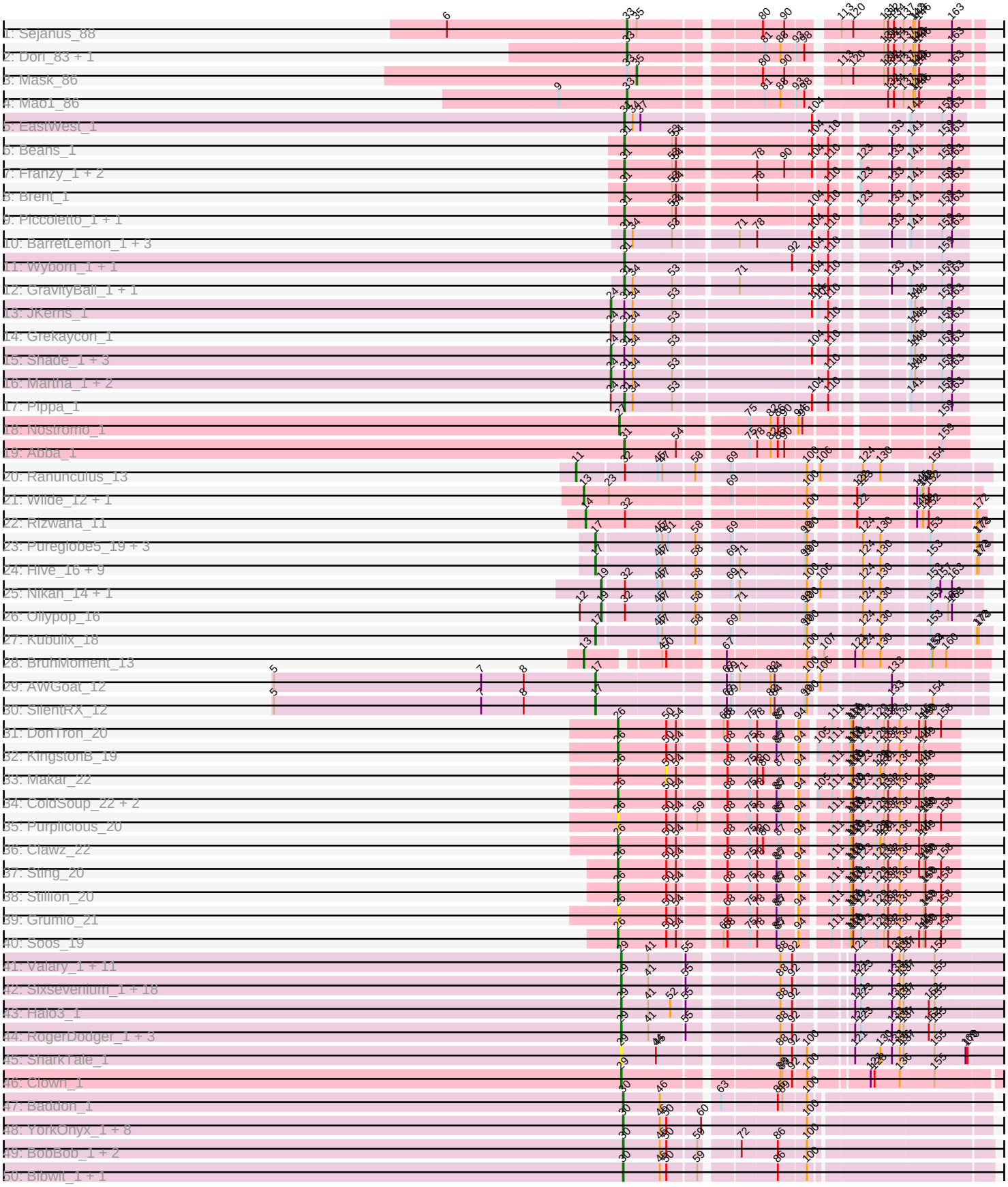
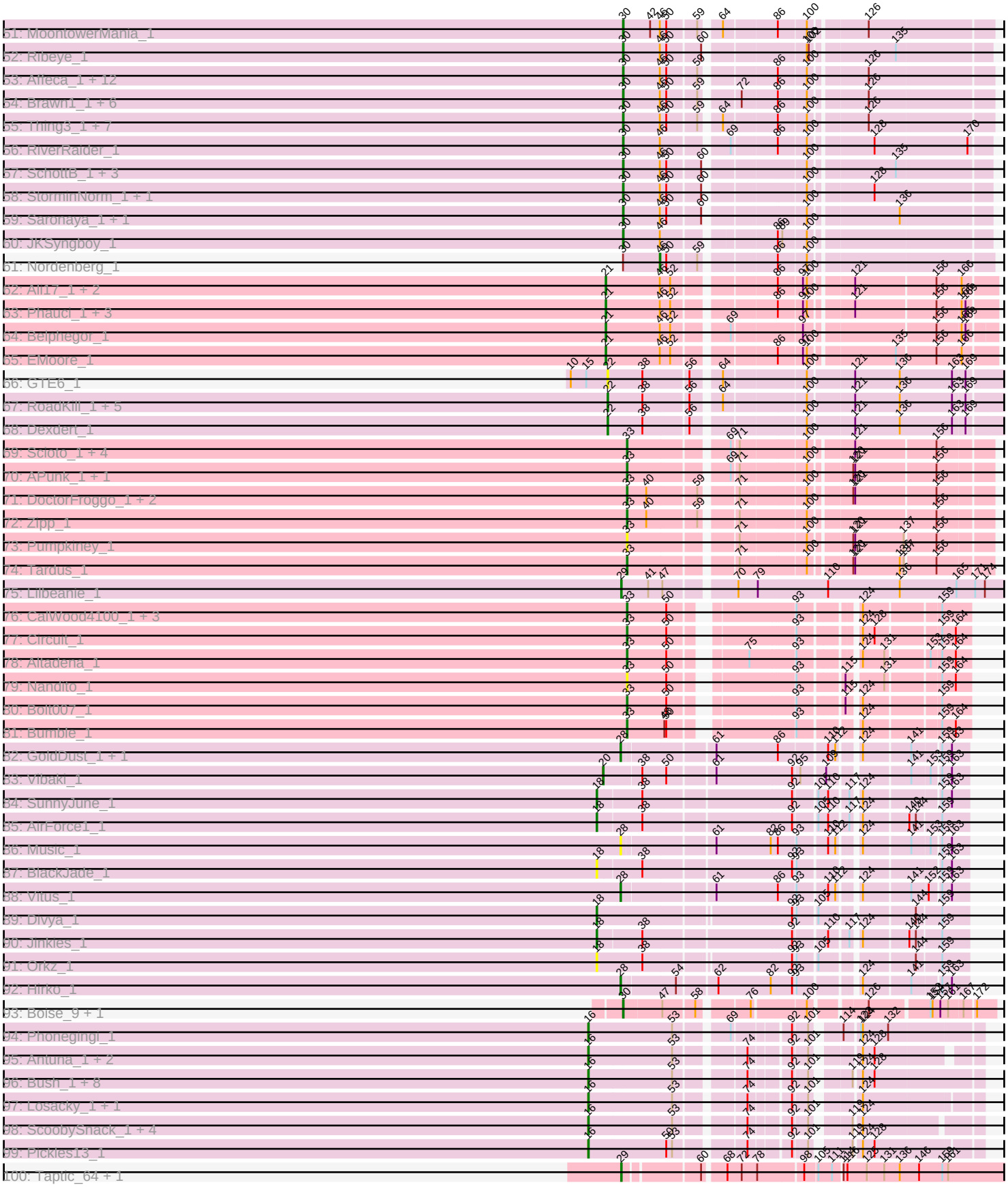
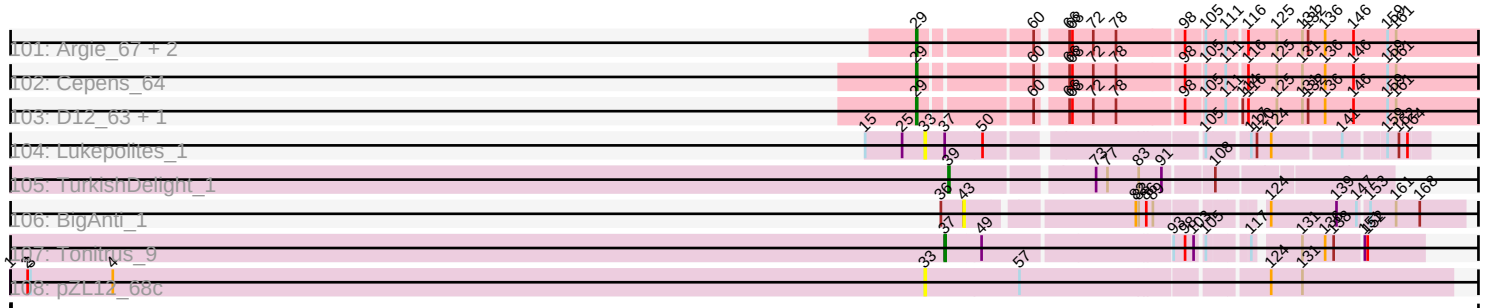
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1: Sejanus_88
2: Dori_83 + 1
3: Mask_86
4: Mao1_86
5: EastWest_1
6: Beans_1
7: Franzy_1 + 2
8: Brent_1
9: Piccoletto_1 + 1
10: BarrelLemon_1 + 3
11: Wyborn_1 + 1
12: GravityBall_1 + 1
13: JKerns_1
14: Grekaycon_1
15: Shade_1 + 3
16: Martha_1 + 2
17: Pippa_1
18: Nostromo_1
19: Abba_1
20: Ranunculus_13
21: Wilde_12 + 1
22: Rizwana_11
23: Pureglobe5_19 + 3
24: Hive_16 + 9
25: Nikan_14 + 1
26: Ollypop_16
27: Kubulix_18
28: BruhMoment_13
29: AWGoat_12
30: SilentRX_12
31: DonTron_20
32: KingstonB_19
33: Makar_22
34: ColdSoup_22 + 2
35: Purplicious_20
36: Clawz_22
37: Sting_20
38: Stillion_20
39: Grumio_21
40: Soos_19
41: Valary_1 + 11
42: Sixseverium_1 + 18
43: Halo3_1
44: RogerDodger_1 + 3
45: SharkTale_1
46: Clown_1
47: Baddon_1
48: YorkOnyx_1 + 8
49: BobBob_1 + 2
50: Blowit_1 + 1

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51: MoontowerMania_1
52: Ribeye_1
53: Afleca_1 + 12
54: Brawn1_1 + 6
55: Thing3_1 + 7
56: RiverRaider_1
57: SchottB_1 + 3
58: StormInNorm_1 + 1
59: Saronaya_1 + 1
60: JKSyngboy_1
61: Nordenberg_1
62: Ali17_1 + 2
63: Phauci_1 + 3
64: Belphegor_1
65: EMoore_1
66: GTE6_1
67: RoadKill_1 + 5
68: Dexdert_1
69: Scioto_1 + 4
70: APunk_1 + 1
71: DoctorFroggo_1 + 2
72: Zipp_1
73: Pumpkiney_1
74: Tardus_1
75: Lilbeanie_1
76: CalWood4100_1 + 3
77: Circuit_1
78: Altadena_1
79: Nandito_1
80: Bolt007_1
81: Bumble_1
82: GoldDust_1 + 1
83: Vibaki_1
84: SunnyJune_1
85: AirForce1_1
86: Music_1
87: BlackJade_1
88: Vitus_1
89: Divya_1
90: Jinkies_1
91: Orkz_1
92: Hirko_1
93: Boise_9 + 1
94: Phonegingi_1
95: Amtuna_1 + 2
96: Bush_1 + 8
97: Losacky_1 + 1
98: ScoobySnack_1 + 4
99: Pickles13_1
100: Taptic_64 + 1

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101: Argie_67 + 2
102: Cepens_64
103: D12_63 + 1
104: Lukepolites_1
105: TurkishDelight_1
106: BigAnti_1
107: Tonitrus_9
108: pZL12_68c

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 347218 Report

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

Pham number 347218 has 252 members, 32 are drafts.

Phages represented in each track:
- Track 1 : Sejanus_88
- Track 2 : Dori_83, Caterpie_93
- Track 3 : Mask_86
- Track 4 : Mao1_86
- Track 5 : EastWest_1
- Track 6 : Beans_1
- Track 7 : Franzy_1, Jawnski_1, King2_1
- Track 8 : Brent_1
- Track 9 : Piccoletto_1, NathanVaag_1
- Track 10 : BarretLemon_1, BigDome_1, Timinator_1, LeeroyJ_1
- Track 11 : Wyborn_1, Sicarius2_1
- Track 12 : GravityBall_1, StevieBAY_1
- Track 13 : JKerns_1
- Track 14 : Grekaycon_1
- Track 15 : Shade_1, Jordan_1, Zartrosa_1, Sonny_1
- Track 16 : Martha_1, BossLady_1, TaeYoung_1
- Track 17 : Pippa_1
- Track 18 : Nostromo_1
- Track 19 : Abba_1
- Track 20 : Ranunculus_13
- Track 21 : Wilde_12, Tank_12
- Track 22 : Rizwana_11
- Track 23 : Pureglobe5_19, Popstraw_16, Odyssey395_19, BetaFish_17
- Track 24 : Hive_16, NyleyClemson_14, Forrestell_15, Pointis_17, DogYard_17, MellowYellow_15, Beagle_18, PhuzzTulsa_15, RIPWilbur_15, RazzB_14
- Track 25 : Nikan_14, Ren19_14
- Track 26 : Ollypop_16
- Track 27 : Kubulix_18
- Track 28 : BruhMoment_13
- Track 29 : AWGoat_12
- Track 30 : SilentRX_12
- Track 31 : DonTron_20
- Track 32 : KingstonB_19
- Track 33 : Makar_22
- Track 34 : ColdSoup_22, Amo99_22, Jollymon_21
- Track 35 : Purplicious_20
- Track 36 : Clawz_22

• Track 37 : Sting_20
• Track 38 : Stillion_20
• Track 39 : Grumio_21
• Track 40 : Soos_19
• Track 41 : Valary_1, Fireball_1, Sendy_1, Arri_1, Egi03_1, KimmyK_1, Gezellig_1, CherryCola_1, Shinji_1, Wizard_1, PullumCavea_1, Phlop_1
• Track 42 : Sixsevenium_1, Portcullis_1, Nubi_1, Barb_1, Bakery_1, Danyall_1, PinkCoffee_1, TillyBobJoe_1, SmokingBunny_1, Evamon_1, JohnPork_1, Salvador_1, Togo_1, ClamChowder_1, Fugax_1, Mutzi_1, VanDeWege_1, CoveyB_1, YungMoney_1
• Track 43 : Halo3_1
• Track 44 : RogerDodger_1, Jambalaya_1, Savbucketdawg_1, Twister6_1
• Track 45 : SharkTale_1
• Track 46 : Clown_1
• Track 47 : Baddon_1
• Track 48 : YorkOnyx_1, Stichling_1, Kroos_1, Derg_1, Tangerine_1, Bizzy_1, Kwobi_1, Ashertheman_1, Flatwoods_1
• Track 49 : BobBob_1, Brandonk123_1, Angelicage_1
• Track 50 : Bibwit_1, Stultus_1
• Track 51 : MoontowerMania_1
• Track 52 : Ribeye_1
• Track 53 : Affeca_1, McKinley_1, Fosterous_1, Jabberwocky_1, Love_1, Kewpiedoll_1, Geodirt_1, Charming_1, ChadMasterC_1, Lennon_1, Vivi2_1, Sitar_1, Tangent_1
• Track 54 : Brawn1_1, Fitzgerald_1, Ailee_1, Sanjuju_1, Keitabear_1, Sedona_1, Shivanishola_1
• Track 55 : Thing3_1, Kamashten_1, Barsten_1, McCrothy_1, Rofo_1, Galadriel_1, Paries_1, FuegoCuervo_1
• Track 56 : RiverRaider_1
• Track 57 : SchottB_1, Baumdotcom_1, LilHam_1, Gaea_1
• Track 58 : StorminNorm_1, Tycho_1
• Track 59 : Saronaya_1, Gustavo_1
• Track 60 : JKSyngboy_1
• Track 61 : Nordenberg_1
• Track 62 : Ali17_1, Inspectinfecti_1, MelBins_1
• Track 63 : Phauci_1, Leonard_1, Hans_1, Phinally_1
• Track 64 : Belphegor_1
• Track 65 : EMoore_1
• Track 66 : GTE6_1
• Track 67 : RoadKill_1, Chickadee_1, Kwekel_1, Twonlo_1, EdmundFerry_1, Tiamoceli_1
• Track 68 : Dexdert_1
• Track 69 : Scioto_1, Sampson_1, Natkenzie_1, Abblin_1, ViaConlectus_1
• Track 70 : APunk_1, BigHunkinEater_1
• Track 71 : DoctorFroggo_1, Delrey21_1, Verity_1
• Track 72 : Zipp_1
• Track 73 : Pumpkiney_1
• Track 74 : Tardus_1
• Track 75 : Lilbeanie_1
• Track 76 : CalWood4100_1, Lilmac1015_1, Klevey_1, Prairie_1
• Track 77 : Circuit_1
• Track 78 : Altadena_1
• Track 79 : Nandito_1

• Track 80 : Bolt007_1
• Track 81 : Bumble_1
• Track 82 : GoldDust_1, Gooberta_1
• Track 83 : Vibaki_1
• Track 84 : SunnyJune_1
• Track 85 : AirForce1_1
• Track 86 : Music_1
• Track 87 : BlackJade_1
• Track 88 : Vitus_1
• Track 89 : Divya_1
• Track 90 : Jinkies_1
• Track 91 : Orkz_1
• Track 92 : Hirko_1
• Track 93 : Boise_9, RomansRevenge_9
• Track 94 : Phonegingi_1
• Track 95 : Antuna_1, Carrillo_1, Blett_1
• Track 96 : Bush_1, Winchester007_1, PhillyJawn_1, Dropshot_1, Mariel_1, CookieDog_1, Phingu_1, MenE_1, Appa_1
• Track 97 : Losacky_1, Violeta_1
• Track 98 : ScoobySnack_1, Jakelyne_1, NCRodriguez_1, Warren_1, Guzman_1
• Track 99 : Pickles13_1
• Track 100 : Taptic_64, Megabear_64
• Track 101 : Argie_67, GodPhather_66, Jeon_64
• Track 102 : Cepens_64
• Track 103 : D12_63, PR_64
• Track 104 : Lukepolites_1
• Track 105 : TurkishDelight_1
• Track 106 : BigAnti_1
• Track 107 : Tonitrus_9
• Track 108 : pZL12_68c

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

The start number called the most often in the published annotations is 30, it was called in 53 of the 220 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Affeca_1, Ailee_1, Angelicage_1, Asherthеman_1, Baddon_1, Barsten_1, Baumdotcom_1, Bibwit_1, Bizzy_1, BobBob_1, Boise_9, Brandonk123_1, Brawn1_1, ChadMasterC_1, Charming_1, Derg_1, Fitzgerald_1, Flatwoods_1, Fosterous_1, FuegoCuervo_1, Gaea_1, Galadriel_1, Geodirt_1, Gustavo_1, JKSyngboy_1, Jabberwocky_1, Kamashten_1, Keitabear_1, Kewpiedoll_1, Kroos_1, Kwobi_1, Lennon_1, LilHam_1, Love_1, McCrothy_1, McKinley_1, MoontowerMania_1, Paries_1, Ribeye_1, RiverRaider_1, Rofo_1, RomansRevenge_9, Sanjuju_1, Saronaya_1, SchottB_1, Sedona_1, Shivanishola_1, Sitar_1, Stichling_1, StorminNorm_1, Stultus_1, Tangent_1, Tangerine_1, Thing3_1, Tycho_1, Vivi2_1, YorkOnyx_1,

Genes that have the "Most Annotated" start but do not call it:
• Nordenberg_1,

Genes that do not have the "Most Annotated" start:
• APunk_1, AWGoat_12, Abba_1, Abblin_1, AirForce1_1, Ali17_1, Altadena_1, Amo99_22, Antuna_1, Appa_1, Argie_67, Arri_1, Bakery_1, Barb_1, BarretLemon_1, Beagle_18, Beans_1, Belphegor_1, BetaFish_17, BigAnti_1, BigDome_1, BigHunkinEater_1, BlackJade_1, Blett_1, Bolt007_1, BossLady_1, Brent_1, BruhMoment_13, Bumble_1, Bush_1, CalWood4100_1, Carrillo_1, Caterpie_93, Cepens_64, CherryCola_1, Chickadee_1, Circuit_1, ClamChowder_1, Clawz_22, Clown_1, ColdSoup_22, CookieDog_1, CoveyB_1, D12_63, Danyall_1, Delrey21_1, Dexdert_1, Divya_1, DoctorFroggo_1, DogYard_17, DonTron_20, Dori_83, Dropshot_1, EMoore_1, EastWest_1, EdmundFerry_1, Egi03_1, Evamon_1, Fireball_1, Forrestell_15, Franzy_1, Fugax_1, GTE6_1, Gezellig_1, GodPhather_66, GoldDust_1, Gooberta_1, GravityBall_1, Grekaycon_1, Grumio_21, Guzman_1, Halo3_1, Hans_1, Hirko_1, Hive_16, Inspectinfecti_1, JKerns_1, Jakelyne_1, Jambalaya_1, Jawnski_1, Jeon_64, Jinkies_1, JohnPork_1, Jollymon_21, Jordan_1, KimmyK_1, King2_1, KingstonB_19, Klevey_1, Kubulix_18, Kwekel_1, LeeroyJ_1, Leonard_1, Lilbeanie_1, Lilmac1015_1, Losacky_1, Lukepolites_1, Makar_22, Mao1_86, Mariel_1, Martha_1, Mask_86, Megabear_64, MelBins_1, MellowYellow_15, MenE_1, Music_1, Mutzi_1, NCRodriguez_1, Nandito_1, NathanVaag_1, Natkenzie_1, Nikan_14, Nostromo_1, Nubi_1, NyleyClemson_14, Odyssey395_19, Ollypop_16, Orkz_1, PR_64, Phauci_1, PhillyJawn_1, Phinally_1, Phingu_1, Phlop_1, Phonegingi_1, PhuzzTulsa_15, Piccoletto_1, Pickles13_1, PinkCoffee_1, Pippa_1, Pointis_17, Popstraw_16, Portcullis_1, Prairie_1, PullumCavea_1, Pumpkiney_1, Pureglobe5_19, Purplicious_20, RIPWilbur_15, Ranunculus_13, RazzB_14, Ren19_14, Rizwana_11, RoadKill_1, RogerDodger_1, Salvador_1, Sampson_1, Savbucketdawg_1, Scioto_1, ScoobySnack_1, Sejanus_88, Sendy_1, Shade_1, SharkTale_1, Shinji_1, Sicarius2_1, SilentRX_12, Sixsevenium_1, SmokingBunny_1, Sonny_1, Soos_19, StevieBAY_1, Stillion_20, Sting_20, SunnyJune_1, TaeYoung_1, Tank_12, Taptic_64, Tardus_1, Tiamoceli_1, TillyBobJoe_1, Timinator_1, Togo_1, Tonitrus_9, TurkishDelight_1, Twister6_1, Twonlo_1, Valary_1, VanDeWege_1, Verity_1, ViaConlectus_1, Vibaki_1, Violeta_1, Vitus_1, Warren_1, Wilde_12, Winchester007_1, Wizard_1, Wyborn_1, YungMoney_1, Zartrosa_1, Zipp_1, pZL12_68c,

Summary by start number:

Start 11:
• Found in 1 of 252 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ranunculus_13 (AP),

Start 13:
• Found in 3 of 252 (1.2%) of genes in pham
• Manual Annotations of this start: 3 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BruhMoment_13 (AP3), Tank_12 (AP1), Wilde_12 (AP1),

Start 14:
• Found in 1 of 252 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Rizwana_11 (AP1),

Start 16:
• Found in 21 of 252 (8.3%) of genes in pham
• Manual Annotations of this start: 17 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Antuna_1 (GA), Appa_1 (GA), Blett_1 (GA), Bush_1 (GA), Carrillo_1 (GA), CookieDog_1 (GA), Dropshot_1 (GA), Guzman_1 (GA), Jakelyne_1 (GA), Losacky_1 (GA), Mariel_1 (GA), MenE_1 (GA), NCRodriguez_1 (GA), PhillyJawn_1 (GA), Phingu_1 (GA), Phonegingi_1 (GA), Pickles13_1 (GA), ScoobySnack_1 (GA), Violeta_1 (GA), Warren_1 (GA), Winchester007_1 (GA),

Start 17:
• Found in 17 of 252 (6.7%) of genes in pham
• Manual Annotations of this start: 14 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AWGoat_12 (AP4), Beagle_18 (AP2), BetaFish_17 (AP2), DogYard_17 (AP2), Forrestell_15 (AP2), Hive_16 (AP2), Kubulix_18 (AP2), MellowYellow_15 (AP2), NyleyClemson_14 (AP2), Odyssey395_19 (AP2), PhuzzTulsa_15 (AP2), Pointis_17 (AP2), Popstraw_16 (AP2), Pureglobe5_19 (AP2), RIPWilbur_15 (AP2), RazzB_14 (AP2), SilentRX_12 (AP4),

Start 18:
• Found in 6 of 252 (2.4%) of genes in pham
• Manual Annotations of this start: 4 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AirForce1_1 (FL), BlackJade_1 (FL), Divya_1 (FL), Jinkies_1 (FL), Orkz_1 (FL), SunnyJune_1 (FL),

Start 19:
• Found in 3 of 252 (1.2%) of genes in pham
• Manual Annotations of this start: 3 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nikan_14 (AP2), Ollypop_16 (AP2), Ren19_14 (AP2),

Start 20:
• Found in 1 of 252 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Vibaki_1 (FL),

Start 21:
• Found in 9 of 252 (3.6%) of genes in pham
• Manual Annotations of this start: 9 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ali17_1 (DE2), Belphegor_1 (DE2), EMoore_1 (DE2), Hans_1 (DE2), Inspectinfecti_1 (DE2), Leonard_1 (DE2), MelBins_1 (DE2), Phauci_1 (DE2), Phinally_1 (DE2),

Start 22:
• Found in 8 of 252 (3.2%) of genes in pham

• Manual Annotations of this start: 7 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chickadee_1 (DE3), Dexdert_1 (DE3), EdmundFerry_1 (DE3), GTE6_1 (DE3), Kwekel_1 (DE3), RoadKill_1 (DE3), Tiamoceli_1 (DE3), Twonlo_1 (DE3),

Start 24:
• Found in 10 of 252 (4.0%) of genes in pham
• Manual Annotations of this start: 8 of 220
• Called 80.0% of time when present
• Phage (with cluster) where this start called: BossLady_1 (AO2), JKerns_1 (AO2), Jordan_1 (AO2), Martha_1 (AO2), Shade_1 (AO2), Sonny_1 (AO2), TaeYoung_1 (AO2), Zartrosa_1 (AO2),

Start 26:
• Found in 12 of 252 (4.8%) of genes in pham
• Manual Annotations of this start: 7 of 220
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Amo99_22 (CP), Clawz_22 (CP), ColdSoup_22 (CP), DonTron_20 (CP), Grumio_21 (CP), Jollymon_21 (CP), KingstonB_19 (CP), Purplicious_20 (CP), Soos_19 (CP), Stillion_20 (CP), Sting_20 (CP),

Start 27:
• Found in 1 of 252 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nostromo_1 (AO3),

Start 28:
• Found in 5 of 252 (2.0%) of genes in pham
• Manual Annotations of this start: 4 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GoldDust_1 (FL), Gooberta_1 (FL), Hirko_1 (FL), Music_1 (FL), Vitus_1 (FL),

Start 29:
• Found in 47 of 252 (18.7%) of genes in pham
• Manual Annotations of this start: 42 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Argie_67 (W), Arri_1 (DC1), Bakery_1 (DC1), Barb_1 (DC1), Cepens_64 (W), CherryCola_1 (DC1), ClamChowder_1 (DC1), Clown_1 (DC2), CoveyB_1 (DC1), D12_63 (W), Danyall_1 (DC1), Egi03_1 (DC1), Evamon_1 (DC1), Fireball_1 (DC1), Fugax_1 (DC1), Gezellig_1 (DC1), GodPhather_66 (W), Halo3_1 (DC1), Jambalaya_1 (DC1), Jeon_64 (W), JohnPork_1 (DC1), KimmyK_1 (DC1), Lilbeanie_1 (DE5), Megabear_64 (W), Mutzi_1 (DC1), Nubi_1 (DC1), PR_64 (W), Phlop_1 (DC1), PinkCoffee_1 (DC1), Portcullis_1 (DC1), PullumCavea_1 (DC1), RogerDodger_1 (DC1), Salvador_1 (DC1), Savbucketdawg_1 (DC1), Sendy_1 (DC1), SharkTale_1 (DC1), Shinji_1 (DC1), Sixsevenium_1 (DC1), SmokingBunny_1 (DC1), Taptic_64 (W), TillyBobJoe_1 (DC1), Togo_1 (DC1), Twister6_1 (DC1), Valary_1 (DC1), VanDeWege_1 (DC1), Wizard_1 (DC1), YungMoney_1 (DC1),

Start 30:
• Found in 58 of 252 (23.0%) of genes in pham
• Manual Annotations of this start: 53 of 220
• Called 98.3% of time when present
• Phage (with cluster) where this start called: Affeca_1 (DE1), Ailee_1 (DE1), Angelicage_1 (DE1), Ashertheman_1 (DE1), Baddon_1 (DE1), Barsten_1 (DE1), Baumdotcom_1 (DE1), Bibwit_1 (DE1), Bizzy_1 (DE1), BobBob_1 (DE1), Boise_9 (FT), Brandonk123_1 (DE1), Brawn1_1 (DE1), ChadMasterC_1 (DE1), Charming_1 (DE1), Derg_1 (DE1), Fitzgerald_1 (DE1), Flatwoods_1 (DE1), Fosterous_1 (DE1), FuegoCuervo_1 (DE1), Gaea_1 (DE1), Galadriel_1 (DE1), Geodirt_1 (DE1), Gustavo_1 (DE1), JKSyngboy_1 (DE1), Jabberwocky_1 (DE1), Kamashten_1 (DE1), Keitabear_1 (DE1), Kewpiedoll_1 (DE1), Kroos_1 (DE1), Kwobi_1 (DE1), Lennon_1 (DE1), LilHam_1 (DE1), Love_1 (DE1), McCrothy_1 (DE1), McKinley_1 (DE1), MoontowerMania_1 (DE1), Paries_1 (DE1), Ribeye_1 (DE1), RiverRaider_1 (DE1), Rofo_1 (DE1), RomansRevenge_9 (FT), Sanjuju_1 (DE1), Saronaya_1 (DE1), SchottB_1 (DE1), Sedona_1 (DE1), Shivanishola_1 (DE1), Sitar_1 (DE1), Stichling_1 (DE1), StorminNorm_1 (DE1), Stultus_1 (DE1), Tangent_1 (DE1), Tangerine_1 (DE1), Thing3_1 (DE1), Tycho_1 (DE1), Vivi2_1 (DE1), YorkOnyx_1 (DE1),

Start 31:
• Found in 27 of 252 (10.7%) of genes in pham
• Manual Annotations of this start: 19 of 220
• Called 70.4% of time when present
• Phage (with cluster) where this start called: Abba_1 (AO3), BarretLemon_1 (AO2), Beans_1 (AO1), BigDome_1 (AO2), Brent_1 (AO1), EastWest_1 (AO), Franzy_1 (AO1), GravityBall_1 (AO2), Grekaycon_1 (AO2), Jawnski_1 (AO1), King2_1 (AO1), LeeroyJ_1 (AO2), NathanVaag_1 (AO1), Piccoletto_1 (AO1), Pippa_1 (AO2), Sicarius2_1 (AO2), StevieBAY_1 (AO2), Timinator_1 (AO2), Wyborn_1 (AO2),

Start 33:
• Found in 29 of 252 (11.5%) of genes in pham
• Manual Annotations of this start: 22 of 220
• Called 96.6% of time when present
• Phage (with cluster) where this start called: APunk_1 (DE4), Abblin_1 (DE4), Altadena_1 (FH), BigHunkinEater_1 (DE4), Bolt007_1 (FH), Bumble_1 (FH), CalWood4100_1 (FH), Caterpie_93 (AD), Circuit_1 (FH), Delrey21_1 (DE4), DoctorFroggo_1 (DE4), Dori_83 (AD), Klevey_1 (FH), Lilmac1015_1 (FH), Lukepolites_1 (singleton), Mao1_86 (AD), Nandito_1 (FH), Natkenzie_1 (DE4), Prairie_1 (FH), Pumpkiney_1 (DE4), Sampson_1 (DE4), Scioto_1 (DE4), Sejanus_88 (AD), Tardus_1 (DE4), Verity_1 (DE4), ViaConlectus_1 (DE4), Zipp_1 (DE4), pZL12_68c (singleton),

Start 35:
• Found in 2 of 252 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Mask_86 (AD),

Start 37:
• Found in 3 of 252 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Tonitrus_9 (singleton),

Start 39:
• Found in 1 of 252 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 100.0% of time when present
• Phage (with cluster) where this start called: TurkishDelight_1 (singleton),

Start 43:
• Found in 1 of 252 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BigAnti_1 (singleton),

Start 46:
• Found in 65 of 252 (25.8%) of genes in pham
• Manual Annotations of this start: 1 of 220
• Called 1.5% of time when present
• Phage (with cluster) where this start called: Nordenberg_1 (DE1),

Start 50:
• Found in 78 of 252 (31.0%) of genes in pham
• No Manual Annotations of this start.
• Called 1.3% of time when present
• Phage (with cluster) where this start called: Makar_22 (CP),

Summary by clusters:

There are 24 clusters represented in this pham: singleton, FT, AO1, AP2, AP3, AP1, AP4, FH, FL, W, AD, AO, AP, AO3, AO2, GA, CP, DC2, DC1, DE1, DE2, DE3, DE4, DE5,

Info for manual annotations of cluster AD:
•Start number 33 was manually annotated 3 times for cluster AD.
•Start number 35 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AO:
•Start number 31 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 31 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 24 was manually annotated 8 times for cluster AO2.
•Start number 31 was manually annotated 10 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 27 was manually annotated 1 time for cluster AO3.
•Start number 31 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster AP:
•Start number 11 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

•Start number 13 was manually annotated 2 times for cluster AP1.
•Start number 14 was manually annotated 1 time for cluster AP1.

Info for manual annotations of cluster AP2:
•Start number 17 was manually annotated 12 times for cluster AP2.
•Start number 19 was manually annotated 3 times for cluster AP2.

Info for manual annotations of cluster AP3:
•Start number 13 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:
•Start number 17 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster CP:
•Start number 26 was manually annotated 7 times for cluster CP.

Info for manual annotations of cluster DC1:
•Start number 29 was manually annotated 32 times for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 29 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:
•Start number 30 was manually annotated 52 times for cluster DE1.
•Start number 46 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DE2:
•Start number 21 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:
•Start number 22 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:
•Start number 33 was manually annotated 12 times for cluster DE4.

Info for manual annotations of cluster DE5:
•Start number 29 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster FH:
•Start number 33 was manually annotated 7 times for cluster FH.

Info for manual annotations of cluster FL:
•Start number 18 was manually annotated 4 times for cluster FL.
•Start number 20 was manually annotated 1 time for cluster FL.
•Start number 28 was manually annotated 4 times for cluster FL.

Info for manual annotations of cluster FT:
•Start number 30 was manually annotated 1 time for cluster FT.

Info for manual annotations of cluster GA:
•Start number 16 was manually annotated 17 times for cluster GA.

Info for manual annotations of cluster W:

•Start number 29 was manually annotated 8 times for cluster W.

Gene Information:

Gene: APunk_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for APunk_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (120, 295), (121, 298), (156, 418),

Gene: AWGoat_12 Start: 5020, Stop: 5541, Start Num: 17
Candidate Starts for AWGoat_12:
(5, 4522), (7, 4843), (8, 4909), (Start: 17 @5020 has 14 MA's), (67, 5197), (69, 5203), (71, 5212), (82, 5254), (84, 5260), (100, 5302), (106, 5314), (133, 5413),

Gene: Abba_1 Start: 1, Stop: 459, Start Num: 31
Candidate Starts for Abba_1:
(Start: 31 @1 has 19 MA's), (54, 79), (75, 172), (78, 184), (82, 205), (86, 214), (90, 223), (159, 418),

Gene: Abblin_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Abblin_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (121, 298), (156, 418),

Gene: Affeca_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Affeca_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Ailee_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Ailee_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: AirForce1_1 Start: 1, Stop: 510, Start Num: 18
Candidate Starts for AirForce1_1:
(Start: 18 @1 has 4 MA's), (38, 67), (92, 283), (105, 313), (110, 328), (117, 349), (124, 358), (140, 424), (144, 433), (159, 469),

Gene: Ali17_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for Ali17_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487),

Gene: Altadena_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Altadena_1:
(Start: 33 @1 has 22 MA's), (50, 61), (75, 151), (93, 217), (124, 286), (131, 319), (153, 379), (159, 394), (164, 415),

Gene: Amo99_22 Start: 10509, Stop: 10994, Start Num: 26
Candidate Starts for Amo99_22:
(Start: 26 @10509 has 7 MA's), (50, 10584), (54, 10599), (68, 10662), (75, 10695), (78, 10707), (85, 10737), (87, 10740), (94, 10764), (105, 10782), (111, 10803), (118, 10827), (120, 10830), (123, 10842), (129, 10866), (131, 10878), (132, 10884), (136, 10902), (146, 10932), (149, 10938),

Gene: Angelicage_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Angelicage_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247),

Gene: Antuna_1 Start: 1, Stop: 504, Start Num: 16
Candidate Starts for Antuna_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (124, 343), (128, 361),

Gene: Appa_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Appa_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: Argie_67 Start: 49730, Stop: 50272, Start Num: 29
Candidate Starts for Argie_67:
(Start: 29 @49730 has 42 MA's), (60, 49835), (66, 49862), (68, 49865), (72, 49886), (78, 49910), (98, 49976), (105, 49994), (111, 50015), (116, 50033), (125, 50063), (131, 50087), (132, 50093), (136, 50111), (146, 50141), (159, 50177), (161, 50186),

Gene: Arri_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Arri_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Ashertheman_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Ashertheman_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: Baddon_1 Start: 1, Stop: 504, Start Num: 30
Candidate Starts for Baddon_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (63, 130), (86, 205), (89, 211), (100, 244),

Gene: Bakery_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Bakery_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Barb_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Barb_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: BarretLemon_1 Start: 21, Stop: 470, Start Num: 31
Candidate Starts for BarretLemon_1:
(Start: 31 @21 has 19 MA's), (34, 33), (53, 93), (71, 177), (78, 204), (104, 282), (110, 297), (133, 366), (141, 390), (159, 432), (163, 447),

Gene: Barsten_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Barsten_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Baumdotcom_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Baumdotcom_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (135, 367),

Gene: Beagle_18 Start: 5586, Stop: 6104, Start Num: 17
Candidate Starts for Beagle_18:
(Start: 17 @5586 has 14 MA's), (45, 5673), (47, 5679), (58, 5724), (69, 5763), (71, 5772), (99, 5859), (100, 5862), (124, 5928), (130, 5955), (153, 6021), (172, 6084), (173, 6087),

Gene: Beans_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for Beans_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (104, 286), (110, 301), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: Belphegor_1 Start: 1, Stop: 534, Start Num: 21
Candidate Starts for Belphegor_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (69, 172), (97, 268), (156, 451), (166, 487), (169, 493),

Gene: BetaFish_17 Start: 5789, Stop: 6307, Start Num: 17
Candidate Starts for BetaFish_17:
(Start: 17 @5789 has 14 MA's), (45, 5876), (47, 5882), (51, 5891), (58, 5927), (69, 5966), (99, 6062), (100, 6065), (124, 6131), (130, 6158), (153, 6224), (172, 6287), (173, 6290),

Gene: Bibwit_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Bibwit_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247),

Gene: BigAnti_1 Start: 25, Stop: 486, Start Num: 43
Candidate Starts for BigAnti_1:
(36, 1), (43, 25), (82, 187), (83, 190), (86, 196), (89, 202), (124, 289), (139, 358), (147, 379), (153, 388), (161, 415), (168, 439),

Gene: BigDome_1 Start: 21, Stop: 470, Start Num: 31
Candidate Starts for BigDome_1:
(Start: 31 @21 has 19 MA's), (34, 33), (53, 93), (71, 177), (78, 204), (104, 282), (110, 297), (133, 366), (141, 390), (159, 432), (163, 447),

Gene: BigHunkinEater_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for BigHunkinEater_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (120, 295), (121, 298), (156, 418),

Gene: Bizzy_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Bizzy_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: BlackJade_1 Start: 1, Stop: 507, Start Num: 18
Candidate Starts for BlackJade_1:
(Start: 18 @1 has 4 MA's), (38, 67), (92, 283), (93, 286), (159, 466), (163, 481),

Gene: Blett_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Blett_1:

(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (124, 343), (128, 361),

Gene: BobBob_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for BobBob_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247),

Gene: Boise_9 Start: 3610, Stop: 4101, Start Num: 30
Candidate Starts for Boise_9:
(Start: 30 @3610 has 53 MA's), (47, 3667), (58, 3712), (76, 3775), (100, 3847), (126, 3922), (153, 4009), (154, 4012), (157, 4024), (161, 4036), (167, 4057), (172, 4072),

Gene: Bolt007_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Bolt007_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (115, 274), (124, 286), (159, 394),

Gene: BossLady_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for BossLady_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Brandonk123_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Brandonk123_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247),

Gene: Brawn1_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Brawn1_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: Brent_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for Brent_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (78, 208), (110, 301), (123, 328), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: BruhMoment_13 Start: 5305, Stop: 5826, Start Num: 13
Candidate Starts for BruhMoment_13:
(Start: 13 @5305 has 3 MA's), (47, 5401), (50, 5407), (67, 5479), (100, 5584), (107, 5602), (121, 5638), (124, 5650), (130, 5677), (153, 5743), (154, 5746), (160, 5767),

Gene: Bumble_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Bumble_1:
(Start: 33 @1 has 22 MA's), (48, 58), (50, 61), (93, 217), (124, 286), (159, 394), (164, 415),

Gene: Bush_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Bush_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: CalWood4100_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for CalWood4100_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (124, 286), (159, 394),

Gene: Carrillo_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Carrillo_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (124, 343), (128, 361),

Gene: Caterpie_93 Start: 58672, Stop: 59157, Start Num: 33
Candidate Starts for Caterpie_93:
(Start: 33 @58672 has 22 MA's), (81, 58855), (88, 58879), (93, 58900), (98, 58912), (131, 59014), (132, 59020), (134, 59029), (137, 59044), (142, 59056), (143, 59059), (146, 59065), (163, 59116),

Gene: Cepens_64 Start: 48136, Stop: 48678, Start Num: 29
Candidate Starts for Cepens_64:
(Start: 29 @48136 has 42 MA's), (60, 48241), (66, 48268), (68, 48271), (72, 48292), (78, 48316), (98, 48382), (105, 48400), (111, 48421), (116, 48439), (125, 48469), (131, 48493), (136, 48517), (146, 48547), (159, 48583), (161, 48592),

Gene: ChadMasterC_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for ChadMasterC_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Charming_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Charming_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: CherryCola_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for CherryCola_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Chickadee_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for Chickadee_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (64, 157), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: Circuit_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Circuit_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (124, 286), (128, 304), (159, 394), (164, 415),

Gene: ClamChowder_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for ClamChowder_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Clawz_22 Start: 10602, Stop: 11087, Start Num: 26
Candidate Starts for Clawz_22:
(Start: 26 @10602 has 7 MA's), (50, 10677), (54, 10692), (68, 10755), (75, 10788), (78, 10800), (80, 10809), (87, 10833), (94, 10857), (111, 10896), (117, 10917), (118, 10920), (120, 10923), (123, 10935), (129, 10959), (130, 10965), (131, 10971), (136, 10995), (146, 11025), (149, 11031),

Gene: Clown_1 Start: 1, Stop: 522, Start Num: 29
Candidate Starts for Clown_1:

(Start: 29 @1 has 42 MA's), (88, 214), (89, 217), (92, 232), (100, 250), (127, 328), (128, 334), (136, 373), (155, 424),

Gene: ColdSoup_22 Start: 10509, Stop: 10994, Start Num: 26
Candidate Starts for ColdSoup_22:
(Start: 26 @10509 has 7 MA's), (50, 10584), (54, 10599), (68, 10662), (75, 10695), (78, 10707), (85, 10737), (87, 10740), (94, 10764), (105, 10782), (111, 10803), (118, 10827), (120, 10830), (123, 10842), (129, 10866), (131, 10878), (132, 10884), (136, 10902), (146, 10932), (149, 10938),

Gene: CookieDog_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for CookieDog_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: CoveyB_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for CoveyB_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: D12_63 Start: 48684, Stop: 49226, Start Num: 29
Candidate Starts for D12_63:
(Start: 29 @48684 has 42 MA's), (60, 48789), (66, 48816), (68, 48819), (72, 48840), (78, 48864), (98, 48930), (105, 48948), (111, 48969), (114, 48981), (116, 48987), (125, 49017), (131, 49041), (132, 49047), (136, 49065), (146, 49095), (159, 49131), (161, 49140),

Gene: Danyall_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Danyall_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Delrey21_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Delrey21_1:
(Start: 33 @1 has 22 MA's), (40, 31), (59, 103), (71, 148), (100, 241), (120, 295), (121, 298), (156, 418),

Gene: Derg_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Derg_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: Dexdert_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for Dexdert_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: Divya_1 Start: 1, Stop: 504, Start Num: 18
Candidate Starts for Divya_1:
(Start: 18 @1 has 4 MA's), (92, 277), (93, 280), (105, 307), (144, 427), (159, 463),

Gene: DoctorFroggo_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for DoctorFroggo_1:
(Start: 33 @1 has 22 MA's), (40, 31), (59, 103), (71, 148), (100, 241), (120, 295), (121, 298), (156, 418),

Gene: DogYard_17 Start: 5656, Stop: 6174, Start Num: 17
Candidate Starts for DogYard_17:
(Start: 17 @5656 has 14 MA's), (45, 5743), (47, 5749), (58, 5794), (69, 5833), (71, 5842), (99, 5929), (100, 5932), (124, 5998), (130, 6025), (153, 6091), (172, 6154), (173, 6157),

Gene: DonTron_20 Start: 10098, Stop: 10583, Start Num: 26
Candidate Starts for DonTron_20:
(Start: 26 @10098 has 7 MA's), (50, 10173), (54, 10188), (65, 10245), (68, 10251), (75, 10284), (78, 10296), (85, 10326), (87, 10329), (94, 10353), (111, 10392), (117, 10413), (118, 10416), (120, 10419), (123, 10431), (129, 10455), (131, 10467), (132, 10473), (136, 10491), (146, 10521), (149, 10527), (150, 10530), (158, 10554),

Gene: Dori_83 Start: 58816, Stop: 59301, Start Num: 33
Candidate Starts for Dori_83:
(Start: 33 @58816 has 22 MA's), (81, 58999), (88, 59023), (93, 59044), (98, 59056), (131, 59158), (132, 59164), (134, 59173), (137, 59188), (142, 59200), (143, 59203), (146, 59209), (163, 59260),

Gene: Dropshot_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Dropshot_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: EMoore_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for EMoore_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (135, 394), (156, 451), (166, 487),

Gene: EastWest_1 Start: 1, Stop: 447, Start Num: 31
Candidate Starts for EastWest_1:
(Start: 31 @1 has 19 MA's), (34, 13), (Start: 37 @25 has 1 MA's), (104, 262), (141, 370), (159, 412), (163, 427),

Gene: EdmundFerry_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for EdmundFerry_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (64, 157), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: Egi03_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Egi03_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Evamon_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Evamon_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Fireball_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Fireball_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Fitzgerald_1 Start: 1, Stop: 510, Start Num: 30

Candidate Starts for Fitzgerald_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: Flatwoods_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Flatwoods_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: Forrestell_15 Start: 5013, Stop: 5531, Start Num: 17
Candidate Starts for Forrestell_15:
(Start: 17 @5013 has 14 MA's), (45, 5100), (47, 5106), (58, 5151), (69, 5190), (71, 5199), (99, 5286), (100, 5289), (124, 5355), (130, 5382), (153, 5448), (172, 5511), (173, 5514),

Gene: Fosterous_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Fosterous_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Franzy_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for Franzy_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (78, 208), (90, 247), (104, 286), (110, 301), (123, 328), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: FuegoCuervo_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for FuegoCuervo_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Fugax_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Fugax_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: GTE6_1 Start: 65, Stop: 625, Start Num: 22
Candidate Starts for GTE6_1:
(10, 8), (15, 32), (Start: 22 @65 has 7 MA's), (38, 119), (56, 185), (64, 221), (100, 335), (121, 401), (136, 470), (163, 551), (169, 569),

Gene: Gaea_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Gaea_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (135, 367),

Gene: Galadriel_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Galadriel_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Geodirt_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Geodirt_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Gezellig_1 Start: 1, Stop: 531, Start Num: 29

Candidate Starts for Gezellig_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: GodPhather_66 Start: 49458, Stop: 50000, Start Num: 29
Candidate Starts for GodPhather_66:
(Start: 29 @49458 has 42 MA's), (60, 49563), (66, 49590), (68, 49593), (72, 49614), (78, 49638), (98, 49704), (105, 49722), (111, 49743), (116, 49761), (125, 49791), (131, 49815), (132, 49821), (136, 49839), (146, 49869), (159, 49905), (161, 49914),

Gene: GoldDust_1 Start: 1, Stop: 468, Start Num: 28
Candidate Starts for GoldDust_1:
(Start: 28 @1 has 4 MA's), (61, 130), (86, 223), (110, 289), (112, 298), (124, 319), (141, 388), (159, 427), (163, 442),

Gene: Gooberta_1 Start: 1, Stop: 468, Start Num: 28
Candidate Starts for Gooberta_1:
(Start: 28 @1 has 4 MA's), (61, 130), (86, 223), (110, 289), (112, 298), (124, 319), (141, 388), (159, 427), (163, 442),

Gene: GravityBall_1 Start: 21, Stop: 470, Start Num: 31
Candidate Starts for GravityBall_1:
(Start: 31 @21 has 19 MA's), (34, 33), (53, 93), (71, 177), (104, 282), (110, 297), (133, 366), (141, 390), (159, 432), (163, 447),

Gene: Grekaycon_1 Start: 22, Stop: 480, Start Num: 31
Candidate Starts for Grekaycon_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Grumio_21 Start: 10017, Stop: 10502, Start Num: 26
Candidate Starts for Grumio_21:
(Start: 26 @10017 has 7 MA's), (50, 10092), (54, 10107), (68, 10170), (75, 10203), (78, 10215), (85, 10245), (87, 10248), (94, 10272), (111, 10311), (117, 10332), (118, 10335), (120, 10338), (123, 10350), (129, 10374), (131, 10386), (132, 10392), (136, 10410), (149, 10446), (150, 10449), (158, 10473),

Gene: Gustavo_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Gustavo_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (136, 373),

Gene: Guzman_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Guzman_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343),

Gene: Halo3_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Halo3_1:
(Start: 29 @1 has 42 MA's), (41, 43), (52, 76), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (152, 415), (155, 424),

Gene: Hans_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for Hans_1:

(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487), (169, 493),

Gene: Hirko_1 Start: 1, Stop: 468, Start Num: 28
Candidate Starts for Hirko_1:
(Start: 28 @1 has 4 MA's), (54, 79), (62, 133), (82, 214), (92, 244), (93, 247), (124, 319), (141, 388), (159, 427), (163, 442),

Gene: Hive_16 Start: 5670, Stop: 6188, Start Num: 17
Candidate Starts for Hive_16:
(Start: 17 @5670 has 14 MA's), (45, 5757), (47, 5763), (58, 5808), (69, 5847), (71, 5856), (99, 5943), (100, 5946), (124, 6012), (130, 6039), (153, 6105), (172, 6168), (173, 6171),

Gene: Inspectinfecti_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for Inspectinfecti_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487),

Gene: JKSyngboy_1 Start: 1, Stop: 504, Start Num: 30
Candidate Starts for JKSyngboy_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (86, 205), (89, 211), (100, 244),

Gene: JKerns_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for JKerns_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (104, 292), (105, 295), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Jabberwocky_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Jabberwocky_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Jakelyne_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Jakelyne_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343),

Gene: Jambalaya_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Jambalaya_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (152, 415), (155, 424),

Gene: Jawnski_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for Jawnski_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (78, 208), (90, 247), (104, 286), (110, 301), (123, 328), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: Jeon_64 Start: 49222, Stop: 49764, Start Num: 29
Candidate Starts for Jeon_64:
(Start: 29 @49222 has 42 MA's), (60, 49327), (66, 49354), (68, 49357), (72, 49378), (78, 49402), (98, 49468), (105, 49486), (111, 49507), (116, 49525), (125, 49555), (131, 49579), (132, 49585), (136, 49603), (146, 49633), (159, 49669), (161, 49678),

Gene: Jinkies_1 Start: 1, Stop: 510, Start Num: 18

Candidate Starts for Jinkies_1:
(Start: 18 @1 has 4 MA's), (38, 67), (92, 283), (110, 328), (117, 349), (124, 358), (140, 424), (144, 433), (159, 469),

Gene: JohnPork_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for JohnPork_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Jollymon_21 Start: 10509, Stop: 10994, Start Num: 26
Candidate Starts for Jollymon_21:
(Start: 26 @10509 has 7 MA's), (50, 10584), (54, 10599), (68, 10662), (75, 10695), (78, 10707), (85, 10737), (87, 10740), (94, 10764), (105, 10782), (111, 10803), (118, 10827), (120, 10830), (123, 10842), (129, 10866), (131, 10878), (132, 10884), (136, 10902), (146, 10932), (149, 10938),

Gene: Jordan_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for Jordan_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (104, 292), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Kamashten_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Kamashten_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Keitabear_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Keitabear_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: Kewpiedoll_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Kewpiedoll_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: KimmyK_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for KimmyK_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: King2_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for King2_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (78, 208), (90, 247), (104, 286), (110, 301), (123, 328), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: KingstonB_19 Start: 10017, Stop: 10502, Start Num: 26
Candidate Starts for KingstonB_19:
(Start: 26 @10017 has 7 MA's), (50, 10092), (54, 10107), (68, 10170), (75, 10203), (78, 10215), (85, 10245), (87, 10248), (94, 10272), (105, 10290), (111, 10311), (117, 10332), (118, 10335), (120, 10338), (123, 10350), (129, 10374), (131, 10386), (132, 10392), (136, 10410), (146, 10440), (149, 10446),

Gene: Klevey_1 Start: 1, Stop: 438, Start Num: 33

Candidate Starts for Klevey_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (124, 286), (159, 394),

Gene: Kroos_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Kroos_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: Kubulix_18 Start: 5785, Stop: 6303, Start Num: 17
Candidate Starts for Kubulix_18:
(Start: 17 @5785 has 14 MA's), (45, 5872), (47, 5878), (58, 5923), (69, 5962), (99, 6058), (100, 6061), (124, 6127), (130, 6154), (153, 6220), (172, 6283), (173, 6286),

Gene: Kwekel_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for Kwekel_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (64, 157), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: Kwobi_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Kwobi_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: LeeroyJ_1 Start: 21, Stop: 470, Start Num: 31
Candidate Starts for LeeroyJ_1:
(Start: 31 @21 has 19 MA's), (34, 33), (53, 93), (71, 177), (78, 204), (104, 282), (110, 297), (133, 366), (141, 390), (159, 432), (163, 447),

Gene: Lennon_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Lennon_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Leonard_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for Leonard_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487), (169, 493),

Gene: LilHam_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for LilHam_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (135, 367),

Gene: Lilbeanie_1 Start: 1, Stop: 591, Start Num: 29
Candidate Starts for Lilbeanie_1:
(Start: 29 @1 has 42 MA's), (41, 43), (47, 64), (70, 160), (79, 190), (110, 298), (136, 409), (165, 496), (171, 523), (174, 538),

Gene: Lilmac1015_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Lilmac1015_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (124, 286), (159, 394),

Gene: Losacky_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Losacky_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (124, 343),

Gene: Love_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Love_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Lukepolites_1 Start: 64, Stop: 534, Start Num: 33
Candidate Starts for Lukepolites_1:
(15, 1), (25, 40), (Start: 33 @64 has 22 MA's), (Start: 37 @85 has 1 MA's), (50, 124), (105, 325), (117, 364), (120, 370), (124, 385), (141, 454), (159, 493), (162, 505), (164, 514),

Gene: Makar_22 Start: 10737, Stop: 11147, Start Num: 50
Candidate Starts for Makar_22:
(Start: 26 @10662 has 7 MA's), (50, 10737), (54, 10752), (68, 10815), (75, 10848), (78, 10860), (80, 10869), (87, 10893), (94, 10917), (111, 10956), (117, 10977), (118, 10980), (120, 10983), (123, 10995), (129, 11019), (130, 11025), (131, 11031), (136, 11055), (146, 11085), (149, 11091),

Gene: Mao1_86 Start: 57916, Stop: 58401, Start Num: 33
Candidate Starts for Mao1_86:
(9, 57814), (Start: 33 @57916 has 22 MA's), (81, 58099), (88, 58123), (93, 58144), (98, 58156), (132, 58264), (134, 58273), (137, 58288), (142, 58300), (143, 58303), (146, 58309), (163, 58360),

Gene: Mariel_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Mariel_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: Martha_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for Martha_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Mask_86 Start: 60554, Stop: 61024, Start Num: 35
Candidate Starts for Mask_86:
(Start: 33 @60542 has 22 MA's), (Start: 35 @60554 has 1 MA's), (80, 60719), (90, 60752), (113, 60815), (120, 60833), (131, 60881), (132, 60887), (134, 60896), (137, 60911), (142, 60923), (143, 60926), (146, 60932), (163, 60983),

Gene: McCrothy_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for McCrothy_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: McKinley_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for McKinley_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Megabear_64 Start: 48057, Stop: 48599, Start Num: 29
Candidate Starts for Megabear_64:
(Start: 29 @48057 has 42 MA's), (60, 48162), (68, 48192), (72, 48213), (78, 48237), (98, 48303), (105, 48321), (111, 48342), (114, 48354), (116, 48360), (125, 48390), (131, 48414), (136, 48438), (146, 48468), (159, 48504), (161, 48513),

Gene: MelBins_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for MelBins_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487),

Gene: MellowYellow_15 Start: 5043, Stop: 5561, Start Num: 17
Candidate Starts for MellowYellow_15:
(Start: 17 @5043 has 14 MA's), (45, 5130), (47, 5136), (58, 5181), (69, 5220), (71, 5229), (99, 5316), (100, 5319), (124, 5385), (130, 5412), (153, 5478), (172, 5541), (173, 5544),

Gene: MenE_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for MenE_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: MoontowerMania_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for MoontowerMania_1:
(Start: 30 @1 has 53 MA's), (42, 43), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Music_1 Start: 1, Stop: 468, Start Num: 28
Candidate Starts for Music_1:
(Start: 28 @1 has 4 MA's), (61, 130), (82, 214), (86, 223), (93, 247), (110, 289), (112, 298), (124, 319), (141, 388), (153, 415), (159, 427), (163, 442),

Gene: Mutzi_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Mutzi_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: NCRodriguez_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for NCRodriguez_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343),

Gene: Nandito_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Nandito_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (115, 274), (131, 319), (159, 394), (164, 415),

Gene: NathanVaag_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for NathanVaag_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (104, 286), (110, 301), (123, 328), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: Natkenzie_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Natkenzie_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (121, 298), (156, 418),

Gene: Nikan_14 Start: 5509, Stop: 6009, Start Num: 19
Candidate Starts for Nikan_14:
(Start: 19 @5509 has 3 MA's), (32, 5539), (45, 5590), (47, 5596), (58, 5641), (69, 5680), (71, 5689), (100, 5779), (106, 5791), (124, 5845), (130, 5872), (153, 5938), (157, 5953), (163, 5971),

Gene: Nordenberg_1 Start: 58, Stop: 510, Start Num: 46

Candidate Starts for Nordenberg_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247),

Gene: Nostromo_1 Start: 1, Stop: 468, Start Num: 27
Candidate Starts for Nostromo_1:
(Start: 27 @1 has 1 MA's), (75, 181), (82, 214), (86, 223), (90, 232), (94, 250), (96, 256), (159, 427),

Gene: Nubi_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Nubi_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: NyleyClemson_14 Start: 4985, Stop: 5503, Start Num: 17
Candidate Starts for NyleyClemson_14:
(Start: 17 @4985 has 14 MA's), (45, 5072), (47, 5078), (58, 5123), (69, 5162), (71, 5171), (99, 5258), (100, 5261), (124, 5327), (130, 5354), (153, 5420), (172, 5483), (173, 5486),

Gene: Odyssey395_19 Start: 5787, Stop: 6305, Start Num: 17
Candidate Starts for Odyssey395_19:
(Start: 17 @5787 has 14 MA's), (45, 5874), (47, 5880), (51, 5889), (58, 5925), (69, 5964), (99, 6060), (100, 6063), (124, 6129), (130, 6156), (153, 6222), (172, 6285), (173, 6288),

Gene: Ollypop_16 Start: 5474, Stop: 5974, Start Num: 19
Candidate Starts for Ollypop_16:
(12, 5441), (Start: 19 @5474 has 3 MA's), (32, 5504), (45, 5555), (47, 5561), (58, 5606), (71, 5654), (99, 5741), (100, 5744), (124, 5810), (130, 5837), (153, 5903), (161, 5930), (163, 5936),

Gene: Orkz_1 Start: 1, Stop: 504, Start Num: 18
Candidate Starts for Orkz_1:
(Start: 18 @1 has 4 MA's), (38, 70), (92, 277), (93, 280), (105, 307), (144, 427), (159, 463),

Gene: PR_64 Start: 48661, Stop: 49203, Start Num: 29
Candidate Starts for PR_64:
(Start: 29 @48661 has 42 MA's), (60, 48766), (66, 48793), (68, 48796), (72, 48817), (78, 48841), (98, 48907), (105, 48925), (111, 48946), (114, 48958), (116, 48964), (125, 48994), (131, 49018), (132, 49024), (136, 49042), (146, 49072), (159, 49108), (161, 49117),

Gene: Paries_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Paries_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Phauci_1 Start: 1, Stop: 537, Start Num: 21
Candidate Starts for Phauci_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487), (169, 493),

Gene: PhillyJawn_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for PhillyJawn_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: Phinally_1 Start: 1, Stop: 537, Start Num: 21

Candidate Starts for Phinally_1:
(Start: 21 @1 has 9 MA's), (Start: 46 @85 has 1 MA's), (52, 100), (86, 235), (97, 268), (100, 274), (121, 331), (156, 451), (166, 487), (169, 493),

Gene: Phingu_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Phingu_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: Phlop_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Phlop_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Phonegingi_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Phonegingi_1:
(Start: 16 @1 has 17 MA's), (53, 130), (69, 199), (92, 274), (101, 292), (114, 325), (123, 343), (124, 346), (132, 385),

Gene: PhuzzTulsa_15 Start: 5574, Stop: 6092, Start Num: 17
Candidate Starts for PhuzzTulsa_15:
(Start: 17 @5574 has 14 MA's), (45, 5661), (47, 5667), (58, 5712), (69, 5751), (71, 5760), (99, 5847), (100, 5850), (124, 5916), (130, 5943), (153, 6009), (172, 6072), (173, 6075),

Gene: Piccoletto_1 Start: 25, Stop: 474, Start Num: 31
Candidate Starts for Piccoletto_1:
(Start: 31 @25 has 19 MA's), (53, 97), (54, 103), (104, 286), (110, 301), (123, 328), (133, 370), (141, 394), (159, 436), (163, 451),

Gene: Pickles13_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Pickles13_1:
(Start: 16 @1 has 17 MA's), (50, 118), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: PinkCoffee_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for PinkCoffee_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Pippa_1 Start: 22, Stop: 480, Start Num: 31
Candidate Starts for Pippa_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (104, 292), (110, 307), (141, 400), (159, 442), (163, 457),

Gene: Pointis_17 Start: 5785, Stop: 6303, Start Num: 17
Candidate Starts for Pointis_17:
(Start: 17 @5785 has 14 MA's), (45, 5872), (47, 5878), (58, 5923), (69, 5962), (71, 5971), (99, 6058), (100, 6061), (124, 6127), (130, 6154), (153, 6220), (172, 6283), (173, 6286),

Gene: Popstraw_16 Start: 5574, Stop: 6092, Start Num: 17
Candidate Starts for Popstraw_16:
(Start: 17 @5574 has 14 MA's), (45, 5661), (47, 5667), (51, 5676), (58, 5712), (69, 5751), (99, 5847), (100, 5850), (124, 5916), (130, 5943), (153, 6009), (172, 6072), (173, 6075),

Gene: Portcullis_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Portcullis_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Prairie_1 Start: 1, Stop: 438, Start Num: 33
Candidate Starts for Prairie_1:
(Start: 33 @1 has 22 MA's), (50, 61), (93, 217), (124, 286), (159, 394),

Gene: PullumCavea_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for PullumCavea_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Pumpkiney_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Pumpkiney_1:
(Start: 33 @1 has 22 MA's), (71, 148), (100, 241), (120, 295), (121, 298), (137, 373), (156, 418),

Gene: Pureglobe5_19 Start: 5801, Stop: 6319, Start Num: 17
Candidate Starts for Pureglobe5_19:
(Start: 17 @5801 has 14 MA's), (45, 5888), (47, 5894), (51, 5903), (58, 5939), (69, 5978), (99, 6074), (100, 6077), (124, 6143), (130, 6170), (153, 6236), (172, 6299), (173, 6302),

Gene: Purplicious_20 Start: 10018, Stop: 10503, Start Num: 26
Candidate Starts for Purplicious_20:
(Start: 26 @10018 has 7 MA's), (50, 10093), (54, 10108), (59, 10135), (68, 10171), (75, 10204), (78, 10216), (85, 10246), (87, 10249), (94, 10273), (111, 10312), (117, 10333), (118, 10336), (120, 10339), (123, 10351), (129, 10375), (131, 10387), (132, 10393), (136, 10411), (146, 10441), (149, 10447), (150, 10450), (158, 10474),

Gene: RIPWilbur_15 Start: 5438, Stop: 5956, Start Num: 17
Candidate Starts for RIPWilbur_15:
(Start: 17 @5438 has 14 MA's), (45, 5525), (47, 5531), (58, 5576), (69, 5615), (71, 5624), (99, 5711), (100, 5714), (124, 5780), (130, 5807), (153, 5873), (172, 5936), (173, 5939),

Gene: Ranunculus_13 Start: 5362, Stop: 5913, Start Num: 11
Candidate Starts for Ranunculus_13:
(Start: 11 @5362 has 1 MA's), (32, 5431), (45, 5479), (47, 5485), (58, 5530), (69, 5569), (100, 5668), (106, 5680), (124, 5734), (130, 5761), (154, 5830),

Gene: RazzB_14 Start: 4813, Stop: 5331, Start Num: 17
Candidate Starts for RazzB_14:
(Start: 17 @4813 has 14 MA's), (45, 4900), (47, 4906), (58, 4951), (69, 4990), (71, 4999), (99, 5086), (100, 5089), (124, 5155), (130, 5182), (153, 5248), (172, 5311), (173, 5314),

Gene: Ren19_14 Start: 5509, Stop: 6009, Start Num: 19
Candidate Starts for Ren19_14:
(Start: 19 @5509 has 3 MA's), (32, 5539), (45, 5590), (47, 5596), (58, 5641), (69, 5680), (71, 5689), (100, 5779), (106, 5791), (124, 5845), (130, 5872), (153, 5938), (157, 5953), (163, 5971),

Gene: Ribeye_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Ribeye_1:

(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (102, 250), (135, 367),

Gene: RiverRaider_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for RiverRaider_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (69, 145), (86, 208), (100, 247), (128, 334), (170, 475),

Gene: Rizwana_11 Start: 5074, Stop: 5604, Start Num: 14
Candidate Starts for Rizwana_11:
(Start: 14 @5074 has 1 MA's), (32, 5128), (100, 5368), (122, 5425), (145, 5509), (148, 5518), (152, 5524), (172, 5590),

Gene: RoadKill_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for RoadKill_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (64, 157), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: Rofo_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Rofo_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: RogerDodger_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for RogerDodger_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (152, 415), (155, 424),

Gene: RomansRevenge_9 Start: 3610, Stop: 4101, Start Num: 30
Candidate Starts for RomansRevenge_9:
(Start: 30 @3610 has 53 MA's), (47, 3667), (58, 3712), (76, 3775), (100, 3847), (126, 3922), (153, 4009), (154, 4012), (157, 4024), (161, 4036), (167, 4057), (172, 4072),

Gene: Salvador_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Salvador_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Sampson_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Sampson_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (121, 298), (156, 418),

Gene: Sanjuju_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Sanjuju_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: Saronaya_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Saronaya_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (136, 373),

Gene: Savbucketdawg_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Savbucketdawg_1:

(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (152, 415), (155, 424),

Gene: SchottB_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for SchottB_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (135, 367),

Gene: Scioto_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Scioto_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (121, 298), (156, 418),

Gene: ScoobySnack_1 Start: 1, Stop: 510, Start Num: 16
Candidate Starts for ScoobySnack_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343),

Gene: Sedona_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Sedona_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: Sejanus_88 Start: 59562, Stop: 60044, Start Num: 33
Candidate Starts for Sejanus_88:
(6, 59292), (Start: 33 @59562 has 22 MA's), (Start: 35 @59574 has 1 MA's), (80, 59739), (90, 59772), (113, 59835), (120, 59853), (131, 59901), (132, 59907), (134, 59916), (137, 59931), (142, 59943), (143, 59946), (146, 59952), (163, 60003),

Gene: Sendy_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Sendy_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Shade_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for Shade_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (104, 292), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: SharkTale_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for SharkTale_1:
(Start: 29 @1 has 42 MA's), (44, 55), (45, 58), (88, 214), (92, 232), (100, 250), (121, 304), (130, 343), (133, 361), (136, 373), (137, 379), (155, 424), (169, 466), (170, 469),

Gene: Shinji_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Shinji_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Shivanishola_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Shivanishola_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (72, 157), (86, 208), (100, 247), (126, 325),

Gene: Sicarius2_1 Start: 1, Stop: 462, Start Num: 31
Candidate Starts for Sicarius2_1:

(Start: 31 @1 has 19 MA's), (92, 244), (104, 271), (110, 286), (159, 424),

Gene: SilentRX_12 Start: 4625, Stop: 5146, Start Num: 17
Candidate Starts for SilentRX_12:
(5, 4127), (7, 4448), (8, 4514), (Start: 17 @4625 has 14 MA's), (67, 4802), (69, 4808), (82, 4859), (84, 4865), (99, 4904), (100, 4907), (133, 5018), (154, 5069),

Gene: Sitar_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Sitar_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Sixsevenium_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Sixsevenium_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: SmokingBunny_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for SmokingBunny_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Sonny_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for Sonny_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (104, 292), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Soos_19 Start: 9851, Stop: 10336, Start Num: 26
Candidate Starts for Soos_19:
(Start: 26 @9851 has 7 MA's), (50, 9926), (54, 9941), (65, 9998), (68, 10004), (75, 10037), (78, 10049), (85, 10079), (87, 10082), (94, 10106), (111, 10145), (117, 10166), (118, 10169), (120, 10172), (123, 10184), (129, 10208), (131, 10220), (132, 10226), (136, 10244), (146, 10274), (149, 10280), (150, 10283), (158, 10307),

Gene: StevieBAY_1 Start: 21, Stop: 470, Start Num: 31
Candidate Starts for StevieBAY_1:
(Start: 31 @21 has 19 MA's), (34, 33), (53, 93), (71, 177), (104, 282), (110, 297), (133, 366), (141, 390), (159, 432), (163, 447),

Gene: Stichling_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Stichling_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: Stillion_20 Start: 10331, Stop: 10816, Start Num: 26
Candidate Starts for Stillion_20:
(Start: 26 @10331 has 7 MA's), (50, 10406), (54, 10421), (68, 10484), (75, 10517), (78, 10529), (85, 10559), (87, 10562), (94, 10586), (111, 10625), (117, 10646), (118, 10649), (120, 10652), (123, 10664), (129, 10688), (131, 10700), (132, 10706), (136, 10724), (149, 10760), (150, 10763), (158, 10787),

Gene: Sting_20 Start: 10263, Stop: 10748, Start Num: 26
Candidate Starts for Sting_20:

(Start: 26 @10263 has 7 MA's), (50, 10338), (54, 10353), (68, 10416), (75, 10449), (78, 10461), (85, 10491), (87, 10494), (94, 10518), (111, 10557), (117, 10578), (118, 10581), (120, 10584), (123, 10596), (129, 10620), (131, 10632), (132, 10638), (136, 10656), (146, 10686), (149, 10692), (150, 10695), (158, 10719),

Gene: StorminNorm_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for StorminNorm_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (128, 334),

Gene: Stultus_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Stultus_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247),

Gene: SunnyJune_1 Start: 1, Stop: 507, Start Num: 18
Candidate Starts for SunnyJune_1:
(Start: 18 @1 has 4 MA's), (38, 67), (92, 283), (105, 313), (110, 328), (117, 349), (124, 358), (159, 466), (163, 481),

Gene: TaeYoung_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for TaeYoung_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Tangent_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Tangent_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Tangerine_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Tangerine_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: Tank_12 Start: 5089, Stop: 5619, Start Num: 13
Candidate Starts for Tank_12:
(Start: 13 @5089 has 3 MA's), (23, 5125), (69, 5290), (100, 5389), (122, 5446), (123, 5452), (145, 5530), (147, 5536), (148, 5539), (152, 5545),

Gene: Taptic_64 Start: 48057, Stop: 48599, Start Num: 29
Candidate Starts for Taptic_64:
(Start: 29 @48057 has 42 MA's), (60, 48162), (68, 48192), (72, 48213), (78, 48237), (98, 48303), (105, 48321), (111, 48342), (114, 48354), (116, 48360), (125, 48390), (131, 48414), (136, 48438), (146, 48468), (159, 48504), (161, 48513),

Gene: Tardus_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Tardus_1:
(Start: 33 @1 has 22 MA's), (71, 148), (100, 241), (120, 295), (121, 298), (136, 367), (137, 373), (156, 418),

Gene: Thing3_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Thing3_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (64, 133), (86, 208), (100, 247), (126, 325),

Gene: Tiamoceli_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for Tiamoceli_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (64, 157), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: TillyBobJoe_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for TillyBobJoe_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Timinator_1 Start: 21, Stop: 470, Start Num: 31
Candidate Starts for Timinator_1:
(Start: 31 @21 has 19 MA's), (34, 33), (53, 93), (71, 177), (78, 204), (104, 282), (110, 297), (133, 366), (141, 390), (159, 432), (163, 447),

Gene: Togo_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Togo_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Tonitrus_9 Start: 4643, Stop: 5092, Start Num: 37
Candidate Starts for Tonitrus_9:
(Start: 37 @4643 has 1 MA's), (49, 4679), (93, 4868), (98, 4880), (103, 4889), (105, 4895), (117, 4928), (131, 4970), (136, 4994), (138, 5003), (151, 5030), (152, 5033),

Gene: TurkishDelight_1 Start: 1, Stop: 426, Start Num: 39
Candidate Starts for TurkishDelight_1:
(Start: 39 @1 has 1 MA's), (73, 139), (77, 151), (83, 184), (91, 208), (108, 253),

Gene: Twister6_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Twister6_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (152, 415), (155, 424),

Gene: Twonlo_1 Start: 1, Stop: 561, Start Num: 22
Candidate Starts for Twonlo_1:
(Start: 22 @1 has 7 MA's), (38, 55), (56, 121), (64, 157), (100, 271), (121, 337), (136, 406), (163, 487), (169, 505),

Gene: Tycho_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for Tycho_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247), (128, 334),

Gene: Valary_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Valary_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: VanDeWege_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for VanDeWege_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Verity_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Verity_1:
(Start: 33 @1 has 22 MA's), (40, 31), (59, 103), (71, 148), (100, 241), (120, 295), (121, 298), (156, 418),

Gene: ViaConlectus_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for ViaConlectus_1:
(Start: 33 @1 has 22 MA's), (69, 139), (71, 148), (100, 241), (121, 298), (156, 418),

Gene: Vibaki_1 Start: 1, Stop: 498, Start Num: 20
Candidate Starts for Vibaki_1:
(Start: 20 @1 has 1 MA's), (38, 58), (50, 94), (61, 160), (92, 274), (95, 283), (109, 316), (141, 418), (153, 445), (159, 457), (163, 472),

Gene: Violeta_1 Start: 1, Stop: 513, Start Num: 16
Candidate Starts for Violeta_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (124, 343),

Gene: Vitus_1 Start: 1, Stop: 471, Start Num: 28
Candidate Starts for Vitus_1:
(Start: 28 @1 has 4 MA's), (61, 133), (86, 226), (93, 250), (110, 292), (112, 301), (124, 322), (141, 391), (152, 415), (159, 430), (163, 445),

Gene: Vivi2_1 Start: 1, Stop: 510, Start Num: 30
Candidate Starts for Vivi2_1:
(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (59, 109), (86, 208), (100, 247), (126, 325),

Gene: Warren_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Warren_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343),

Gene: Wilde_12 Start: 5017, Stop: 5547, Start Num: 13
Candidate Starts for Wilde_12:
(Start: 13 @5017 has 3 MA's), (23, 5053), (69, 5218), (100, 5317), (122, 5374), (123, 5380), (145, 5458), (147, 5464), (148, 5467), (152, 5473),

Gene: Winchester007_1 Start: 1, Stop: 522, Start Num: 16
Candidate Starts for Winchester007_1:
(Start: 16 @1 has 17 MA's), (53, 127), (74, 217), (92, 271), (101, 289), (119, 334), (124, 343), (128, 361),

Gene: Wizard_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for Wizard_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Wyborn_1 Start: 1, Stop: 462, Start Num: 31
Candidate Starts for Wyborn_1:
(Start: 31 @1 has 19 MA's), (92, 244), (104, 271), (110, 286), (159, 424),

Gene: YorkOnyx_1 Start: 1, Stop: 507, Start Num: 30
Candidate Starts for YorkOnyx_1:

(Start: 30 @1 has 53 MA's), (Start: 46 @58 has 1 MA's), (50, 67), (60, 115), (100, 247),

Gene: YungMoney_1 Start: 1, Stop: 531, Start Num: 29
Candidate Starts for YungMoney_1:
(Start: 29 @1 has 42 MA's), (41, 43), (55, 94), (88, 214), (92, 232), (121, 304), (123, 313), (133, 361), (136, 373), (137, 379), (155, 424),

Gene: Zartrosa_1 Start: 1, Stop: 480, Start Num: 24
Candidate Starts for Zartrosa_1:
(Start: 24 @1 has 8 MA's), (Start: 31 @22 has 19 MA's), (34, 34), (53, 94), (104, 292), (110, 307), (141, 400), (143, 406), (159, 442), (163, 457),

Gene: Zipp_1 Start: 1, Stop: 498, Start Num: 33
Candidate Starts for Zipp_1:
(Start: 33 @1 has 22 MA's), (40, 31), (59, 103), (71, 148), (100, 241), (156, 418),

Gene: pZL12_68c Start: 56713, Stop: 56180, Start Num: 33
Candidate Starts for pZL12_68c:
(1, 57679), (2, 57661), (3, 57658), (4, 57571), (Start: 33 @56713 has 22 MA's), (57, 56614), (124, 56371), (131, 56338),