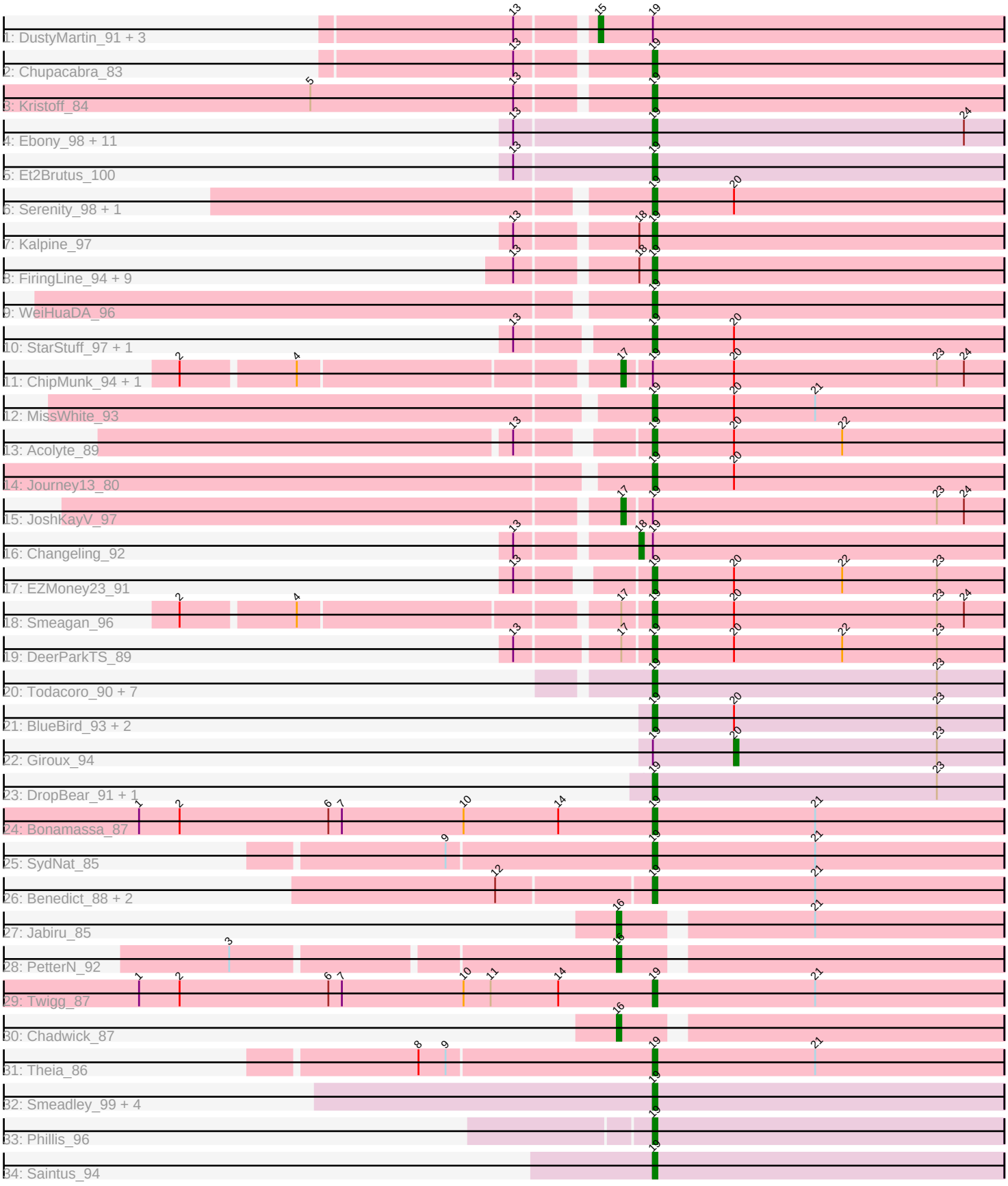
Pham 347553


1: DustyMartin_91 + 3
2: Chupacabra_83
3: Kristoff_84
4: Ebony_98 + 11
5: Et2Brutus_100
6: Serenity_98 + 1
7: Kalpine_97
8: FiringLine_94 + 9
9: WeiHuaDA_96
10: StarStuff_97 + 1
11: ChipMunk_94 + 1
12: MissWhite_93
13: Acolyte_89
14: Journey13_80
15: JoshKayV_97
16: Changeling_92
17: EZMoney23_91
18: Smeagan_96
19: DeerParkTS_89
20: Todacoro_90 + 7
21: BlueBird_93 + 2
22: Giroux_94
23: DropBear_91 + 1
24: Bonamassa_87
25: SydNat_85
26: Benedict_88 + 2
27: Jabiru_85
28: PetterN_92
29: Twigg_87
30: Chadwick_87
31: Theia_86
32: Smeadley_99 + 4
33: Phillis_96
34: Saintus_94

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 347553 Report

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

Pham number 347553 has 76 members, 3 are drafts.

Phages represented in each track:
• Track 1 : DustyMartin_91, Rowdy_91, RhynO_75, Shapes_91
• Track 2 : Chupacabra_83
• Track 3 : Kristoff_84
• Track 4 : Ebony_98, Joselito_97, Mabel_99, Mulciber_98, Timothy_99, Orange_99, Lucivia_100, Bowtie_95, Snape_99, Fibonacci_99, Gilberta_97, Saskia_98
• Track 5 : Et2Brutus_100
• Track 6 : Serenity_98, Jsquared_101
• Track 7 : Kalpine_97
• Track 8 : FiringLine_94, AbbyPaige_96, Anselm_97, Leviathan_95, Power_94, DudeLittle_93, Agape74_96, Dalmatian_94, Fameo_93, LilTurb_95
• Track 9 : WeiHuaDA_96
• Track 10 : StarStuff_97, Pomar16_97
• Track 11 : ChipMunk_94, EvilGenius_93
• Track 12 : MissWhite_93
• Track 13 : Acolyte_89
• Track 14 : Journey13_80
• Track 15 : JoshKayV_97
• Track 16 : Changeling_92
• Track 17 : EZMoney23_91
• Track 18 : Smeagan_96
• Track 19 : DeerParkTS_89
• Track 20 : Todacoro_90, Hookmount_90, QuinnKiro_89, Lambert1_90, Caviar_79, Popcicle_90, Margo_90, Texage_88
• Track 21 : BlueBird_93, Clammy_93, TNguyen7_92
• Track 22 : Giroux_94
• Track 23 : DropBear_91, Kachowdy_92
• Track 24 : Bonamassa_87
• Track 25 : SydNat_85
• Track 26 : Benedict_88, ElTiger69_90, Airmid_87
• Track 27 : Jabiru_85
• Track 28 : PetterN_92
• Track 29 : Twigg_87
• Track 30 : Chadwick_87
• Track 31 : Theia_86
• Track 32 : Smeadley_99, Dixon_98, Stephig9_100, Astro_98, NearlyHeadless_100
• Track 33 : Phillis_96
• Track 34 : Saintus_94

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

The start number called the most often in the published annotations is 19, it was called in 64 of the 73 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AbbyPaige_96, Acolyte_89, Agape74_96, Airmid_87, Anselm_97, Astro_98, Benedict_88, BlueBird_93, Bonamassa_87, Bowtie_95, Caviar_79, Chupacabra_83, Clammy_93, Dalmatian_94, DeerParkTS_89, Dixon_98, DropBear_91, DudeLittle_93, EZMoney23_91, Ebony_98, ElTiger69_90, Et2Brutus_100, Fameo_93, Fibonacci_99, FiringLine_94, Gilberta_97, Hookmount_90, Joselito_97, Journey13_80, Jsquared_101, Kachowdy_92, Kalpine_97, Kristoff_84, Lambert1_90, Leviathan_95, LilTurb_95, Lucivia_100, Mabel_99, Margo_90, MissWhite_93, Mulciber_98, NearlyHeadless_100, Orange_99, Phillis_96, Pomar16_97, Popcicle_90, Power_94, QuinnKiro_89, Saintus_94, Saskia_98, Serenity_98, Smeadley_99, Smeagan_96, Snape_99, StarStuff_97, Stephig9_100, SydNat_85, TNguyen7_92, Texage_88, Theia_86, Timothy_99, Todacoro_90, Twigg_87, WeiHuaDA_96,

Genes that have the "Most Annotated" start but do not call it:
• Changeling_92, ChipMunk_94, DustyMartin_91, EvilGenius_93, Giroux_94, JoshKayV_97, RhynO_75, Rowdy_91, Shapes_91,

Genes that do not have the "Most Annotated" start:
• Chadwick_87, Jabiru_85, PetterN_92,

Summary by start number:

Start 15:
• Found in 4 of 76 (5.3%) of genes in pham
• Manual Annotations of this start: 1 of 73
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DustyMartin_91 (A10), RhynO_75 (A10), Rowdy_91 (A10), Shapes_91 (A10),

Start 16:
• Found in 3 of 76 (3.9%) of genes in pham
• Manual Annotations of this start: 3 of 73
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chadwick_87 (A5), Jabiru_85 (A5), PetterN_92 (A5),

Start 17:
• Found in 5 of 76 (6.6%) of genes in pham
• Manual Annotations of this start: 3 of 73
• Called 60.0% of time when present
• Phage (with cluster) where this start called: ChipMunk_94 (A2), EvilGenius_93 (A2), JoshKayV_97 (A2),

Start 18:
• Found in 12 of 76 (15.8%) of genes in pham
• Manual Annotations of this start: 1 of 73
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Changeling_92 (A2),

Start 19:
• Found in 73 of 76 (96.1%) of genes in pham
• Manual Annotations of this start: 64 of 73
• Called 87.7% of time when present
• Phage (with cluster) where this start called: AbbyPaige_96 (A2), Acolyte_89 (A2), Agape74_96 (A2), Airmid_87 (A5), Anselm_97 (A2), Astro_98 (A8), Benedict_88 (A5), BlueBird_93 (A3), Bonamassa_87 (A5), Bowtie_95 (A11), Caviar_79 (A3), Chupacabra_83 (A10), Clammy_93 (A3), Dalmatian_94 (A2), DeerParkTS_89 (A2), Dixon_98 (A8), DropBear_91 (A3), DudeLittle_93 (A2), EZMoney23_91 (A2), Ebony_98 (A11), ElTiger69_90 (A5), Et2Brutus_100 (A11), Fameo_93 (A2), Fibonacci_99 (A11), FiringLine_94 (A2), Gilberta_97 (A11), Hookmount_90 (A3), Joselito_97 (A11), Journey13_80 (A2), Jsquared_101 (A2), Kachowdy_92 (A3), Kalpine_97 (A2), Kristoff_84 (A10), Lambert1_90 (A3), Leviathan_95 (A2), LilTurb_95 (A2), Lucivia_100 (A11), Mabel_99 (A11), Margo_90 (A3), MissWhite_93 (A2), Mulciber_98 (A11), NearlyHeadless_100 (A8), Orange_99 (A11), Phillis_96 (A8), Pomar16_97 (A2), Popcicle_90 (A3), Power_94 (A2), QuinnKiro_89 (A3), Saintus_94 (A8), Saskia_98 (A11), Serenity_98 (A2), Smeadley_99 (A8), Smeagan_96 (A2), Snape_99 (A11), StarStuff_97 (A2), Stephig9_100 (A8), SydNat_85 (A5), TNguyen7_92 (A3), Texage_88 (A3), Theia_86 (A5), Timothy_99 (A11), Todacoro_90 (A3), Twigg_87 (A5), WeiHuaDA_96 (A2),

Start 20:
• Found in 16 of 76 (21.1%) of genes in pham
• Manual Annotations of this start: 1 of 73
• Called 6.2% of time when present
• Phage (with cluster) where this start called: Giroux_94 (A3),

Summary by clusters:

There are 6 clusters represented in this pham: A11, A10, A3, A2, A5, A8,

Info for manual annotations of cluster A10:
•Start number 15 was manually annotated 1 time for cluster A10.
•Start number 19 was manually annotated 2 times for cluster A10.

Info for manual annotations of cluster A11:
•Start number 19 was manually annotated 13 times for cluster A11.

Info for manual annotations of cluster A2:
•Start number 17 was manually annotated 3 times for cluster A2.
•Start number 18 was manually annotated 1 time for cluster A2.
•Start number 19 was manually annotated 22 times for cluster A2.

Info for manual annotations of cluster A3:
•Start number 19 was manually annotated 13 times for cluster A3.
•Start number 20 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A5:
•Start number 16 was manually annotated 3 times for cluster A5.
•Start number 19 was manually annotated 7 times for cluster A5.

Info for manual annotations of cluster A8:
•Start number 19 was manually annotated 7 times for cluster A8.

Gene Information:

Gene: AbbyPaige_96 Start: 51634, Stop: 51557, Start Num: 19
Candidate Starts for AbbyPaige_96:
(13, 51661), (Start: 18 @51637 has 1 MA's), (Start: 19 @51634 has 64 MA's),

Gene: Acolyte_89 Start: 50809, Stop: 50732, Start Num: 19
Candidate Starts for Acolyte_89:
(13, 50833), (Start: 19 @50809 has 64 MA's), (Start: 20 @50791 has 1 MA's), (22, 50767),

Gene: Agape74_96 Start: 51607, Stop: 51530, Start Num: 19
Candidate Starts for Agape74_96:
(13, 51634), (Start: 18 @51610 has 1 MA's), (Start: 19 @51607 has 64 MA's),

Gene: Airmid_87 Start: 49229, Stop: 49152, Start Num: 19
Candidate Starts for Airmid_87:
(12, 49262), (Start: 19 @49229 has 64 MA's), (21, 49193),

Gene: Anselm_97 Start: 52009, Stop: 51932, Start Num: 19
Candidate Starts for Anselm_97:
(13, 52036), (Start: 18 @52012 has 1 MA's), (Start: 19 @52009 has 64 MA's),

Gene: Astro_98 Start: 50607, Stop: 50530, Start Num: 19
Candidate Starts for Astro_98:
(Start: 19 @50607 has 64 MA's),

Gene: Benedict_88 Start: 49072, Stop: 48995, Start Num: 19
Candidate Starts for Benedict_88:
(12, 49105), (Start: 19 @49072 has 64 MA's), (21, 49036),

Gene: BlueBird_93 Start: 49300, Stop: 49223, Start Num: 19
Candidate Starts for BlueBird_93:
(Start: 19 @49300 has 64 MA's), (Start: 20 @49282 has 1 MA's), (23, 49237),

Gene: Bonamassa_87 Start: 49219, Stop: 49142, Start Num: 19
Candidate Starts for Bonamassa_87:
(1, 49333), (2, 49324), (6, 49291), (7, 49288), (10, 49261), (14, 49240), (Start: 19 @49219 has 64 MA's), (21, 49183),

Gene: Bowtie_95 Start: 49674, Stop: 49597, Start Num: 19
Candidate Starts for Bowtie_95:
(13, 49704), (Start: 19 @49674 has 64 MA's), (24, 49605),

Gene: Caviar_79 Start: 45928, Stop: 45851, Start Num: 19

Candidate Starts for Caviar_79:
(Start: 19 @45928 has 64 MA's), (23, 45865),

Gene: Chadwick_87 Start: 47540, Stop: 47460, Start Num: 16
Candidate Starts for Chadwick_87:
(Start: 16 @47540 has 3 MA's),

Gene: Changeling_92 Start: 51425, Stop: 51345, Start Num: 18
Candidate Starts for Changeling_92:
(13, 51449), (Start: 18 @51425 has 1 MA's), (Start: 19 @51422 has 64 MA's),

Gene: ChipMunk_94 Start: 52355, Stop: 52272, Start Num: 17
Candidate Starts for ChipMunk_94:
(2, 52445), (4, 52421), (Start: 17 @52355 has 3 MA's), (Start: 19 @52349 has 64 MA's), (Start: 20 @52331 has 1 MA's), (23, 52286), (24, 52280),

Gene: Chupacabra_83 Start: 49581, Stop: 49504, Start Num: 19
Candidate Starts for Chupacabra_83:
(13, 49608), (Start: 19 @49581 has 64 MA's),

Gene: Clammy_93 Start: 49300, Stop: 49223, Start Num: 19
Candidate Starts for Clammy_93:
(Start: 19 @49300 has 64 MA's), (Start: 20 @49282 has 1 MA's), (23, 49237),

Gene: Dalmatian_94 Start: 51310, Stop: 51233, Start Num: 19
Candidate Starts for Dalmatian_94:
(13, 51337), (Start: 18 @51313 has 1 MA's), (Start: 19 @51310 has 64 MA's),

Gene: DeerParkTS_89 Start: 49759, Stop: 49682, Start Num: 19
Candidate Starts for DeerParkTS_89:
(13, 49786), (Start: 17 @49765 has 3 MA's), (Start: 19 @49759 has 64 MA's), (Start: 20 @49741 has 1 MA's), (22, 49717), (23, 49696),

Gene: Dixon_98 Start: 50172, Stop: 50095, Start Num: 19
Candidate Starts for Dixon_98:
(Start: 19 @50172 has 64 MA's),

Gene: DropBear_91 Start: 49106, Stop: 49029, Start Num: 19
Candidate Starts for DropBear_91:
(Start: 19 @49106 has 64 MA's), (23, 49043),

Gene: DudeLittle_93 Start: 51376, Stop: 51299, Start Num: 19
Candidate Starts for DudeLittle_93:
(13, 51403), (Start: 18 @51379 has 1 MA's), (Start: 19 @51376 has 64 MA's),

Gene: DustyMartin_91 Start: 49998, Stop: 49909, Start Num: 15
Candidate Starts for DustyMartin_91:
(13, 50013), (Start: 15 @49998 has 1 MA's), (Start: 19 @49986 has 64 MA's),

Gene: EZMoney23_91 Start: 50262, Stop: 50185, Start Num: 19
Candidate Starts for EZMoney23_91:
(13, 50286), (Start: 19 @50262 has 64 MA's), (Start: 20 @50244 has 1 MA's), (22, 50220), (23, 50199),

Gene: Ebony_98 Start: 50638, Stop: 50561, Start Num: 19
Candidate Starts for Ebony_98:
(13, 50668), (Start: 19 @50638 has 64 MA's), (24, 50569),

Gene: ElTiger69_90 Start: 49493, Stop: 49416, Start Num: 19
Candidate Starts for ElTiger69_90:
(12, 49526), (Start: 19 @49493 has 64 MA's), (21, 49457),

Gene: Et2Brutus_100 Start: 50983, Stop: 50906, Start Num: 19
Candidate Starts for Et2Brutus_100:
(13, 51013), (Start: 19 @50983 has 64 MA's),

Gene: EvilGenius_93 Start: 52356, Stop: 52273, Start Num: 17
Candidate Starts for EvilGenius_93:
(2, 52446), (4, 52422), (Start: 17 @52356 has 3 MA's), (Start: 19 @52350 has 64 MA's), (Start: 20 @52332 has 1 MA's), (23, 52287), (24, 52281),

Gene: Fameo_93 Start: 51082, Stop: 51005, Start Num: 19
Candidate Starts for Fameo_93:
(13, 51109), (Start: 18 @51085 has 1 MA's), (Start: 19 @51082 has 64 MA's),

Gene: Fibonacci_99 Start: 50921, Stop: 50844, Start Num: 19
Candidate Starts for Fibonacci_99:
(13, 50951), (Start: 19 @50921 has 64 MA's), (24, 50852),

Gene: FiringLine_94 Start: 51780, Stop: 51703, Start Num: 19
Candidate Starts for FiringLine_94:
(13, 51807), (Start: 18 @51783 has 1 MA's), (Start: 19 @51780 has 64 MA's),

Gene: Gilberta_97 Start: 49941, Stop: 49864, Start Num: 19
Candidate Starts for Gilberta_97:
(13, 49971), (Start: 19 @49941 has 64 MA's), (24, 49872),

Gene: Giroux_94 Start: 49281, Stop: 49222, Start Num: 20
Candidate Starts for Giroux_94:
(Start: 19 @49299 has 64 MA's), (Start: 20 @49281 has 1 MA's), (23, 49236),

Gene: Hookmount_90 Start: 48931, Stop: 48854, Start Num: 19
Candidate Starts for Hookmount_90:
(Start: 19 @48931 has 64 MA's), (23, 48868),

Gene: Jabiru_85 Start: 48652, Stop: 48572, Start Num: 16
Candidate Starts for Jabiru_85:
(Start: 16 @48652 has 3 MA's), (21, 48613),

Gene: Joselito_97 Start: 50819, Stop: 50742, Start Num: 19
Candidate Starts for Joselito_97:
(13, 50849), (Start: 19 @50819 has 64 MA's), (24, 50750),

Gene: JoshKayV_97 Start: 51822, Stop: 51739, Start Num: 17
Candidate Starts for JoshKayV_97:
(Start: 17 @51822 has 3 MA's), (Start: 19 @51816 has 64 MA's), (23, 51753), (24, 51747),

Gene: Journey13_80 Start: 46885, Stop: 46808, Start Num: 19
Candidate Starts for Journey13_80:
(Start: 19 @46885 has 64 MA's), (Start: 20 @46867 has 1 MA's),

Gene: Jsquared_101 Start: 51418, Stop: 51341, Start Num: 19
Candidate Starts for Jsquared_101:
(Start: 19 @51418 has 64 MA's), (Start: 20 @51400 has 1 MA's),

Gene: Kachowdy_92 Start: 49237, Stop: 49160, Start Num: 19
Candidate Starts for Kachowdy_92:
(Start: 19 @49237 has 64 MA's), (23, 49174),

Gene: Kalpine_97 Start: 51831, Stop: 51754, Start Num: 19
Candidate Starts for Kalpine_97:
(13, 51858), (Start: 18 @51834 has 1 MA's), (Start: 19 @51831 has 64 MA's),

Gene: Kristoff_84 Start: 50050, Stop: 49973, Start Num: 19
Candidate Starts for Kristoff_84:
(5, 50122), (13, 50077), (Start: 19 @50050 has 64 MA's),

Gene: Lambert1_90 Start: 48932, Stop: 48855, Start Num: 19
Candidate Starts for Lambert1_90:
(Start: 19 @48932 has 64 MA's), (23, 48869),

Gene: Leviathan_95 Start: 51650, Stop: 51573, Start Num: 19
Candidate Starts for Leviathan_95:
(13, 51677), (Start: 18 @51653 has 1 MA's), (Start: 19 @51650 has 64 MA's),

Gene: LilTurb_95 Start: 51562, Stop: 51485, Start Num: 19
Candidate Starts for LilTurb_95:
(13, 51589), (Start: 18 @51565 has 1 MA's), (Start: 19 @51562 has 64 MA's),

Gene: Lucivia_100 Start: 51098, Stop: 51021, Start Num: 19
Candidate Starts for Lucivia_100:
(13, 51128), (Start: 19 @51098 has 64 MA's), (24, 51029),

Gene: Mabel_99 Start: 51063, Stop: 50986, Start Num: 19
Candidate Starts for Mabel_99:
(13, 51093), (Start: 19 @51063 has 64 MA's), (24, 50994),

Gene: Margo_90 Start: 48957, Stop: 48880, Start Num: 19
Candidate Starts for Margo_90:
(Start: 19 @48957 has 64 MA's), (23, 48894),

Gene: MissWhite_93 Start: 48728, Stop: 48651, Start Num: 19
Candidate Starts for MissWhite_93:
(Start: 19 @48728 has 64 MA's), (Start: 20 @48710 has 1 MA's), (21, 48692),

Gene: Mulciber_98 Start: 50918, Stop: 50841, Start Num: 19
Candidate Starts for Mulciber_98:
(13, 50948), (Start: 19 @50918 has 64 MA's), (24, 50849),

Gene: NearlyHeadless_100 Start: 50504, Stop: 50427, Start Num: 19

Candidate Starts for NearlyHeadless_100:
(Start: 19 @50504 has 64 MA's),

Gene: Orange_99 Start: 50617, Stop: 50540, Start Num: 19
Candidate Starts for Orange_99:
(13, 50647), (Start: 19 @50617 has 64 MA's), (24, 50548),

Gene: PetterN_92 Start: 49239, Stop: 49159, Start Num: 16
Candidate Starts for PetterN_92:
(3, 49320), (Start: 16 @49239 has 3 MA's),

Gene: Phillis_96 Start: 49511, Stop: 49434, Start Num: 19
Candidate Starts for Phillis_96:
(Start: 19 @49511 has 64 MA's),

Gene: Pomar16_97 Start: 51296, Stop: 51219, Start Num: 19
Candidate Starts for Pomar16_97:
(13, 51323), (Start: 19 @51296 has 64 MA's), (Start: 20 @51278 has 1 MA's),

Gene: Popcicle_90 Start: 48928, Stop: 48851, Start Num: 19
Candidate Starts for Popcicle_90:
(Start: 19 @48928 has 64 MA's), (23, 48865),

Gene: Power_94 Start: 51827, Stop: 51750, Start Num: 19
Candidate Starts for Power_94:
(13, 51854), (Start: 18 @51830 has 1 MA's), (Start: 19 @51827 has 64 MA's),

Gene: QuinnKiro_89 Start: 48931, Stop: 48854, Start Num: 19
Candidate Starts for QuinnKiro_89:
(Start: 19 @48931 has 64 MA's), (23, 48868),

Gene: RhynO_75 Start: 45612, Stop: 45523, Start Num: 15
Candidate Starts for RhynO_75:
(13, 45627), (Start: 15 @45612 has 1 MA's), (Start: 19 @45600 has 64 MA's),

Gene: Rowdy_91 Start: 49998, Stop: 49909, Start Num: 15
Candidate Starts for Rowdy_91:
(13, 50013), (Start: 15 @49998 has 1 MA's), (Start: 19 @49986 has 64 MA's),

Gene: Saintus_94 Start: 47348, Stop: 47271, Start Num: 19
Candidate Starts for Saintus_94:
(Start: 19 @47348 has 64 MA's),

Gene: Saskia_98 Start: 50286, Stop: 50209, Start Num: 19
Candidate Starts for Saskia_98:
(13, 50316), (Start: 19 @50286 has 64 MA's), (24, 50217),

Gene: Serenity_98 Start: 50529, Stop: 50452, Start Num: 19
Candidate Starts for Serenity_98:
(Start: 19 @50529 has 64 MA's), (Start: 20 @50511 has 1 MA's),

Gene: Shapes_91 Start: 49998, Stop: 49909, Start Num: 15
Candidate Starts for Shapes_91:

(13, 50013), (Start: 15 @49998 has 1 MA's), (Start: 19 @49986 has 64 MA's),

Gene: Smeadley_99 Start: 50508, Stop: 50431, Start Num: 19
Candidate Starts for Smeadley_99:
(Start: 19 @50508 has 64 MA's),

Gene: Smeagan_96 Start: 51716, Stop: 51639, Start Num: 19
Candidate Starts for Smeagan_96:
(2, 51812), (4, 51788), (Start: 17 @51722 has 3 MA's), (Start: 19 @51716 has 64 MA's), (Start: 20 @51698 has 1 MA's), (23, 51653), (24, 51647),

Gene: Snape_99 Start: 50606, Stop: 50529, Start Num: 19
Candidate Starts for Snape_99:
(13, 50636), (Start: 19 @50606 has 64 MA's), (24, 50537),

Gene: StarStuff_97 Start: 51258, Stop: 51181, Start Num: 19
Candidate Starts for StarStuff_97:
(13, 51285), (Start: 19 @51258 has 64 MA's), (Start: 20 @51240 has 1 MA's),

Gene: Stephig9_100 Start: 50834, Stop: 50757, Start Num: 19
Candidate Starts for Stephig9_100:
(Start: 19 @50834 has 64 MA's),

Gene: SydNat_85 Start: 49394, Stop: 49317, Start Num: 19
Candidate Starts for SydNat_85:
(9, 49439), (Start: 19 @49394 has 64 MA's), (21, 49358),

Gene: TNguyen7_92 Start: 49258, Stop: 49181, Start Num: 19
Candidate Starts for TNguyen7_92:
(Start: 19 @49258 has 64 MA's), (Start: 20 @49240 has 1 MA's), (23, 49195),

Gene: Texage_88 Start: 48932, Stop: 48855, Start Num: 19
Candidate Starts for Texage_88:
(Start: 19 @48932 has 64 MA's), (23, 48869),

Gene: Theia_86 Start: 49737, Stop: 49660, Start Num: 19
Candidate Starts for Theia_86:
(8, 49788), (9, 49782), (Start: 19 @49737 has 64 MA's), (21, 49701),

Gene: Timothy_99 Start: 50583, Stop: 50506, Start Num: 19
Candidate Starts for Timothy_99:
(13, 50613), (Start: 19 @50583 has 64 MA's), (24, 50514),

Gene: Todacoro_90 Start: 48931, Stop: 48854, Start Num: 19
Candidate Starts for Todacoro_90:
(Start: 19 @48931 has 64 MA's), (23, 48868),

Gene: Twigg_87 Start: 49157, Stop: 49080, Start Num: 19
Candidate Starts for Twigg_87:
(1, 49271), (2, 49262), (6, 49229), (7, 49226), (10, 49199), (11, 49193), (14, 49178), (Start: 19 @49157 has 64 MA's), (21, 49121),

Gene: WeiHuaDA_96 Start: 52049, Stop: 51972, Start Num: 19

Candidate Starts for WeiHuaDA_96:
(Start: 19 @52049 has 64 MA's),