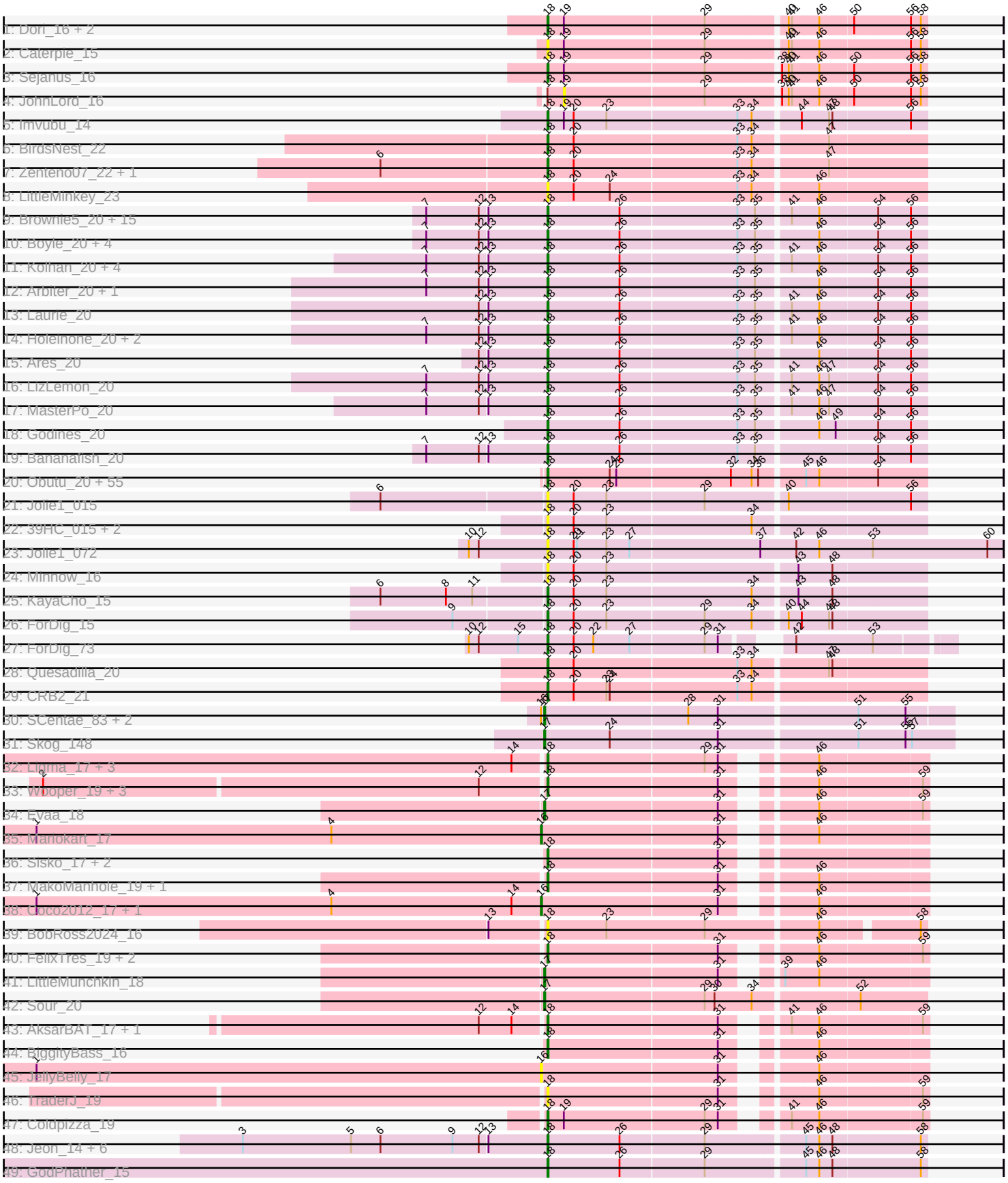
Pham 345461


1: Dori_16 + 2
2: Caterpie_15
3: Sejanus_16
4: JohnLord_16
5: Imvubu_14
6: BirdsNest_22
7: Zenteno07_22 + 1
8: LittleMinkey_23
9: Brownie5_20 + 15
10: Boyle_20 + 4
11: Kolnan_20 + 4
12: Arbiter_20 + 1
13: Laurie_20
14: Holeinone_20 + 2
15: Ares_20
16: LizLemon_20
17: MasterPo_20
18: Godines_20
19: Bananafish_20
20: Obutu_20 + 55
21: Jolie1_015
22: 39HC_015 + 2
23: Jolie1_072
24: Minnow_16
25: KayaCho_15
26: ForDig_15
27: ForDig_73
28: Quesadilla_20
29: CRB2_21
30: SCentae_83 + 2
31: Skog_148
32: Lilma_17 + 3
33: Whooper_19 + 3
34: Evaa_18
35: Manokart_17
36: Sisko_17 + 2
37: MakoManhole_19 + 1
38: Coco2012_17 + 1
39: BobRoss2024_16
40: FelixTres_19 + 2
41: LittleMunchkin_18
42: Sour_20
43: AksarBAT_17 + 1
44: BiggityBass_16
45: JellyBelly_17
46: TraderJ_19
47: Coldpizza_19
48: Jeon_14 + 6
49: GodFather_15

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 345461 Report

This analysis was run 11/14/26 on database version 672.

Pham number 345461 has 156 members, 19 are drafts.

Phages represented in each track:
- Track 1 : Dori_16, Mask_16, Mao1_15
- Track 2 : Caterpie_15
- Track 3 : Sejanus_16
- Track 4 : JohnLord_16
- Track 5 : Imvubu_14
- Track 6 : BirdsNest_22
- Track 7 : Zenteno07_22, Hashim76_22
- Track 8 : LittleMinkey_23
- Track 9 : Brownie5_20, Eaglehorse_20, Opia_20, Lars_20, Hedgerow_20, Kaleb_20, PrinceCharming_20, Tinciduntsolum_21, West99_20, TA17A_20, Sabella_20, Tres_20, Kheth_20, Lephleur_20, Rhinoforte_20, FrenchFry_20
- Track 10 : Boyle_20, Coffee_20, Rosebush_20, Blocker23_20, Phantasmagoria_20
- Track 11 : Kolhan_20, LilSmirk_20, Calamitous_20, Faze9_20, ItsyBitsy1_20
- Track 12 : Arbiter_20, Qyrzula_19
- Track 13 : Laurie_20
- Track 14 : Holeinone_20, Allegro_20, Glass_20
- Track 15 : Ares_20
- Track 16 : LizLemon_20
- Track 17 : MasterPo_20
- Track 18 : Godines_20
- Track 19 : Bananafish_20
- Track 20 : Obutu_20, Mulaychimus_20, Philly_19, Jackstina_19, Ben11_19, Bernardo_20, RagingRooster_20, GlenHope_21, Corofin_20, Tydolla_20, Baloo_20, Gervas_20, Briakila_20, HarveySr_20, OrangeOswald_20, Morty007_20, RomaT_20, Audrey_20, Rita1961_20, Phlyer_20, Pipefish_20, Shenandoah_20, ChaChing_20, Phayeta_20, Athena_21, Olivio_19, Daisy_20, Marley1013_20, SwainyDoc_20, Glubnar_21, Devonte_20, TinyTerror_20, Gadjet_21, Neos5_20, Marlia_20, Heathcliff_20, Kronus_19, Chentzyk_19, SynergyX_20, Akoma_20, LestyG_20, Halfpint_19, Yahalom_20, Phaedrus_19, Casbah_19, SlippinJimmy_20, MmasiCarm_20, Yinz_20, Chandler_20, Compostia_21, Chalmers_20, Mortcellus_19, Abinghost_20, Deenasa_20, Nozo_20, Kamiyu_20
- Track 21 : Jolie1_015
- Track 22 : 39HC_015, Hosp_013, 40BC_015
- Track 23 : Jolie1_072
- Track 24 : Minnow_16
- Track 25 : KayaCho_15
- Track 26 : ForDig_15

• Track 27 : ForDig_73
• Track 28 : Quesadilla_20
• Track 29 : CRB2_21
• Track 30 : SCentae_83, CherryTomatoes_85, Pupper_85
• Track 31 : Skog_148
• Track 32 : Ligma_17, Fresco_17, Axumite_17, Shatter_17
• Track 33 : Wooper_19, Yeshua_19, AnarQue_19, CaiB_19
• Track 34 : Evaa_18
• Track 35 : Mariokart_17
• Track 36 : Sisko_17, Yago84_17, AnClar_17
• Track 37 : MakoManhole_19, CloverMinnie_19
• Track 38 : Coco2012_17, CharlottesWeb_17
• Track 39 : BobRoss2024_16
• Track 40 : FelixTres_19, MossRose_19, Blackpen_19
• Track 41 : LittleMunchkin_18
• Track 42 : Sour_20
• Track 43 : AksarBAT_17, NHagos_17
• Track 44 : BiggityBass_16
• Track 45 : JellyBelly_17
• Track 46 : TraderJ_19
• Track 47 : Coldpizza_19
• Track 48 : Jeon_14, Taptic_14, PR_14, Argie_15, Megabear_14, Cepens_14, D12_14
• Track 49 : GodPhather_15

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 18, it was called in 128 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 39HC_015, 40BC_015, Abinghost_20, Akoma_20, AksarBAT_17, Allegro_20, AnClar_17, AnarQue_19, Arbiter_20, Ares_20, Argie_15, Athena_21, Audrey_20, Axumite_17, Baloo_20, Bananafish_20, Ben11_19, Bernardo_20, BiggityBass_16, BirdsNest_22, Blackpen_19, Blocker23_20, BobRoss2024_16, Boyle_20, Briakila_20, Brownie5_20, CRB2_21, CaiB_19, Calamitous_20, Casbah_19, Caterpie_15, Cepens_14, ChaChing_20, Chalmers_20, Chandler_20, Chentzyk_19, CloverMinnie_19, Coffee_20, Coldpizza_19, Compostia_21, Corofin_20, D12_14, Daisy_20, Deenasa_20, Devonte_20, Dori_16, Eaglehorse_20, Faze9_20, FelixTres_19, ForDig_15, ForDig_73, FrenchFry_20, Fresco_17, Gadjet_21, Gervas_20, Glass_20, GlenHope_21, Glubnar_21, GodPhather_15, Godines_20, Halfpint_19, HarveySr_20, Hashim76_22, Heathcliff_20, Hedgerow_20, Holeinone_20, Hosp_013, Imvubu_14, ItsyBitsy1_20, Jackstina_19, Jeon_14, Jolie1_015, Jolie1_072, Kaleb_20, Kamiyu_20, KayaCho_15, Kheth_20, Kolhan_20, Kronus_19, Lars_20, Laurie_20, Lephleur_20, LestyG_20, Ligma_17, LilSmirk_20, LittleMinkey_23, LizLemon_20, MakoManhole_19, Mao1_15, Marley1013_20, Marlia_20, Mask_16, MasterPo_20, Megabear_14, Minnow_16, MmasiCarm_20, Mortcellus_19, Morty007_20, MossRose_19, Mulaychimus_20, NHagos_17, Neos5_20, Nozo_20, Obutu_20, Olivio_19, Opia_20, OrangeOswald_20, PR_14, Phaedrus_19, Phantasmagoria_20, Phayeta_20, Philly_19, Phlyer_20, Pipefish_20,

PrinceCharming_20, Quesadilla_20, Qyrzula_19, RagingRooster_20, Rhinoforte_20, Rita1961_20, RomaT_20, Rosebush_20, Sabella_20, Sejanus_16, Shatter_17, Shenandoah_20, Sisko_17, SlippinJimmy_20, SwainyDoc_20, SynergyX_20, TA17A_20, Taptic_14, Tinciduntsolum_21, TinyTerror_20, TraderJ_19, Tres_20, Tydolla_20, West99_20, Wooper_19, Yago84_17, Yahalom_20, Yeshua_19, Yinz_20, Zenteno07_22,

Genes that have the "Most Annotated" start but do not call it:
• JohnLord_16,

Genes that do not have the "Most Annotated" start:
• CharlottesWeb_17, CherryTomatoes_85, Coco2012_17, Evaa_18, JellyBelly_17, LittleMunchkin_18, Mariokart_17, Pupper_85, SCentae_83, Skog_148, Sour_20,

Summary by start number:

Start 16:
• Found in 7 of 156 (4.5%) of genes in pham
• Manual Annotations of this start: 2 of 137
• Called 57.1% of time when present
• Phage (with cluster) where this start called: CharlottesWeb_17 (DR), Coco2012_17 (DR), JellyBelly_17 (DR), Mariokart_17 (DR),

Start 17:
• Found in 7 of 156 (4.5%) of genes in pham
• Manual Annotations of this start: 7 of 137
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CherryTomatoes_85 (DO), Evaa_18 (DR), LittleMunchkin_18 (DR), Pupper_85 (DO), SCentae_83 (DO), Skog_148 (DO), Sour_20 (DR),

Start 18:
• Found in 145 of 156 (92.9%) of genes in pham
• Manual Annotations of this start: 128 of 137
• Called 99.3% of time when present
• Phage (with cluster) where this start called: 39HC_015 (B6), 40BC_015 (B6), Abinghost_20 (B3), Akoma_20 (B3), AksarBAT_17 (DR), Allegro_20 (B2), AnClar_17 (DR), AnarQue_19 (DR), Arbiter_20 (B2), Ares_20 (B2), Argie_15 (W), Athena_21 (B3), Audrey_20 (B3), Axumite_17 (DR), Baloo_20 (B3), Bananafish_20 (B2), Ben11_19 (B3), Bernardo_20 (B3), BiggityBass_16 (DR), BirdsNest_22 (B13), Blackpen_19 (DR), Blocker23_20 (B2), BobRoss2024_16 (DR), Boyle_20 (B2), Briakila_20 (B3), Brownie5_20 (B2), CRB2_21 (B9), CaiB_19 (DR), Calamitous_20 (B2), Casbah_19 (B3), Caterpie_15 (AD), Cepens_14 (W), ChaChing_20 (B3), Chalmers_20 (B3), Chandler_20 (B3), Chentzyk_19 (B3), CloverMinnie_19 (DR), Coffee_20 (B2), Coldpizza_19 (DR), Compostia_21 (B3), Corofin_20 (B3), D12_14 (W), Daisy_20 (B3), Deenasa_20 (B3), Devonte_20 (B3), Dori_16 (AD), Eaglehorse_20 (B2), Faze9_20 (B2), FelixTres_19 (DR), ForDig_15 (B6), ForDig_73 (B6), FrenchFry_20 (B2), Fresco_17 (DR), Gadjet_21 (B3), Gervas_20 (B3), Glass_20 (B2), GlenHope_21 (B3), Glubnar_21 (B3), GodPhather_15 (W), Godines_20 (B2), Halfpint_19 (B3), HarveySr_20 (B3), Hashim76_22 (B13), Heathcliff_20 (B3), Hedgerow_20 (B2), Holeinone_20 (B2), Hosp_013 (B6), Imvubu_14 (B10), ItsyBitsy1_20 (B2), Jackstina_19 (B3), Jeon_14 (W), Jolie1_015 (B6), Jolie1_072 (B6), Kaleb_20 (B2), Kamiyu_20 (B3), KayaCho_15 (B6), Kheth_20

(B2), Kolhan_20 (B2), Kronus_19 (B3), Lars_20 (B2), Laurie_20 (B2), Lephleur_20 (B2), LestyG_20 (B3), Ligma_17 (DR), LilSmirk_20 (B2), LittleMinkey_23 (B13), LizLemon_20 (B2), MakoManhole_19 (DR), Mao1_15 (AD), Marley1013_20 (B3), Marlia_20 (B3), Mask_16 (AD), MasterPo_20 (B2), Megabear_14 (W), Minnow_16 (B6), MmasiCarm_20 (B3), Mortcellus_19 (B3), Morty007_20 (B3), MossRose_19 (DR), Mulaychimus_20 (B3), NHagos_17 (DR), Neos5_20 (B3), Nozo_20 (B3), Obutu_20 (B3), Olivio_19 (B3), Opia_20 (B2), OrangeOswald_20 (B3), PR_14 (W), Phaedrus_19 (B3), Phantasmagoria_20 (B2), Phayeta_20 (B3), Philly_19 (B3), Phlyer_20 (B3), Pipefish_20 (B3), PrinceCharming_20 (B2), Quesadilla_20 (B9), Qyrzula_19 (B2), RagingRooster_20 (B3), Rhinoforte_20 (B2), Rita1961_20 (B3), RomaT_20 (B3), Rosebush_20 (B2), Sabella_20 (B2), Sejanus_16 (AD), Shatter_17 (DR), Shenandoah_20 (B3), Sisko_17 (DR), SlippinJimmy_20 (B3), SwainyDoc_20 (B3), SynergyX_20 (B3), TA17A_20 (B2), Taptic_14 (W), Tinciduntsolum_21 (B2), TinyTerror_20 (B3), TraderJ_19 (DR), Tres_20 (B2), Tydolla_20 (B3), West99_20 (B2), Wooper_19 (DR), Yago84_17 (DR), Yahalom_20 (B3), Yeshua_19 (DR), Yinz_20 (B3), Zenteno07_22 (B13),

Start 19:
• Found in 8 of 156 (5.1%) of genes in pham
• No Manual Annotations of this start.
• Called 12.5% of time when present
• Phage (with cluster) where this start called: JohnLord_16 (AD),

Summary by clusters:

There are 10 clusters represented in this pham: DO, B2, W, B6, B13, B10, B3, DR, B9, AD,

Info for manual annotations of cluster AD:
•Start number 18 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster B10:
•Start number 18 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B13:
•Start number 18 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:
•Start number 18 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:
•Start number 18 was manually annotated 53 times for cluster B3.

Info for manual annotations of cluster B6:
•Start number 18 was manually annotated 3 times for cluster B6.

Info for manual annotations of cluster B9:
•Start number 18 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster DO:
•Start number 17 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DR:

•Start number 16 was manually annotated 2 times for cluster DR.
•Start number 17 was manually annotated 3 times for cluster DR.
•Start number 18 was manually annotated 18 times for cluster DR.

Info for manual annotations of cluster W:
•Start number 18 was manually annotated 8 times for cluster W.

Gene Information:

Gene: 39HC_015 Start: 14564, Stop: 14896, Start Num: 18
Candidate Starts for 39HC_015:
(Start: 18 @14564 has 128 MA's), (20, 14588), (23, 14618), (34, 14747),

Gene: 40BC_015 Start: 14564, Stop: 14896, Start Num: 18
Candidate Starts for 40BC_015:
(Start: 18 @14564 has 128 MA's), (20, 14588), (23, 14618), (34, 14747),

Gene: Abinghost_20 Start: 15937, Stop: 16269, Start Num: 18
Candidate Starts for Abinghost_20:
(Start: 18 @15937 has 128 MA's), (24, 15994), (25, 16000), (32, 16102), (34, 16120), (36, 16126), (45, 16162), (46, 16174), (54, 16225),

Gene: Akoma_20 Start: 15937, Stop: 16269, Start Num: 18
Candidate Starts for Akoma_20:
(Start: 18 @15937 has 128 MA's), (24, 15994), (25, 16000), (32, 16102), (34, 16120), (36, 16126), (45, 16162), (46, 16174), (54, 16225),

Gene: AksarBAT_17 Start: 14183, Stop: 14494, Start Num: 18
Candidate Starts for AksarBAT_17:
(12, 14126), (14, 14156), (Start: 18 @14183 has 128 MA's), (31, 14336), (41, 14375), (46, 14399), (59, 14489),

Gene: Allegro_20 Start: 17157, Stop: 17489, Start Num: 18
Candidate Starts for Allegro_20:
(7, 17055), (12, 17103), (13, 17109), (Start: 18 @17157 has 128 MA's), (26, 17223), (33, 17328), (35, 17343), (41, 17370), (46, 17394), (54, 17445), (56, 17475),

Gene: AnClar_17 Start: 15101, Stop: 15412, Start Num: 18
Candidate Starts for AnClar_17:
(Start: 18 @15101 has 128 MA's), (31, 15254),

Gene: AnarQue_19 Start: 15725, Stop: 16036, Start Num: 18
Candidate Starts for AnarQue_19:
(2, 15275), (12, 15668), (Start: 18 @15725 has 128 MA's), (31, 15878), (46, 15941), (59, 16031),

Gene: Arbiter_20 Start: 17244, Stop: 17576, Start Num: 18
Candidate Starts for Arbiter_20:
(7, 17142), (12, 17190), (13, 17196), (Start: 18 @17244 has 128 MA's), (26, 17310), (33, 17415), (35, 17430), (46, 17481), (54, 17532), (56, 17562),

Gene: Ares_20 Start: 17157, Stop: 17489, Start Num: 18

Candidate Starts for Ares_20:
(12, 17103), (13, 17109), (Start: 18 @17157 has 128 MA's), (26, 17223), (33, 17328), (35, 17343), (46, 17394), (54, 17445), (56, 17475),

Gene: Argie_15 Start: 15255, Stop: 15587, Start Num: 18
Candidate Starts for Argie_15:
(3, 14985), (5, 15084), (6, 15111), (9, 15177), (12, 15201), (13, 15207), (Start: 18 @15255 has 128 MA's), (26, 15321), (29, 15396), (45, 15480), (46, 15492), (48, 15504), (58, 15582),

Gene: Athena_21 Start: 16700, Stop: 17032, Start Num: 18
Candidate Starts for Athena_21:
(Start: 18 @16700 has 128 MA's), (24, 16757), (25, 16763), (32, 16865), (34, 16883), (36, 16889), (45, 16925), (46, 16937), (54, 16988),

Gene: Audrey_20 Start: 15937, Stop: 16269, Start Num: 18
Candidate Starts for Audrey_20:
(Start: 18 @15937 has 128 MA's), (24, 15994), (25, 16000), (32, 16102), (34, 16120), (36, 16126), (45, 16162), (46, 16174), (54, 16225),

Gene: Axumite_17 Start: 14287, Stop: 14598, Start Num: 18
Candidate Starts for Axumite_17:
(14, 14260), (Start: 18 @14287 has 128 MA's), (29, 14428), (31, 14440), (46, 14503),

Gene: Baloo_20 Start: 15934, Stop: 16266, Start Num: 18
Candidate Starts for Baloo_20:
(Start: 18 @15934 has 128 MA's), (24, 15991), (25, 15997), (32, 16099), (34, 16117), (36, 16123), (45, 16159), (46, 16171), (54, 16222),

Gene: Bananafish_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Bananafish_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (54, 17442), (56, 17472),

Gene: Ben11_19 Start: 15761, Stop: 16093, Start Num: 18
Candidate Starts for Ben11_19:
(Start: 18 @15761 has 128 MA's), (24, 15818), (25, 15824), (32, 15926), (34, 15944), (36, 15950), (45, 15986), (46, 15998), (54, 16049),

Gene: Bernardo_20 Start: 15936, Stop: 16268, Start Num: 18
Candidate Starts for Bernardo_20:
(Start: 18 @15936 has 128 MA's), (24, 15993), (25, 15999), (32, 16101), (34, 16119), (36, 16125), (45, 16161), (46, 16173), (54, 16224),

Gene: BiggityBass_16 Start: 14198, Stop: 14509, Start Num: 18
Candidate Starts for BiggityBass_16:
(Start: 18 @14198 has 128 MA's), (31, 14351), (46, 14414),

Gene: BirdsNest_22 Start: 15252, Stop: 15584, Start Num: 18
Candidate Starts for BirdsNest_22:
(Start: 18 @15252 has 128 MA's), (20, 15276), (33, 15423), (34, 15435), (47, 15498),

Gene: Blackpen_19 Start: 15142, Stop: 15453, Start Num: 18
Candidate Starts for Blackpen_19:

(Start: 18 @15142 has 128 MA's), (31, 15295), (46, 15358), (59, 15448),

Gene: Blocker23_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for Blocker23_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (46, 17511), (54, 17562), (56, 17592),

Gene: BobRoss2024_16 Start: 14069, Stop: 14395, Start Num: 18
Candidate Starts for BobRoss2024_16:
(13, 14021), (Start: 18 @14069 has 128 MA's), (23, 14123), (29, 14213), (46, 14309), (58, 14390),

Gene: Boyle_20 Start: 17275, Stop: 17607, Start Num: 18
Candidate Starts for Boyle_20:
(7, 17173), (12, 17221), (13, 17227), (Start: 18 @17275 has 128 MA's), (26, 17341), (33, 17446), (35, 17461), (46, 17512), (54, 17563), (56, 17593),

Gene: Briakila_20 Start: 16702, Stop: 17034, Start Num: 18
Candidate Starts for Briakila_20:
(Start: 18 @16702 has 128 MA's), (24, 16759), (25, 16765), (32, 16867), (34, 16885), (36, 16891), (45, 16927), (46, 16939), (54, 16990),

Gene: Brownie5_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for Brownie5_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: CRB2_21 Start: 17511, Stop: 17843, Start Num: 18
Candidate Starts for CRB2_21:
(Start: 18 @17511 has 128 MA's), (20, 17535), (23, 17565), (24, 17568), (33, 17682), (34, 17694),

Gene: CaiB_19 Start: 15710, Stop: 16021, Start Num: 18
Candidate Starts for CaiB_19:
(2, 15260), (12, 15653), (Start: 18 @15710 has 128 MA's), (31, 15863), (46, 15926), (59, 16016),

Gene: Calamitous_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Calamitous_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: Casbah_19 Start: 15789, Stop: 16121, Start Num: 18
Candidate Starts for Casbah_19:
(Start: 18 @15789 has 128 MA's), (24, 15846), (25, 15852), (32, 15954), (34, 15972), (36, 15978), (45, 16014), (46, 16026), (54, 16077),

Gene: Caterpie_15 Start: 13092, Stop: 13424, Start Num: 18
Candidate Starts for Caterpie_15:
(Start: 18 @13092 has 128 MA's), (19, 13107), (29, 13233), (40, 13302), (41, 13305), (46, 13329), (56, 13410), (58, 13419),

Gene: Cepens_14 Start: 14979, Stop: 15311, Start Num: 18
Candidate Starts for Cepens_14:
(3, 14709), (5, 14808), (6, 14835), (9, 14901), (12, 14925), (13, 14931), (Start: 18 @14979 has 128 MA's), (26, 15045), (29, 15120), (45, 15204), (46, 15216), (48, 15228), (58, 15306),

Gene: ChaChing_20 Start: 15952, Stop: 16284, Start Num: 18
Candidate Starts for ChaChing_20:
(Start: 18 @15952 has 128 MA's), (24, 16009), (25, 16015), (32, 16117), (34, 16135), (36, 16141), (45, 16177), (46, 16189), (54, 16240),

Gene: Chalmers_20 Start: 16745, Stop: 17077, Start Num: 18
Candidate Starts for Chalmers_20:
(Start: 18 @16745 has 128 MA's), (24, 16802), (25, 16808), (32, 16910), (34, 16928), (36, 16934), (45, 16970), (46, 16982), (54, 17033),

Gene: Chandler_20 Start: 16711, Stop: 17043, Start Num: 18
Candidate Starts for Chandler_20:
(Start: 18 @16711 has 128 MA's), (24, 16768), (25, 16774), (32, 16876), (34, 16894), (36, 16900), (45, 16936), (46, 16948), (54, 16999),

Gene: CharlottesWeb_17 Start: 14197, Stop: 14514, Start Num: 16
Candidate Starts for CharlottesWeb_17:
(1, 13735), (4, 14005), (14, 14170), (Start: 16 @14197 has 2 MA's), (31, 14356), (46, 14419),

Gene: Chentzyk_19 Start: 15807, Stop: 16139, Start Num: 18
Candidate Starts for Chentzyk_19:
(Start: 18 @15807 has 128 MA's), (24, 15864), (25, 15870), (32, 15972), (34, 15990), (36, 15996), (45, 16032), (46, 16044), (54, 16095),

Gene: CherryTomatoes_85 Start: 32872, Stop: 33231, Start Num: 17
Candidate Starts for CherryTomatoes_85:
(Start: 16 @32869 has 2 MA's), (Start: 17 @32872 has 7 MA's), (28, 33001), (31, 33028), (51, 33148), (55, 33190),

Gene: CloverMinnie_19 Start: 15650, Stop: 15961, Start Num: 18
Candidate Starts for CloverMinnie_19:
(Start: 18 @15650 has 128 MA's), (31, 15803), (46, 15866),

Gene: Coco2012_17 Start: 14194, Stop: 14511, Start Num: 16
Candidate Starts for Coco2012_17:
(1, 13732), (4, 14002), (14, 14167), (Start: 16 @14194 has 2 MA's), (31, 14353), (46, 14416),

Gene: Coffee_20 Start: 17271, Stop: 17603, Start Num: 18
Candidate Starts for Coffee_20:
(7, 17169), (12, 17217), (13, 17223), (Start: 18 @17271 has 128 MA's), (26, 17337), (33, 17442), (35, 17457), (46, 17508), (54, 17559), (56, 17589),

Gene: Coldpizza_19 Start: 16233, Stop: 16544, Start Num: 18
Candidate Starts for Coldpizza_19:
(Start: 18 @16233 has 128 MA's), (19, 16248), (29, 16374), (31, 16386), (41, 16425), (46, 16449), (59, 16539),

Gene: Compostia_21 Start: 16370, Stop: 16702, Start Num: 18
Candidate Starts for Compostia_21:
(Start: 18 @16370 has 128 MA's), (24, 16427), (25, 16433), (32, 16535), (34, 16553), (36, 16559), (45, 16595), (46, 16607), (54, 16658),

Gene: Corofin_20 Start: 15962, Stop: 16294, Start Num: 18
Candidate Starts for Corofin_20:
(Start: 18 @15962 has 128 MA's), (24, 16019), (25, 16025), (32, 16127), (34, 16145), (36, 16151), (45, 16187), (46, 16199), (54, 16250),

Gene: D12_14 Start: 14972, Stop: 15304, Start Num: 18
Candidate Starts for D12_14:
(3, 14702), (5, 14801), (6, 14828), (9, 14894), (12, 14918), (13, 14924), (Start: 18 @14972 has 128 MA's), (26, 15038), (29, 15113), (45, 15197), (46, 15209), (48, 15221), (58, 15299),

Gene: Daisy_20 Start: 15958, Stop: 16290, Start Num: 18
Candidate Starts for Daisy_20:
(Start: 18 @15958 has 128 MA's), (24, 16015), (25, 16021), (32, 16123), (34, 16141), (36, 16147), (45, 16183), (46, 16195), (54, 16246),

Gene: Deenasa_20 Start: 16700, Stop: 17032, Start Num: 18
Candidate Starts for Deenasa_20:
(Start: 18 @16700 has 128 MA's), (24, 16757), (25, 16763), (32, 16865), (34, 16883), (36, 16889), (45, 16925), (46, 16937), (54, 16988),

Gene: Devonte_20 Start: 15937, Stop: 16269, Start Num: 18
Candidate Starts for Devonte_20:
(Start: 18 @15937 has 128 MA's), (24, 15994), (25, 16000), (32, 16102), (34, 16120), (36, 16126), (45, 16162), (46, 16174), (54, 16225),

Gene: Dori_16 Start: 12908, Stop: 13240, Start Num: 18
Candidate Starts for Dori_16:
(Start: 18 @12908 has 128 MA's), (19, 12923), (29, 13049), (40, 13118), (41, 13121), (46, 13145), (50, 13175), (56, 13226), (58, 13235),

Gene: Eaglehorse_20 Start: 17178, Stop: 17510, Start Num: 18
Candidate Starts for Eaglehorse_20:
(7, 17076), (12, 17124), (13, 17130), (Start: 18 @17178 has 128 MA's), (26, 17244), (33, 17349), (35, 17364), (41, 17391), (46, 17415), (54, 17466), (56, 17496),

Gene: Evaa_18 Start: 15556, Stop: 15870, Start Num: 17
Candidate Starts for Evaa_18:
(Start: 17 @15556 has 7 MA's), (31, 15712), (46, 15775), (59, 15865),

Gene: Faze9_20 Start: 17271, Stop: 17603, Start Num: 18
Candidate Starts for Faze9_20:
(7, 17169), (12, 17217), (13, 17223), (Start: 18 @17271 has 128 MA's), (26, 17337), (33, 17442), (35, 17457), (41, 17484), (46, 17508), (54, 17559), (56, 17589),

Gene: FelixTres_19 Start: 15713, Stop: 16024, Start Num: 18
Candidate Starts for FelixTres_19:
(Start: 18 @15713 has 128 MA's), (31, 15866), (46, 15929), (59, 16019),

Gene: ForDig_15 Start: 14551, Stop: 14883, Start Num: 18
Candidate Starts for ForDig_15:
(9, 14470), (Start: 18 @14551 has 128 MA's), (20, 14575), (23, 14605), (29, 14692), (34, 14734), (40, 14761), (44, 14773), (47, 14797), (48, 14800),

Gene: ForDig_73 Start: 61257, Stop: 60931, Start Num: 18
Candidate Starts for ForDig_73:
(10, 61329), (12, 61320), (15, 61284), (Start: 18 @61257 has 128 MA's), (20, 61233), (22, 61215), (27, 61182), (29, 61116), (31, 61104), (42, 61065), (53, 60996),

Gene: FrenchFry_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for FrenchFry_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: Fresco_17 Start: 14287, Stop: 14598, Start Num: 18
Candidate Starts for Fresco_17:
(14, 14260), (Start: 18 @14287 has 128 MA's), (29, 14428), (31, 14440), (46, 14503),

Gene: Gadjet_21 Start: 15941, Stop: 16273, Start Num: 18
Candidate Starts for Gadjet_21:
(Start: 18 @15941 has 128 MA's), (24, 15998), (25, 16004), (32, 16106), (34, 16124), (36, 16130), (45, 16166), (46, 16178), (54, 16229),

Gene: Gervas_20 Start: 15920, Stop: 16252, Start Num: 18
Candidate Starts for Gervas_20:
(Start: 18 @15920 has 128 MA's), (24, 15977), (25, 15983), (32, 16085), (34, 16103), (36, 16109), (45, 16145), (46, 16157), (54, 16208),

Gene: Glass_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for Glass_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: GlenHope_21 Start: 15927, Stop: 16259, Start Num: 18
Candidate Starts for GlenHope_21:
(Start: 18 @15927 has 128 MA's), (24, 15984), (25, 15990), (32, 16092), (34, 16110), (36, 16116), (45, 16152), (46, 16164), (54, 16215),

Gene: Glubnar_21 Start: 15942, Stop: 16274, Start Num: 18
Candidate Starts for Glubnar_21:
(Start: 18 @15942 has 128 MA's), (24, 15999), (25, 16005), (32, 16107), (34, 16125), (36, 16131), (45, 16167), (46, 16179), (54, 16230),

Gene: GodPhather_15 Start: 15237, Stop: 15569, Start Num: 18
Candidate Starts for GodPhather_15:
(Start: 18 @15237 has 128 MA's), (26, 15303), (29, 15378), (45, 15462), (46, 15474), (48, 15486), (58, 15564),

Gene: Godines_20 Start: 17169, Stop: 17501, Start Num: 18
Candidate Starts for Godines_20:
(Start: 18 @17169 has 128 MA's), (26, 17235), (33, 17340), (35, 17355), (46, 17406), (49, 17421), (54, 17457), (56, 17487),

Gene: Halfpint_19 Start: 15762, Stop: 16094, Start Num: 18
Candidate Starts for Halfpint_19:
(Start: 18 @15762 has 128 MA's), (24, 15819), (25, 15825), (32, 15927), (34, 15945), (36, 15951), (45, 15987), (46, 15999), (54, 16050),

Gene: HarveySr_20 Start: 15914, Stop: 16246, Start Num: 18
Candidate Starts for HarveySr_20:
(Start: 18 @15914 has 128 MA's), (24, 15971), (25, 15977), (32, 16079), (34, 16097), (36, 16103), (45, 16139), (46, 16151), (54, 16202),

Gene: Hashim76_22 Start: 15489, Stop: 15821, Start Num: 18
Candidate Starts for Hashim76_22:
(6, 15345), (Start: 18 @15489 has 128 MA's), (20, 15513), (33, 15660), (34, 15672), (47, 15735),

Gene: Heathcliff_20 Start: 15899, Stop: 16231, Start Num: 18
Candidate Starts for Heathcliff_20:
(Start: 18 @15899 has 128 MA's), (24, 15956), (25, 15962), (32, 16064), (34, 16082), (36, 16088), (45, 16124), (46, 16136), (54, 16187),

Gene: Hedgerow_20 Start: 17256, Stop: 17588, Start Num: 18
Candidate Starts for Hedgerow_20:
(7, 17154), (12, 17202), (13, 17208), (Start: 18 @17256 has 128 MA's), (26, 17322), (33, 17427), (35, 17442), (41, 17469), (46, 17493), (54, 17544), (56, 17574),

Gene: Holeinone_20 Start: 17156, Stop: 17488, Start Num: 18
Candidate Starts for Holeinone_20:
(7, 17054), (12, 17102), (13, 17108), (Start: 18 @17156 has 128 MA's), (26, 17222), (33, 17327), (35, 17342), (41, 17369), (46, 17393), (54, 17444), (56, 17474),

Gene: Hosp_013 Start: 12766, Stop: 13098, Start Num: 18
Candidate Starts for Hosp_013:
(Start: 18 @12766 has 128 MA's), (20, 12790), (23, 12820), (34, 12949),

Gene: Imvubu_14 Start: 13522, Stop: 13854, Start Num: 18
Candidate Starts for Imvubu_14:
(Start: 18 @13522 has 128 MA's), (19, 13537), (20, 13546), (23, 13576), (33, 13693), (34, 13705), (44, 13744), (47, 13768), (48, 13771), (56, 13840),

Gene: ItsyBitsy1_20 Start: 17148, Stop: 17480, Start Num: 18
Candidate Starts for ItsyBitsy1_20:
(7, 17046), (12, 17094), (13, 17100), (Start: 18 @17148 has 128 MA's), (26, 17214), (33, 17319), (35, 17334), (41, 17361), (46, 17385), (54, 17436), (56, 17466),

Gene: Jackstina_19 Start: 15863, Stop: 16195, Start Num: 18
Candidate Starts for Jackstina_19:
(Start: 18 @15863 has 128 MA's), (24, 15920), (25, 15926), (32, 16028), (34, 16046), (36, 16052), (45, 16088), (46, 16100), (54, 16151),

Gene: JellyBelly_17 Start: 14197, Stop: 14514, Start Num: 16
Candidate Starts for JellyBelly_17:
(1, 13735), (Start: 16 @14197 has 2 MA's), (31, 14356), (46, 14419),

Gene: Jeon_14 Start: 14979, Stop: 15311, Start Num: 18
Candidate Starts for Jeon_14:
(3, 14709), (5, 14808), (6, 14835), (9, 14901), (12, 14925), (13, 14931), (Start: 18 @14979 has 128 MA's), (26, 15045), (29, 15120), (45, 15204), (46, 15216), (48, 15228), (58, 15306),

Gene: JohnLord_16 Start: 12626, Stop: 12943, Start Num: 19
Candidate Starts for JohnLord_16:
(Start: 18 @12611 has 128 MA's), (19, 12626), (29, 12752), (38, 12815), (40, 12821), (41, 12824), (46, 12848), (50, 12878), (56, 12929), (58, 12938),

Gene: Jolie1_015 Start: 14536, Stop: 14868, Start Num: 18
Candidate Starts for Jolie1_015:
(6, 14389), (Start: 18 @14536 has 128 MA's), (20, 14560), (23, 14590), (29, 14677), (40, 14746), (56, 14854),

Gene: Jolie1_072 Start: 61366, Stop: 60953, Start Num: 18
Candidate Starts for Jolie1_072:
(10, 61438), (12, 61429), (Start: 18 @61366 has 128 MA's), (20, 61342), (21, 61339), (23, 61312), (27, 61291), (37, 61174), (42, 61141), (46, 61120), (53, 61072), (60, 60967),

Gene: Kaleb_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for Kaleb_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: Kamiyu_20 Start: 15908, Stop: 16240, Start Num: 18
Candidate Starts for Kamiyu_20:
(Start: 18 @15908 has 128 MA's), (24, 15965), (25, 15971), (32, 16073), (34, 16091), (36, 16097), (45, 16133), (46, 16145), (54, 16196),

Gene: KayaCho_15 Start: 14554, Stop: 14886, Start Num: 18
Candidate Starts for KayaCho_15:
(6, 14407), (8, 14467), (11, 14491), (Start: 18 @14554 has 128 MA's), (20, 14578), (23, 14608), (34, 14737), (43, 14773), (48, 14803),

Gene: Kheth_20 Start: 17157, Stop: 17489, Start Num: 18
Candidate Starts for Kheth_20:
(7, 17055), (12, 17103), (13, 17109), (Start: 18 @17157 has 128 MA's), (26, 17223), (33, 17328), (35, 17343), (41, 17370), (46, 17394), (54, 17445), (56, 17475),

Gene: Kolhan_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Kolhan_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: Kronus_19 Start: 16520, Stop: 16852, Start Num: 18
Candidate Starts for Kronus_19:
(Start: 18 @16520 has 128 MA's), (24, 16577), (25, 16583), (32, 16685), (34, 16703), (36, 16709), (45, 16745), (46, 16757), (54, 16808),

Gene: Lars_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for Lars_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: Laurie_20 Start: 17152, Stop: 17484, Start Num: 18
Candidate Starts for Laurie_20:

(12, 17098), (13, 17104), (Start: 18 @17152 has 128 MA's), (26, 17218), (33, 17323), (35, 17338), (41, 17365), (46, 17389), (54, 17440), (56, 17470),

Gene: Lephleur_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Lephleur_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: LestyG_20 Start: 15941, Stop: 16273, Start Num: 18
Candidate Starts for LestyG_20:
(Start: 18 @15941 has 128 MA's), (24, 15998), (25, 16004), (32, 16106), (34, 16124), (36, 16130), (45, 16166), (46, 16178), (54, 16229),

Gene: Ligma_17 Start: 14287, Stop: 14598, Start Num: 18
Candidate Starts for Ligma_17:
(14, 14260), (Start: 18 @14287 has 128 MA's), (29, 14428), (31, 14440), (46, 14503),

Gene: LilSmirk_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for LilSmirk_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: LittleMinkey_23 Start: 15674, Stop: 16006, Start Num: 18
Candidate Starts for LittleMinkey_23:
(Start: 18 @15674 has 128 MA's), (20, 15698), (24, 15731), (33, 15845), (34, 15857), (46, 15911),

Gene: LittleMunchkin_18 Start: 15707, Stop: 16021, Start Num: 17
Candidate Starts for LittleMunchkin_18:
(Start: 17 @15707 has 7 MA's), (31, 15863), (39, 15896), (46, 15926),

Gene: LizLemon_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for LizLemon_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (47, 17520), (54, 17562), (56, 17592),

Gene: MakoManhole_19 Start: 15728, Stop: 16039, Start Num: 18
Candidate Starts for MakoManhole_19:
(Start: 18 @15728 has 128 MA's), (31, 15881), (46, 15944),

Gene: Mao1_15 Start: 13304, Stop: 13636, Start Num: 18
Candidate Starts for Mao1_15:
(Start: 18 @13304 has 128 MA's), (19, 13319), (29, 13445), (40, 13514), (41, 13517), (46, 13541), (50, 13571), (56, 13622), (58, 13631),

Gene: Mariokart_17 Start: 14196, Stop: 14513, Start Num: 16
Candidate Starts for Mariokart_17:
(1, 13734), (4, 14004), (Start: 16 @14196 has 2 MA's), (31, 14355), (46, 14418),

Gene: Marley1013_20 Start: 16721, Stop: 17053, Start Num: 18
Candidate Starts for Marley1013_20:
(Start: 18 @16721 has 128 MA's), (24, 16778), (25, 16784), (32, 16886), (34, 16904), (36, 16910), (45, 16946), (46, 16958), (54, 17009),

Gene: Marlia_20 Start: 15923, Stop: 16255, Start Num: 18
Candidate Starts for Marlia_20:
(Start: 18 @15923 has 128 MA's), (24, 15980), (25, 15986), (32, 16088), (34, 16106), (36, 16112), (45, 16148), (46, 16160), (54, 16211),

Gene: Mask_16 Start: 13305, Stop: 13637, Start Num: 18
Candidate Starts for Mask_16:
(Start: 18 @13305 has 128 MA's), (19, 13320), (29, 13446), (40, 13515), (41, 13518), (46, 13542), (50, 13572), (56, 13623), (58, 13632),

Gene: MasterPo_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for MasterPo_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (47, 17400), (54, 17442), (56, 17472),

Gene: Megabear_14 Start: 14922, Stop: 15254, Start Num: 18
Candidate Starts for Megabear_14:
(3, 14652), (5, 14751), (6, 14778), (9, 14844), (12, 14868), (13, 14874), (Start: 18 @14922 has 128 MA's), (26, 14988), (29, 15063), (45, 15147), (46, 15159), (48, 15171), (58, 15249),

Gene: Minnow_16 Start: 14562, Stop: 14894, Start Num: 18
Candidate Starts for Minnow_16:
(Start: 18 @14562 has 128 MA's), (20, 14586), (23, 14616), (43, 14781), (48, 14811),

Gene: MmasiCarm_20 Start: 15934, Stop: 16266, Start Num: 18
Candidate Starts for MmasiCarm_20:
(Start: 18 @15934 has 128 MA's), (24, 15991), (25, 15997), (32, 16099), (34, 16117), (36, 16123), (45, 16159), (46, 16171), (54, 16222),

Gene: Mortcellus_19 Start: 16575, Stop: 16907, Start Num: 18
Candidate Starts for Mortcellus_19:
(Start: 18 @16575 has 128 MA's), (24, 16632), (25, 16638), (32, 16740), (34, 16758), (36, 16764), (45, 16800), (46, 16812), (54, 16863),

Gene: Morty007_20 Start: 16721, Stop: 17053, Start Num: 18
Candidate Starts for Morty007_20:
(Start: 18 @16721 has 128 MA's), (24, 16778), (25, 16784), (32, 16886), (34, 16904), (36, 16910), (45, 16946), (46, 16958), (54, 17009),

Gene: MossRose_19 Start: 15707, Stop: 16018, Start Num: 18
Candidate Starts for MossRose_19:
(Start: 18 @15707 has 128 MA's), (31, 15860), (46, 15923), (59, 16013),

Gene: Mulaychimus_20 Start: 15914, Stop: 16246, Start Num: 18
Candidate Starts for Mulaychimus_20:
(Start: 18 @15914 has 128 MA's), (24, 15971), (25, 15977), (32, 16079), (34, 16097), (36, 16103), (45, 16139), (46, 16151), (54, 16202),

Gene: NHagos_17 Start: 14186, Stop: 14497, Start Num: 18
Candidate Starts for NHagos_17:
(12, 14129), (14, 14159), (Start: 18 @14186 has 128 MA's), (31, 14339), (41, 14378), (46, 14402), (59, 14492),

Gene: Neos5_20 Start: 16729, Stop: 17061, Start Num: 18
Candidate Starts for Neos5_20:
(Start: 18 @16729 has 128 MA's), (24, 16786), (25, 16792), (32, 16894), (34, 16912), (36, 16918), (45, 16954), (46, 16966), (54, 17017),

Gene: Nozo_20 Start: 16699, Stop: 17031, Start Num: 18
Candidate Starts for Nozo_20:
(Start: 18 @16699 has 128 MA's), (24, 16756), (25, 16762), (32, 16864), (34, 16882), (36, 16888), (45, 16924), (46, 16936), (54, 16987),

Gene: Obutu_20 Start: 15932, Stop: 16264, Start Num: 18
Candidate Starts for Obutu_20:
(Start: 18 @15932 has 128 MA's), (24, 15989), (25, 15995), (32, 16097), (34, 16115), (36, 16121), (45, 16157), (46, 16169), (54, 16220),

Gene: Olivio_19 Start: 15786, Stop: 16118, Start Num: 18
Candidate Starts for Olivio_19:
(Start: 18 @15786 has 128 MA's), (24, 15843), (25, 15849), (32, 15951), (34, 15969), (36, 15975), (45, 16011), (46, 16023), (54, 16074),

Gene: Opia_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Opia_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: OrangeOswald_20 Start: 15937, Stop: 16269, Start Num: 18
Candidate Starts for OrangeOswald_20:
(Start: 18 @15937 has 128 MA's), (24, 15994), (25, 16000), (32, 16102), (34, 16120), (36, 16126), (45, 16162), (46, 16174), (54, 16225),

Gene: PR_14 Start: 14949, Stop: 15281, Start Num: 18
Candidate Starts for PR_14:
(3, 14679), (5, 14778), (6, 14805), (9, 14871), (12, 14895), (13, 14901), (Start: 18 @14949 has 128 MA's), (26, 15015), (29, 15090), (45, 15174), (46, 15186), (48, 15198), (58, 15276),

Gene: Phaedrus_19 Start: 15855, Stop: 16187, Start Num: 18
Candidate Starts for Phaedrus_19:
(Start: 18 @15855 has 128 MA's), (24, 15912), (25, 15918), (32, 16020), (34, 16038), (36, 16044), (45, 16080), (46, 16092), (54, 16143),

Gene: Phantasmagoria_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Phantasmagoria_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (46, 17391), (54, 17442), (56, 17472),

Gene: Phayeta_20 Start: 15813, Stop: 16145, Start Num: 18
Candidate Starts for Phayeta_20:
(Start: 18 @15813 has 128 MA's), (24, 15870), (25, 15876), (32, 15978), (34, 15996), (36, 16002), (45, 16038), (46, 16050), (54, 16101),

Gene: Philly_19 Start: 15803, Stop: 16135, Start Num: 18
Candidate Starts for Philly_19:

(Start: 18 @15803 has 128 MA's), (24, 15860), (25, 15866), (32, 15968), (34, 15986), (36, 15992), (45, 16028), (46, 16040), (54, 16091),

Gene: Phlyer_20 Start: 16672, Stop: 17004, Start Num: 18
Candidate Starts for Phlyer_20:
(Start: 18 @16672 has 128 MA's), (24, 16729), (25, 16735), (32, 16837), (34, 16855), (36, 16861), (45, 16897), (46, 16909), (54, 16960),

Gene: Pipefish_20 Start: 16821, Stop: 17153, Start Num: 18
Candidate Starts for Pipefish_20:
(Start: 18 @16821 has 128 MA's), (24, 16878), (25, 16884), (32, 16986), (34, 17004), (36, 17010), (45, 17046), (46, 17058), (54, 17109),

Gene: PrinceCharming_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for PrinceCharming_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: Pupper_85 Start: 33056, Stop: 33415, Start Num: 17
Candidate Starts for Pupper_85:
(Start: 16 @33053 has 2 MA's), (Start: 17 @33056 has 7 MA's), (28, 33185), (31, 33212), (51, 33332), (55, 33374),

Gene: Quesadilla_20 Start: 17337, Stop: 17669, Start Num: 18
Candidate Starts for Quesadilla_20:
(Start: 18 @17337 has 128 MA's), (20, 17361), (33, 17508), (34, 17520), (47, 17583), (48, 17586),

Gene: Qyrzula_19 Start: 17244, Stop: 17576, Start Num: 18
Candidate Starts for Qyrzula_19:
(7, 17142), (12, 17190), (13, 17196), (Start: 18 @17244 has 128 MA's), (26, 17310), (33, 17415), (35, 17430), (46, 17481), (54, 17532), (56, 17562),

Gene: RagingRooster_20 Start: 15938, Stop: 16270, Start Num: 18
Candidate Starts for RagingRooster_20:
(Start: 18 @15938 has 128 MA's), (24, 15995), (25, 16001), (32, 16103), (34, 16121), (36, 16127), (45, 16163), (46, 16175), (54, 16226),

Gene: Rhinoforte_20 Start: 17271, Stop: 17603, Start Num: 18
Candidate Starts for Rhinoforte_20:
(7, 17169), (12, 17217), (13, 17223), (Start: 18 @17271 has 128 MA's), (26, 17337), (33, 17442), (35, 17457), (41, 17484), (46, 17508), (54, 17559), (56, 17589),

Gene: Rita1961_20 Start: 15933, Stop: 16265, Start Num: 18
Candidate Starts for Rita1961_20:
(Start: 18 @15933 has 128 MA's), (24, 15990), (25, 15996), (32, 16098), (34, 16116), (36, 16122), (45, 16158), (46, 16170), (54, 16221),

Gene: RomaT_20 Start: 16719, Stop: 17051, Start Num: 18
Candidate Starts for RomaT_20:
(Start: 18 @16719 has 128 MA's), (24, 16776), (25, 16782), (32, 16884), (34, 16902), (36, 16908), (45, 16944), (46, 16956), (54, 17007),

Gene: Rosebush_20 Start: 17271, Stop: 17603, Start Num: 18

Candidate Starts for Rosebush_20:
(7, 17169), (12, 17217), (13, 17223), (Start: 18 @17271 has 128 MA's), (26, 17337), (33, 17442), (35, 17457), (46, 17508), (54, 17559), (56, 17589),

Gene: SCentae_83 Start: 32730, Stop: 33089, Start Num: 17
Candidate Starts for SCentae_83:
(Start: 16 @32727 has 2 MA's), (Start: 17 @32730 has 7 MA's), (28, 32859), (31, 32886), (51, 33006), (55, 33048),

Gene: Sabella_20 Start: 17157, Stop: 17489, Start Num: 18
Candidate Starts for Sabella_20:
(7, 17055), (12, 17103), (13, 17109), (Start: 18 @17157 has 128 MA's), (26, 17223), (33, 17328), (35, 17343), (41, 17370), (46, 17394), (54, 17445), (56, 17475),

Gene: Sejanus_16 Start: 14238, Stop: 14570, Start Num: 18
Candidate Starts for Sejanus_16:
(Start: 18 @14238 has 128 MA's), (19, 14253), (29, 14379), (38, 14442), (40, 14448), (41, 14451), (46, 14475), (50, 14505), (56, 14556), (58, 14565),

Gene: Shatter_17 Start: 14287, Stop: 14598, Start Num: 18
Candidate Starts for Shatter_17:
(14, 14260), (Start: 18 @14287 has 128 MA's), (29, 14428), (31, 14440), (46, 14503),

Gene: Shenandoah_20 Start: 15916, Stop: 16248, Start Num: 18
Candidate Starts for Shenandoah_20:
(Start: 18 @15916 has 128 MA's), (24, 15973), (25, 15979), (32, 16081), (34, 16099), (36, 16105), (45, 16141), (46, 16153), (54, 16204),

Gene: Sisko_17 Start: 14609, Stop: 14920, Start Num: 18
Candidate Starts for Sisko_17:
(Start: 18 @14609 has 128 MA's), (31, 14762),

Gene: Skog_148 Start: 62143, Stop: 62505, Start Num: 17
Candidate Starts for Skog_148:
(Start: 17 @62143 has 7 MA's), (24, 62203), (31, 62299), (51, 62419), (55, 62461), (57, 62467),

Gene: SlippinJimmy_20 Start: 16702, Stop: 17034, Start Num: 18
Candidate Starts for SlippinJimmy_20:
(Start: 18 @16702 has 128 MA's), (24, 16759), (25, 16765), (32, 16867), (34, 16885), (36, 16891), (45, 16927), (46, 16939), (54, 16990),

Gene: Sour_20 Start: 16058, Stop: 16393, Start Num: 17
Candidate Starts for Sour_20:
(Start: 17 @16058 has 7 MA's), (29, 16202), (30, 16211), (34, 16244), (52, 16334),

Gene: SwainyDoc_20 Start: 15935, Stop: 16267, Start Num: 18
Candidate Starts for SwainyDoc_20:
(Start: 18 @15935 has 128 MA's), (24, 15992), (25, 15998), (32, 16100), (34, 16118), (36, 16124), (45, 16160), (46, 16172), (54, 16223),

Gene: SynergyX_20 Start: 15938, Stop: 16270, Start Num: 18
Candidate Starts for SynergyX_20:

(Start: 18 @15938 has 128 MA's), (24, 15995), (25, 16001), (32, 16103), (34, 16121), (36, 16127), (45, 16163), (46, 16175), (54, 16226),

Gene: TA17A_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for TA17A_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: Taptic_14 Start: 14922, Stop: 15254, Start Num: 18
Candidate Starts for Taptic_14:
(3, 14652), (5, 14751), (6, 14778), (9, 14844), (12, 14868), (13, 14874), (Start: 18 @14922 has 128 MA's), (26, 14988), (29, 15063), (45, 15147), (46, 15159), (48, 15171), (58, 15249),

Gene: Tinciduntsolum_21 Start: 17273, Stop: 17605, Start Num: 18
Candidate Starts for Tinciduntsolum_21:
(7, 17171), (12, 17219), (13, 17225), (Start: 18 @17273 has 128 MA's), (26, 17339), (33, 17444), (35, 17459), (41, 17486), (46, 17510), (54, 17561), (56, 17591),

Gene: TinyTerror_20 Start: 15937, Stop: 16269, Start Num: 18
Candidate Starts for TinyTerror_20:
(Start: 18 @15937 has 128 MA's), (24, 15994), (25, 16000), (32, 16102), (34, 16120), (36, 16126), (45, 16162), (46, 16174), (54, 16225),

Gene: TraderJ_19 Start: 15710, Stop: 16021, Start Num: 18
Candidate Starts for TraderJ_19:
(Start: 18 @15710 has 128 MA's), (31, 15863), (46, 15926), (59, 16016),

Gene: Tres_20 Start: 17154, Stop: 17486, Start Num: 18
Candidate Starts for Tres_20:
(7, 17052), (12, 17100), (13, 17106), (Start: 18 @17154 has 128 MA's), (26, 17220), (33, 17325), (35, 17340), (41, 17367), (46, 17391), (54, 17442), (56, 17472),

Gene: Tydolla_20 Start: 16675, Stop: 17007, Start Num: 18
Candidate Starts for Tydolla_20:
(Start: 18 @16675 has 128 MA's), (24, 16732), (25, 16738), (32, 16840), (34, 16858), (36, 16864), (45, 16900), (46, 16912), (54, 16963),

Gene: West99_20 Start: 17274, Stop: 17606, Start Num: 18
Candidate Starts for West99_20:
(7, 17172), (12, 17220), (13, 17226), (Start: 18 @17274 has 128 MA's), (26, 17340), (33, 17445), (35, 17460), (41, 17487), (46, 17511), (54, 17562), (56, 17592),

Gene: Wooper_19 Start: 15716, Stop: 16027, Start Num: 18
Candidate Starts for Wooper_19:
(2, 15266), (12, 15659), (Start: 18 @15716 has 128 MA's), (31, 15869), (46, 15932), (59, 16022),

Gene: Yago84_17 Start: 14618, Stop: 14929, Start Num: 18
Candidate Starts for Yago84_17:
(Start: 18 @14618 has 128 MA's), (31, 14771),

Gene: Yahalom_20 Start: 15949, Stop: 16281, Start Num: 18
Candidate Starts for Yahalom_20:

(Start: 18 @15949 has 128 MA's), (24, 16006), (25, 16012), (32, 16114), (34, 16132), (36, 16138), (45, 16174), (46, 16186), (54, 16237),

Gene: Yeshua_19 Start: 15693, Stop: 16004, Start Num: 18
Candidate Starts for Yeshua_19:
(2, 15243), (12, 15636), (Start: 18 @15693 has 128 MA's), (31, 15846), (46, 15909), (59, 15999),

Gene: Yinz_20 Start: 15976, Stop: 16308, Start Num: 18
Candidate Starts for Yinz_20:
(Start: 18 @15976 has 128 MA's), (24, 16033), (25, 16039), (32, 16141), (34, 16159), (36, 16165), (45, 16201), (46, 16213), (54, 16264),

Gene: Zenteno07_22 Start: 15443, Stop: 15775, Start Num: 18
Candidate Starts for Zenteno07_22:
(6, 15299), (Start: 18 @15443 has 128 MA's), (20, 15467), (33, 15614), (34, 15626), (47, 15689),