Project timing estimate

Assuming sample size is ~2,648:

Shortest possible estimated work time is 29 work days – 6 weeks lab time

Longest possible time is 35 work days – 7 weeks lab time

Factors that can shorten the work time not accounted for here:

* Sarah May conducts extractions (reduces work time 10-16 days max)
* Scoring is not conducted contemporaneously, accelerating genotyping rate (reduces work time ~ 4 days)
* Shortest theoretical number of work days: ~10 days

Factors that can extend the work time not accounted for here:

* Batch sample breakdown NOT completed by Sarah May (+ 5 days)
* Equipment breakdowns, resupplies (+ ? days)
* Genemapper or panel scoring issues (not expected because Cristín’s project is already moving forward)
* Maximum reasonable expectation of days, assumes nothing major happens and I can work at night to avoid equipment overlap issues (40 work days – 8 weeks lab time)

**Time Estimates using Cristín’s rates**

*Extraction* 16 days

* 2 days to do 4X 96 well plates. This means 182 samples per day
* 14.5 days of extraction for 2648 samples

*Genotyping (PCR)* 15 days

* 8 plates of 1 panel / day
* Genotyping is on a 384 well plate. Therefore could do 3 panels (there are three panels for Mckenzie ) + sex marker on a single 384 plate and cover all first-round genotyping for single DNA plate (96 well) in one go. If estimate is 8 DNA plates of 1 panel per day, this means we can do at least 2 DNA plates at 3 panels per day, with some time to spare.
* Assumptions above -> 182 samples per day
* 14.5 days of extraction for 2648 samples

*Scoring 0 days in Newport*

* Conduct first pass scoring in down time from extraction or genotyping, should be sufficient time built in to cover all samples at the rate data is being produced
* First pass scoring only indicates roughly how many samples need to be re-genotyped
* Final scoring done remotely

Reruns 4 days

* Come back to Newport to re-genotype any bad samples I missed in the first-pass genotyping
* Only have Sandra’s time estimate (below)

**Time Estimates using Sandra’s Rates**

*Extractions 10 – 16 days*

* 4X 96 well per day ideal, 6X 96 well pushing hard, but also 8 plates per week?
* I’m a bit confused here. Let’s be conservative and assume this doesn’t include the overnight time, and call it the lowest possible rate: 8x96 samples per 4 days = 192 samples per day minimum
* Maximum rate (still assuming overnight step) 12X96 samples per 4 days = 288 samples per day

*Genotyping 15 days*

* Also genotypes at the same rate they extract, ~ 192 samples per day, but this is with contemporaneous scoring

*Reruns 4 days*

* Sandra estimates the maximum time for re-runs will be less than one week for 3900 samples, for 2648, it should be even fewer
* Conservatively calling this at 4 days