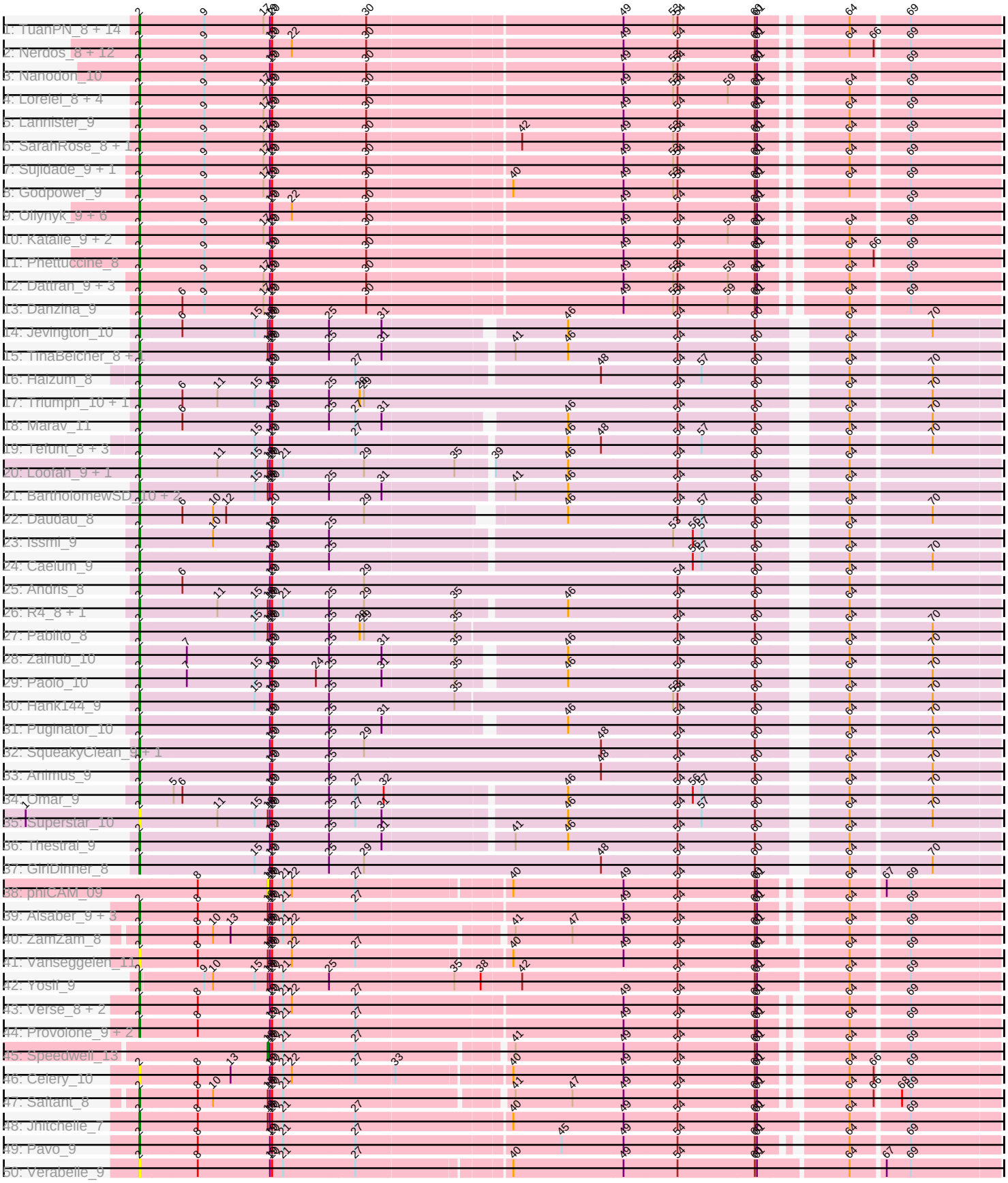
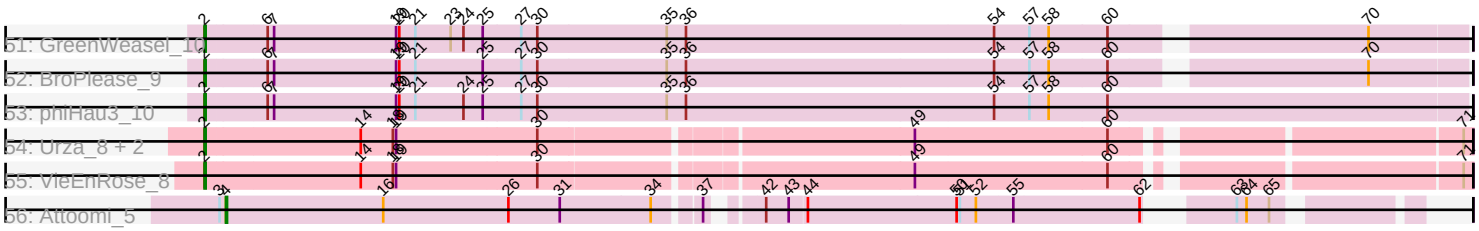
Pham 347404


1: TuanPN_8 + 14
2: Nerdos_8 + 12
3: Nanodon_10
4: Lorelei_8 + 4
5: Lannister_9
6: SarahRose_8 + 1
7: Sujidade_9 + 1
8: Godpower_9
9: Olynyk_9 + 6
10: Katalie_9 + 2
11: Phettuccine_8
12: Dattran_9 + 3
13: Danzina_9
14: Jevington_10
15: TinaBelcher_8 + 1
16: Haizum_8
17: Triumph_10 + 1
18: Marav_11
19: Telunt_8 + 3
20: Loofah_9 + 1
21: BartholomewSD_10 + 2
22: Daudau_8
23: Issmi_9
24: Caelum_9
25: Andris_8
26: R4_8 + 1
27: Pablito_8
28: Zainub_10
29: Paolo_10
30: HankI44_9
31: Puginator_10
32: SqueakyClean_9 + 1
33: Animus_9
34: Omar_9
35: Superstar_10
36: Thestral_9
37: GinDinner_8
38: phlCAM_09
39: Alsaber_9 + 3
40: ZamZam_8
41: Vanseggelen_11
42: Yoshi_9
43: Verse_8 + 2
44: Provolone_9 + 2
45: Speedwell_13
46: Celery_10
47: Saltant_8
48: Jnitchelle_7
49: Pavo_9
50: Verabelle_9

Pham 347404


51: GreenWeasel_10
52: BroPlease_9
53: phiHau3_10
54: Urza_8 + 2
55: VieEnRose_8
56: Attoomi_5

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 347404 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 347404 has 118 members, 6 are drafts.

Phages represented in each track:
• Track 1 : TuanPN_8, Emaanora_10, Snorlax_8, OzzyJ_9, Asten_8, Dwayne_8, Triste_8, BarryBee_10, Werner_8, Maneekul_8, Ejemplo_8, Hippo_8, TagePhighter_9, Whatever_8, Yasdnil_8
• Track 2 : Nerdos_8, SunsetPointe_8, Leviticus_8, BeardedLady_9, Bovely_8, Hydra_10, Aaronocolus_8, Legacy_8, Unstoppable_8, Ozzie_8, Indigo_8, Esperer_8, Caliburn_8
• Track 3 : Nanodon_10
• Track 4 : Lorelei_8, Zemlya_9, Nabi_8, Celeste_8, Rana_8
• Track 5 : Lannister_9
• Track 6 : SarahRose_8, Chucky_8
• Track 7 : Sujidade_9, Lika_8
• Track 8 : Godpower_9
• Track 9 : Oliynyk_9, BryanRecycles_9, EnochSoames_9, Izzy_9, Eddasa_9, Jash_9, Rusticus_9
• Track 10 : Katalie_9, South40_9, RedBear_10
• Track 11 : Phettuccine_8
• Track 12 : Dattran_9, Brataylor_9, Goby_8, Toma_8
• Track 13 : Danzina_9
• Track 14 : Jevington_10
• Track 15 : TinaBelcher_8, TrvxScott_7
• Track 16 : Haizum_8
• Track 17 : Triumph_10, Axiom_9
• Track 18 : Marav_11
• Track 19 : Tefunt_8, Nishikigoi_8, Amethyst_8, Diane_8
• Track 20 : Loofah_9, Paedore_8
• Track 21 : BartholomewSD_10, Alvy_10, Bowden_9
• Track 22 : Daudau_8
• Track 23 : Issmi_9
• Track 24 : Caelum_9
• Track 25 : Andris_8
• Track 26 : R4_8, ELB20_07
• Track 27 : Pablito_8
• Track 28 : Zainub_10

• Track 29 : Paolo_10
• Track 30 : Hank144_9
• Track 31 : Puginator_10
• Track 32 : SqueakyClean_9, Janus_9
• Track 33 : Animus_9
• Track 34 : Omar_9
• Track 35 : Superstar_10
• Track 36 : Thestral_9
• Track 37 : GirlDinner_8
• Track 38 : phiCAM_09
• Track 39 : Alsaber_9, Dexers_7, Sudan_8, Kaine_8
• Track 40 : ZamZam_8
• Track 41 : Vanseggelen_11
• Track 42 : Yosif_9
• Track 43 : Verse_8, Amela_8, SunkenRoot_8
• Track 44 : Provolone_9, ElGato_9, Conan_9
• Track 45 : Speedwell_13
• Track 46 : Celery_10
• Track 47 : Saftant_8
• Track 48 : Jhitchelle_7
• Track 49 : Pavo_9
• Track 50 : Verabelle_9
• Track 51 : GreenWeasel_10
• Track 52 : BroPlease_9
• Track 53 : phiHau3_10
• Track 54 : Urza_8, Celia_8, Itza_8
• Track 55 : VieEnRose_8
• Track 56 : Attoomi_5

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

The start number called the most often in the published annotations is 2, it was called in 110 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aaronocolus_8, Alsaber_9, Alvy_10, Amela_8, Amethyst_8, Andris_8, Animus_9, Asten_8, Axiom_9, BarryBee_10, BartholomewSD_10, BeardedLady_9, Bovely_8, Bowden_9, Brataylor_9, BroPlease_9, BryanRecycles_9, Caelum_9, Caliburn_8, Celery_10, Celeste_8, Celia_8, Chucky_8, Conan_9, Danzina_9, Dattran_9, Daudau_8, Dexers_7, Diane_8, Dwayne_8, ELB20_07, Eddasa_9, Ejemplo_8, ElGato_9, Emaanora_10, EnochSoames_9, Esperer_8, GirlDinner_8, Goby_8, Godpower_9, GreenWeasel_10, Haizum_8, Hank144_9, Hippo_8, Hydra_10, Indigo_8, Issmi_9, Itza_8, Izzy_9, Janus_9, Jash_9, Jevington_10, Jhitchelle_7, Kaine_8, Katalie_9, Lannister_9, Legacy_8, Leviticus_8, Lika_8, Loofah_9, Lorelei_8, Maneekul_8, Marav_11, Nabi_8, Nanodon_10, Nerdos_8, Nishikigoi_8, Oliynyk_9, Omar_9, Ozzie_8, OzzyJ_9, Pablito_8, Paedore_8, Paolo_10, Pavo_9, Phettuccine_8, Provolone_9, Puginator_10, R4_8, Rana_8, RedBear_10, Rusticus_9, Saftant_8, SarahRose_8, Snorlax_8, South40_9, SqueakyClean_9, Sudan_8, Sujidade_9, SunkenRoot_8, SunsetPointe_8, Superstar_10, TagePhighter_9, Tefunt_8, Thestral_9, TinaBelcher_8, Toma_8, Triste_8, Triumph_10, TrvxScott_7,

TuanPN_8, Unstoppable_8, Urza_8, Vanseggelen_11, Verabelle_9, Verse_8, VieEnRose_8, Werner_8, Whatever_8, Yasdnil_8, Yosif_9, Zainub_10, ZamZam_8, Zemlya_9, phiHau3_10,

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

Genes that do not have the "Most Annotated" start:
• Attoomi_5, Speedwell_13, phiCAM_09,

Summary by start number:

Start 2:
• Found in 115 of 118 (97.5%) of genes in pham
• Manual Annotations of this start: 110 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aaronocolus_8 (BD1), Alsaber_9 (BD3), Alvy_10 (BD2), Amela_8 (BD3), Amethyst_8 (BD2), Andris_8 (BD2), Animus_9 (BD2), Asten_8 (BD1), Axiom_9 (BD2), BarryBee_10 (BD1), BartholomewSD_10 (BD2), BeardedLady_9 (BD1), Bovely_8 (BD1), Bowden_9 (BD2), Brataylor_9 (BD1), BroPlease_9 (BD4), BryanRecycles_9 (BD1), Caelum_9 (BD2), Caliburn_8 (BD1), Celery_10 (BD3), Celeste_8 (BD1), Celia_8 (BD6), Chucky_8 (BD1), Conan_9 (BD3), Danzina_9 (BD1), Dattran_9 (BD1), Daudau_8 (BD2), Dexers_7 (BD3), Diane_8 (BD2), Dwayne_8 (BD1), ELB20_07 (BD2), Eddasa_9 (BD1), Ejemplo_8 (BD1), ElGato_9 (BD3), Emaanora_10 (BD1), EnochSoames_9 (BD1), Esperer_8 (BD1), GirlDinner_8 (BD2), Goby_8 (BD1), Godpower_9 (BD1), GreenWeasel_10 (BD4), Haizum_8 (BD2), Hank144_9 (BD2), Hippo_8 (BD1), Hydra_10 (BD1), Indigo_8 (BD1), Issmi_9 (BD2), Itza_8 (BD6), Izzy_9 (BD1), Janus_9 (BD2), Jash_9 (BD1), Jevington_10 (BD2), Jhitchelle_7 (BD3), Kaine_8 (BD3), Katalie_9 (BD1), Lannister_9 (BD1), Legacy_8 (BD1), Leviticus_8 (BD1), Lika_8 (BD1), Loofah_9 (BD2), Lorelei_8 (BD1), Maneekul_8 (BD1), Marav_11 (BD2), Nabi_8 (BD1), Nanodon_10 (BD1), Nerdos_8 (BD1), Nishikigoi_8 (BD2), Oliynyk_9 (BD1), Omar_9 (BD2), Ozzie_8 (BD1), OzzyJ_9 (BD1), Pablito_8 (BD2), Paedore_8 (BD2), Paolo_10 (BD2), Pavo_9 (BD3), Phettuccine_8 (BD1), Provolone_9 (BD3), Puginator_10 (BD2), R4_8 (BD2), Rana_8 (BD1), RedBear_10 (BD1), Rusticus_9 (BD1), Saftant_8 (BD3), SarahRose_8 (BD1), Snorlax_8 (BD1), South40_9 (BD1), SqueakyClean_9 (BD2), Sudan_8 (BD3), Sujidade_9 (BD1), SunkenRoot_8 (BD3), SunsetPointe_8 (BD1), Superstar_10 (BD2), TagePhighter_9 (BD1), Tefunt_8 (BD2), Thestral_9 (BD2), TinaBelcher_8 (BD2), Toma_8 (BD1), Triste_8 (BD1), Triumph_10 (BD2), TrvxScott_7 (BD2), TuanPN_8 (BD1), Unstoppable_8 (BD1), Urza_8 (BD6), Vanseggelen_11 (BD3), Verabelle_9 (BD3), Verse_8 (BD3), VieEnRose_8 (BD6), Werner_8 (BD1), Whatever_8 (BD1), Yasdnil_8 (BD1), Yosif_9 (BD3), Zainub_10 (BD2), ZamZam_8 (BD3), Zemlya_9 (BD1), phiHau3_10 (BD4),

Start 4:
• Found in 1 of 118 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Attoomi_5 (singleton),

Start 18:
• Found in 27 of 118 (22.9%) of genes in pham
• Manual Annotations of this start: 1 of 112

• Called 7.4% of time when present
• Phage (with cluster) where this start called: Speedwell_13 (BD3), phiCAM_09 (BD3),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, BD4, BD6, BD1, BD3, BD2,

Info for manual annotations of cluster BD1:
•Start number 2 was manually annotated 55 times for cluster BD1.

Info for manual annotations of cluster BD2:
•Start number 2 was manually annotated 33 times for cluster BD2.

Info for manual annotations of cluster BD3:
•Start number 2 was manually annotated 15 times for cluster BD3.
•Start number 18 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD4:
•Start number 2 was manually annotated 3 times for cluster BD4.

Info for manual annotations of cluster BD6:
•Start number 2 was manually annotated 4 times for cluster BD6.

Gene Information:

Gene: Aaronocolus_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Aaronocolus_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (22, 5724), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: Alsaber_9 Start: 5622, Stop: 6731, Start Num: 2
Candidate Starts for Alsaber_9:
(Start: 2 @5622 has 110 MA's), (8, 5697), (Start: 18 @5793 has 1 MA's), (19, 5796), (20, 5799), (21, 5814), (27, 5910), (49, 6261), (54, 6333), (60, 6438), (61, 6441), (64, 6537), (69, 6612),

Gene: Alvy_10 Start: 5489, Stop: 6595, Start Num: 2
Candidate Starts for Alvy_10:
(Start: 2 @5489 has 110 MA's), (15, 5642), (Start: 18 @5660 has 1 MA's), (19, 5663), (20, 5666), (25, 5744), (31, 5813), (41, 5978), (46, 6050), (54, 6197), (60, 6302), (64, 6401),

Gene: Amela_8 Start: 5682, Stop: 6791, Start Num: 2
Candidate Starts for Amela_8:
(Start: 2 @5682 has 110 MA's), (8, 5757), (19, 5856), (20, 5859), (21, 5874), (22, 5886), (27, 5970), (49, 6321), (54, 6393), (60, 6498), (61, 6501), (64, 6597), (69, 6672),

Gene: Amethyst_8 Start: 5298, Stop: 6404, Start Num: 2
Candidate Starts for Amethyst_8:
(Start: 2 @5298 has 110 MA's), (15, 5451), (19, 5472), (20, 5475), (27, 5586), (46, 5859), (48, 5904), (54, 6006), (57, 6039), (60, 6111), (64, 6210), (70, 6315),

Gene: Andris_8 Start: 5338, Stop: 6462, Start Num: 2

Candidate Starts for Andris_8:
(Start: 2 @5338 has 110 MA's), (6, 5392), (19, 5512), (20, 5515), (29, 5638), (54, 6064), (60, 6169), (64, 6268),

Gene: Animus_9 Start: 5688, Stop: 6812, Start Num: 2
Candidate Starts for Animus_9:
(Start: 2 @5688 has 110 MA's), (19, 5862), (20, 5865), (25, 5943), (48, 6312), (54, 6414), (60, 6519), (64, 6618), (70, 6723),

Gene: Asten_8 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for Asten_8:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: Attoomi_5 Start: 3965, Stop: 4960, Start Num: 4
Candidate Starts for Attoomi_5:
(3, 3959), (Start: 4 @3965 has 1 MA's), (16, 4112), (26, 4229), (31, 4277), (34, 4361), (37, 4397), (42, 4430), (43, 4451), (44, 4466), (50, 4604), (51, 4607), (52, 4622), (55, 4655), (62, 4769), (63, 4817), (64, 4826), (65, 4847),

Gene: Axiom_9 Start: 5347, Stop: 6471, Start Num: 2
Candidate Starts for Axiom_9:
(Start: 2 @5347 has 110 MA's), (6, 5401), (11, 5449), (15, 5500), (19, 5521), (20, 5524), (25, 5602), (28, 5641), (29, 5647), (54, 6073), (60, 6178), (64, 6277), (70, 6382),

Gene: BarryBee_10 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for BarryBee_10:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: BartholomewSD_10 Start: 5489, Stop: 6595, Start Num: 2
Candidate Starts for BartholomewSD_10:
(Start: 2 @5489 has 110 MA's), (15, 5642), (Start: 18 @5660 has 1 MA's), (19, 5663), (20, 5666), (25, 5744), (31, 5813), (41, 5978), (46, 6050), (54, 6197), (60, 6302), (64, 6401),

Gene: BeardedLady_9 Start: 5767, Stop: 6879, Start Num: 2
Candidate Starts for BeardedLady_9:
(Start: 2 @5767 has 110 MA's), (9, 5851), (19, 5941), (20, 5944), (22, 5971), (30, 6070), (49, 6406), (54, 6478), (60, 6583), (61, 6586), (64, 6682), (66, 6715), (69, 6757),

Gene: Bovely_8 Start: 5526, Stop: 6638, Start Num: 2
Candidate Starts for Bovely_8:
(Start: 2 @5526 has 110 MA's), (9, 5610), (19, 5700), (20, 5703), (22, 5730), (30, 5829), (49, 6165), (54, 6237), (60, 6342), (61, 6345), (64, 6441), (66, 6474), (69, 6516),

Gene: Bowden_9 Start: 5400, Stop: 6506, Start Num: 2
Candidate Starts for Bowden_9:
(Start: 2 @5400 has 110 MA's), (15, 5553), (Start: 18 @5571 has 1 MA's), (19, 5574), (20, 5577), (25, 5655), (31, 5724), (41, 5889), (46, 5961), (54, 6108), (60, 6213), (64, 6312),

Gene: Brataylor_9 Start: 5491, Stop: 6603, Start Num: 2
Candidate Starts for Brataylor_9:

(Start: 2 @5491 has 110 MA's), (9, 5575), (17, 5656), (19, 5665), (20, 5668), (30, 5794), (49, 6130), (53, 6196), (54, 6202), (59, 6271), (60, 6307), (61, 6310), (64, 6406), (69, 6481),

Gene: BroPlease_9 Start: 5577, Stop: 6710, Start Num: 2
Candidate Starts for BroPlease_9:
(Start: 2 @5577 has 110 MA's), (6, 5631), (7, 5637), (19, 5751), (20, 5754), (21, 5769), (25, 5832), (27, 5865), (30, 5880), (35, 6000), (36, 6018), (54, 6303), (57, 6336), (58, 6354), (60, 6408), (70, 6621),

Gene: BryanRecycles_9 Start: 5680, Stop: 6792, Start Num: 2
Candidate Starts for BryanRecycles_9:
(Start: 2 @5680 has 110 MA's), (9, 5764), (19, 5854), (20, 5857), (22, 5884), (30, 5983), (49, 6319), (54, 6391), (60, 6496), (61, 6499), (69, 6670),

Gene: Caelum_9 Start: 5266, Stop: 6372, Start Num: 2
Candidate Starts for Caelum_9:
(Start: 2 @5266 has 110 MA's), (19, 5440), (20, 5443), (25, 5521), (56, 5995), (57, 6007), (60, 6079), (64, 6178), (70, 6283),

Gene: Caliburn_8 Start: 5500, Stop: 6612, Start Num: 2
Candidate Starts for Caliburn_8:
(Start: 2 @5500 has 110 MA's), (9, 5584), (19, 5674), (20, 5677), (22, 5704), (30, 5803), (49, 6139), (54, 6211), (60, 6316), (61, 6319), (64, 6415), (66, 6448), (69, 6490),

Gene: Celery_10 Start: 5593, Stop: 6693, Start Num: 2
Candidate Starts for Celery_10:
(Start: 2 @5593 has 110 MA's), (8, 5668), (13, 5713), (19, 5767), (20, 5770), (21, 5785), (22, 5797), (27, 5881), (33, 5932), (40, 6073), (49, 6223), (54, 6295), (60, 6400), (61, 6403), (64, 6499), (66, 6532), (69, 6574),

Gene: Celeste_8 Start: 5490, Stop: 6602, Start Num: 2
Candidate Starts for Celeste_8:
(Start: 2 @5490 has 110 MA's), (9, 5574), (17, 5655), (19, 5664), (20, 5667), (30, 5793), (49, 6129), (53, 6195), (54, 6201), (59, 6270), (60, 6306), (61, 6309), (64, 6405), (69, 6480),

Gene: Celia_8 Start: 5827, Stop: 6930, Start Num: 2
Candidate Starts for Celia_8:
(Start: 2 @5827 has 110 MA's), (14, 5968), (Start: 18 @5998 has 1 MA's), (19, 6001), (30, 6130), (49, 6457), (60, 6634), (71, 6922),

Gene: Chucky_8 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Chucky_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (42, 5990), (49, 6128), (53, 6194), (54, 6200), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Conan_9 Start: 5332, Stop: 6441, Start Num: 2
Candidate Starts for Conan_9:
(Start: 2 @5332 has 110 MA's), (8, 5407), (19, 5506), (20, 5509), (21, 5524), (27, 5620), (49, 5971), (54, 6043), (60, 6148), (61, 6151), (64, 6247), (69, 6322),

Gene: Danzina_9 Start: 5688, Stop: 6800, Start Num: 2
Candidate Starts for Danzina_9:
(Start: 2 @5688 has 110 MA's), (6, 5742), (9, 5772), (17, 5853), (19, 5862), (20, 5865), (30, 5991), (49, 6327), (53, 6393), (54, 6399), (59, 6468), (60, 6504), (61, 6507), (64, 6603), (69, 6678),

Gene: Dattran_9 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Dattran_9:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (59, 6269), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Daudau_8 Start: 5312, Stop: 6397, Start Num: 2
Candidate Starts for Daudau_8:
(Start: 2 @5312 has 110 MA's), (6, 5366), (10, 5408), (12, 5426), (20, 5489), (29, 5612), (46, 5852), (54, 5999), (57, 6032), (60, 6104), (64, 6203), (70, 6308),

Gene: Dexers_7 Start: 5325, Stop: 6434, Start Num: 2
Candidate Starts for Dexers_7:
(Start: 2 @5325 has 110 MA's), (8, 5400), (Start: 18 @5496 has 1 MA's), (19, 5499), (20, 5502), (21, 5517), (27, 5613), (49, 5964), (54, 6036), (60, 6141), (61, 6144), (64, 6240), (69, 6315),

Gene: Diane_8 Start: 5300, Stop: 6406, Start Num: 2
Candidate Starts for Diane_8:
(Start: 2 @5300 has 110 MA's), (15, 5453), (19, 5474), (20, 5477), (27, 5588), (46, 5861), (48, 5906), (54, 6008), (57, 6041), (60, 6113), (64, 6212), (70, 6317),

Gene: Dwayne_8 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Dwayne_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: ELB20_07 Start: 5354, Stop: 6463, Start Num: 2
Candidate Starts for ELB20_07:
(Start: 2 @5354 has 110 MA's), (11, 5456), (15, 5507), (Start: 18 @5525 has 1 MA's), (19, 5528), (20, 5531), (21, 5546), (25, 5609), (29, 5654), (35, 5777), (46, 5918), (54, 6065), (60, 6170), (64, 6269),

Gene: Eddasa_9 Start: 5680, Stop: 6792, Start Num: 2
Candidate Starts for Eddasa_9:
(Start: 2 @5680 has 110 MA's), (9, 5764), (19, 5854), (20, 5857), (22, 5884), (30, 5983), (49, 6319), (54, 6391), (60, 6496), (61, 6499), (69, 6670),

Gene: Ejemplo_8 Start: 5492, Stop: 6604, Start Num: 2
Candidate Starts for Ejemplo_8:
(Start: 2 @5492 has 110 MA's), (9, 5576), (17, 5657), (19, 5666), (20, 5669), (30, 5795), (49, 6131), (53, 6197), (54, 6203), (60, 6308), (61, 6311), (64, 6407), (69, 6482),

Gene: ElGato_9 Start: 5335, Stop: 6444, Start Num: 2
Candidate Starts for ElGato_9:
(Start: 2 @5335 has 110 MA's), (8, 5410), (19, 5509), (20, 5512), (21, 5527), (27, 5623), (49, 5974), (54, 6046), (60, 6151), (61, 6154), (64, 6250), (69, 6325),

Gene: Emaanora_10 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for Emaanora_10:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: EnochSoames_9 Start: 5676, Stop: 6788, Start Num: 2
Candidate Starts for EnochSoames_9:

(Start: 2 @5676 has 110 MA's), (9, 5760), (19, 5850), (20, 5853), (22, 5880), (30, 5979), (49, 6315), (54, 6387), (60, 6492), (61, 6495), (69, 6666),

Gene: Esperer_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Esperer_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (22, 5724), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: GirlDinner_8 Start: 5351, Stop: 6475, Start Num: 2
Candidate Starts for GirlDinner_8:
(Start: 2 @5351 has 110 MA's), (15, 5504), (19, 5525), (20, 5528), (25, 5606), (29, 5651), (48, 5975), (54, 6077), (60, 6182), (64, 6281), (70, 6386),

Gene: Goby_8 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Goby_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (59, 6269), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Godpower_9 Start: 5492, Stop: 6604, Start Num: 2
Candidate Starts for Godpower_9:
(Start: 2 @5492 has 110 MA's), (9, 5576), (17, 5657), (19, 5666), (20, 5669), (30, 5795), (40, 5981), (49, 6131), (53, 6197), (54, 6203), (60, 6308), (61, 6311), (64, 6407), (69, 6482),

Gene: GreenWeasel_10 Start: 5586, Stop: 6719, Start Num: 2
Candidate Starts for GreenWeasel_10:
(Start: 2 @5586 has 110 MA's), (6, 5640), (7, 5646), (19, 5760), (20, 5763), (21, 5778), (23, 5811), (24, 5823), (25, 5841), (27, 5874), (30, 5889), (35, 6009), (36, 6027), (54, 6312), (57, 6345), (58, 6363), (60, 6417), (70, 6630),

Gene: Haizum_8 Start: 5329, Stop: 6435, Start Num: 2
Candidate Starts for Haizum_8:
(Start: 2 @5329 has 110 MA's), (19, 5503), (20, 5506), (27, 5617), (48, 5935), (54, 6037), (57, 6070), (60, 6142), (64, 6241), (70, 6346),

Gene: Hank144_9 Start: 5631, Stop: 6749, Start Num: 2
Candidate Starts for Hank144_9:
(Start: 2 @5631 has 110 MA's), (15, 5784), (19, 5805), (20, 5808), (25, 5886), (35, 6054), (53, 6345), (54, 6351), (60, 6456), (64, 6555), (70, 6660),

Gene: Hippo_8 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for Hippo_8:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: Hydra_10 Start: 6057, Stop: 7169, Start Num: 2
Candidate Starts for Hydra_10:
(Start: 2 @6057 has 110 MA's), (9, 6141), (19, 6231), (20, 6234), (22, 6261), (30, 6360), (49, 6696), (54, 6768), (60, 6873), (61, 6876), (64, 6972), (66, 7005), (69, 7047),

Gene: Indigo_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Indigo_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (22, 5724), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: Issmi_9 Start: 5611, Stop: 6717, Start Num: 2
Candidate Starts for Issmi_9:
(Start: 2 @5611 has 110 MA's), (10, 5707), (19, 5785), (20, 5788), (25, 5866), (53, 6313), (56, 6340), (57, 6352), (60, 6424), (64, 6523),

Gene: Itza_8 Start: 5750, Stop: 6853, Start Num: 2
Candidate Starts for Itza_8:
(Start: 2 @5750 has 110 MA's), (14, 5891), (Start: 18 @5921 has 1 MA's), (19, 5924), (30, 6053), (49, 6380), (60, 6557), (71, 6845),

Gene: Izzy_9 Start: 5727, Stop: 6839, Start Num: 2
Candidate Starts for Izzy_9:
(Start: 2 @5727 has 110 MA's), (9, 5811), (19, 5901), (20, 5904), (22, 5931), (30, 6030), (49, 6366), (54, 6438), (60, 6543), (61, 6546), (69, 6717),

Gene: Janus_9 Start: 5688, Stop: 6812, Start Num: 2
Candidate Starts for Janus_9:
(Start: 2 @5688 has 110 MA's), (19, 5862), (20, 5865), (25, 5943), (29, 5988), (48, 6312), (54, 6414), (60, 6519), (64, 6618), (70, 6723),

Gene: Jash_9 Start: 5680, Stop: 6792, Start Num: 2
Candidate Starts for Jash_9:
(Start: 2 @5680 has 110 MA's), (9, 5764), (19, 5854), (20, 5857), (22, 5884), (30, 5983), (49, 6319), (54, 6391), (60, 6496), (61, 6499), (69, 6670),

Gene: Jevington_10 Start: 5904, Stop: 7001, Start Num: 2
Candidate Starts for Jevington_10:
(Start: 2 @5904 has 110 MA's), (6, 5958), (15, 6057), (Start: 18 @6075 has 1 MA's), (19, 6078), (20, 6081), (25, 6159), (31, 6228), (46, 6456), (54, 6603), (60, 6708), (64, 6807), (70, 6912),

Gene: Jhitchelle_7 Start: 5251, Stop: 6381, Start Num: 2
Candidate Starts for Jhitchelle_7:
(Start: 2 @5251 has 110 MA's), (8, 5326), (Start: 18 @5422 has 1 MA's), (19, 5425), (20, 5428), (21, 5443), (27, 5539), (40, 5740), (49, 5890), (54, 5962), (60, 6067), (61, 6070), (64, 6187), (69, 6262),

Gene: Kaine_8 Start: 5325, Stop: 6434, Start Num: 2
Candidate Starts for Kaine_8:
(Start: 2 @5325 has 110 MA's), (8, 5400), (Start: 18 @5496 has 1 MA's), (19, 5499), (20, 5502), (21, 5517), (27, 5613), (49, 5964), (54, 6036), (60, 6141), (61, 6144), (64, 6240), (69, 6315),

Gene: Katalie_9 Start: 5760, Stop: 6872, Start Num: 2
Candidate Starts for Katalie_9:
(Start: 2 @5760 has 110 MA's), (9, 5844), (17, 5925), (19, 5934), (20, 5937), (30, 6063), (49, 6399), (54, 6471), (59, 6540), (60, 6576), (61, 6579), (64, 6675), (69, 6750),

Gene: Lannister_9 Start: 5493, Stop: 6605, Start Num: 2
Candidate Starts for Lannister_9:
(Start: 2 @5493 has 110 MA's), (9, 5577), (17, 5658), (19, 5667), (20, 5670), (30, 5796), (49, 6132), (54, 6204), (60, 6309), (61, 6312), (64, 6408), (69, 6483),

Gene: Legacy_8 Start: 5500, Stop: 6612, Start Num: 2
Candidate Starts for Legacy_8:

(Start: 2 @5500 has 110 MA's), (9, 5584), (19, 5674), (20, 5677), (22, 5704), (30, 5803), (49, 6139), (54, 6211), (60, 6316), (61, 6319), (64, 6415), (66, 6448), (69, 6490),

Gene: Leviticus_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Leviticus_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (22, 5724), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: Lika_8 Start: 5493, Stop: 6605, Start Num: 2
Candidate Starts for Lika_8:
(Start: 2 @5493 has 110 MA's), (9, 5577), (17, 5658), (19, 5667), (20, 5670), (30, 5796), (49, 6132), (53, 6198), (54, 6204), (60, 6309), (61, 6312), (64, 6408), (69, 6483),

Gene: Loofah_9 Start: 5404, Stop: 6513, Start Num: 2
Candidate Starts for Loofah_9:
(Start: 2 @5404 has 110 MA's), (11, 5506), (15, 5557), (Start: 18 @5575 has 1 MA's), (19, 5578), (20, 5581), (21, 5596), (29, 5704), (35, 5827), (39, 5869), (46, 5968), (54, 6115), (60, 6220), (64, 6319),

Gene: Lorelei_8 Start: 5486, Stop: 6598, Start Num: 2
Candidate Starts for Lorelei_8:
(Start: 2 @5486 has 110 MA's), (9, 5570), (17, 5651), (19, 5660), (20, 5663), (30, 5789), (49, 6125), (53, 6191), (54, 6197), (59, 6266), (60, 6302), (61, 6305), (64, 6401), (69, 6476),

Gene: Maneekul_8 Start: 5491, Stop: 6603, Start Num: 2
Candidate Starts for Maneekul_8:
(Start: 2 @5491 has 110 MA's), (9, 5575), (17, 5656), (19, 5665), (20, 5668), (30, 5794), (49, 6130), (53, 6196), (54, 6202), (60, 6307), (61, 6310), (64, 6406), (69, 6481),

Gene: Marav_11 Start: 6254, Stop: 7351, Start Num: 2
Candidate Starts for Marav_11:
(Start: 2 @6254 has 110 MA's), (6, 6308), (19, 6428), (20, 6431), (25, 6509), (27, 6542), (31, 6578), (46, 6806), (54, 6953), (60, 7058), (64, 7157), (70, 7262),

Gene: Nabi_8 Start: 5486, Stop: 6598, Start Num: 2
Candidate Starts for Nabi_8:
(Start: 2 @5486 has 110 MA's), (9, 5570), (17, 5651), (19, 5660), (20, 5663), (30, 5789), (49, 6125), (53, 6191), (54, 6197), (59, 6266), (60, 6302), (61, 6305), (64, 6401), (69, 6476),

Gene: Nanodon_10 Start: 5682, Stop: 6794, Start Num: 2
Candidate Starts for Nanodon_10:
(Start: 2 @5682 has 110 MA's), (9, 5766), (19, 5856), (20, 5859), (30, 5985), (49, 6321), (53, 6387), (54, 6393), (60, 6498), (61, 6501), (69, 6672),

Gene: Nerdos_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Nerdos_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (22, 5724), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: Nishikigoi_8 Start: 5329, Stop: 6435, Start Num: 2
Candidate Starts for Nishikigoi_8:
(Start: 2 @5329 has 110 MA's), (15, 5482), (19, 5503), (20, 5506), (27, 5617), (46, 5890), (48, 5935), (54, 6037), (57, 6070), (60, 6142), (64, 6241), (70, 6346),

Gene: Oliynyk_9 Start: 5680, Stop: 6792, Start Num: 2
Candidate Starts for Oliynyk_9:
(Start: 2 @5680 has 110 MA's), (9, 5764), (19, 5854), (20, 5857), (22, 5884), (30, 5983), (49, 6319), (54, 6391), (60, 6496), (61, 6499), (69, 6670),

Gene: Omar_9 Start: 5554, Stop: 6660, Start Num: 2
Candidate Starts for Omar_9:
(Start: 2 @5554 has 110 MA's), (5, 5596), (6, 5608), (19, 5728), (20, 5731), (25, 5809), (27, 5842), (32, 5881), (46, 6115), (54, 6262), (56, 6283), (57, 6295), (60, 6367), (64, 6466), (70, 6571),

Gene: Ozzie_8 Start: 5500, Stop: 6612, Start Num: 2
Candidate Starts for Ozzie_8:
(Start: 2 @5500 has 110 MA's), (9, 5584), (19, 5674), (20, 5677), (22, 5704), (30, 5803), (49, 6139), (54, 6211), (60, 6316), (61, 6319), (64, 6415), (66, 6448), (69, 6490),

Gene: OzzyJ_9 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for OzzyJ_9:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Pablito_8 Start: 5372, Stop: 6490, Start Num: 2
Candidate Starts for Pablito_8:
(Start: 2 @5372 has 110 MA's), (15, 5525), (Start: 18 @5543 has 1 MA's), (19, 5546), (20, 5549), (25, 5627), (28, 5666), (29, 5672), (35, 5795), (54, 6092), (60, 6197), (64, 6296), (70, 6401),

Gene: Paedore_8 Start: 5404, Stop: 6513, Start Num: 2
Candidate Starts for Paedore_8:
(Start: 2 @5404 has 110 MA's), (11, 5506), (15, 5557), (Start: 18 @5575 has 1 MA's), (19, 5578), (20, 5581), (21, 5596), (29, 5704), (35, 5827), (39, 5869), (46, 5968), (54, 6115), (60, 6220), (64, 6319),

Gene: Paolo_10 Start: 5946, Stop: 7043, Start Num: 2
Candidate Starts for Paolo_10:
(Start: 2 @5946 has 110 MA's), (7, 6006), (15, 6099), (19, 6120), (20, 6123), (24, 6183), (25, 6201), (31, 6270), (35, 6366), (46, 6498), (54, 6645), (60, 6750), (64, 6849), (70, 6954),

Gene: Pavo_9 Start: 5605, Stop: 6714, Start Num: 2
Candidate Starts for Pavo_9:
(Start: 2 @5605 has 110 MA's), (8, 5680), (19, 5779), (20, 5782), (21, 5797), (27, 5893), (45, 6160), (49, 6244), (54, 6316), (60, 6421), (61, 6424), (64, 6520), (69, 6595),

Gene: Phettuccine_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Phettuccine_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: Provolone_9 Start: 5335, Stop: 6444, Start Num: 2
Candidate Starts for Provolone_9:
(Start: 2 @5335 has 110 MA's), (8, 5410), (19, 5509), (20, 5512), (21, 5527), (27, 5623), (49, 5974), (54, 6046), (60, 6151), (61, 6154), (64, 6250), (69, 6325),

Gene: Puginator_10 Start: 5892, Stop: 6989, Start Num: 2
Candidate Starts for Puginator_10:

(Start: 2 @5892 has 110 MA's), (19, 6066), (20, 6069), (25, 6147), (31, 6216), (46, 6444), (54, 6591), (60, 6696), (64, 6795), (70, 6900),

Gene: R4_8 Start: 5365, Stop: 6474, Start Num: 2
Candidate Starts for R4_8:
(Start: 2 @5365 has 110 MA's), (11, 5467), (15, 5518), (Start: 18 @5536 has 1 MA's), (19, 5539), (20, 5542), (21, 5557), (25, 5620), (29, 5665), (35, 5788), (46, 5929), (54, 6076), (60, 6181), (64, 6280),

Gene: Rana_8 Start: 5486, Stop: 6598, Start Num: 2
Candidate Starts for Rana_8:
(Start: 2 @5486 has 110 MA's), (9, 5570), (17, 5651), (19, 5660), (20, 5663), (30, 5789), (49, 6125), (53, 6191), (54, 6197), (59, 6266), (60, 6302), (61, 6305), (64, 6401), (69, 6476),

Gene: RedBear_10 Start: 5760, Stop: 6872, Start Num: 2
Candidate Starts for RedBear_10:
(Start: 2 @5760 has 110 MA's), (9, 5844), (17, 5925), (19, 5934), (20, 5937), (30, 6063), (49, 6399), (54, 6471), (59, 6540), (60, 6576), (61, 6579), (64, 6675), (69, 6750),

Gene: Rusticus_9 Start: 5680, Stop: 6792, Start Num: 2
Candidate Starts for Rusticus_9:
(Start: 2 @5680 has 110 MA's), (9, 5764), (19, 5854), (20, 5857), (22, 5884), (30, 5983), (49, 6319), (54, 6391), (60, 6496), (61, 6499), (69, 6670),

Gene: Saftant_8 Start: 5629, Stop: 6723, Start Num: 2
Candidate Starts for Saftant_8:
(Start: 2 @5629 has 110 MA's), (8, 5704), (10, 5725), (Start: 18 @5800 has 1 MA's), (19, 5803), (20, 5806), (21, 5821), (41, 6106), (47, 6184), (49, 6253), (54, 6325), (60, 6430), (61, 6433), (64, 6529), (66, 6562), (68, 6592), (69, 6604),

Gene: SarahRose_8 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for SarahRose_8:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (42, 5989), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: Snorlax_8 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for Snorlax_8:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: South40_9 Start: 5760, Stop: 6872, Start Num: 2
Candidate Starts for South40_9:
(Start: 2 @5760 has 110 MA's), (9, 5844), (17, 5925), (19, 5934), (20, 5937), (30, 6063), (49, 6399), (54, 6471), (59, 6540), (60, 6576), (61, 6579), (64, 6675), (69, 6750),

Gene: Speedwell_13 Start: 7490, Stop: 8413, Start Num: 18
Candidate Starts for Speedwell_13:
(Start: 18 @7490 has 1 MA's), (19, 7493), (20, 7496), (21, 7511), (27, 7607), (41, 7796), (49, 7943), (54, 8015), (60, 8120), (61, 8123), (64, 8219), (69, 8294),

Gene: SqueakyClean_9 Start: 5614, Stop: 6738, Start Num: 2
Candidate Starts for SqueakyClean_9:
(Start: 2 @5614 has 110 MA's), (19, 5788), (20, 5791), (25, 5869), (29, 5914), (48, 6238), (54, 6340), (60, 6445), (64, 6544), (70, 6649),

Gene: Sudan_8 Start: 5612, Stop: 6721, Start Num: 2
Candidate Starts for Sudan_8:
(Start: 2 @5612 has 110 MA's), (8, 5687), (Start: 18 @5783 has 1 MA's), (19, 5786), (20, 5789), (21, 5804), (27, 5900), (49, 6251), (54, 6323), (60, 6428), (61, 6431), (64, 6527), (69, 6602),

Gene: Sujidade_9 Start: 5784, Stop: 6896, Start Num: 2
Candidate Starts for Sujidade_9:
(Start: 2 @5784 has 110 MA's), (9, 5868), (17, 5949), (19, 5958), (20, 5961), (30, 6087), (49, 6423), (53, 6489), (54, 6495), (60, 6600), (61, 6603), (64, 6699), (69, 6774),

Gene: SunkenRoot_8 Start: 5675, Stop: 6784, Start Num: 2
Candidate Starts for SunkenRoot_8:
(Start: 2 @5675 has 110 MA's), (8, 5750), (19, 5849), (20, 5852), (21, 5867), (22, 5879), (27, 5963), (49, 6314), (54, 6386), (60, 6491), (61, 6494), (64, 6590), (69, 6665),

Gene: SunsetPointe_8 Start: 5519, Stop: 6631, Start Num: 2
Candidate Starts for SunsetPointe_8:
(Start: 2 @5519 has 110 MA's), (9, 5603), (19, 5693), (20, 5696), (22, 5723), (30, 5822), (49, 6158), (54, 6230), (60, 6335), (61, 6338), (64, 6434), (66, 6467), (69, 6509),

Gene: Superstar_10 Start: 6470, Stop: 7576, Start Num: 2
Candidate Starts for Superstar_10:
(1, 6314), (Start: 2 @6470 has 110 MA's), (11, 6572), (15, 6623), (Start: 18 @6641 has 1 MA's), (19, 6644), (20, 6647), (25, 6725), (27, 6758), (31, 6794), (46, 7031), (54, 7178), (57, 7211), (60, 7283), (64, 7382), (70, 7487),

Gene: TagePhighter_9 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for TagePhighter_9:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: Tefunt_8 Start: 5329, Stop: 6435, Start Num: 2
Candidate Starts for Tefunt_8:
(Start: 2 @5329 has 110 MA's), (15, 5482), (19, 5503), (20, 5506), (27, 5617), (46, 5890), (48, 5935), (54, 6037), (57, 6070), (60, 6142), (64, 6241), (70, 6346),

Gene: Thestral_9 Start: 5406, Stop: 6512, Start Num: 2
Candidate Starts for Thestral_9:
(Start: 2 @5406 has 110 MA's), (19, 5580), (20, 5583), (25, 5661), (31, 5730), (41, 5895), (46, 5967), (54, 6114), (60, 6219), (64, 6318),

Gene: TinaBelcher_8 Start: 5351, Stop: 6457, Start Num: 2
Candidate Starts for TinaBelcher_8:
(Start: 2 @5351 has 110 MA's), (Start: 18 @5522 has 1 MA's), (19, 5525), (20, 5528), (25, 5606), (31, 5675), (41, 5840), (46, 5912), (54, 6059), (60, 6164), (64, 6263),

Gene: Toma_8 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Toma_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (59, 6269), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Triste_8 Start: 5489, Stop: 6601, Start Num: 2

Candidate Starts for Triste_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Triumph_10 Start: 5377, Stop: 6501, Start Num: 2
Candidate Starts for Triumph_10:
(Start: 2 @5377 has 110 MA's), (6, 5431), (11, 5479), (15, 5530), (19, 5551), (20, 5554), (25, 5632), (28, 5671), (29, 5677), (54, 6103), (60, 6208), (64, 6307), (70, 6412),

Gene: TrvxScott_7 Start: 5352, Stop: 6458, Start Num: 2
Candidate Starts for TrvxScott_7:
(Start: 2 @5352 has 110 MA's), (Start: 18 @5523 has 1 MA's), (19, 5526), (20, 5529), (25, 5607), (31, 5676), (41, 5841), (46, 5913), (54, 6060), (60, 6165), (64, 6264),

Gene: TuanPN_8 Start: 5492, Stop: 6604, Start Num: 2
Candidate Starts for TuanPN_8:
(Start: 2 @5492 has 110 MA's), (9, 5576), (17, 5657), (19, 5666), (20, 5669), (30, 5795), (49, 6131), (53, 6197), (54, 6203), (60, 6308), (61, 6311), (64, 6407), (69, 6482),

Gene: Unstoppable_8 Start: 5520, Stop: 6632, Start Num: 2
Candidate Starts for Unstoppable_8:
(Start: 2 @5520 has 110 MA's), (9, 5604), (19, 5694), (20, 5697), (22, 5724), (30, 5823), (49, 6159), (54, 6231), (60, 6336), (61, 6339), (64, 6435), (66, 6468), (69, 6510),

Gene: Urza_8 Start: 5750, Stop: 6853, Start Num: 2
Candidate Starts for Urza_8:
(Start: 2 @5750 has 110 MA's), (14, 5891), (Start: 18 @5921 has 1 MA's), (19, 5924), (30, 6053), (49, 6380), (60, 6557), (71, 6845),

Gene: Vanseggelen_11 Start: 5230, Stop: 6351, Start Num: 2
Candidate Starts for Vanseggelen_11:
(Start: 2 @5230 has 110 MA's), (8, 5305), (Start: 18 @5401 has 1 MA's), (19, 5404), (20, 5407), (22, 5434), (27, 5518), (40, 5710), (49, 5860), (54, 5932), (60, 6037), (61, 6040), (64, 6157), (69, 6232),

Gene: Verabelle_9 Start: 5595, Stop: 6716, Start Num: 2
Candidate Starts for Verabelle_9:
(Start: 2 @5595 has 110 MA's), (8, 5670), (19, 5769), (20, 5772), (21, 5787), (27, 5883), (40, 6075), (49, 6225), (54, 6297), (60, 6402), (61, 6405), (64, 6522), (67, 6564), (69, 6597),

Gene: Verse_8 Start: 5676, Stop: 6785, Start Num: 2
Candidate Starts for Verse_8:
(Start: 2 @5676 has 110 MA's), (8, 5751), (19, 5850), (20, 5853), (21, 5868), (22, 5880), (27, 5964), (49, 6315), (54, 6387), (60, 6492), (61, 6495), (64, 6591), (69, 6666),

Gene: VieEnRose_8 Start: 5824, Stop: 6927, Start Num: 2
Candidate Starts for VieEnRose_8:
(Start: 2 @5824 has 110 MA's), (14, 5965), (Start: 18 @5995 has 1 MA's), (19, 5998), (30, 6127), (49, 6454), (60, 6631), (71, 6919),

Gene: Werner_8 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Werner_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Whatever_8 Start: 5489, Stop: 6601, Start Num: 2
Candidate Starts for Whatever_8:
(Start: 2 @5489 has 110 MA's), (9, 5573), (17, 5654), (19, 5663), (20, 5666), (30, 5792), (49, 6128), (53, 6194), (54, 6200), (60, 6305), (61, 6308), (64, 6404), (69, 6479),

Gene: Yasdnil_8 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for Yasdnil_8:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: Yosif_9 Start: 5953, Stop: 7089, Start Num: 2
Candidate Starts for Yosif_9:
(Start: 2 @5953 has 110 MA's), (9, 6034), (10, 6046), (15, 6103), (Start: 18 @6121 has 1 MA's), (19, 6124), (20, 6127), (21, 6142), (25, 6205), (35, 6370), (38, 6406), (42, 6460), (54, 6670), (60, 6775), (61, 6778), (64, 6895), (69, 6970),

Gene: Zainub_10 Start: 5892, Stop: 6989, Start Num: 2
Candidate Starts for Zainub_10:
(Start: 2 @5892 has 110 MA's), (7, 5952), (19, 6066), (20, 6069), (25, 6147), (31, 6216), (35, 6312), (46, 6444), (54, 6591), (60, 6696), (64, 6795), (70, 6900),

Gene: ZamZam_8 Start: 5599, Stop: 6693, Start Num: 2
Candidate Starts for ZamZam_8:
(Start: 2 @5599 has 110 MA's), (8, 5674), (10, 5695), (13, 5719), (Start: 18 @5770 has 1 MA's), (19, 5773), (20, 5776), (21, 5791), (22, 5803), (41, 6076), (47, 6154), (49, 6223), (54, 6295), (60, 6400), (61, 6403), (64, 6499), (69, 6574),

Gene: Zemlya_9 Start: 5488, Stop: 6600, Start Num: 2
Candidate Starts for Zemlya_9:
(Start: 2 @5488 has 110 MA's), (9, 5572), (17, 5653), (19, 5662), (20, 5665), (30, 5791), (49, 6127), (53, 6193), (54, 6199), (59, 6268), (60, 6304), (61, 6307), (64, 6403), (69, 6478),

Gene: phiCAM_09 Start: 7527, Stop: 8456, Start Num: 18
Candidate Starts for phiCAM_09:
(8, 7431), (Start: 18 @7527 has 1 MA's), (19, 7530), (20, 7533), (21, 7548), (22, 7560), (27, 7644), (40, 7836), (49, 7986), (54, 8058), (60, 8163), (61, 8166), (64, 8262), (67, 8304), (69, 8337),

Gene: phiHau3_10 Start: 5512, Stop: 6675, Start Num: 2
Candidate Starts for phiHau3_10:
(Start: 2 @5512 has 110 MA's), (6, 5566), (7, 5572), (19, 5686), (20, 5689), (21, 5704), (24, 5749), (25, 5767), (27, 5800), (30, 5815), (35, 5935), (36, 5953), (54, 6238), (57, 6271), (58, 6289), (60, 6343),