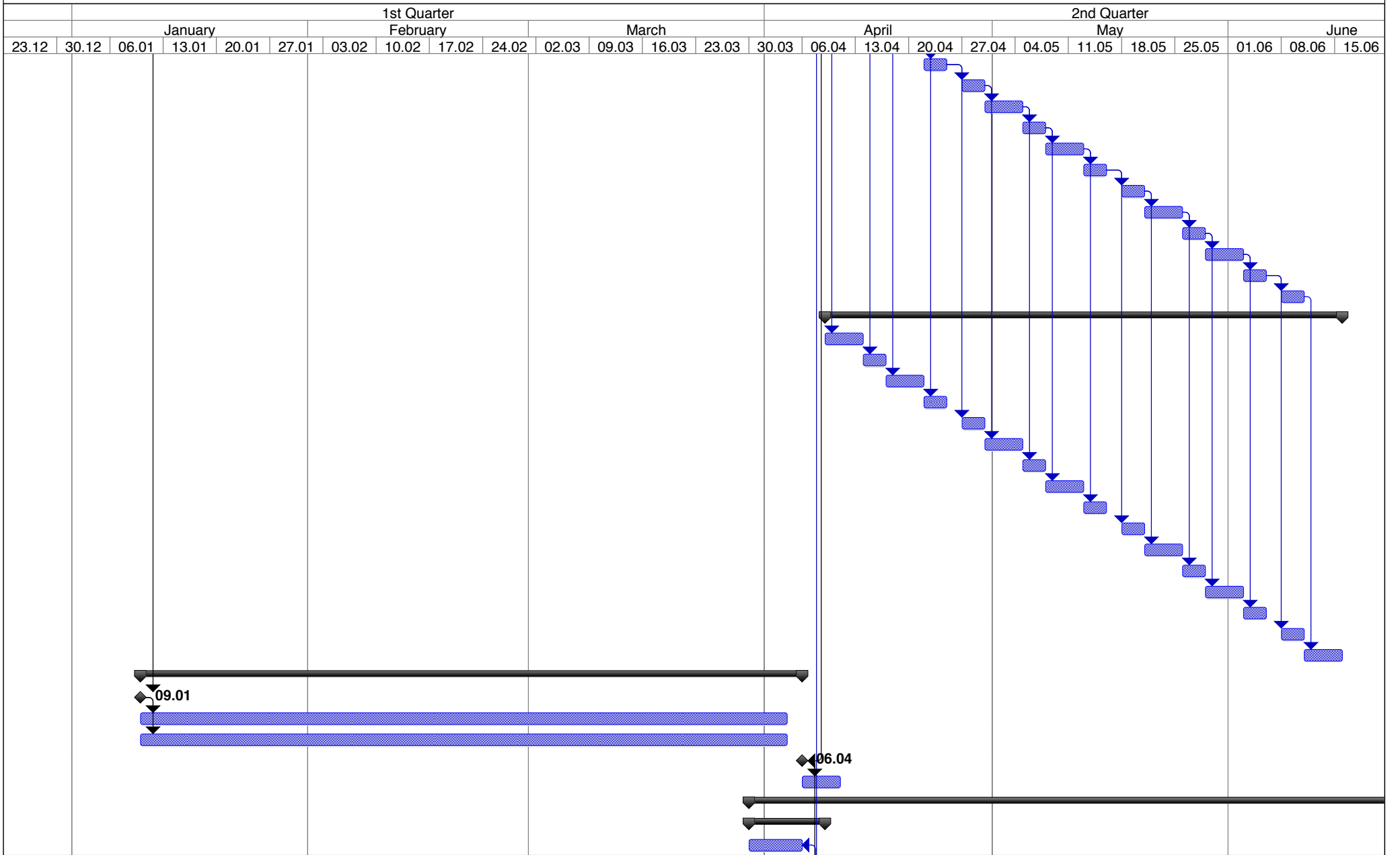
AHCAL Barrel Installation at Mountain Side



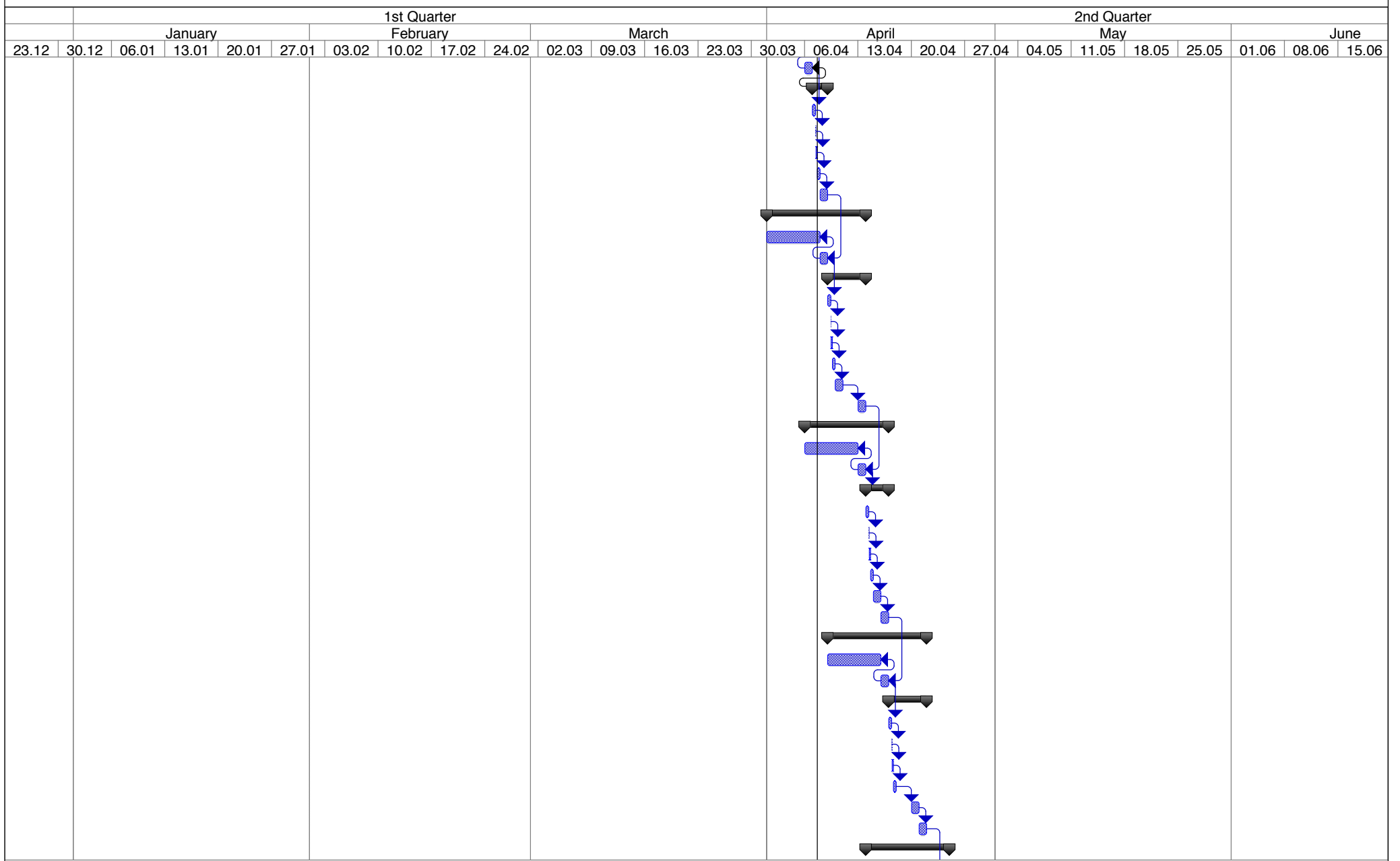
AHCAL Barrel Installation at Mountain Side



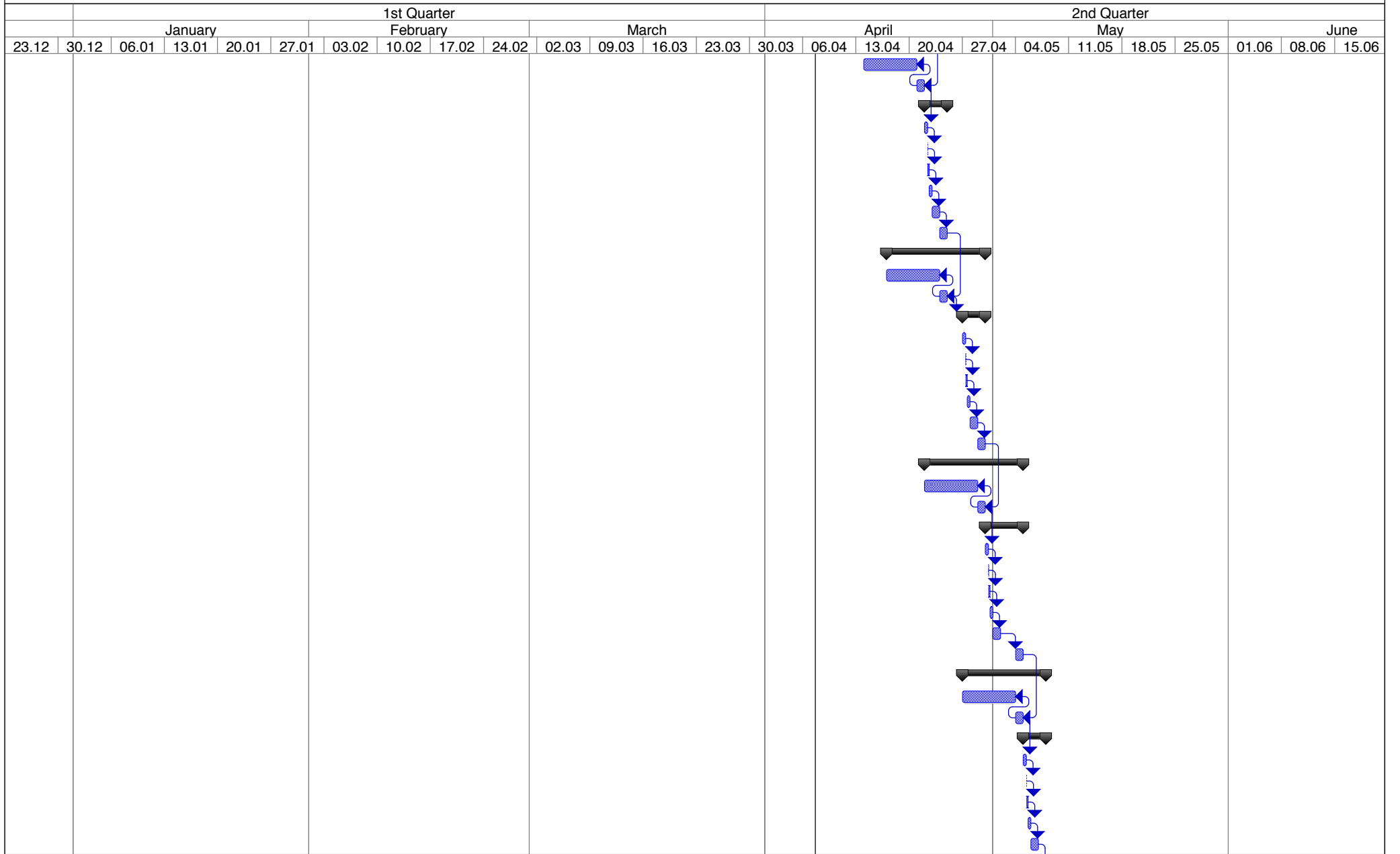
AHCAL Barrel Installation at Mountain Side



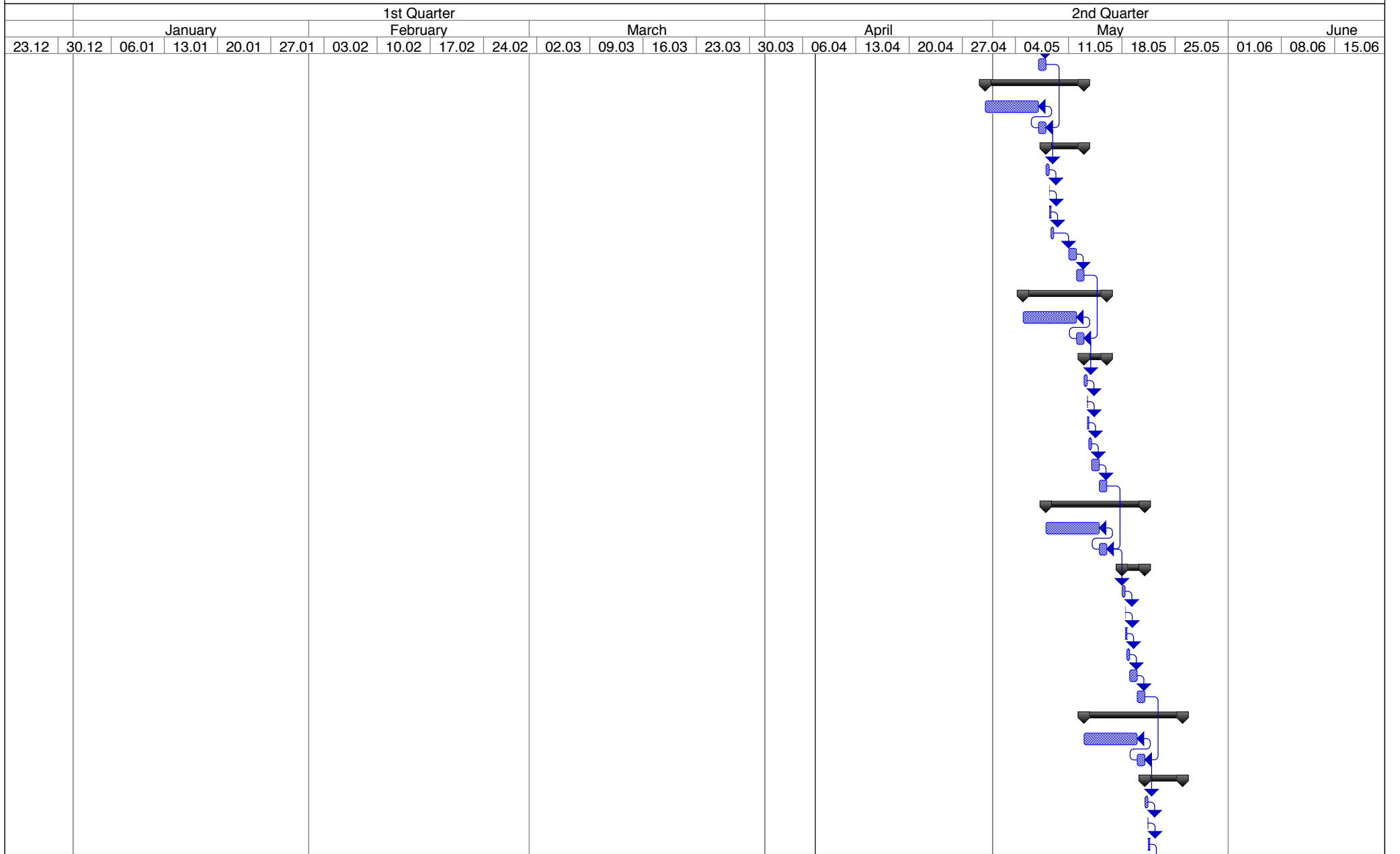
AHCAL Barrel Installation at Mountain Side



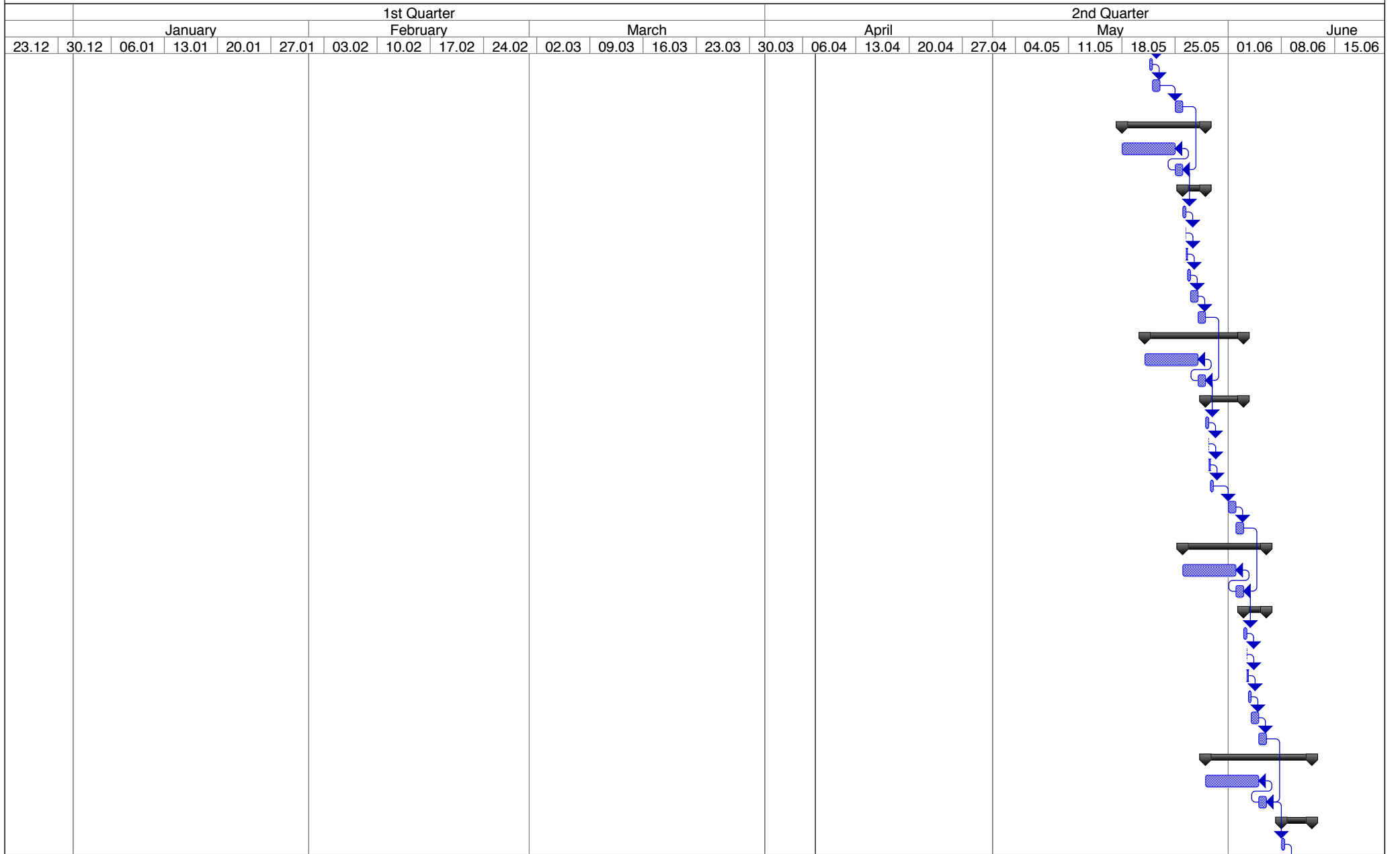
AHCAL Barrel Installation at Mountain Side



AHCAL Barrel Installation at Mountain Side



AHCAL Barrel Installation at Mountain Side



AHCAL Barrel Installation at Mountain Side

		3rd Quarter												4th Quarter													
June		July			August				September					October				November			December						
15.06	22.06	29.06	06.07	13.07	20.07	27.07	03.08	10.08	17.08	24.08	31.08	07.09	14.09	21.09	28.09	05.10	12.10	19.10	26.10	02.11	09.11	16.11	23.11	30.11	07.12		

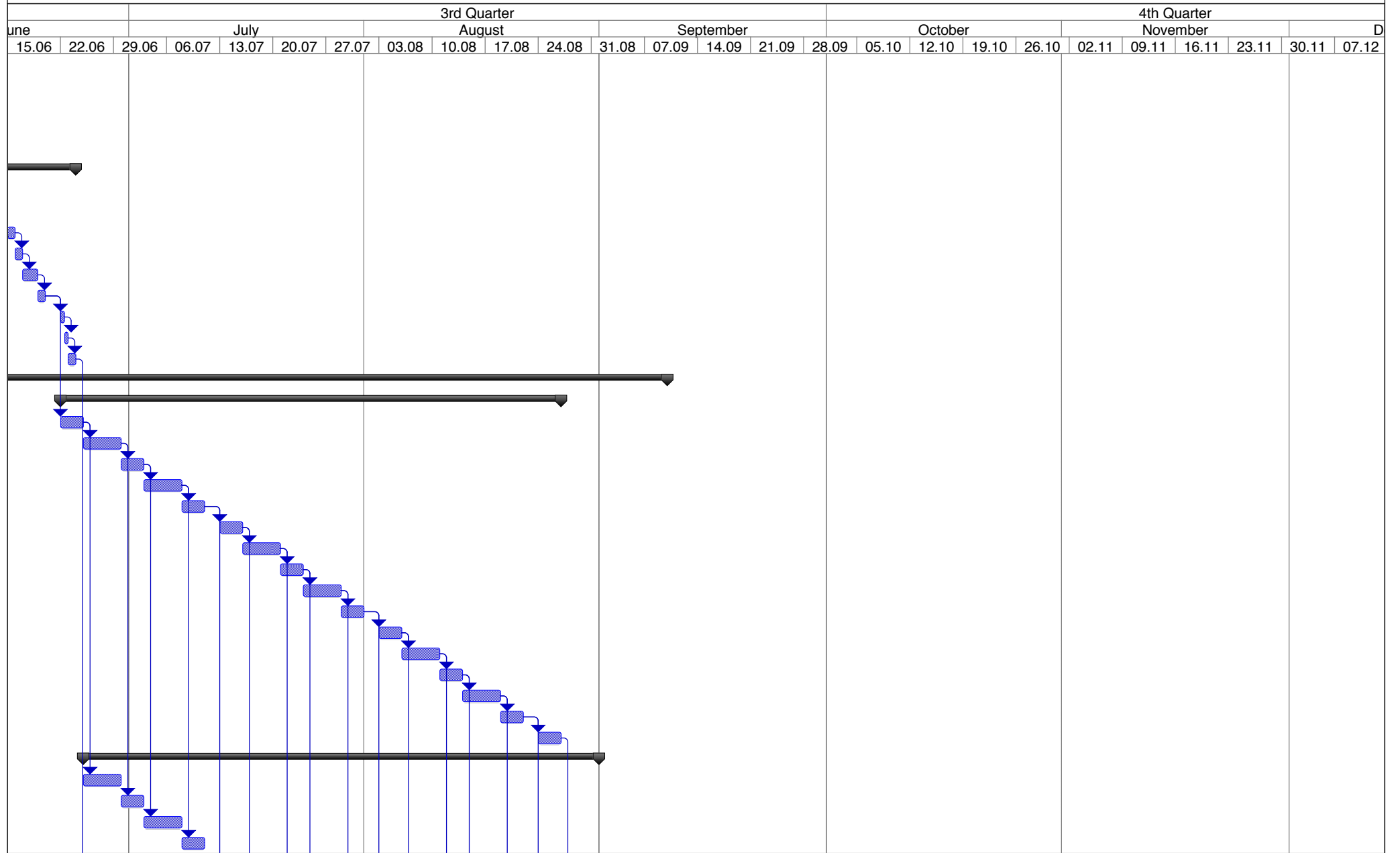
AHCAL Barrel Installation at Mountain Side

		3rd Quarter												4th Quarter											
June		July			August				September					October				November			December				
15.06	22.06	29.06	06.07	13.07	20.07	27.07	03.08	10.08	17.08	24.08	31.08	07.09	14.09	21.09	28.09	05.10	12.10	19.10	26.10	02.11	09.11	16.11	23.11	30.11	07.12

AHCAL Barrel Installation at Mountain Side

		3rd Quarter												4th Quarter											
June		July			August				September					October				November			December				
15.06	22.06	29.06	06.07	13.07	20.07	27.07	03.08	10.08	17.08	24.08	31.08	07.09	14.09	21.09	28.09	05.10	12.10	19.10	26.10	02.11	09.11	16.11	23.11	30.11	07.12

AHCAL Barrel Installation at Mountain Side



AHCAL Barrel Installation at Mountain Side

