Zoomed Pham 281910

1: Bimmel_37
2: Success_39
3: Spooks_37
4: WelcomeAyanna_83 + 13
5: Nymphadora_84 + 5
6: Agueybana_85 + 4
7: Madeline_76
8: Hyzer_101
9: Madavieve_80
10: RavenCo17_74
11: Brocalys_96 + 43
12: Rockne_108 + 1
13: Guppsters_99 + 2
14: WillSterrel_103 + 6
15: Ruby_100 + 50
16: Galactic_109 + 3
17: Eish_109
18: Phatniss_101 + 9
19: LunaBlu_111 + 1
20: Donkeykong_110
21: Sabbb_107 + 1
22: Che8_112
23: Hlubikazi_102
24: BlueCrab_109
25: Radiance_103
26: Royals2015_108
27: SassyB_95 + 1
28: Mutaforma13_106
29: Mantra_102
30: Melissauren88_95
31: ShroomBoi_105
32: RootBeer_55
33: Scotia_58 + 1
34: RunningOnE_55
35: GAL1_82
36: Shambre1_67
37: Ibantik_57
38: Ponzi_39
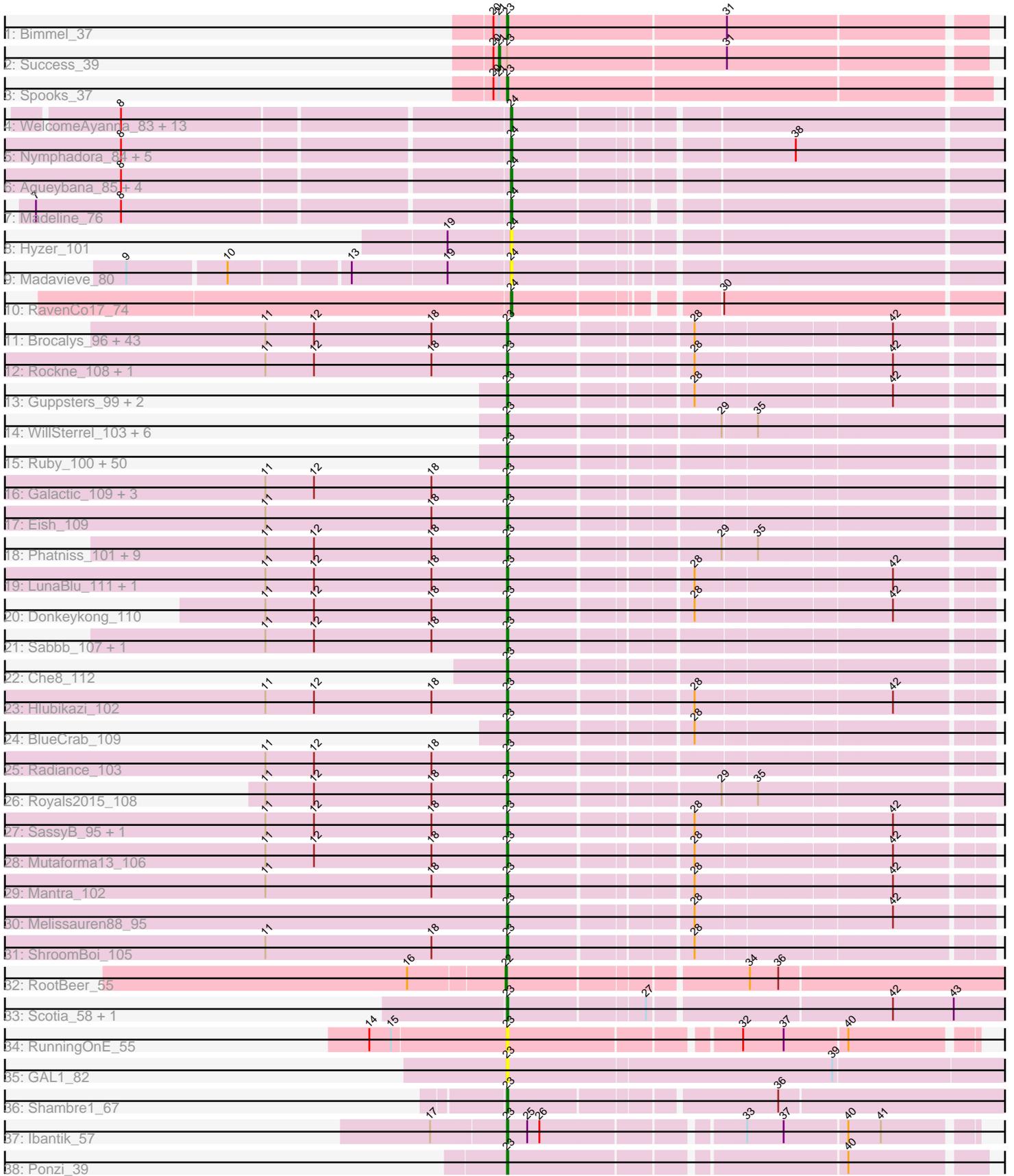
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 281910 Report

This analysis was run 02/23/26 on database version 636.

Pham number 281910 has 178 members, 9 are drafts.

Phages represented in each track:
• Track 1 : Bimmel_37
• Track 2 : Success_39
• Track 3 : Spooks_37
• Track 4 : WelcomeAyanna_83, Trumpet_79, Zameen_79, Manasvini_81, Maridalia_83, Eudoria_79, Antonio_78, Tayonia_79, Kita_80, ThankyouJordi_83, Suscepit_79, Polly_76, Neobush_81, Bunnybear_78
• Track 5 : Nymphadora_84, TimTam_84, Bosnia_82, Eviarto_84, Herod_84, BatStarr_83
• Track 6 : Agueybana_85, Zirinka_79, AlumE_82, BoyNamedSue_82, Bialota_79
• Track 7 : Madeline_76
• Track 8 : Hyzer_101
• Track 9 : Madavieve_80
• Track 10 : RavenCo17_74
• Track 11 : Brocalys_96, CaptainTrips_107, Medindi_110, PhesterPhotato_109, MinionDave_103, Gorge_103, DLane_105, Gandalph_104, MilanaBonita_98, Filuzino_105, Krakatau_97, GUmbie_104, ShowerHandel_107, Cabrinians_101, SuperGrey_103, Ms6_107, Ardmore_88, Rita_104, Philus_108, StAnnes_110, Pippy_103, KingMidas_105, Florinda_117, Hamulus_105, DillTech15_111, SiSi_99, FreddyB_113, Tweety_109, Fastidio_108, Whouxphf_108, Phalconet_106, Batiatus_105, James_108, NormanBulbieJr_102, Taj_110, Wee_109, Bipolar_106, EleanorGeorge_108, Emma_109, Moonbeam_107, Kenuha5_96, Scottish_105, Veteran_94, Akhila_99
• Track 12 : Rockne_108, PMC_104
• Track 13 : Guppsters_99, DoRead_108, Zizzle_108
• Track 14 : WillSterrel_103, Mahavrat_98, IrishSherpFalk_105, Maravista_102, Juniper1_98, Phanphagia_109, Shauna1_106
• Track 15 : Ruby_100, VRedHorse_105, Karhdo_100, Mattes_105, Clifton_96, BodEinwohner17_116, Llama_111, Wachhund_101, RedBird_105, ByChance_95, Ochi17_110, Jinglebell_111, Seabastian_111, BobaPhett_108, Crumble_99, MisterCuddles_104, Inventum_102, ShiLan_107, Nimbo_96, Byougenkin_101, OldBen_101, Sassafras_106, Leperchaun_106, JoeyJr_107, PHappiness_104, Estave1_112, MadMen_109, Lizziana_105, Priscilla_105, Deb65_97, DRBy19_104, Jarcob_107, Kersh_107, Phasih_100, OfUltron_111, Polka14_108, RitaG_103, SwagPigglett_106, Ibhubesi_103, Daenerys_102, Eradicator_95, Sparkdehlily_111, TDanisky_112, Hades_102, Girr_103, AlpineSix_102, Spoonbill_104, Geralt_97, KristaRAM_113, Modragons_107, Martik_103
• Track 16 : Galactic_109, Enzomatic_117, Polo2Bam_116, NewHope4_112

• Track 17 : Eish_109
• Track 18 : Phatniss_101, Chuckly_102, Bubbles123_100, Dante_104, Llij_99, Burwell21_99, Whatsapiecost_99, Minnie_99, Zerg_103, Sandalphon_103
• Track 19 : LunaBlu_111, GigiOuiOui_99
• Track 20 : Donkeykong_110
• Track 21 : Sabbb_107, Pacc40_101
• Track 22 : Che8_112
• Track 23 : Hlubikazi_102
• Track 24 : BlueCrab_109
• Track 25 : Radiance_103
• Track 26 : Royals2015_108
• Track 27 : SassyB_95, PopTart_95
• Track 28 : Mutaforma13_106
• Track 29 : Mantra_102
• Track 30 : Melissauren88_95
• Track 31 : ShroomBoi_105
• Track 32 : RootBeer_55
• Track 33 : Scotia_58, NoSwimming_59
• Track 34 : RunningOnE_55
• Track 35 : GAL1_82
• Track 36 : Shambre1_67
• Track 37 : Ibantik_57
• Track 38 : Ponzi_39

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

The start number called the most often in the published annotations is 23, it was called in 140 of the 169 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akhila_99, AlpineSix_102, Ardmore_88, Batiatus_105, Bimmel_37, Bipolar_106, BlueCrab_109, BobaPhett_108, BodEinwohner17_116, Brocalys_96, Bubbles123_100, Burwell21_99, ByChance_95, Byougenkin_101, Cabrinians_101, CaptainTrips_107, Che8_112, Chuckly_102, Clifton_96, Crumble_99, DLane_105, DRBy19_104, Daenerys_102, Dante_104, Deb65_97, DillTech15_111, DoRead_108, Donkeykong_110, Eish_109, EleanorGeorge_108, Emma_109, Enzomatic_117, Eradicator_95, Estave1_112, Fastidio_108, Filuzino_105, Florinda_117, FreddyB_113, GAL1_82, GUmbie_104, Galactic_109, Gandalph_104, Geralt_97, GigiOuiOui_99, Girr_103, Gorge_103, Guppsters_99, Hades_102, Hamulus_105, Hlubikazi_102, Ibantik_57, Ibhubesi_103, Inventum_102, IrishSherpFalk_105, James_108, Jarcob_107, Jinglebell_111, JoeyJr_107, Juniper1_98, Karhdo_100, Kenuha5_96, Kersh_107, KingMidas_105, Krakatau_97, KristaRAM_113, Leperchaun_106, Lizziana_105, Llama_111, Llij_99, LunaBlu_111, MadMen_109, Mahavrat_98, Mantra_102, Maravista_102, Martik_103, Mattes_105, Medindi_110, Melissauren88_95, MilanaBonita_98, MinionDave_103, Minnie_99, MisterCuddles_104, Modragons_107, Moonbeam_107, Ms6_107, Mutaforma13_106, NewHope4_112, Nimbo_96, NoSwimming_59, NormanBulbieJr_102, Ochi17_110, OfUltron_111, OldBen_101, PHappiness_104, PMC_104, Pacc40_101, Phalconet_106, Phanphagia_109, Phasih_100, Phatniss_101, PhesterPhotato_109, Philus_108, Pippy_103, Polka14_108, Polo2Bam_116, Ponzi_39, PopTart_95,

Priscilla_105, Radiance_103, RedBird_105, RitaG_103, Rita_104, Rockne_108, Royals2015_108, Ruby_100, RunningOnE_55, Sabbb_107, Sandalphon_103, Sassafras_106, SassyB_95, Scotia_58, Scottish_105, Seabastian_111, Shambre1_67, Shauna1_106, ShiLan_107, ShowerHandel_107, ShroomBoi_105, SiSi_99, Sparkdehlily_111, Spooks_37, Spoonbill_104, StAnnes_110, SuperGrey_103, SwagPigglett_106, TDanisky_112, Taj_110, Tweety_109, VRedHorse_105, Veteran_94, Wachhund_101, Wee_109, Whatsapiecost_99, Whouxphf_108, WillSterrel_103, Zerg_103, Zizzle_108,

Genes that have the "Most Annotated" start but do not call it:
• Success_39,

Genes that do not have the "Most Annotated" start:
• Agueybana_85, AlumE_82, Antonio_78, BatStarr_83, Bialota_79, Bosnia_82, BoyNamedSue_82, Bunnybear_78, Eudoria_79, Eviarto_84, Herod_84, Hyzer_101, Kita_80, Madavieve_80, Madeline_76, Manasvini_81, Maridalia_83, Neobush_81, Nymphadora_84, Polly_76, RavenCo17_74, RootBeer_55, Suscepit_79, Tayonia_79, ThankyouJordi_83, TimTam_84, Trumpet_79, WelcomeAyanna_83, Zameen_79, Zirinka_79,

Summary by start number:

Start 21:
• Found in 3 of 178 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Success_39 (BT),

Start 22:
• Found in 1 of 178 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 169
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RootBeer_55 (FA),

Start 23:
• Found in 148 of 178 (83.1%) of genes in pham
• Manual Annotations of this start: 140 of 169
• Called 99.3% of time when present
• Phage (with cluster) where this start called: Akhila_99 (F1), AlpineSix_102 (F1), Ardmore_88 (F1), Batiatus_105 (F1), Bimmel_37 (BT), Bipolar_106 (F1), BlueCrab_109 (F1), BobaPhett_108 (F1), BodEinwohner17_116 (F1), Brocalys_96 (F1), Bubbles123_100 (F1), Burwell21_99 (F1), ByChance_95 (F1), Byougenkin_101 (F1), Cabrinians_101 (F1), CaptainTrips_107 (F1), Che8_112 (F1), Chuckly_102 (F1), Clifton_96 (F1), Crumble_99 (F1), DLane_105 (F1), DRBy19_104 (F1), Daenerys_102 (F1), Dante_104 (F1), Deb65_97 (F1), DillTech15_111 (F1), DoRead_108 (F1), Donkeykong_110 (F1), Eish_109 (F1), EleanorGeorge_108 (F1), Emma_109 (F1), Enzomatic_117 (F1), Eradicator_95 (F1), Estave1_112 (F1), Fastidio_108 (F1), Filuzino_105 (F1), Florinda_117 (F1), FreddyB_113 (F1), GAL1_82 (singleton), GUmbie_104 (F1), Galactic_109 (F1), Gandalph_104 (F1), Geralt_97 (F1), GigiOuiOui_99 (F1), Girr_103 (F1), Gorge_103 (F1), Guppsters_99 (F1), Hades_102 (F1), Hamulus_105 (F1), Hlubikazi_102 (F1), Ibantik_57 (singleton), Ibhubesi_103 (F1), Inventum_102 (F1), IrishSherpFalk_105 (F1), James_108 (F1), Jarcob_107 (F1), Jinglebell_111 (F1), JoeyJr_107 (F1), Juniper1_98 (F1),

Karhdo_100 (F1), Kenuha5_96 (F1), Kersh_107 (F1), KingMidas_105 (F1), Krakatau_97 (F1), KristaRAM_113 (F1), Leperchaun_106 (F1), Lizziana_105 (F1), Llama_111 (F1), Llij_99 (F1), LunaBlu_111 (F1), MadMen_109 (F1), Mahavrat_98 (F1), Mantra_102 (F1), Maravista_102 (F1), Martik_103 (F1), Mattes_105 (F1), Medindi_110 (F1), Melissauren88_95 (F1), MilanaBonita_98 (F1), MinionDave_103 (F1), Minnie_99 (F1), MisterCuddles_104 (F1), Modragons_107 (F1), Moonbeam_107 (F1), Ms6_107 (F1), Mutaforma13_106 (F1), NewHope4_112 (F1), Nimbo_96 (F1), NoSwimming_59 (FO), NormanBulbieJr_102 (F1), Ochi17_110 (F1), OfUltron_111 (F1), OldBen_101 (F1), PHappiness_104 (F1), PMC_104 (F1), Pacc40_101 (F1), Phalconet_106 (F1), Phanphagia_109 (F1), Phasih_100 (F1), Phatniss_101 (F1), PhesterPhotato_109 (F1), Philus_108 (F1), Pippy_103 (F1), Polka14_108 (F1), Polo2Bam_116 (F1), Ponzi_39 (singleton), PopTart_95 (F1), Priscilla_105 (F1), Radiance_103 (F1), RedBird_105 (F1), RitaG_103 (F1), Rita_104 (F1), Rockne_108 (F1), Royals2015_108 (F1), Ruby_100 (F1), RunningOnE_55 (UNK), Sabbb_107 (F1), Sandalphon_103 (F1), Sassafras_106 (F1), SassyB_95 (F1), Scotia_58 (FO), Scottish_105 (F1), Seabastian_111 (F1), Shambre1_67 (singleton), Shauna1_106 (F1), ShiLan_107 (F1), ShowerHandel_107 (F1), ShroomBoi_105 (F1), SiSi_99 (F1), Sparkdehlily_111 (F1), Spooks_37 (BT), Spoonbill_104 (F1), StAnnes_110 (F1), SuperGrey_103 (F1), SwagPigglett_106 (F1), TDanisky_112 (F1), Taj_110 (F1), Tweety_109 (F1), VRedHorse_105 (F1), Veteran_94 (F1), Wachhund_101 (F1), Wee_109 (F1), Whatsapiecost_99 (F1), Whouxphf_108 (F1), WillSterrel_103 (F1), Zerg_103 (F1), Zizzle_108 (F1),

Start 24:
• Found in 29 of 178 (16.3%) of genes in pham
• Manual Annotations of this start: 27 of 169
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Agueybana_85 (CZ1), AlumE_82 (CZ1), Antonio_78 (CZ1), BatStarr_83 (CZ1), Bialota_79 (CZ1), Bosnia_82 (CZ1), BoyNamedSue_82 (CZ1), Bunnybear_78 (CZ), Eudoria_79 (CZ1), Eviarto_84 (CZ1), Herod_84 (CZ1), Hyzer_101 (CZ1), Kita_80 (CZ1), Madavieve_80 (CZ1), Madeline_76 (CZ1), Manasvini_81 (CZ1), Maridalia_83 (CZ1), Neobush_81 (CZ1), Nymphadora_84 (CZ1), Polly_76 (CZ1), RavenCo17_74 (CZ8), Suscepit_79 (CZ1), Tayonia_79 (CZ1), ThankyouJordi_83 (CZ1), TimTam_84 (CZ1), Trumpet_79 (CZ1), WelcomeAyanna_83 (CZ1), Zameen_79 (CZ1), Zirinka_79 (CZ1),

Summary by clusters:

There are 9 clusters represented in this pham: F1, singleton, FA, CZ1, CZ8, BT, CZ, UNK, FO,

Info for manual annotations of cluster BT:
•Start number 21 was manually annotated 1 time for cluster BT.
•Start number 23 was manually annotated 2 times for cluster BT.

Info for manual annotations of cluster CZ:
•Start number 24 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 24 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ8:
•Start number 24 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster F1:
•Start number 23 was manually annotated 133 times for cluster F1.

Info for manual annotations of cluster FA:
•Start number 22 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FO:
•Start number 23 was manually annotated 2 times for cluster FO.

Gene Information:

Gene: Agueybana_85 Start: 52421, Stop: 52756, Start Num: 24
Candidate Starts for Agueybana_85:
(8, 52148), (Start: 24 @52421 has 27 MA's),

Gene: Akhila_99 Start: 55783, Stop: 56109, Start Num: 23
Candidate Starts for Akhila_99:
(11, 55609), (12, 55645), (18, 55732), (Start: 23 @55783 has 140 MA's), (28, 55906), (42, 56041),

Gene: AlpineSix_102 Start: 56250, Stop: 56576, Start Num: 23
Candidate Starts for AlpineSix_102:
(Start: 23 @56250 has 140 MA's),

Gene: AlumE_82 Start: 52312, Stop: 52647, Start Num: 24
Candidate Starts for AlumE_82:
(8, 52039), (Start: 24 @52312 has 27 MA's),

Gene: Antonio_78 Start: 49950, Stop: 50285, Start Num: 24
Candidate Starts for Antonio_78:
(8, 49677), (Start: 24 @49950 has 27 MA's),

Gene: Ardmore_88 Start: 51672, Stop: 51998, Start Num: 23
Candidate Starts for Ardmore_88:
(11, 51498), (12, 51534), (18, 51621), (Start: 23 @51672 has 140 MA's), (28, 51795), (42, 51930),

Gene: BatStarr_83 Start: 53046, Stop: 53381, Start Num: 24
Candidate Starts for BatStarr_83:
(8, 52773), (Start: 24 @53046 has 27 MA's), (38, 53232),

Gene: Batiatus_105 Start: 57269, Stop: 57595, Start Num: 23
Candidate Starts for Batiatus_105:
(11, 57095), (12, 57131), (18, 57218), (Start: 23 @57269 has 140 MA's), (28, 57392), (42, 57527),

Gene: Bialota_79 Start: 51706, Stop: 52038, Start Num: 24
Candidate Starts for Bialota_79:
(8, 51433), (Start: 24 @51706 has 27 MA's),

Gene: Bimmel_37 Start: 23518, Stop: 23859, Start Num: 23
Candidate Starts for Bimmel_37:

(20, 23509), (Start: 21 @23512 has 1 MA's), (Start: 23 @23518 has 140 MA's), (31, 23677),

Gene: Bipolar_106 Start: 58515, Stop: 58841, Start Num: 23
Candidate Starts for Bipolar_106:
(11, 58341), (12, 58377), (18, 58464), (Start: 23 @58515 has 140 MA's), (28, 58638), (42, 58773),

Gene: BlueCrab_109 Start: 58669, Stop: 58995, Start Num: 23
Candidate Starts for BlueCrab_109:
(Start: 23 @58669 has 140 MA's), (28, 58792),

Gene: BobaPhett_108 Start: 59318, Stop: 59644, Start Num: 23
Candidate Starts for BobaPhett_108:
(Start: 23 @59318 has 140 MA's),

Gene: BodEinwohner17_116 Start: 59725, Stop: 60051, Start Num: 23
Candidate Starts for BodEinwohner17_116:
(Start: 23 @59725 has 140 MA's),

Gene: Bosnia_82 Start: 54160, Stop: 54495, Start Num: 24
Candidate Starts for Bosnia_82:
(8, 53887), (Start: 24 @54160 has 27 MA's), (38, 54346),

Gene: BoyNamedSue_82 Start: 52312, Stop: 52647, Start Num: 24
Candidate Starts for BoyNamedSue_82:
(8, 52039), (Start: 24 @52312 has 27 MA's),

Gene: Brocalys_96 Start: 54283, Stop: 54609, Start Num: 23
Candidate Starts for Brocalys_96:
(11, 54109), (12, 54145), (18, 54232), (Start: 23 @54283 has 140 MA's), (28, 54406), (42, 54541),

Gene: Bubbles123_100 Start: 56967, Stop: 57311, Start Num: 23
Candidate Starts for Bubbles123_100:
(11, 56793), (12, 56829), (18, 56916), (Start: 23 @56967 has 140 MA's), (29, 57111), (35, 57135),

Gene: Bunnybear_78 Start: 50882, Stop: 51217, Start Num: 24
Candidate Starts for Bunnybear_78:
(8, 50609), (Start: 24 @50882 has 27 MA's),

Gene: Burwell21_99 Start: 56858, Stop: 57202, Start Num: 23
Candidate Starts for Burwell21_99:
(11, 56684), (12, 56720), (18, 56807), (Start: 23 @56858 has 140 MA's), (29, 57002), (35, 57026),

Gene: ByChance_95 Start: 52655, Stop: 52981, Start Num: 23
Candidate Starts for ByChance_95:
(Start: 23 @52655 has 140 MA's),

Gene: Byougenkin_101 Start: 54217, Stop: 54543, Start Num: 23
Candidate Starts for Byougenkin_101:
(Start: 23 @54217 has 140 MA's),

Gene: Cabrinians_101 Start: 56202, Stop: 56528, Start Num: 23
Candidate Starts for Cabrinians_101:
(11, 56028), (12, 56064), (18, 56151), (Start: 23 @56202 has 140 MA's), (28, 56325), (42, 56460),

Gene: CaptainTrips_107 Start: 56860, Stop: 57186, Start Num: 23
Candidate Starts for CaptainTrips_107:
(11, 56686), (12, 56722), (18, 56809), (Start: 23 @56860 has 140 MA's), (28, 56983), (42, 57118),

Gene: Che8_112 Start: 58974, Stop: 59300, Start Num: 23
Candidate Starts for Che8_112:
(Start: 23 @58974 has 140 MA's),

Gene: Chuckly_102 Start: 53949, Stop: 54293, Start Num: 23
Candidate Starts for Chuckly_102:
(11, 53775), (12, 53811), (18, 53898), (Start: 23 @53949 has 140 MA's), (29, 54093), (35, 54117),

Gene: Clifton_96 Start: 55258, Stop: 55584, Start Num: 23
Candidate Starts for Clifton_96:
(Start: 23 @55258 has 140 MA's),

Gene: Crumble_99 Start: 52956, Stop: 53282, Start Num: 23
Candidate Starts for Crumble_99:
(Start: 23 @52956 has 140 MA's),

Gene: DLane_105 Start: 58431, Stop: 58757, Start Num: 23
Candidate Starts for DLane_105:
(11, 58257), (12, 58293), (18, 58380), (Start: 23 @58431 has 140 MA's), (28, 58554), (42, 58689),

Gene: DRBy19_104 Start: 57899, Stop: 58225, Start Num: 23
Candidate Starts for DRBy19_104:
(Start: 23 @57899 has 140 MA's),

Gene: Daenerys_102 Start: 57545, Stop: 57871, Start Num: 23
Candidate Starts for Daenerys_102:
(Start: 23 @57545 has 140 MA's),

Gene: Dante_104 Start: 58406, Stop: 58750, Start Num: 23
Candidate Starts for Dante_104:
(11, 58232), (12, 58268), (18, 58355), (Start: 23 @58406 has 140 MA's), (29, 58550), (35, 58574),

Gene: Deb65_97 Start: 55269, Stop: 55595, Start Num: 23
Candidate Starts for Deb65_97:
(Start: 23 @55269 has 140 MA's),

Gene: DillTech15_111 Start: 57330, Stop: 57656, Start Num: 23
Candidate Starts for DillTech15_111:
(11, 57156), (12, 57192), (18, 57279), (Start: 23 @57330 has 140 MA's), (28, 57453), (42, 57588),

Gene: DoRead_108 Start: 55713, Stop: 56039, Start Num: 23
Candidate Starts for DoRead_108:
(Start: 23 @55713 has 140 MA's), (28, 55836), (42, 55971),

Gene: Donkeykong_110 Start: 59010, Stop: 59336, Start Num: 23
Candidate Starts for Donkeykong_110:
(11, 58836), (12, 58872), (18, 58959), (Start: 23 @59010 has 140 MA's), (28, 59133), (42, 59268),

Gene: Eish_109 Start: 57682, Stop: 58008, Start Num: 23
Candidate Starts for Eish_109:
(4, 57169), (5, 57193), (6, 57256), (11, 57508), (18, 57631), (Start: 23 @57682 has 140 MA's),

Gene: EleanorGeorge_108 Start: 59015, Stop: 59341, Start Num: 23
Candidate Starts for EleanorGeorge_108:
(11, 58841), (12, 58877), (18, 58964), (Start: 23 @59015 has 140 MA's), (28, 59138), (42, 59273),

Gene: Emma_109 Start: 55950, Stop: 56276, Start Num: 23
Candidate Starts for Emma_109:
(11, 55776), (12, 55812), (18, 55899), (Start: 23 @55950 has 140 MA's), (28, 56073), (42, 56208),

Gene: Enzomatic_117 Start: 56795, Stop: 57121, Start Num: 23
Candidate Starts for Enzomatic_117:
(4, 56282), (5, 56306), (6, 56369), (11, 56621), (12, 56657), (18, 56744), (Start: 23 @56795 has 140 MA's),

Gene: Eradicator_95 Start: 55231, Stop: 55557, Start Num: 23
Candidate Starts for Eradicator_95:
(Start: 23 @55231 has 140 MA's),

Gene: Estave1_112 Start: 60259, Stop: 60585, Start Num: 23
Candidate Starts for Estave1_112:
(Start: 23 @60259 has 140 MA's),

Gene: Eudoria_79 Start: 49950, Stop: 50285, Start Num: 24
Candidate Starts for Eudoria_79:
(8, 49677), (Start: 24 @49950 has 27 MA's),

Gene: Eviarto_84 Start: 53021, Stop: 53356, Start Num: 24
Candidate Starts for Eviarto_84:
(8, 52748), (Start: 24 @53021 has 27 MA's), (38, 53207),

Gene: Fastidio_108 Start: 55371, Stop: 55697, Start Num: 23
Candidate Starts for Fastidio_108:
(11, 55197), (12, 55233), (18, 55320), (Start: 23 @55371 has 140 MA's), (28, 55494), (42, 55629),

Gene: Filuzino_105 Start: 58837, Stop: 59163, Start Num: 23
Candidate Starts for Filuzino_105:
(11, 58663), (12, 58699), (18, 58786), (Start: 23 @58837 has 140 MA's), (28, 58960), (42, 59095),

Gene: Florinda_117 Start: 58948, Stop: 59274, Start Num: 23
Candidate Starts for Florinda_117:
(11, 58774), (12, 58810), (18, 58897), (Start: 23 @58948 has 140 MA's), (28, 59071), (42, 59206),

Gene: FreddyB_113 Start: 57850, Stop: 58176, Start Num: 23
Candidate Starts for FreddyB_113:
(11, 57676), (12, 57712), (18, 57799), (Start: 23 @57850 has 140 MA's), (28, 57973), (42, 58108),

Gene: GAL1_82 Start: 49576, Stop: 49935, Start Num: 23
Candidate Starts for GAL1_82:
(Start: 23 @49576 has 140 MA's), (39, 49810),

Gene: GUmbie_104 Start: 56919, Stop: 57245, Start Num: 23
Candidate Starts for GUmbie_104:
(11, 56745), (12, 56781), (18, 56868), (Start: 23 @56919 has 140 MA's), (28, 57042), (42, 57177),

Gene: Galactic_109 Start: 57393, Stop: 57719, Start Num: 23
Candidate Starts for Galactic_109:
(4, 56880), (5, 56904), (6, 56967), (11, 57219), (12, 57255), (18, 57342), (Start: 23 @57393 has 140 MA's),

Gene: Gandalph_104 Start: 54506, Stop: 54832, Start Num: 23
Candidate Starts for Gandalph_104:
(11, 54332), (12, 54368), (18, 54455), (Start: 23 @54506 has 140 MA's), (28, 54629), (42, 54764),

Gene: Geralt_97 Start: 55267, Stop: 55593, Start Num: 23
Candidate Starts for Geralt_97:
(Start: 23 @55267 has 140 MA's),

Gene: GigiOuiOui_99 Start: 55921, Stop: 56247, Start Num: 23
Candidate Starts for GigiOuiOui_99:
(4, 55408), (5, 55432), (6, 55495), (11, 55747), (12, 55783), (18, 55870), (Start: 23 @55921 has 140 MA's), (28, 56044), (42, 56179),

Gene: Girr_103 Start: 57256, Stop: 57582, Start Num: 23
Candidate Starts for Girr_103:
(Start: 23 @57256 has 140 MA's),

Gene: Gorge_103 Start: 57487, Stop: 57813, Start Num: 23
Candidate Starts for Gorge_103:
(11, 57313), (12, 57349), (18, 57436), (Start: 23 @57487 has 140 MA's), (28, 57610), (42, 57745),

Gene: Guppsters_99 Start: 54367, Stop: 54693, Start Num: 23
Candidate Starts for Guppsters_99:
(Start: 23 @54367 has 140 MA's), (28, 54490), (42, 54625),

Gene: Hades_102 Start: 54518, Stop: 54844, Start Num: 23
Candidate Starts for Hades_102:
(Start: 23 @54518 has 140 MA's),

Gene: Hamulus_105 Start: 56687, Stop: 57013, Start Num: 23
Candidate Starts for Hamulus_105:
(11, 56513), (12, 56549), (18, 56636), (Start: 23 @56687 has 140 MA's), (28, 56810), (42, 56945),

Gene: Herod_84 Start: 53440, Stop: 53775, Start Num: 24
Candidate Starts for Herod_84:
(8, 53167), (Start: 24 @53440 has 27 MA's), (38, 53626),

Gene: Hlubikazi_102 Start: 55002, Stop: 55328, Start Num: 23
Candidate Starts for Hlubikazi_102:
(4, 54489), (6, 54576), (11, 54828), (12, 54864), (18, 54951), (Start: 23 @55002 has 140 MA's), (28, 55125), (42, 55260),

Gene: Hyzer_101 Start: 60183, Stop: 60518, Start Num: 24
Candidate Starts for Hyzer_101:

(19, 60138), (Start: 24 @60183 has 27 MA's),

Gene: Ibantik_57 Start: 25161, Stop: 25478, Start Num: 23
Candidate Starts for Ibantik_57:
(17, 25107), (Start: 23 @25161 has 140 MA's), (25, 25176), (26, 25185), (33, 25320), (37, 25347), (40, 25392), (41, 25416),

Gene: Ibhubesi_103 Start: 55132, Stop: 55458, Start Num: 23
Candidate Starts for Ibhubesi_103:
(Start: 23 @55132 has 140 MA's),

Gene: Inventum_102 Start: 56555, Stop: 56881, Start Num: 23
Candidate Starts for Inventum_102:
(Start: 23 @56555 has 140 MA's),

Gene: IrishSherpFalk_105 Start: 57329, Stop: 57673, Start Num: 23
Candidate Starts for IrishSherpFalk_105:
(Start: 23 @57329 has 140 MA's), (29, 57473), (35, 57497),

Gene: James_108 Start: 59148, Stop: 59474, Start Num: 23
Candidate Starts for James_108:
(11, 58974), (12, 59010), (18, 59097), (Start: 23 @59148 has 140 MA's), (28, 59271), (42, 59406),

Gene: Jarcob_107 Start: 58468, Stop: 58794, Start Num: 23
Candidate Starts for Jarcob_107:
(Start: 23 @58468 has 140 MA's),

Gene: Jinglebell_111 Start: 58360, Stop: 58686, Start Num: 23
Candidate Starts for Jinglebell_111:
(Start: 23 @58360 has 140 MA's),

Gene: JoeyJr_107 Start: 58463, Stop: 58789, Start Num: 23
Candidate Starts for JoeyJr_107:
(Start: 23 @58463 has 140 MA's),

Gene: Juniper1_98 Start: 56030, Stop: 56374, Start Num: 23
Candidate Starts for Juniper1_98:
(Start: 23 @56030 has 140 MA's), (29, 56174), (35, 56198),

Gene: Karhdo_100 Start: 54911, Stop: 55237, Start Num: 23
Candidate Starts for Karhdo_100:
(Start: 23 @54911 has 140 MA's),

Gene: Kenuha5_96 Start: 56035, Stop: 56361, Start Num: 23
Candidate Starts for Kenuha5_96:
(11, 55861), (12, 55897), (18, 55984), (Start: 23 @56035 has 140 MA's), (28, 56158), (42, 56293),

Gene: Kersh_107 Start: 59723, Stop: 60049, Start Num: 23
Candidate Starts for Kersh_107:
(Start: 23 @59723 has 140 MA's),

Gene: KingMidas_105 Start: 56917, Stop: 57243, Start Num: 23
Candidate Starts for KingMidas_105:

(11, 56743), (12, 56779), (18, 56866), (Start: 23 @56917 has 140 MA's), (28, 57040), (42, 57175),

Gene: Kita_80 Start: 49959, Stop: 50294, Start Num: 24
Candidate Starts for Kita_80:
(8, 49686), (Start: 24 @49959 has 27 MA's),

Gene: Krakatau_97 Start: 52590, Stop: 52916, Start Num: 23
Candidate Starts for Krakatau_97:
(11, 52416), (12, 52452), (18, 52539), (Start: 23 @52590 has 140 MA's), (28, 52713), (42, 52848),

Gene: KristaRAM_113 Start: 58232, Stop: 58558, Start Num: 23
Candidate Starts for KristaRAM_113:
(Start: 23 @58232 has 140 MA's),

Gene: Leperchaun_106 Start: 57697, Stop: 58023, Start Num: 23
Candidate Starts for Leperchaun_106:
(Start: 23 @57697 has 140 MA's),

Gene: Lizziana_105 Start: 57926, Stop: 58252, Start Num: 23
Candidate Starts for Lizziana_105:
(Start: 23 @57926 has 140 MA's),

Gene: Llama_111 Start: 58003, Stop: 58329, Start Num: 23
Candidate Starts for Llama_111:
(Start: 23 @58003 has 140 MA's),

Gene: Llij_99 Start: 55622, Stop: 55966, Start Num: 23
Candidate Starts for Llij_99:
(11, 55448), (12, 55484), (18, 55571), (Start: 23 @55622 has 140 MA's), (29, 55766), (35, 55790),

Gene: LunaBlu_111 Start: 58815, Stop: 59141, Start Num: 23
Candidate Starts for LunaBlu_111:
(4, 58302), (5, 58326), (6, 58389), (11, 58641), (12, 58677), (18, 58764), (Start: 23 @58815 has 140 MA's), (28, 58938), (42, 59073),

Gene: MadMen_109 Start: 57291, Stop: 57617, Start Num: 23
Candidate Starts for MadMen_109:
(Start: 23 @57291 has 140 MA's),

Gene: Madavieve_80 Start: 51628, Stop: 51963, Start Num: 24
Candidate Starts for Madavieve_80:
(9, 51364), (10, 51433), (13, 51514), (19, 51583), (Start: 24 @51628 has 27 MA's),

Gene: Madeline_76 Start: 51284, Stop: 51616, Start Num: 24
Candidate Starts for Madeline_76:
(7, 50948), (8, 51011), (Start: 24 @51284 has 27 MA's),

Gene: Mahavrat_98 Start: 54698, Stop: 55042, Start Num: 23
Candidate Starts for Mahavrat_98:
(Start: 23 @54698 has 140 MA's), (29, 54842), (35, 54866),

Gene: Manasvini_81 Start: 49974, Stop: 50309, Start Num: 24
Candidate Starts for Manasvini_81:

(8, 49701), (Start: 24 @49974 has 27 MA's),

Gene: Mantra_102 Start: 56533, Stop: 56859, Start Num: 23
Candidate Starts for Mantra_102:
(4, 56020), (6, 56107), (11, 56359), (18, 56482), (Start: 23 @56533 has 140 MA's), (28, 56656), (42, 56791),

Gene: Maravista_102 Start: 58887, Stop: 59231, Start Num: 23
Candidate Starts for Maravista_102:
(Start: 23 @58887 has 140 MA's), (29, 59031), (35, 59055),

Gene: Maridalia_83 Start: 51242, Stop: 51577, Start Num: 24
Candidate Starts for Maridalia_83:
(8, 50969), (Start: 24 @51242 has 27 MA's),

Gene: Martik_103 Start: 58387, Stop: 58713, Start Num: 23
Candidate Starts for Martik_103:
(Start: 23 @58387 has 140 MA's),

Gene: Mattes_105 Start: 57605, Stop: 57931, Start Num: 23
Candidate Starts for Mattes_105:
(Start: 23 @57605 has 140 MA's),

Gene: Medindi_110 Start: 58213, Stop: 58539, Start Num: 23
Candidate Starts for Medindi_110:
(11, 58039), (12, 58075), (18, 58162), (Start: 23 @58213 has 140 MA's), (28, 58336), (42, 58471),

Gene: Melissauren88_95 Start: 53888, Stop: 54214, Start Num: 23
Candidate Starts for Melissauren88_95:
(Start: 23 @53888 has 140 MA's), (28, 54011), (42, 54146),

Gene: MilanaBonita_98 Start: 55783, Stop: 56109, Start Num: 23
Candidate Starts for MilanaBonita_98:
(11, 55609), (12, 55645), (18, 55732), (Start: 23 @55783 has 140 MA's), (28, 55906), (42, 56041),

Gene: MinionDave_103 Start: 57559, Stop: 57885, Start Num: 23
Candidate Starts for MinionDave_103:
(11, 57385), (12, 57421), (18, 57508), (Start: 23 @57559 has 140 MA's), (28, 57682), (42, 57817),

Gene: Minnie_99 Start: 58017, Stop: 58361, Start Num: 23
Candidate Starts for Minnie_99:
(11, 57843), (12, 57879), (18, 57966), (Start: 23 @58017 has 140 MA's), (29, 58161), (35, 58185),

Gene: MisterCuddles_104 Start: 57256, Stop: 57582, Start Num: 23
Candidate Starts for MisterCuddles_104:
(Start: 23 @57256 has 140 MA's),

Gene: Modragons_107 Start: 57991, Stop: 58317, Start Num: 23
Candidate Starts for Modragons_107:
(Start: 23 @57991 has 140 MA's),

Gene: Moonbeam_107 Start: 57515, Stop: 57841, Start Num: 23
Candidate Starts for Moonbeam_107:

(11, 57341), (12, 57377), (18, 57464), (Start: 23 @57515 has 140 MA's), (28, 57638), (42, 57773),

Gene: Ms6_107 Start: 53778, Stop: 54104, Start Num: 23
Candidate Starts for Ms6_107:
(11, 53604), (12, 53640), (18, 53727), (Start: 23 @53778 has 140 MA's), (28, 53901), (42, 54036),

Gene: Mutaforma13_106 Start: 57233, Stop: 57559, Start Num: 23
Candidate Starts for Mutaforma13_106:
(11, 57059), (12, 57095), (18, 57182), (Start: 23 @57233 has 140 MA's), (28, 57356), (42, 57491),

Gene: Neobush_81 Start: 50518, Stop: 50853, Start Num: 24
Candidate Starts for Neobush_81:
(8, 50245), (Start: 24 @50518 has 27 MA's),

Gene: NewHope4_112 Start: 56941, Stop: 57267, Start Num: 23
Candidate Starts for NewHope4_112:
(4, 56428), (5, 56452), (6, 56515), (11, 56767), (12, 56803), (18, 56890), (Start: 23 @56941 has 140 MA's),

Gene: Nimbo_96 Start: 55269, Stop: 55595, Start Num: 23
Candidate Starts for Nimbo_96:
(Start: 23 @55269 has 140 MA's),

Gene: NoSwimming_59 Start: 40976, Stop: 41329, Start Num: 23
Candidate Starts for NoSwimming_59:
(Start: 23 @40976 has 140 MA's), (27, 41072), (42, 41240), (43, 41285),

Gene: NormanBulbieJr_102 Start: 57635, Stop: 57961, Start Num: 23
Candidate Starts for NormanBulbieJr_102:
(11, 57461), (12, 57497), (18, 57584), (Start: 23 @57635 has 140 MA's), (28, 57758), (42, 57893),

Gene: Nymphadora_84 Start: 53045, Stop: 53380, Start Num: 24
Candidate Starts for Nymphadora_84:
(8, 52772), (Start: 24 @53045 has 27 MA's), (38, 53231),

Gene: Ochi17_110 Start: 57598, Stop: 57924, Start Num: 23
Candidate Starts for Ochi17_110:
(Start: 23 @57598 has 140 MA's),

Gene: OfUltron_111 Start: 58147, Stop: 58473, Start Num: 23
Candidate Starts for OfUltron_111:
(Start: 23 @58147 has 140 MA's),

Gene: OldBen_101 Start: 56661, Stop: 56987, Start Num: 23
Candidate Starts for OldBen_101:
(Start: 23 @56661 has 140 MA's),

Gene: PHappiness_104 Start: 57490, Stop: 57816, Start Num: 23
Candidate Starts for PHappiness_104:
(Start: 23 @57490 has 140 MA's),

Gene: PMC_104 Start: 56224, Stop: 56550, Start Num: 23
Candidate Starts for PMC_104:

(1, 55117), (2, 55408), (3, 55471), (4, 55711), (6, 55798), (11, 56050), (12, 56086), (18, 56173), (Start: 23 @56224 has 140 MA's), (28, 56347), (42, 56482),

Gene: Pacc40_101 Start: 58086, Stop: 58412, Start Num: 23
Candidate Starts for Pacc40_101:
(11, 57912), (12, 57948), (18, 58035), (Start: 23 @58086 has 140 MA's),

Gene: Phalconet_106 Start: 57180, Stop: 57506, Start Num: 23
Candidate Starts for Phalconet_106:
(11, 57006), (12, 57042), (18, 57129), (Start: 23 @57180 has 140 MA's), (28, 57303), (42, 57438),

Gene: Phanphagia_109 Start: 58459, Stop: 58803, Start Num: 23
Candidate Starts for Phanphagia_109:
(Start: 23 @58459 has 140 MA's), (29, 58603), (35, 58627),

Gene: Phasih_100 Start: 55657, Stop: 55983, Start Num: 23
Candidate Starts for Phasih_100:
(Start: 23 @55657 has 140 MA's),

Gene: Phatniss_101 Start: 56036, Stop: 56380, Start Num: 23
Candidate Starts for Phatniss_101:
(11, 55862), (12, 55898), (18, 55985), (Start: 23 @56036 has 140 MA's), (29, 56180), (35, 56204),

Gene: PhesterPhotato_109 Start: 57154, Stop: 57480, Start Num: 23
Candidate Starts for PhesterPhotato_109:
(11, 56980), (12, 57016), (18, 57103), (Start: 23 @57154 has 140 MA's), (28, 57277), (42, 57412),

Gene: Philus_108 Start: 58766, Stop: 59092, Start Num: 23
Candidate Starts for Philus_108:
(11, 58592), (12, 58628), (18, 58715), (Start: 23 @58766 has 140 MA's), (28, 58889), (42, 59024),

Gene: Pippy_103 Start: 56195, Stop: 56521, Start Num: 23
Candidate Starts for Pippy_103:
(11, 56021), (12, 56057), (18, 56144), (Start: 23 @56195 has 140 MA's), (28, 56318), (42, 56453),

Gene: Polka14_108 Start: 58259, Stop: 58585, Start Num: 23
Candidate Starts for Polka14_108:
(Start: 23 @58259 has 140 MA's),

Gene: Polly_76 Start: 49393, Stop: 49728, Start Num: 24
Candidate Starts for Polly_76:
(8, 49120), (Start: 24 @49393 has 27 MA's),

Gene: Polo2Bam_116 Start: 56795, Stop: 57121, Start Num: 23
Candidate Starts for Polo2Bam_116:
(4, 56282), (5, 56306), (6, 56369), (11, 56621), (12, 56657), (18, 56744), (Start: 23 @56795 has 140 MA's),

Gene: Ponzi_39 Start: 21753, Stop: 22079, Start Num: 23
Candidate Starts for Ponzi_39:
(Start: 23 @21753 has 140 MA's), (40, 21984),

Gene: PopTart_95 Start: 54627, Stop: 54953, Start Num: 23

Candidate Starts for PopTart_95:
(4, 54114), (6, 54201), (11, 54453), (12, 54489), (18, 54576), (Start: 23 @54627 has 140 MA's), (28, 54750), (42, 54885),

Gene: Priscilla_105 Start: 57733, Stop: 58059, Start Num: 23
Candidate Starts for Priscilla_105:
(Start: 23 @57733 has 140 MA's),

Gene: Radiance_103 Start: 56827, Stop: 57153, Start Num: 23
Candidate Starts for Radiance_103:
(4, 56314), (5, 56338), (6, 56401), (11, 56653), (12, 56689), (18, 56776), (Start: 23 @56827 has 140 MA's),

Gene: RavenCo17_74 Start: 49279, Stop: 49611, Start Num: 24
Candidate Starts for RavenCo17_74:
(Start: 24 @49279 has 27 MA's), (30, 49411),

Gene: RedBird_105 Start: 58237, Stop: 58563, Start Num: 23
Candidate Starts for RedBird_105:
(Start: 23 @58237 has 140 MA's),

Gene: Rita_104 Start: 58303, Stop: 58629, Start Num: 23
Candidate Starts for Rita_104:
(11, 58129), (12, 58165), (18, 58252), (Start: 23 @58303 has 140 MA's), (28, 58426), (42, 58561),

Gene: RitaG_103 Start: 57292, Stop: 57618, Start Num: 23
Candidate Starts for RitaG_103:
(Start: 23 @57292 has 140 MA's),

Gene: Rockne_108 Start: 56236, Stop: 56562, Start Num: 23
Candidate Starts for Rockne_108:
(1, 55129), (2, 55420), (3, 55483), (4, 55723), (6, 55810), (11, 56062), (12, 56098), (18, 56185), (Start: 23 @56236 has 140 MA's), (28, 56359), (42, 56494),

Gene: RootBeer_55 Start: 38956, Stop: 39309, Start Num: 22
Candidate Starts for RootBeer_55:
(16, 38890), (Start: 22 @38956 has 1 MA's), (34, 39118), (36, 39139),

Gene: Royals2015_108 Start: 56107, Stop: 56451, Start Num: 23
Candidate Starts for Royals2015_108:
(11, 55933), (12, 55969), (18, 56056), (Start: 23 @56107 has 140 MA's), (29, 56251), (35, 56275),

Gene: Ruby_100 Start: 57258, Stop: 57584, Start Num: 23
Candidate Starts for Ruby_100:
(Start: 23 @57258 has 140 MA's),

Gene: RunningOnE_55 Start: 25257, Stop: 25574, Start Num: 23
Candidate Starts for RunningOnE_55:
(14, 25158), (15, 25173), (Start: 23 @25257 has 140 MA's), (32, 25413), (37, 25443), (40, 25488),

Gene: Sabbb_107 Start: 55263, Stop: 55589, Start Num: 23
Candidate Starts for Sabbb_107:
(11, 55089), (12, 55125), (18, 55212), (Start: 23 @55263 has 140 MA's),

Gene: Sandalphon_103 Start: 58290, Stop: 58634, Start Num: 23
Candidate Starts for Sandalphon_103:
(11, 58116), (12, 58152), (18, 58239), (Start: 23 @58290 has 140 MA's), (29, 58434), (35, 58458),

Gene: Sassafras_106 Start: 56554, Stop: 56880, Start Num: 23
Candidate Starts for Sassafras_106:
(Start: 23 @56554 has 140 MA's),

Gene: SassyB_95 Start: 54627, Stop: 54953, Start Num: 23
Candidate Starts for SassyB_95:
(4, 54114), (6, 54201), (11, 54453), (12, 54489), (18, 54576), (Start: 23 @54627 has 140 MA's), (28, 54750), (42, 54885),

Gene: Scotia_58 Start: 39984, Stop: 40337, Start Num: 23
Candidate Starts for Scotia_58:
(Start: 23 @39984 has 140 MA's), (27, 40080), (42, 40248), (43, 40293),

Gene: Scottish_105 Start: 56356, Stop: 56682, Start Num: 23
Candidate Starts for Scottish_105:
(11, 56182), (12, 56218), (18, 56305), (Start: 23 @56356 has 140 MA's), (28, 56479), (42, 56614),

Gene: Seabastian_111 Start: 58148, Stop: 58474, Start Num: 23
Candidate Starts for Seabastian_111:
(Start: 23 @58148 has 140 MA's),

Gene: Shambre1_67 Start: 41812, Stop: 42165, Start Num: 23
Candidate Starts for Shambre1_67:
(Start: 23 @41812 has 140 MA's), (36, 41995),

Gene: Shauna1_106 Start: 58075, Stop: 58419, Start Num: 23
Candidate Starts for Shauna1_106:
(Start: 23 @58075 has 140 MA's), (29, 58219), (35, 58243),

Gene: ShiLan_107 Start: 59324, Stop: 59650, Start Num: 23
Candidate Starts for ShiLan_107:
(Start: 23 @59324 has 140 MA's),

Gene: ShowerHandel_107 Start: 57093, Stop: 57419, Start Num: 23
Candidate Starts for ShowerHandel_107:
(11, 56919), (12, 56955), (18, 57042), (Start: 23 @57093 has 140 MA's), (28, 57216), (42, 57351),

Gene: ShroomBoi_105 Start: 57753, Stop: 58079, Start Num: 23
Candidate Starts for ShroomBoi_105:
(4, 57240), (6, 57327), (11, 57579), (18, 57702), (Start: 23 @57753 has 140 MA's), (28, 57876),

Gene: SiSi_99 Start: 55811, Stop: 56137, Start Num: 23
Candidate Starts for SiSi_99:
(11, 55637), (12, 55673), (18, 55760), (Start: 23 @55811 has 140 MA's), (28, 55934), (42, 56069),

Gene: Sparkdehlily_111 Start: 55806, Stop: 56132, Start Num: 23
Candidate Starts for Sparkdehlily_111:
(Start: 23 @55806 has 140 MA's),

Gene: Spooks_37 Start: 24524, Stop: 24868, Start Num: 23
Candidate Starts for Spooks_37:
(20, 24515), (Start: 21 @24518 has 1 MA's), (Start: 23 @24524 has 140 MA's),

Gene: Spoonbill_104 Start: 55237, Stop: 55563, Start Num: 23
Candidate Starts for Spoonbill_104:
(Start: 23 @55237 has 140 MA's),

Gene: StAnnes_110 Start: 58889, Stop: 59215, Start Num: 23
Candidate Starts for StAnnes_110:
(11, 58715), (12, 58751), (18, 58838), (Start: 23 @58889 has 140 MA's), (28, 59012), (42, 59147),

Gene: Success_39 Start: 23746, Stop: 24093, Start Num: 21
Candidate Starts for Success_39:
(20, 23743), (Start: 21 @23746 has 1 MA's), (Start: 23 @23752 has 140 MA's), (31, 23911),

Gene: SuperGrey_103 Start: 58875, Stop: 59201, Start Num: 23
Candidate Starts for SuperGrey_103:
(11, 58701), (12, 58737), (18, 58824), (Start: 23 @58875 has 140 MA's), (28, 58998), (42, 59133),

Gene: Suscepit_79 Start: 49951, Stop: 50286, Start Num: 24
Candidate Starts for Suscepit_79:
(8, 49678), (Start: 24 @49951 has 27 MA's),

Gene: SwagPigglett_106 Start: 58433, Stop: 58759, Start Num: 23
Candidate Starts for SwagPigglett_106:
(Start: 23 @58433 has 140 MA's),

Gene: TDanisky_112 Start: 55806, Stop: 56132, Start Num: 23
Candidate Starts for TDanisky_112:
(Start: 23 @55806 has 140 MA's),

Gene: Taj_110 Start: 58080, Stop: 58430, Start Num: 23
Candidate Starts for Taj_110:
(11, 57906), (12, 57942), (18, 58029), (Start: 23 @58080 has 140 MA's), (28, 58203), (42, 58338),

Gene: Tayonia_79 Start: 49950, Stop: 50285, Start Num: 24
Candidate Starts for Tayonia_79:
(8, 49677), (Start: 24 @49950 has 27 MA's),

Gene: ThankyouJordi_83 Start: 53067, Stop: 53414, Start Num: 24
Candidate Starts for ThankyouJordi_83:
(8, 52794), (Start: 24 @53067 has 27 MA's),

Gene: TimTam_84 Start: 53045, Stop: 53380, Start Num: 24
Candidate Starts for TimTam_84:
(8, 52772), (Start: 24 @53045 has 27 MA's), (38, 53231),

Gene: Trumpet_79 Start: 49951, Stop: 50286, Start Num: 24
Candidate Starts for Trumpet_79:
(8, 49678), (Start: 24 @49951 has 27 MA's),

Gene: Tweety_109 Start: 58225, Stop: 58551, Start Num: 23
Candidate Starts for Tweety_109:
(11, 58051), (12, 58087), (18, 58174), (Start: 23 @58225 has 140 MA's), (28, 58348), (42, 58483),

Gene: VRedHorse_105 Start: 54331, Stop: 54657, Start Num: 23
Candidate Starts for VRedHorse_105:
(Start: 23 @54331 has 140 MA's),

Gene: Veteran_94 Start: 55679, Stop: 56005, Start Num: 23
Candidate Starts for Veteran_94:
(11, 55505), (12, 55541), (18, 55628), (Start: 23 @55679 has 140 MA's), (28, 55802), (42, 55937),

Gene: Wachhund_101 Start: 54046, Stop: 54372, Start Num: 23
Candidate Starts for Wachhund_101:
(Start: 23 @54046 has 140 MA's),

Gene: Wee_109 Start: 58763, Stop: 59089, Start Num: 23
Candidate Starts for Wee_109:
(11, 58589), (12, 58625), (18, 58712), (Start: 23 @58763 has 140 MA's), (28, 58886), (42, 59021),

Gene: WelcomeAyanna_83 Start: 53214, Stop: 53561, Start Num: 24
Candidate Starts for WelcomeAyanna_83:
(8, 52941), (Start: 24 @53214 has 27 MA's),

Gene: Whatsapiecost_99 Start: 52358, Stop: 52702, Start Num: 23
Candidate Starts for Whatsapiecost_99:
(11, 52184), (12, 52220), (18, 52307), (Start: 23 @52358 has 140 MA's), (29, 52502), (35, 52526),

Gene: Whouxphf_108 Start: 58625, Stop: 58951, Start Num: 23
Candidate Starts for Whouxphf_108:
(11, 58451), (12, 58487), (18, 58574), (Start: 23 @58625 has 140 MA's), (28, 58748), (42, 58883),

Gene: WillSterrel_103 Start: 57362, Stop: 57706, Start Num: 23
Candidate Starts for WillSterrel_103:
(Start: 23 @57362 has 140 MA's), (29, 57506), (35, 57530),

Gene: Zameen_79 Start: 49950, Stop: 50285, Start Num: 24
Candidate Starts for Zameen_79:
(8, 49677), (Start: 24 @49950 has 27 MA's),

Gene: Zerg_103 Start: 56837, Stop: 57181, Start Num: 23
Candidate Starts for Zerg_103:
(11, 56663), (12, 56699), (18, 56786), (Start: 23 @56837 has 140 MA's), (29, 56981), (35, 57005),

Gene: Zirinka_79 Start: 51694, Stop: 52026, Start Num: 24
Candidate Starts for Zirinka_79:
(8, 51421), (Start: 24 @51694 has 27 MA's),

Gene: Zizzle_108 Start: 58913, Stop: 59239, Start Num: 23
Candidate Starts for Zizzle_108:
(Start: 23 @58913 has 140 MA's), (28, 59036), (42, 59171),