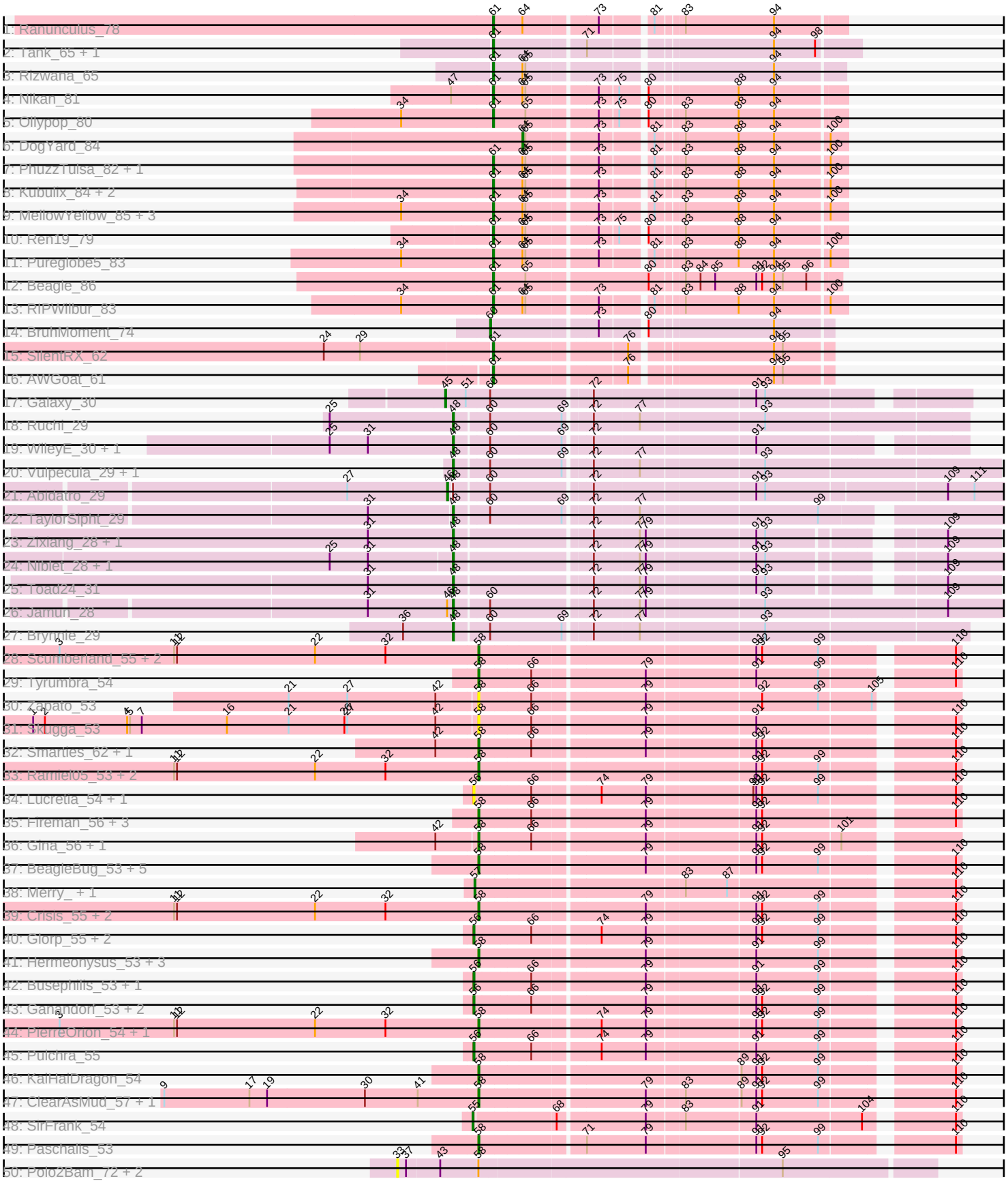
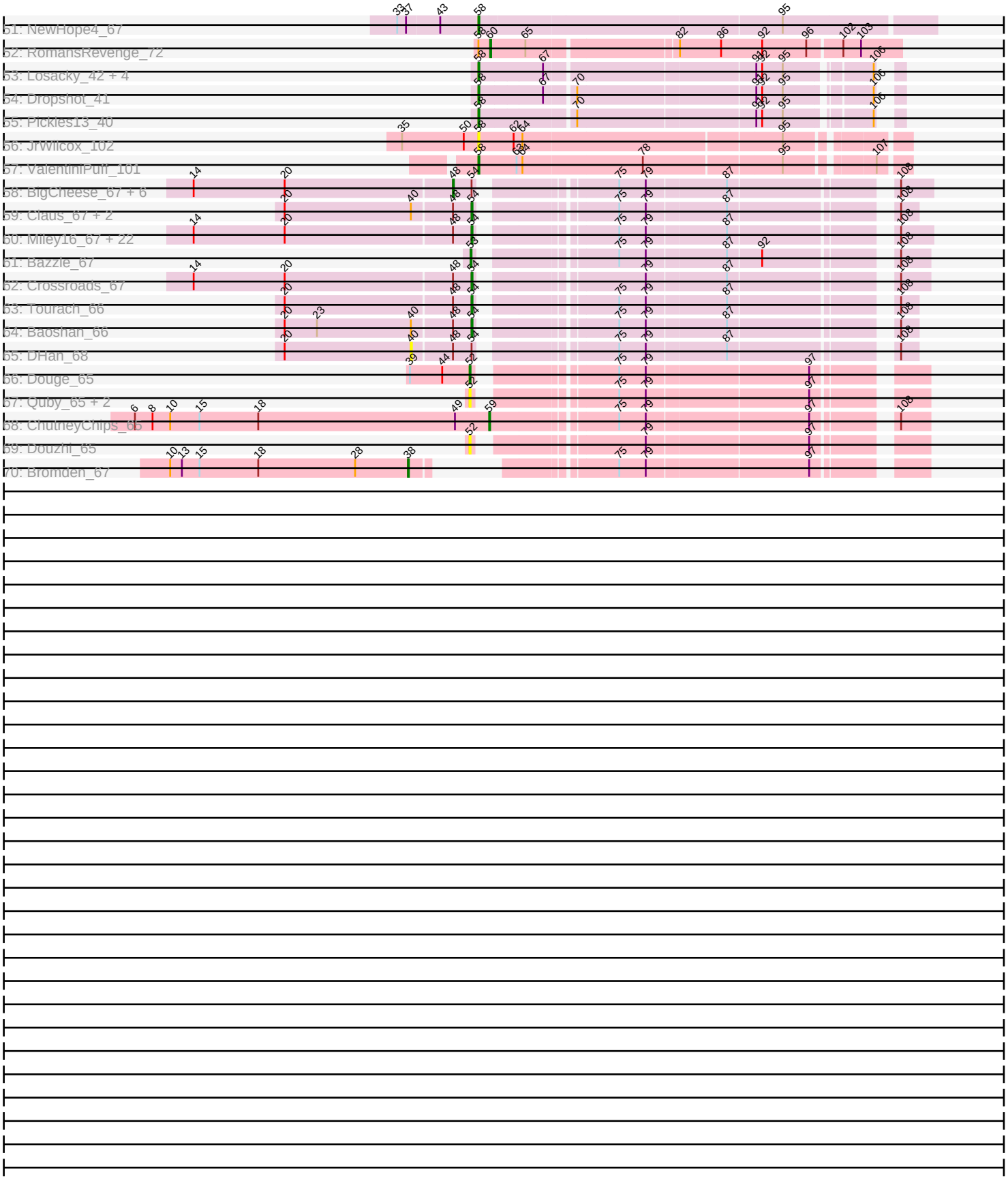
Pham 347351


1: Ranunculus_78
2: Tank_65 + 1
3: Rizwana_65
4: Nikan_81
5: Olypop_80
6: DogYard_84
7: PhuzzTulsa_82 + 1
8: Kubulix_84 + 2
9: MellowYellow_85 + 3
10: Ren19_79
11: Pureglobe5_83
12: Beagle_86
13: RIPWilbur_83
14: BrunMoment_74
15: SilentRX_62
16: AWGoat_61
17: Galaxy_30
18: Ruchi_29
19: WileyE_30 + 1
20: Vulpecula_29 + 1
21: Abidatro_29
22: TaylorSpht_29
23: Zixiang_28 + 1
24: Niblet_28 + 1
25: Toad24_31
26: Jamun_28
27: Brynjle_29
28: Scumberland_55 + 2
29: Tyrumbra_54
30: Zapato_53
31: Skugga_53
32: Smarties_62 + 1
33: Ramiel05_53 + 2
34: Lucretia_54 + 1
35: Fireman_56 + 3
36: Gina_56 + 1
37: BeagleBug_53 + 5
38: Merry_ + 1
39: Crisis_55 + 2
40: Glorp_55 + 2
41: Hermeonysus_53 + 3
42: Busephills_53 + 1
43: Ganandorf_53 + 2
44: PierreOrion_54 + 1
45: Pulchra_55
46: KaiHaiDragon_54
47: ClearAsMud_57 + 1
48: SirFrank_54
49: Paschalis_53
50: Polo2Bam_72 + 2

Pham 347351


51: NewHope4_67
52: RomansRevenge_72
53: Losacky_42 + 4
54: Dropshot_41
55: Pickles13_40
56: JrWilcox_102
57: ValentinPuff_101
58: BigCheese_67 + 6
59: Claus_67 + 2
60: Miley16_67 + 22
61: Bazzle_67
62: Crossroads_67
63: Tourach_66
64: Baoshan_66
65: DHan_68
66: Douge_65
67: Quby_65 + 2
68: ChutneyChips_65
69: Douzhi_65
70: Bromden_67

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 347351 Report

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

Pham number 347351 has 147 members, 26 are drafts.

Phages represented in each track:
- Track 1 : Ranunculus_78
- Track 2 : Tank_65, Wilde_67
- Track 3 : Rizwana_65
- Track 4 : Nikan_81
- Track 5 : Ollypop_80
- Track 6 : DogYard_84
- Track 7 : PhuzzTulsa_82, Odyssey395_85
- Track 8 : Kubulix_84, Pointis_81, BetaFish_85
- Track 9 : MellowYellow_85, Forrestell_84, RazzB_84, NyleyClemson_83
- Track 10 : Ren19_79
- Track 11 : Pureglobe5_83
- Track 12 : Beagle_86
- Track 13 : RIPWilbur_83
- Track 14 : BruhMoment_74
- Track 15 : SilentRX_62
- Track 16 : AWGoat_61
- Track 17 : Galaxy_30
- Track 18 : Ruchi_29
- Track 19 : WileyE_30, Chickaboom_30
- Track 20 : Vulpecula_29, Basilisk_30
- Track 21 : Abidatro_29
- Track 22 : TaylorSipht_29
- Track 23 : Zixiang_28, Amanises_31
- Track 24 : Niblet_28, Chicken_28
- Track 25 : Toad24_31
- Track 26 : Jamun_28
- Track 27 : Brynnie_29
- Track 28 : Scumberland_55, LittleFortune_55, Cranjis_55
- Track 29 : Tyrumbra_54
- Track 30 : Zapato_53
- Track 31 : Skugga_53
- Track 32 : Smarties_62, Ariadne_62
- Track 33 : Ramiel05_53, BrazzalePHS_53, Kowalski_53
- Track 34 : Lucretia_54, Germa_55
- Track 35 : Fireman_56, RobsFeet_57, Metamorphoo_56, Shrubaron_56
- Track 36 : Gina_56, Teamocil_56

• Track 37 : BeagleBug_53, Antares_54, Quhwah_57, Shotgun_53, PhedwardCullen_53, Savannah_53
• Track 38 : Merry_, Sunny_
• Track 39 : Crisis_55, Jefe_54, CrazyRich_53
• Track 40 : Glorp_55, Honeyfin_55, Yeti_54
• Track 41 : Hermeonysus_53, PiperSansNom_54, Rockwell_53, Onika_53
• Track 42 : Busephilis_53, Phrancesco_54
• Track 43 : Ganandorf_53, Piperis_54, Phorgeous_53
• Track 44 : PierreOrion_54, Jollipop_54
• Track 45 : Pulchra_55
• Track 46 : KaiHaiDragon_54
• Track 47 : ClearAsMud_57, NoodlelyBoi_55
• Track 48 : SirFrank_54
• Track 49 : Paschalis_53
• Track 50 : Polo2Bam_72, SeaLumen_70, Enzomatic_73
• Track 51 : NewHope4_67
• Track 52 : RomansRevenge_72
• Track 53 : Losacky_42, Guzman_41, Appa_41, Winchester007_43, PhillyJawn_42
• Track 54 : Dropshot_41
• Track 55 : Pickles13_40
• Track 56 : JrWilcox_102
• Track 57 : ValentiniPuff_101
• Track 58 : BigCheese_67, Lewan_68, BobsGarage_67, OverPar_68, Underpass_58, Vetrix_67, Nicholasp3_67
• Track 59 : Claus_67, ZhongYanYuan_66, DanBing_68
• Track 60 : Miley16_67, Wigglewiggle_67, ChengKai98_68, Zakai_68, Lynnae_69, Finemlucis_67, Hiraya_68, GuuelaD_66, Gardann_68, MkaliMitinis3_68, Rumpelstiltskin_66, Molivier_59, Breezona_67, Sarshaun_68, Kahlid_67, Itos_66, LilDestine_67, Wilder_68, Loadrie_66, Gabriela_64, Rossetti_69, Hafay_69, Winky_67
• Track 61 : Bazzle_67
• Track 62 : Crossroads_67
• Track 63 : Tourach_66
• Track 64 : Baoshan_66
• Track 65 : DHan_68
• Track 66 : Douge_65
• Track 67 : Quby_65, PYPDinur_63, FarmResident_67
• Track 68 : ChutneyChips_65
• Track 69 : Douzhi_65
• Track 70 : Bromden_67

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

The start number called the most often in the published annotations is 58, it was called in 40 of the 121 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Antares_54, Appa_41, Ariadne_62, BeagleBug_53, BrazzalePHS_53, ClearAsMud_57, Cranjis_55, CrazyRich_53, Crisis_55, Dropshot_41, Fireman_56, Gina_56, Guzman_41, Hermeonysus_53, Jefe_54, Jollipop_54, JrWilcox_102,

KaiHaiDragon_54, Kowalski_53, LittleFortune_55, Losacky_42, Metamorphoo_56, NewHope4_67, NoodlelyBoi_55, Onika_53, Paschalis_53, PhedwardCullen_53, PhillyJawn_42, Pickles13_40, PierreOrion_54, PiperSansNom_54, Quhwah_57, Ramiel05_53, RobsFeet_57, Rockwell_53, Savannah_53, Scumberland_55, Shotgun_53, Shrubaron_56, Skugga_53, Smarties_62, Teamocil_56, Tyrumbra_54, ValentiniPuff_101, Winchester007_43, Zapato_53,

Genes that have the "Most Annotated" start but do not call it:
• Enzomatic_73, Polo2Bam_72, RomansRevenge_72, SeaLumen_70,

Genes that do not have the "Most Annotated" start:
• AWGoat_61, Abidatro_29, Amanises_31, Baoshan_66, Basilisk_30, Bazzle_67, Beagle_86, BetaFish_85, BigCheese_67, BobsGarage_67, Breezona_67, Bromden_67, BruhMoment_74, Brynnie_29, Busephilis_53, ChengKai98_68, Chickaboom_30, Chicken_28, ChutneyChips_65, Claus_67, Crossroads_67, DHan_68, DanBing_68, DogYard_84, Douge_65, Douzhi_65, FarmResident_67, Finemlucis_67, Forrestell_84, Gabriela_64, Galaxy_30, Ganandorf_53, Gardann_68, Germa_55, Glorp_55, GuuelaD_66, Hafay_69, Hiraya_68, Honeyfin_55, Itos_66, Jamun_28, Kahlid_67, Kubulix_84, Lewan_68, LilDestine_67, Loadrie_66, Lucretia_54, Lynnae_69, MellowYellow_85, Merry_, Miley16_67, MkaliMitinis3_68, Molivier_59, Niblet_28, Nicholasp3_67, Nikan_81, NyleyClemson_83, Odyssey395_85, Ollypop_80, OverPar_68, PYPDinur_63, Phorgeous_53, Phrancesco_54, PhuzzTulsa_82, Piperis_54, Pointis_81, Pulchra_55, Pureglobe5_83, Quby_65, RIPWilbur_83, Ranunculus_78, RazzB_84, Ren19_79, Rizwana_65, Rossetti_69, Ruchi_29, Rumpelstiltskin_66, Sarshaun_68, SilentRX_62, SirFrank_54, Sunny_, Tank_65, TaylorSipht_29, Toad24_31, Tourach_66, Underpass_58, Vetrix_67, Vulpecula_29, Wigglewiggle_67, Wilde_67, Wilder_68, WileyE_30, Winky_67, Yeti_54, Zakai_68, ZhongYanYuan_66, Zixiang_28,

Summary by start number:

Start 33:
• Found in 4 of 147 (2.7%) of genes in pham
• No Manual Annotations of this start.
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Enzomatic_73 (F1), Polo2Bam_72 (F1), SeaLumen_70 (F1),

Start 38:
• Found in 1 of 147 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bromden_67 (L4),

Start 40:
• Found in 5 of 147 (3.4%) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: DHan_68 (L2),

Start 45:
• Found in 1 of 147 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 121

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Galaxy_30 (AS1),

Start 46:
• Found in 2 of 147 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Abidatro_29 (AS1),

Start 48:
• Found in 51 of 147 (34.7%) of genes in pham
• Manual Annotations of this start: 20 of 121
• Called 39.2% of time when present
• Phage (with cluster) where this start called: Amanises_31 (AS1), Basilisk_30 (AS1), BigCheese_67 (L2), BobsGarage_67 (L2), Brynnie_29 (AS1), Chickaboom_30 (AS1), Chicken_28 (AS1), Jamun_28 (AS1), Lewan_68 (L2), Niblet_28 (AS1), Nicholasp3_67 (L2), OverPar_68 (L2), Ruchi_29 (AS1), TaylorSipht_29 (AS1), Toad24_31 (AS1), Underpass_58 (L2), Vetrix_67 (L2), Vulpecula_29 (AS1), WileyE_30 (AS1), Zixiang_28 (AS1),

Start 52:
• Found in 5 of 147 (3.4%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Douge_65 (L4), Douzhi_65 (L4), FarmResident_67 (L4), PYPDinur_63 (L4), Quby_65 (L4),

Start 53:
• Found in 1 of 147 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bazzle_67 (L2),

Start 54:
• Found in 37 of 147 (25.2%) of genes in pham
• Manual Annotations of this start: 20 of 121
• Called 78.4% of time when present
• Phage (with cluster) where this start called: Baoshan_66 (L2), Breezona_67 (L2), ChengKai98_68 (L2), Claus_67 (L2), Crossroads_67 (L2), DanBing_68 (L2), Finemlucis_67 (L2), Gabriela_64 (L2), Gardann_68 (L2), GuuelaD_66 (L2), Hafay_69 (L2), Hiraya_68 (L2), Itos_66 (L2), Kahlid_67 (L2), LilDestine_67 (L2), Loadrie_66 (L2), Lynnae_69 (L2), Miley16_67 (L2), MkaliMitinis3_68 (L2), Molivier_59 (L2), Rossetti_69 (L2), Rumpelstiltskin_66 (L2), Sarshaun_68 (L2), Tourach_66 (L2), Wigglewiggle_67 (L2), Wilder_68 (L2), Winky_67 (L2), Zakai_68 (L2), ZhongYanYuan_66 (L2),

Start 55:
• Found in 1 of 147 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SirFrank_54 (EC),

Start 56:

• Found in 11 of 147 (7.5%) of genes in pham
• Manual Annotations of this start: 9 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Busephilis_53 (EC), Ganandorf_53 (EC), Germa_55 (EC), Glorp_55 (EC), Honeyfin_55 (EC), Lucretia_54 (EC), Phorgeous_53 (EC), Phrancesco_54 (EC), Piperis_54 (EC), Pulchra_55 (EC), Yeti_54 (EC),

Start 57:
• Found in 2 of 147 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Merry_ (EC), Sunny_ (EC),

Start 58:
• Found in 50 of 147 (34.0%) of genes in pham
• Manual Annotations of this start: 40 of 121
• Called 92.0% of time when present
• Phage (with cluster) where this start called: Antares_54 (EC), Appa_41 (GA), Ariadne_62 (EC), BeagleBug_53 (EC), BrazzalePHS_53 (EC), ClearAsMud_57 (EC), Cranjis_55 (EC), CrazyRich_53 (EC), Crisis_55 (EC), Dropshot_41 (GA), Fireman_56 (EC), Gina_56 (EC), Guzman_41 (GA), Hermeonysus_53 (EC), Jefe_54 (EC), Jollipop_54 (EC), JrWilcox_102 (GL), KaiHaiDragon_54 (EC), Kowalski_53 (EC), LittleFortune_55 (EC), Losacky_42 (GA), Metamorphoo_56 (EC), NewHope4_67 (F1), NoodlelyBoi_55 (EC), Onika_53 (EC), Paschalis_53 (EC), PhedwardCullen_53 (EC), PhillyJawn_42 (GA), Pickles13_40 (GA), PierreOrion_54 (EC), PiperSansNom_54 (EC), Quhwah_57 (EC), Ramiel05_53 (EC), RobsFeet_57 (EC), Rockwell_53 (EC), Savannah_53 (EC), Scumberland_55 (EC), Shotgun_53 (EC), Shrubaron_56 (EC), Skugga_53 (EC), Smarties_62 (EC), Teamocil_56 (EC), Tyrumbra_54 (EC), ValentiniPuff_101 (GL), Winchester007_43 (GA), Zapato_53 (EC),

Start 59:
• Found in 1 of 147 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ChutneyChips_65 (L4),

Start 60:
• Found in 12 of 147 (8.2%) of genes in pham
• Manual Annotations of this start: 2 of 121
• Called 16.7% of time when present
• Phage (with cluster) where this start called: BruhMoment_74 (AP3), RomansRevenge_72 (FT),

Start 61:
• Found in 21 of 147 (14.3%) of genes in pham
• Manual Annotations of this start: 20 of 121
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AWGoat_61 (AP4), Beagle_86 (AP2), BetaFish_85 (AP2), Forrestell_84 (AP2), Kubulix_84 (AP2), MellowYellow_85 (AP2), Nikan_81 (AP2), NyleyClemson_83 (AP2), Odyssey395_85 (AP2), Ollypop_80 (AP2), PhuzzTulsa_82 (AP2), Pointis_81 (AP2), Pureglobe5_83 (AP2), RIPWilbur_83 (AP2), Ranunculus_78 (AP), RazzB_84 (AP2), Ren19_79 (AP2), Rizwana_65 (AP1),

SilentRX_62 (AP4), Tank_65 (AP1), Wilde_67 (AP1),

Start 64:
• Found in 18 of 147 (12.2%) of genes in pham
• Manual Annotations of this start: 1 of 121
• Called 5.6% of time when present
• Phage (with cluster) where this start called: DogYard_84 (AP2),

Summary by clusters:

There are 13 clusters represented in this pham: F1, AS1, FT, AP2, AP3, AP1, EC, AP, L4, L2, AP4, GA, GL,

Info for manual annotations of cluster AP:
•Start number 61 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:
•Start number 61 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:
•Start number 61 was manually annotated 14 times for cluster AP2.
•Start number 64 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP3:
•Start number 60 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:
•Start number 61 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster AS1:
•Start number 45 was manually annotated 1 time for cluster AS1.
•Start number 46 was manually annotated 1 time for cluster AS1.
•Start number 48 was manually annotated 13 times for cluster AS1.

Info for manual annotations of cluster EC:
•Start number 55 was manually annotated 1 time for cluster EC.
•Start number 56 was manually annotated 9 times for cluster EC.
•Start number 57 was manually annotated 2 times for cluster EC.
•Start number 58 was manually annotated 32 times for cluster EC.

Info for manual annotations of cluster F1:
•Start number 58 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster FT:
•Start number 60 was manually annotated 1 time for cluster FT.

Info for manual annotations of cluster GA:
•Start number 58 was manually annotated 6 times for cluster GA.

Info for manual annotations of cluster GL:
•Start number 58 was manually annotated 1 time for cluster GL.

Info for manual annotations of cluster L2:

•Start number 48 was manually annotated 7 times for cluster L2.
•Start number 53 was manually annotated 1 time for cluster L2.
•Start number 54 was manually annotated 20 times for cluster L2.

Info for manual annotations of cluster L4:
•Start number 38 was manually annotated 1 time for cluster L4.
•Start number 52 was manually annotated 1 time for cluster L4.
•Start number 59 was manually annotated 1 time for cluster L4.

Gene Information:

Gene: AWGoat_61 Start: 44482, Stop: 44168, Start Num: 61
Candidate Starts for AWGoat_61:
(Start: 61 @44482 has 20 MA's), (76, 44356), (94, 44224), (95, 44215),

Gene: Abidatro_29 Start: 21393, Stop: 20860, Start Num: 46
Candidate Starts for Abidatro_29:
(27, 21495), (Start: 46 @21393 has 1 MA's), (Start: 48 @21390 has 20 MA's), (Start: 60 @21357 has 2 MA's), (72, 21261), (91, 21105), (93, 21096), (109, 20922), (111, 20895),

Gene: Amanises_31 Start: 22263, Stop: 21769, Start Num: 48
Candidate Starts for Amanises_31:
(31, 22350), (Start: 48 @22263 has 20 MA's), (72, 22134), (77, 22089), (79, 22083), (91, 21978), (93, 21969), (109, 21822),

Gene: Antares_54 Start: 35918, Stop: 36367, Start Num: 58
Candidate Starts for Antares_54:
(Start: 58 @35918 has 40 MA's), (79, 36077), (91, 36182), (92, 36188), (99, 36245), (110, 36362),

Gene: Appa_41 Start: 25620, Stop: 25997, Start Num: 58
Candidate Starts for Appa_41:
(Start: 58 @25620 has 40 MA's), (67, 25683), (91, 25884), (92, 25890), (95, 25911), (106, 25986),

Gene: Ariadne_62 Start: 37502, Stop: 37951, Start Num: 58
Candidate Starts for Ariadne_62:
(42, 37460), (Start: 58 @37502 has 40 MA's), (66, 37553), (79, 37661), (91, 37766), (92, 37772), (110, 37946),

Gene: Baoshan_66 Start: 46306, Stop: 46692, Start Num: 54
Candidate Starts for Baoshan_66:
(20, 46120), (23, 46153), (40, 46249), (Start: 48 @46288 has 20 MA's), (Start: 54 @46306 has 20 MA's), (75, 46423), (79, 46450), (87, 46528), (108, 46675),

Gene: Basilisk_30 Start: 22338, Stop: 21847, Start Num: 48
Candidate Starts for Basilisk_30:
(Start: 48 @22338 has 20 MA's), (Start: 60 @22305 has 2 MA's), (69, 22233), (72, 22209), (77, 22164), (93, 22044),

Gene: Bazzle_67 Start: 46701, Stop: 47099, Start Num: 53
Candidate Starts for Bazzle_67:
(Start: 53 @46701 has 1 MA's), (75, 46818), (79, 46845), (87, 46923), (92, 46956), (108, 47070),

Gene: Beagle_86 Start: 50592, Stop: 50260, Start Num: 61
Candidate Starts for Beagle_86:
(Start: 61 @50592 has 20 MA's), (65, 50559), (80, 50442), (83, 50412), (84, 50397), (85, 50382), (91, 50340), (92, 50334), (94, 50322), (95, 50313), (96, 50289),

Gene: BeagleBug_53 Start: 35699, Stop: 36148, Start Num: 58
Candidate Starts for BeagleBug_53:
(Start: 58 @35699 has 40 MA's), (79, 35858), (91, 35963), (92, 35969), (99, 36026), (110, 36143),

Gene: BetaFish_85 Start: 50810, Stop: 50484, Start Num: 61
Candidate Starts for BetaFish_85:
(Start: 61 @50810 has 20 MA's), (Start: 64 @50780 has 1 MA's), (65, 50777), (73, 50711), (81, 50666), (83, 50642), (88, 50588), (94, 50552), (100, 50501),

Gene: BigCheese_67 Start: 46345, Stop: 46764, Start Num: 48
Candidate Starts for BigCheese_67:
(14, 46084), (20, 46177), (Start: 48 @46345 has 20 MA's), (Start: 54 @46363 has 20 MA's), (75, 46480), (79, 46507), (87, 46585), (108, 46732),

Gene: BobsGarage_67 Start: 46345, Stop: 46764, Start Num: 48
Candidate Starts for BobsGarage_67:
(14, 46084), (20, 46177), (Start: 48 @46345 has 20 MA's), (Start: 54 @46363 has 20 MA's), (75, 46480), (79, 46507), (87, 46585), (108, 46732),

Gene: BrazzalePHS_53 Start: 35714, Stop: 36163, Start Num: 58
Candidate Starts for BrazzalePHS_53:
(11, 35405), (12, 35408), (22, 35549), (32, 35621), (Start: 58 @35714 has 40 MA's), (91, 35978), (92, 35984), (99, 36041), (110, 36158),

Gene: Breezona_67 Start: 46363, Stop: 46764, Start Num: 54
Candidate Starts for Breezona_67:
(14, 46084), (20, 46177), (Start: 48 @46345 has 20 MA's), (Start: 54 @46363 has 20 MA's), (75, 46480), (79, 46507), (87, 46585), (108, 46732),

Gene: Bromden_67 Start: 46292, Stop: 46696, Start Num: 38
Candidate Starts for Bromden_67:
(10, 46049), (13, 46061), (15, 46079), (18, 46139), (28, 46238), (Start: 38 @46292 has 1 MA's), (75, 46415), (79, 46442), (97, 46601),

Gene: BruhMoment_74 Start: 49610, Stop: 49293, Start Num: 60
Candidate Starts for BruhMoment_74:
(Start: 60 @49610 has 2 MA's), (73, 49508), (80, 49469), (94, 49349),

Gene: Brynnie_29 Start: 22216, Stop: 21725, Start Num: 48
Candidate Starts for Brynnie_29:
(36, 22267), (Start: 48 @22216 has 20 MA's), (Start: 60 @22183 has 2 MA's), (69, 22111), (72, 22087), (77, 22042), (93, 21922),

Gene: Busephilis_53 Start: 35622, Stop: 36074, Start Num: 56
Candidate Starts for Busephilis_53:
(Start: 56 @35622 has 9 MA's), (66, 35676), (79, 35784), (91, 35889), (99, 35952), (110, 36069),

Gene: ChengKai98_68 Start: 46398, Stop: 46799, Start Num: 54
Candidate Starts for ChengKai98_68:
(14, 46119), (20, 46212), (Start: 48 @46380 has 20 MA's), (Start: 54 @46398 has 20 MA's), (75, 46515), (79, 46542), (87, 46620), (108, 46767),

Gene: Chickaboom_30 Start: 21353, Stop: 20883, Start Num: 48
Candidate Starts for Chickaboom_30:
(25, 21479), (31, 21440), (Start: 48 @21353 has 20 MA's), (Start: 60 @21320 has 2 MA's), (69, 21248), (72, 21224), (91, 21068),

Gene: Chicken_28 Start: 21668, Stop: 21147, Start Num: 48
Candidate Starts for Chicken_28:
(25, 21791), (31, 21752), (Start: 48 @21668 has 20 MA's), (72, 21539), (77, 21494), (79, 21488), (91, 21383), (93, 21374), (109, 21227),

Gene: ChutneyChips_65 Start: 45296, Stop: 45694, Start Num: 59
Candidate Starts for ChutneyChips_65:
(6, 44936), (8, 44954), (10, 44972), (15, 45002), (18, 45062), (49, 45263), (Start: 59 @45296 has 1 MA's), (75, 45413), (79, 45440), (97, 45599), (108, 45665),

Gene: Claus_67 Start: 46444, Stop: 46830, Start Num: 54
Candidate Starts for Claus_67:
(20, 46258), (40, 46387), (Start: 48 @46426 has 20 MA's), (Start: 54 @46444 has 20 MA's), (75, 46561), (79, 46588), (87, 46666), (108, 46813),

Gene: ClearAsMud_57 Start: 36175, Stop: 36624, Start Num: 58
Candidate Starts for ClearAsMud_57:
(9, 35857), (17, 35944), (19, 35962), (30, 36061), (41, 36115), (Start: 58 @36175 has 40 MA's), (79, 36334), (83, 36370), (89, 36424), (91, 36439), (92, 36445), (99, 36502), (110, 36619),

Gene: Cranjis_55 Start: 35873, Stop: 36322, Start Num: 58
Candidate Starts for Cranjis_55:
(3, 35447), (11, 35564), (12, 35567), (22, 35708), (32, 35780), (Start: 58 @35873 has 40 MA's), (91, 36137), (92, 36143), (99, 36200), (110, 36317),

Gene: CrazyRich_53 Start: 35682, Stop: 36131, Start Num: 58
Candidate Starts for CrazyRich_53:
(11, 35373), (12, 35376), (22, 35517), (32, 35589), (Start: 58 @35682 has 40 MA's), (79, 35841), (91, 35946), (92, 35952), (99, 36009), (110, 36126),

Gene: Crisis_55 Start: 35673, Stop: 36122, Start Num: 58
Candidate Starts for Crisis_55:
(11, 35364), (12, 35367), (22, 35508), (32, 35580), (Start: 58 @35673 has 40 MA's), (79, 35832), (91, 35937), (92, 35943), (99, 36000), (110, 36117),

Gene: Crossroads_67 Start: 46441, Stop: 46839, Start Num: 54
Candidate Starts for Crossroads_67:
(14, 46162), (20, 46255), (Start: 48 @46423 has 20 MA's), (Start: 54 @46441 has 20 MA's), (79, 46585), (87, 46663), (108, 46810),

Gene: DHan_68 Start: 46287, Stop: 46730, Start Num: 40
Candidate Starts for DHan_68:

(20, 46158), (40, 46287), (Start: 48 @46326 has 20 MA's), (Start: 54 @46344 has 20 MA's), (75, 46461), (79, 46488), (87, 46566), (108, 46713),

Gene: DanBing_68 Start: 46313, Stop: 46699, Start Num: 54
Candidate Starts for DanBing_68:
(20, 46127), (40, 46256), (Start: 48 @46295 has 20 MA's), (Start: 54 @46313 has 20 MA's), (75, 46430), (79, 46457), (87, 46535), (108, 46682),

Gene: DogYard_84 Start: 50267, Stop: 49971, Start Num: 64
Candidate Starts for DogYard_84:
(Start: 64 @50267 has 1 MA's), (65, 50264), (73, 50198), (81, 50153), (83, 50129), (88, 50075), (94, 50039), (100, 49988),

Gene: Douge_65 Start: 45034, Stop: 45432, Start Num: 52
Candidate Starts for Douge_65:
(39, 44974), (44, 45007), (Start: 52 @45034 has 1 MA's), (75, 45151), (79, 45178), (97, 45337),

Gene: Douzhi_65 Start: 45087, Stop: 45485, Start Num: 52
Candidate Starts for Douzhi_65:
(Start: 52 @45087 has 1 MA's), (79, 45231), (97, 45390),

Gene: Dropshot_41 Start: 25455, Stop: 25832, Start Num: 58
Candidate Starts for Dropshot_41:
(Start: 58 @25455 has 40 MA's), (67, 25518), (70, 25545), (91, 25719), (92, 25725), (95, 25746), (106, 25821),

Gene: Enzomatic_73 Start: 42241, Stop: 42768, Start Num: 33
Candidate Starts for Enzomatic_73:
(33, 42241), (37, 42250), (43, 42283), (Start: 58 @42319 has 40 MA's), (95, 42619),

Gene: FarmResident_67 Start: 45043, Stop: 45441, Start Num: 52
Candidate Starts for FarmResident_67:
(Start: 52 @45043 has 1 MA's), (75, 45160), (79, 45187), (97, 45346),

Gene: Finemlucis_67 Start: 46684, Stop: 47085, Start Num: 54
Candidate Starts for Finemlucis_67:
(14, 46405), (20, 46498), (Start: 48 @46666 has 20 MA's), (Start: 54 @46684 has 20 MA's), (75, 46801), (79, 46828), (87, 46906), (108, 47053),

Gene: Fireman_56 Start: 37569, Stop: 38018, Start Num: 58
Candidate Starts for Fireman_56:
(Start: 58 @37569 has 40 MA's), (66, 37620), (79, 37728), (91, 37833), (92, 37839), (110, 38013),

Gene: Forrestell_84 Start: 49543, Stop: 49217, Start Num: 61
Candidate Starts for Forrestell_84:
(34, 49636), (Start: 61 @49543 has 20 MA's), (Start: 64 @49513 has 1 MA's), (65, 49510), (73, 49444), (81, 49399), (83, 49375), (88, 49321), (94, 49285), (100, 49234),

Gene: Gabriela_64 Start: 44813, Stop: 45211, Start Num: 54
Candidate Starts for Gabriela_64:
(14, 44534), (20, 44627), (Start: 48 @44795 has 20 MA's), (Start: 54 @44813 has 20 MA's), (75, 44930), (79, 44957), (87, 45035), (108, 45182),

Gene: Galaxy_30 Start: 21976, Stop: 21491, Start Num: 45
Candidate Starts for Galaxy_30:
(Start: 45 @21976 has 1 MA's), (51, 21955), (Start: 60 @21931 has 2 MA's), (72, 21835), (91, 21679), (93, 21670),

Gene: Ganandorf_53 Start: 35703, Stop: 36155, Start Num: 56
Candidate Starts for Ganandorf_53:
(Start: 56 @35703 has 9 MA's), (66, 35757), (79, 35865), (91, 35970), (92, 35976), (99, 36033), (110, 36150),

Gene: Gardann_68 Start: 46399, Stop: 46797, Start Num: 54
Candidate Starts for Gardann_68:
(14, 46120), (20, 46213), (Start: 48 @46381 has 20 MA's), (Start: 54 @46399 has 20 MA's), (75, 46516), (79, 46543), (87, 46621), (108, 46768),

Gene: Germa_55 Start: 35532, Stop: 35984, Start Num: 56
Candidate Starts for Germa_55:
(Start: 56 @35532 has 9 MA's), (66, 35586), (74, 35649), (79, 35694), (90, 35796), (91, 35799), (92, 35805), (99, 35862), (110, 35979),

Gene: Gina_56 Start: 35677, Stop: 36126, Start Num: 58
Candidate Starts for Gina_56:
(42, 35638), (Start: 58 @35677 has 40 MA's), (66, 35728), (79, 35836), (91, 35941), (92, 35947), (101, 36025),

Gene: Glorp_55 Start: 35704, Stop: 36156, Start Num: 56
Candidate Starts for Glorp_55:
(Start: 56 @35704 has 9 MA's), (66, 35758), (74, 35821), (79, 35866), (91, 35971), (92, 35977), (99, 36034), (110, 36151),

Gene: GuuelaD_66 Start: 46478, Stop: 46879, Start Num: 54
Candidate Starts for GuuelaD_66:
(14, 46199), (20, 46292), (Start: 48 @46460 has 20 MA's), (Start: 54 @46478 has 20 MA's), (75, 46595), (79, 46622), (87, 46700), (108, 46847),

Gene: Guzman_41 Start: 25719, Stop: 26096, Start Num: 58
Candidate Starts for Guzman_41:
(Start: 58 @25719 has 40 MA's), (67, 25782), (91, 25983), (92, 25989), (95, 26010), (106, 26085),

Gene: Hafay_69 Start: 46467, Stop: 46868, Start Num: 54
Candidate Starts for Hafay_69:
(14, 46188), (20, 46281), (Start: 48 @46449 has 20 MA's), (Start: 54 @46467 has 20 MA's), (75, 46584), (79, 46611), (87, 46689), (108, 46836),

Gene: Hermeonysus_53 Start: 35602, Stop: 36051, Start Num: 58
Candidate Starts for Hermeonysus_53:
(Start: 58 @35602 has 40 MA's), (79, 35761), (91, 35866), (99, 35929), (110, 36046),

Gene: Hiraya_68 Start: 46433, Stop: 46834, Start Num: 54
Candidate Starts for Hiraya_68:
(14, 46154), (20, 46247), (Start: 48 @46415 has 20 MA's), (Start: 54 @46433 has 20 MA's), (75, 46550), (79, 46577), (87, 46655), (108, 46802),

Gene: Honeyfin_55 Start: 35891, Stop: 36343, Start Num: 56
Candidate Starts for Honeyfin_55:
(Start: 56 @35891 has 9 MA's), (66, 35945), (74, 36008), (79, 36053), (91, 36158), (92, 36164), (99, 36221), (110, 36338),

Gene: Itos_66 Start: 45269, Stop: 45670, Start Num: 54
Candidate Starts for Itos_66:
(14, 44990), (20, 45083), (Start: 48 @45251 has 20 MA's), (Start: 54 @45269 has 20 MA's), (75, 45386), (79, 45413), (87, 45491), (108, 45638),

Gene: Jamun_28 Start: 21237, Stop: 20692, Start Num: 48
Candidate Starts for Jamun_28:
(31, 21321), (Start: 46 @21240 has 1 MA's), (Start: 48 @21237 has 20 MA's), (Start: 60 @21204 has 2 MA's), (72, 21108), (77, 21063), (79, 21057), (93, 20943), (109, 20766),

Gene: Jefe_54 Start: 35660, Stop: 36109, Start Num: 58
Candidate Starts for Jefe_54:
(11, 35351), (12, 35354), (22, 35495), (32, 35567), (Start: 58 @35660 has 40 MA's), (79, 35819), (91, 35924), (92, 35930), (99, 35987), (110, 36104),

Gene: Jollipop_54 Start: 35999, Stop: 36448, Start Num: 58
Candidate Starts for Jollipop_54:
(3, 35573), (11, 35690), (12, 35693), (22, 35834), (32, 35906), (Start: 58 @35999 has 40 MA's), (74, 36113), (79, 36158), (91, 36263), (92, 36269), (99, 36326), (110, 36443),

Gene: JrWilcox_102 Start: 57042, Stop: 57449, Start Num: 58
Candidate Starts for JrWilcox_102:
(35, 56964), (50, 57027), (Start: 58 @57042 has 40 MA's), (62, 57078), (Start: 64 @57087 has 1 MA's), (95, 57342),

Gene: Kahlid_67 Start: 46369, Stop: 46770, Start Num: 54
Candidate Starts for Kahlid_67:
(14, 46090), (20, 46183), (Start: 48 @46351 has 20 MA's), (Start: 54 @46369 has 20 MA's), (75, 46486), (79, 46513), (87, 46591), (108, 46738),

Gene: KaiHaiDragon_54 Start: 35596, Stop: 36045, Start Num: 58
Candidate Starts for KaiHaiDragon_54:
(Start: 58 @35596 has 40 MA's), (89, 35845), (91, 35860), (92, 35866), (99, 35923), (110, 36040),

Gene: Kowalski_53 Start: 35709, Stop: 36158, Start Num: 58
Candidate Starts for Kowalski_53:
(11, 35400), (12, 35403), (22, 35544), (32, 35616), (Start: 58 @35709 has 40 MA's), (91, 35973), (92, 35979), (99, 36036), (110, 36153),

Gene: Kubulix_84 Start: 49967, Stop: 49641, Start Num: 61
Candidate Starts for Kubulix_84:
(Start: 61 @49967 has 20 MA's), (Start: 64 @49937 has 1 MA's), (65, 49934), (73, 49868), (81, 49823), (83, 49799), (88, 49745), (94, 49709), (100, 49658),

Gene: Lewan_68 Start: 46405, Stop: 46821, Start Num: 48
Candidate Starts for Lewan_68:
(14, 46144), (20, 46237), (Start: 48 @46405 has 20 MA's), (Start: 54 @46423 has 20 MA's), (75, 46540), (79, 46567), (87, 46645), (108, 46792),

Gene: LilDestine_67 Start: 46396, Stop: 46797, Start Num: 54
Candidate Starts for LilDestine_67:
(14, 46117), (20, 46210), (Start: 48 @46378 has 20 MA's), (Start: 54 @46396 has 20 MA's), (75, 46513), (79, 46540), (87, 46618), (108, 46765),

Gene: LittleFortune_55 Start: 35965, Stop: 36414, Start Num: 58
Candidate Starts for LittleFortune_55:
(3, 35539), (11, 35656), (12, 35659), (22, 35800), (32, 35872), (Start: 58 @35965 has 40 MA's), (91, 36229), (92, 36235), (99, 36292), (110, 36409),

Gene: Loadrie_66 Start: 46451, Stop: 46849, Start Num: 54
Candidate Starts for Loadrie_66:
(14, 46172), (20, 46265), (Start: 48 @46433 has 20 MA's), (Start: 54 @46451 has 20 MA's), (75, 46568), (79, 46595), (87, 46673), (108, 46820),

Gene: Losacky_42 Start: 25840, Stop: 26217, Start Num: 58
Candidate Starts for Losacky_42:
(Start: 58 @25840 has 40 MA's), (67, 25903), (91, 26104), (92, 26110), (95, 26131), (106, 26206),

Gene: Lucretia_54 Start: 35620, Stop: 36072, Start Num: 56
Candidate Starts for Lucretia_54:
(Start: 56 @35620 has 9 MA's), (66, 35674), (74, 35737), (79, 35782), (90, 35884), (91, 35887), (92, 35893), (99, 35950), (110, 36067),

Gene: Lynnae_69 Start: 46394, Stop: 46795, Start Num: 54
Candidate Starts for Lynnae_69:
(14, 46115), (20, 46208), (Start: 48 @46376 has 20 MA's), (Start: 54 @46394 has 20 MA's), (75, 46511), (79, 46538), (87, 46616), (108, 46763),

Gene: MellowYellow_85 Start: 50209, Stop: 49883, Start Num: 61
Candidate Starts for MellowYellow_85:
(34, 50302), (Start: 61 @50209 has 20 MA's), (Start: 64 @50179 has 1 MA's), (65, 50176), (73, 50110), (81, 50065), (83, 50041), (88, 49987), (94, 49951), (100, 49900),

Gene: Merry_ Start: 37459, Stop: 37911, Start Num: 57
Candidate Starts for Merry_:
(Start: 57 @37459 has 2 MA's), (83, 37657), (87, 37699), (110, 37906),

Gene: Metamorphoo_56 Start: 36831, Stop: 37280, Start Num: 58
Candidate Starts for Metamorphoo_56:
(Start: 58 @36831 has 40 MA's), (66, 36882), (79, 36990), (91, 37095), (92, 37101), (110, 37275),

Gene: Miley16_67 Start: 46363, Stop: 46764, Start Num: 54
Candidate Starts for Miley16_67:
(14, 46084), (20, 46177), (Start: 48 @46345 has 20 MA's), (Start: 54 @46363 has 20 MA's), (75, 46480), (79, 46507), (87, 46585), (108, 46732),

Gene: MkaliMitinis3_68 Start: 46435, Stop: 46833, Start Num: 54
Candidate Starts for MkaliMitinis3_68:
(14, 46156), (20, 46249), (Start: 48 @46417 has 20 MA's), (Start: 54 @46435 has 20 MA's), (75, 46552), (79, 46579), (87, 46657), (108, 46804),

Gene: Molivier_59 Start: 41425, Stop: 41823, Start Num: 54
Candidate Starts for Molivier_59:
(14, 41146), (20, 41239), (Start: 48 @41407 has 20 MA's), (Start: 54 @41425 has 20 MA's), (75, 41542), (79, 41569), (87, 41647), (108, 41794),

Gene: NewHope4_67 Start: 42465, Stop: 42914, Start Num: 58
Candidate Starts for NewHope4_67:
(33, 42387), (37, 42396), (43, 42429), (Start: 58 @42465 has 40 MA's), (95, 42765),

Gene: Niblet_28 Start: 21668, Stop: 21147, Start Num: 48
Candidate Starts for Niblet_28:
(25, 21791), (31, 21752), (Start: 48 @21668 has 20 MA's), (72, 21539), (77, 21494), (79, 21488), (91, 21383), (93, 21374), (109, 21227),

Gene: Nicholasp3_67 Start: 46381, Stop: 46797, Start Num: 48
Candidate Starts for Nicholasp3_67:
(14, 46120), (20, 46213), (Start: 48 @46381 has 20 MA's), (Start: 54 @46399 has 20 MA's), (75, 46516), (79, 46543), (87, 46621), (108, 46768),

Gene: Nikan_81 Start: 50187, Stop: 49861, Start Num: 61
Candidate Starts for Nikan_81:
(47, 50226), (Start: 61 @50187 has 20 MA's), (Start: 64 @50157 has 1 MA's), (65, 50154), (73, 50088), (75, 50070), (80, 50049), (88, 49965), (94, 49929),

Gene: NoodlelyBoi_55 Start: 36387, Stop: 36836, Start Num: 58
Candidate Starts for NoodlelyBoi_55:
(9, 36069), (17, 36156), (19, 36174), (30, 36273), (41, 36327), (Start: 58 @36387 has 40 MA's), (79, 36546), (83, 36582), (89, 36636), (91, 36651), (92, 36657), (99, 36714), (110, 36831),

Gene: NyleyClemson_83 Start: 49827, Stop: 49501, Start Num: 61
Candidate Starts for NyleyClemson_83:
(34, 49920), (Start: 61 @49827 has 20 MA's), (Start: 64 @49797 has 1 MA's), (65, 49794), (73, 49728), (81, 49683), (83, 49659), (88, 49605), (94, 49569), (100, 49518),

Gene: Odyssey395_85 Start: 50318, Stop: 49992, Start Num: 61
Candidate Starts for Odyssey395_85:
(Start: 61 @50318 has 20 MA's), (Start: 64 @50288 has 1 MA's), (65, 50285), (73, 50219), (81, 50174), (83, 50150), (88, 50096), (94, 50060), (100, 50009),

Gene: Ollypop_80 Start: 50972, Stop: 50646, Start Num: 61
Candidate Starts for Ollypop_80:
(34, 51065), (Start: 61 @50972 has 20 MA's), (65, 50939), (73, 50873), (75, 50855), (80, 50834), (83, 50804), (88, 50750), (94, 50714),

Gene: Onika_53 Start: 35684, Stop: 36133, Start Num: 58
Candidate Starts for Onika_53:
(Start: 58 @35684 has 40 MA's), (79, 35843), (91, 35948), (99, 36011), (110, 36128),

Gene: OverPar_68 Start: 46433, Stop: 46849, Start Num: 48
Candidate Starts for OverPar_68:
(14, 46172), (20, 46265), (Start: 48 @46433 has 20 MA's), (Start: 54 @46451 has 20 MA's), (75, 46568), (79, 46595), (87, 46673), (108, 46820),

Gene: PYPDinur_63 Start: 45117, Stop: 45515, Start Num: 52
Candidate Starts for PYPDinur_63:
(Start: 52 @45117 has 1 MA's), (75, 45234), (79, 45261), (97, 45420),

Gene: Paschalis_53 Start: 35691, Stop: 36140, Start Num: 58
Candidate Starts for Paschalis_53:
(Start: 58 @35691 has 40 MA's), (71, 35790), (79, 35850), (91, 35955), (92, 35961), (99, 36018), (110, 36135),

Gene: PhedwardCullen_53 Start: 35442, Stop: 35891, Start Num: 58
Candidate Starts for PhedwardCullen_53:
(Start: 58 @35442 has 40 MA's), (79, 35601), (91, 35706), (92, 35712), (99, 35769), (110, 35886),

Gene: PhillyJawn_42 Start: 25617, Stop: 25994, Start Num: 58
Candidate Starts for PhillyJawn_42:
(Start: 58 @25617 has 40 MA's), (67, 25680), (91, 25881), (92, 25887), (95, 25908), (106, 25983),

Gene: Phorgeous_53 Start: 35522, Stop: 35974, Start Num: 56
Candidate Starts for Phorgeous_53:
(Start: 56 @35522 has 9 MA's), (66, 35576), (79, 35684), (91, 35789), (92, 35795), (99, 35852), (110, 35969),

Gene: Phrancesco_54 Start: 35812, Stop: 36264, Start Num: 56
Candidate Starts for Phrancesco_54:
(Start: 56 @35812 has 9 MA's), (66, 35866), (79, 35974), (91, 36079), (99, 36142), (110, 36259),

Gene: PhuzzTulsa_82 Start: 50446, Stop: 50120, Start Num: 61
Candidate Starts for PhuzzTulsa_82:
(Start: 61 @50446 has 20 MA's), (Start: 64 @50416 has 1 MA's), (65, 50413), (73, 50347), (81, 50302), (83, 50278), (88, 50224), (94, 50188), (100, 50137),

Gene: Pickles13_40 Start: 25930, Stop: 26307, Start Num: 58
Candidate Starts for Pickles13_40:
(Start: 58 @25930 has 40 MA's), (70, 26020), (91, 26194), (92, 26200), (95, 26221), (106, 26296),

Gene: PierreOrion_54 Start: 35858, Stop: 36307, Start Num: 58
Candidate Starts for PierreOrion_54:
(3, 35432), (11, 35549), (12, 35552), (22, 35693), (32, 35765), (Start: 58 @35858 has 40 MA's), (74, 35972), (79, 36017), (91, 36122), (92, 36128), (99, 36185), (110, 36302),

Gene: PiperSansNom_54 Start: 35998, Stop: 36447, Start Num: 58
Candidate Starts for PiperSansNom_54:
(Start: 58 @35998 has 40 MA's), (79, 36157), (91, 36262), (99, 36325), (110, 36442),

Gene: Piperis_54 Start: 35645, Stop: 36097, Start Num: 56
Candidate Starts for Piperis_54:
(Start: 56 @35645 has 9 MA's), (66, 35699), (79, 35807), (91, 35912), (92, 35918), (99, 35975), (110, 36092),

Gene: Pointis_81 Start: 49894, Stop: 49568, Start Num: 61
Candidate Starts for Pointis_81:
(Start: 61 @49894 has 20 MA's), (Start: 64 @49864 has 1 MA's), (65, 49861), (73, 49795), (81, 49750), (83, 49726), (88, 49672), (94, 49636), (100, 49585),

Gene: Polo2Bam_72 Start: 42241, Stop: 42768, Start Num: 33
Candidate Starts for Polo2Bam_72:
(33, 42241), (37, 42250), (43, 42283), (Start: 58 @42319 has 40 MA's), (95, 42619),

Gene: Pulchra_55 Start: 36042, Stop: 36494, Start Num: 56
Candidate Starts for Pulchra_55:
(Start: 56 @36042 has 9 MA's), (66, 36096), (74, 36159), (79, 36204), (91, 36309), (99, 36372), (110, 36489),

Gene: Pureglobe5_83 Start: 50341, Stop: 50015, Start Num: 61
Candidate Starts for Pureglobe5_83:
(34, 50434), (Start: 61 @50341 has 20 MA's), (Start: 64 @50311 has 1 MA's), (65, 50308), (73, 50242), (81, 50197), (83, 50173), (88, 50119), (94, 50083), (100, 50032),

Gene: Quby_65 Start: 45009, Stop: 45407, Start Num: 52
Candidate Starts for Quby_65:
(Start: 52 @45009 has 1 MA's), (75, 45126), (79, 45153), (97, 45312),

Gene: Quhwah_57 Start: 36306, Stop: 36755, Start Num: 58
Candidate Starts for Quhwah_57:
(Start: 58 @36306 has 40 MA's), (79, 36465), (91, 36570), (92, 36576), (99, 36633), (110, 36750),

Gene: RIPWilbur_83 Start: 49861, Stop: 49535, Start Num: 61
Candidate Starts for RIPWilbur_83:
(34, 49954), (Start: 61 @49861 has 20 MA's), (Start: 64 @49831 has 1 MA's), (65, 49828), (73, 49762), (81, 49717), (83, 49693), (88, 49639), (94, 49603), (100, 49552),

Gene: Ramiel05_53 Start: 35709, Stop: 36158, Start Num: 58
Candidate Starts for Ramiel05_53:
(11, 35400), (12, 35403), (22, 35544), (32, 35616), (Start: 58 @35709 has 40 MA's), (91, 35973), (92, 35979), (99, 36036), (110, 36153),

Gene: Ranunculus_78 Start: 52647, Stop: 52321, Start Num: 61
Candidate Starts for Ranunculus_78:
(Start: 61 @52647 has 20 MA's), (Start: 64 @52617 has 1 MA's), (73, 52548), (81, 52503), (83, 52479), (94, 52389),

Gene: RazzB_84 Start: 49953, Stop: 49627, Start Num: 61
Candidate Starts for RazzB_84:
(34, 50046), (Start: 61 @49953 has 20 MA's), (Start: 64 @49923 has 1 MA's), (65, 49920), (73, 49854), (81, 49809), (83, 49785), (88, 49731), (94, 49695), (100, 49644),

Gene: Ren19_79 Start: 49730, Stop: 49404, Start Num: 61
Candidate Starts for Ren19_79:
(Start: 61 @49730 has 20 MA's), (Start: 64 @49700 has 1 MA's), (65, 49697), (73, 49631), (75, 49613), (80, 49592), (83, 49562), (88, 49508), (94, 49472),

Gene: Rizwana_65 Start: 46684, Stop: 46358, Start Num: 61
Candidate Starts for Rizwana_65:
(Start: 61 @46684 has 20 MA's), (Start: 64 @46654 has 1 MA's), (65, 46651), (94, 46426),

Gene: RobsFeet_57 Start: 37130, Stop: 37579, Start Num: 58

Candidate Starts for RobsFeet_57:
(Start: 58 @37130 has 40 MA's), (66, 37181), (79, 37289), (91, 37394), (92, 37400), (110, 37574),

Gene: Rockwell_53 Start: 35709, Stop: 36158, Start Num: 58
Candidate Starts for Rockwell_53:
(Start: 58 @35709 has 40 MA's), (79, 35868), (91, 35973), (99, 36036), (110, 36153),

Gene: RomansRevenge_72 Start: 48362, Stop: 47964, Start Num: 60
Candidate Starts for RomansRevenge_72:
(Start: 58 @48374 has 40 MA's), (Start: 60 @48362 has 2 MA's), (65, 48326), (82, 48185), (86, 48143), (92, 48101), (96, 48056), (102, 48023), (103, 48005),

Gene: Rossetti_69 Start: 46945, Stop: 47343, Start Num: 54
Candidate Starts for Rossetti_69:
(14, 46666), (20, 46759), (Start: 48 @46927 has 20 MA's), (Start: 54 @46945 has 20 MA's), (75, 47062), (79, 47089), (87, 47167), (108, 47314),

Gene: Ruchi_29 Start: 22284, Stop: 21793, Start Num: 48
Candidate Starts for Ruchi_29:
(25, 22410), (Start: 48 @22284 has 20 MA's), (Start: 60 @22251 has 2 MA's), (69, 22179), (72, 22155), (77, 22110), (93, 21990),

Gene: Rumpelstiltskin_66 Start: 45792, Stop: 46190, Start Num: 54
Candidate Starts for Rumpelstiltskin_66:
(14, 45513), (20, 45606), (Start: 48 @45774 has 20 MA's), (Start: 54 @45792 has 20 MA's), (75, 45909), (79, 45936), (87, 46014), (108, 46161),

Gene: Sarshaun_68 Start: 46459, Stop: 46857, Start Num: 54
Candidate Starts for Sarshaun_68:
(14, 46180), (20, 46273), (Start: 48 @46441 has 20 MA's), (Start: 54 @46459 has 20 MA's), (75, 46576), (79, 46603), (87, 46681), (108, 46828),

Gene: Savannah_53 Start: 35736, Stop: 36185, Start Num: 58
Candidate Starts for Savannah_53:
(Start: 58 @35736 has 40 MA's), (79, 35895), (91, 36000), (92, 36006), (99, 36063), (110, 36180),

Gene: Scumberland_55 Start: 35931, Stop: 36380, Start Num: 58
Candidate Starts for Scumberland_55:
(3, 35505), (11, 35622), (12, 35625), (22, 35766), (32, 35838), (Start: 58 @35931 has 40 MA's), (91, 36195), (92, 36201), (99, 36258), (110, 36375),

Gene: SeaLumen_70 Start: 42241, Stop: 42768, Start Num: 33
Candidate Starts for SeaLumen_70:
(33, 42241), (37, 42250), (43, 42283), (Start: 58 @42319 has 40 MA's), (95, 42619),

Gene: Shotgun_53 Start: 35535, Stop: 35984, Start Num: 58
Candidate Starts for Shotgun_53:
(Start: 58 @35535 has 40 MA's), (79, 35694), (91, 35799), (92, 35805), (99, 35862), (110, 35979),

Gene: Shrubaron_56 Start: 36743, Stop: 37192, Start Num: 58
Candidate Starts for Shrubaron_56:
(Start: 58 @36743 has 40 MA's), (66, 36794), (79, 36902), (91, 37007), (92, 37013), (110, 37187),

Gene: SilentRX_62 Start: 45416, Stop: 45102, Start Num: 61
Candidate Starts for SilentRX_62:
(24, 45581), (29, 45545), (Start: 61 @45416 has 20 MA's), (76, 45290), (94, 45158), (95, 45149),

Gene: SirFrank_54 Start: 35866, Stop: 36318, Start Num: 55
Candidate Starts for SirFrank_54:
(Start: 55 @35866 has 1 MA's), (68, 35944), (79, 36028), (83, 36064), (91, 36133), (104, 36238), (110, 36313),

Gene: Skugga_53 Start: 35695, Stop: 36144, Start Num: 58
Candidate Starts for Skugga_53:
(1, 35245), (2, 35257), (4, 35341), (5, 35344), (7, 35356), (16, 35443), (21, 35506), (26, 35563), (27, 35566), (42, 35656), (Start: 58 @35695 has 40 MA's), (66, 35746), (79, 35854), (91, 35959), (110, 36139),

Gene: Smarties_62 Start: 37502, Stop: 37951, Start Num: 58
Candidate Starts for Smarties_62:
(42, 37460), (Start: 58 @37502 has 40 MA's), (66, 37553), (79, 37661), (91, 37766), (92, 37772), (110, 37946),

Gene: Sunny_ Start: 37461, Stop: 37913, Start Num: 57
Candidate Starts for Sunny_:
(Start: 57 @37461 has 2 MA's), (83, 37659), (87, 37701), (110, 37908),

Gene: Tank_65 Start: 46679, Stop: 46338, Start Num: 61
Candidate Starts for Tank_65:
(Start: 61 @46679 has 20 MA's), (71, 46592), (94, 46421), (98, 46379),

Gene: TaylorSipht_29 Start: 21289, Stop: 20720, Start Num: 48
Candidate Starts for TaylorSipht_29:
(31, 21373), (Start: 48 @21289 has 20 MA's), (Start: 60 @21256 has 2 MA's), (69, 21184), (72, 21160), (77, 21115), (99, 20941),

Gene: Teamocil_56 Start: 35776, Stop: 36225, Start Num: 58
Candidate Starts for Teamocil_56:
(42, 35737), (Start: 58 @35776 has 40 MA's), (66, 35827), (79, 35935), (91, 36040), (92, 36046), (101, 36124),

Gene: Toad24_31 Start: 22325, Stop: 21831, Start Num: 48
Candidate Starts for Toad24_31:
(31, 22412), (Start: 48 @22325 has 20 MA's), (72, 22196), (77, 22151), (79, 22145), (91, 22040), (93, 22031), (109, 21884),

Gene: Tourach_66 Start: 46445, Stop: 46831, Start Num: 54
Candidate Starts for Tourach_66:
(20, 46259), (Start: 48 @46427 has 20 MA's), (Start: 54 @46445 has 20 MA's), (75, 46562), (79, 46589), (87, 46667), (108, 46814),

Gene: Tyrumbra_54 Start: 36909, Stop: 37358, Start Num: 58
Candidate Starts for Tyrumbra_54:
(Start: 58 @36909 has 40 MA's), (66, 36960), (79, 37068), (91, 37173), (99, 37236), (110, 37353),

Gene: Underpass_58 Start: 41417, Stop: 41833, Start Num: 48

Candidate Starts for Underpass_58:
(14, 41156), (20, 41249), (Start: 48 @41417 has 20 MA's), (Start: 54 @41435 has 20 MA's), (75, 41552), (79, 41579), (87, 41657), (108, 41804),

Gene: ValentiniPuff_101 Start: 57583, Stop: 57990, Start Num: 58
Candidate Starts for ValentiniPuff_101:
(Start: 58 @57583 has 40 MA's), (63, 57622), (Start: 64 @57628 has 1 MA's), (78, 57748), (95, 57883), (107, 57961),

Gene: Vetrix_67 Start: 46385, Stop: 46804, Start Num: 48
Candidate Starts for Vetrix_67:
(14, 46124), (20, 46217), (Start: 48 @46385 has 20 MA's), (Start: 54 @46403 has 20 MA's), (75, 46520), (79, 46547), (87, 46625), (108, 46772),

Gene: Vulpecula_29 Start: 21960, Stop: 21436, Start Num: 48
Candidate Starts for Vulpecula_29:
(Start: 48 @21960 has 20 MA's), (Start: 60 @21927 has 2 MA's), (69, 21855), (72, 21831), (77, 21786), (93, 21666),

Gene: Wigglewiggle_67 Start: 46423, Stop: 46821, Start Num: 54
Candidate Starts for Wigglewiggle_67:
(14, 46144), (20, 46237), (Start: 48 @46405 has 20 MA's), (Start: 54 @46423 has 20 MA's), (75, 46540), (79, 46567), (87, 46645), (108, 46792),

Gene: Wilde_67 Start: 46978, Stop: 46637, Start Num: 61
Candidate Starts for Wilde_67:
(Start: 61 @46978 has 20 MA's), (71, 46891), (94, 46720), (98, 46678),

Gene: Wilder_68 Start: 46369, Stop: 46770, Start Num: 54
Candidate Starts for Wilder_68:
(14, 46090), (20, 46183), (Start: 48 @46351 has 20 MA's), (Start: 54 @46369 has 20 MA's), (75, 46486), (79, 46513), (87, 46591), (108, 46738),

Gene: WileyE_30 Start: 21353, Stop: 20883, Start Num: 48
Candidate Starts for WileyE_30:
(25, 21479), (31, 21440), (Start: 48 @21353 has 20 MA's), (Start: 60 @21320 has 2 MA's), (69, 21248), (72, 21224), (91, 21068),

Gene: Winchester007_43 Start: 25755, Stop: 26132, Start Num: 58
Candidate Starts for Winchester007_43:
(Start: 58 @25755 has 40 MA's), (67, 25818), (91, 26019), (92, 26025), (95, 26046), (106, 26121),

Gene: Winky_67 Start: 46363, Stop: 46764, Start Num: 54
Candidate Starts for Winky_67:
(14, 46084), (20, 46177), (Start: 48 @46345 has 20 MA's), (Start: 54 @46363 has 20 MA's), (75, 46480), (79, 46507), (87, 46585), (108, 46732),

Gene: Yeti_54 Start: 35678, Stop: 36130, Start Num: 56
Candidate Starts for Yeti_54:
(Start: 56 @35678 has 9 MA's), (66, 35732), (74, 35795), (79, 35840), (91, 35945), (92, 35951), (99, 36008), (110, 36125),

Gene: Zakai_68 Start: 46689, Stop: 47090, Start Num: 54

Candidate Starts for Zakai_68:
(14, 46410), (20, 46503), (Start: 48 @46671 has 20 MA's), (Start: 54 @46689 has 20 MA's), (75, 46806), (79, 46833), (87, 46911), (108, 47058),

Gene: Zapato_53 Start: 35894, Stop: 36343, Start Num: 58
Candidate Starts for Zapato_53:
(21, 35705), (27, 35765), (42, 35855), (Start: 58 @35894 has 40 MA's), (66, 35945), (79, 36053), (92, 36164), (99, 36221), (105, 36272),

Gene: ZhongYanYuan_66 Start: 46258, Stop: 46644, Start Num: 54
Candidate Starts for ZhongYanYuan_66:
(20, 46072), (40, 46201), (Start: 48 @46240 has 20 MA's), (Start: 54 @46258 has 20 MA's), (75, 46375), (79, 46402), (87, 46480), (108, 46627),

Gene: Zixiang_28 Start: 21681, Stop: 21187, Start Num: 48
Candidate Starts for Zixiang_28:
(31, 21768), (Start: 48 @21681 has 20 MA's), (72, 21552), (77, 21507), (79, 21501), (91, 21396), (93, 21387), (109, 21240),