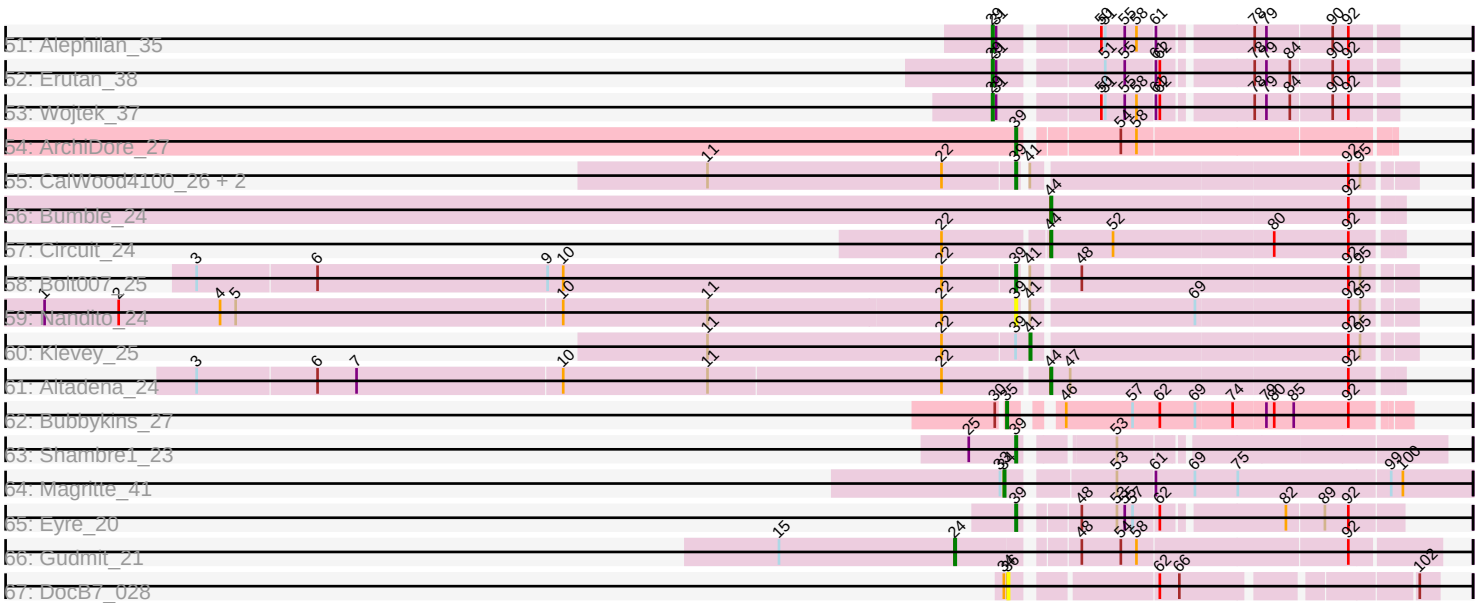
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1: EastWest_26
2: Beans_23
3: Brent_23 + 1
4: Jawnski_23
5: Piccoletto_23 + 1
6: King2_23
7: Shade_25 + 2
8: Sicarius2_26
9: Jordan_25 + 2
10: StevieBAY_25 + 5
11: Wyborn_26
12: Zantrosa_25
13: Martha_25 + 1
14: Pippa_25
15: Nostromo_24
16: Abba_24
17: Ranunculus_39
18: Rizwana_35
19: NyleyClemson_40 + 3
20: Ren19_42 + 1
21: Beagle_46 + 3
22: BetaFish_45 + 2
23: RIPWilbur_43 + 1
24: Hive_43
25: Ollypop_43
26: Popstraw_42
27: BrunMoment_42
28: AWGoat_35
29: SilentRX_37
30: EdgarPoe_28 + 9
31: KBurrousTX_28
32: Colucci_27
33: Tophat_28 + 5
34: Lymara_28
35: DrYang_28
36: Applejacks_23
37: Reynauld_36
38: Srnaccoli3_35
39: Petra_24
40: Suscepit_24 + 15
41: Hyzer_24
42: BaxterFox_22
43: Sampudon_38 + 18
44: NorManre_39 + 1
45: Aaravos_35 + 3
46: NovaSharks_38 + 9
47: Rota_37
48: Lambo_38
49: DaviePasture_38 + 2
50: Riduram_36

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51: Alephilan_35
52: Erutan_38
53: Wojtek_37
54: ArchiDore_27
55: CalWood4100_26 + 2
56: Bumble_24
57: Circuit_24
58: Bolt007_25
59: Nandito1_24
60: Klevey_25
61: Altadena_24
62: Bubbykins_27
63: Shambre1_23
64: Magritte_41
65: Eyre_20
66: Gudmit_21
67: DocB7_028

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 347343 Report

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

Pham number 347343 has 153 members, 15 are drafts.

Phages represented in each track:
• Track 1 : EastWest_26
• Track 2 : Beans_23
• Track 3 : Brent_23, Franzy_23
• Track 4 : Jawnski_23
• Track 5 : Piccoletto_23, NathanVaag_23
• Track 6 : King2_23
• Track 7 : Shade_25, TaeYoung_25, Grekaycon_25
• Track 8 : Sicarius2_26
• Track 9 : Jordan_25, Sonny_25, JKerns_25
• Track 10 : StevieBAY_25, BarretLemon_25, GravityBall_25, BigDome_25, Timinator_25, LeeroyJ_25
• Track 11 : Wyborn_26
• Track 12 : Zartrosa_25
• Track 13 : Martha_25, BossLady_25
• Track 14 : Pippa_25
• Track 15 : Nostromo_24
• Track 16 : Abba_24
• Track 17 : Ranunculus_39
• Track 18 : Rizwana_35
• Track 19 : NyleyClemson_40, RazzB_41, MellowYellow_42, Forrestell_42
• Track 20 : Ren19_42, Nikan_42
• Track 21 : Beagle_46, Pureglobe5_46, Kubulix_46, Pointis_44
• Track 22 : BetaFish_45, DogYard_45, Odyssey395_47
• Track 23 : RIPWilbur_43, PhuzzTulsa_42
• Track 24 : Hive_43
• Track 25 : Ollypop_43
• Track 26 : Popstraw_42
• Track 27 : BruhMoment_42
• Track 28 : AWGoat_35
• Track 29 : SilentRX_37
• Track 30 : EdgarPoe_28, RosiePosie_28, Kabreeze_28, Conboy_28, Chipper1996_280, HumptyDumpty_28, Chocolat_28, Scavito_28, PrincessTrina_28, Chubster_28
• Track 31 : KBurrousTX_28
• Track 32 : Colucci_27
• Track 33 : Tophat_28, JaNo_28, Mordred_28, Linus_28, JayCookie_28, MoyaNatalis_28

• Track 34 : Lymara_28
• Track 35 : DrYang_28
• Track 36 : Applejacks_23
• Track 37 : Reynauld_36
• Track 38 : Srilaccoli3_35
• Track 39 : Petra_24
• Track 40 : Suscepit_24, Zameen_24, BoyNamedSue_23, Maridalia_23, AlumE_23, Dillpickles_25, Neobush_24, Antonio_24, PantheRoc_23, Eudoria_24, Trumpet_24, Tayonia_24, Agueybana_23, Yeezy_24, Manasvini_24, Kita_24
• Track 41 : Hyzer_24
• Track 42 : BaxterFox_22
• Track 43 : Sampudon_38, ParvusTarda_38, Nettle_39, Sadboi_39, MoiGyank_40, Fulcrum_39, Gibbin_39, Lila22_37, BirthdayBoy_39, GOATification_39, Mima20_36, Rukungu_38, GretelLyn_38, Jalebi_37, LavAbarElk_36, DoobyDoo_37, Zany_37, OtterstedtS21_38, Pywacket_37
• Track 44 : NorManre_39, Patos_39
• Track 45 : Aaravos_35, LuckyLeo_37, Apeppi_35, Tillicus_37
• Track 46 : NovaSharks_38, Astralis_36, Avian_36, Rumi_38, Charminar_36, Alyssamiracle_39, Jamemuya19_36, RazorC_37, Genamy16_39, Stormer_37
• Track 47 : Rota_37
• Track 48 : Lambo_38
• Track 49 : DaviePasture_38, Yikes_39, Ranch_38
• Track 50 : Riduram_36
• Track 51 : Alephilan_35
• Track 52 : Erutan_38
• Track 53 : Wojtek_37
• Track 54 : ArchiDore_27
• Track 55 : CalWood4100_26, Lilmac1015_26, Prairie_24
• Track 56 : Bumble_24
• Track 57 : Circuit_24
• Track 58 : Bolt007_25
• Track 59 : Nandito_24
• Track 60 : Klevey_25
• Track 61 : Altadena_24
• Track 62 : Bubbykins_27
• Track 63 : Shambre1_23
• Track 64 : Magritte_41
• Track 65 : Eyre_20
• Track 66 : Gudmit_21
• Track 67 : DocB7_028

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

The start number called the most often in the published annotations is 39, it was called in 58 of the 138 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abba_24, Agueybana_23, AlumE_23, Antonio_24, ArchiDore_27, BarretLemon_25, BaxterFox_22, Beans_23, BigDome_25, Bolt007_25, BoyNamedSue_23, Brent_23, CalWood4100_26, Colucci_27, Dillpickles_25, DrYang_28, EastWest_26,

Eudoria_24, Eyre_20, Franzy_23, GravityBall_25, Grekaycon_25, Hyzer_24, JKerns_25, JaNo_28, Jawnski_23, JayCookie_28, Jordan_25, KBurrousTX_28, Kita_24, LeeroyJ_25, Lilmac1015_26, Linus_28, Lymara_28, Manasvini_24, Maridalia_23, Mordred_28, MoyaNatalis_28, Nandito_24, NathanVaag_23, Neobush_24, Nostromo_24, PantheRoc_23, Petra_24, Piccoletto_23, Prairie_24, Ranunculus_39, Shade_25, Shambre1_23, Sicarius2_26, Sonny_25, StevieBAY_25, Suscepit_24, TaeYoung_25, Tayonia_24, Timinator_25, Tophat_28, Trumpet_24, Wyborn_26, Yeezy_24, Zameen_24, Zartrosa_25,

Genes that have the "Most Annotated" start but do not call it:
• BossLady_25, Chipper1996_280, Chocolat_28, Chubster_28, Conboy_28, EdgarPoe_28, HumptyDumpty_28, Kabreeze_28, King2_23, Klevey_25, Martha_25, Pippa_25, PrincessTrina_28, Reynauld_36, RosiePosie_28, Scavito_28, Srilaccoli3_35,

Genes that do not have the "Most Annotated" start:
• AWGoat_35, Aaravos_35, Alephilan_35, Altadena_24, Alyssamiracle_39, Apeppi_35, Applejacks_23, Astralis_36, Avian_36, Beagle_46, BetaFish_45, BirthdayBoy_39, BruhMoment_42, Bubbykins_27, Bumble_24, Charminar_36, Circuit_24, DaviePasture_38, DocB7_028, DogYard_45, DoobyDoo_37, Erutan_38, Forrestell_42, Fulcrum_39, GOATification_39, Genamy16_39, Gibbin_39, GretelLyn_38, Gudmit_21, Hive_43, Jalebi_37, Jamemuya19_36, Kubulix_46, Lambo_38, LavAbarElk_36, Lila22_37, LuckyLeo_37, Magritte_41, MellowYellow_42, Mima20_36, MoiGyank_40, Nettle_39, Nikan_42, NorManre_39, NovaSharks_38, NyleyClemson_40, Odyssey395_47, Ollypop_43, OtterstedtS21_38, ParvusTarda_38, Patos_39, PhuzzTulsa_42, Pointis_44, Popstraw_42, Pureglobe5_46, Pywacket_37, RIPWilbur_43, Ranch_38, RazorC_37, RazzB_41, Ren19_42, Riduram_36, Rizwana_35, Rota_37, Rukungu_38, Rumi_38, Sadboi_39, Sampudon_38, SilentRX_37, Stormer_37, Tillicus_37, Wojtek_37, Yikes_39, Zany_37,

Summary by start number:

Start 23:
• Found in 21 of 153 (13.7%) of genes in pham
• Manual Annotations of this start: 18 of 138
• Called 95.2% of time when present
• Phage (with cluster) where this start called: AWGoat_35 (AP4), Beagle_46 (AP2), BetaFish_45 (AP2), BruhMoment_42 (AP3), DogYard_45 (AP2), Forrestell_42 (AP2), Hive_43 (AP2), Kubulix_46 (AP2), MellowYellow_42 (AP2), Nikan_42 (AP2), NyleyClemson_40 (AP2), Odyssey395_47 (AP2), Ollypop_43 (AP2), PhuzzTulsa_42 (AP2), Pointis_44 (AP2), Pureglobe5_46 (AP2), RIPWilbur_43 (AP2), RazzB_41 (AP2), Ren19_42 (AP2), SilentRX_37 (AP4),

Start 24:
• Found in 1 of 153 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 138
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gudmit_21 (singleton),

Start 26:
• Found in 1 of 153 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 138

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rizwana_35 (AP1),

Start 28:
• Found in 18 of 153 (11.8%) of genes in pham
• No Manual Annotations of this start.
• Called 5.6% of time when present
• Phage (with cluster) where this start called: Popstraw_42 (AP2),

Start 29:
• Found in 44 of 153 (28.8%) of genes in pham
• Manual Annotations of this start: 33 of 138
• Called 88.6% of time when present
• Phage (with cluster) where this start called: Aaravos_35 (DV), Alephilan_35 (DV), Alyssamiracle_39 (DV), Apeppi_35 (DV), Astralis_36 (DV), Avian_36 (DV), BirthdayBoy_39 (DV), Charminar_36 (DV), DoobyDoo_37 (DV), Erutan_38 (DV), Fulcrum_39 (DV), GOATification_39 (DV), Genamy16_39 (DV), Gibbin_39 (DV), GretelLyn_38 (DV), Jalebi_37 (DV), Jamemuya19_36 (DV), LavAbarElk_36 (DV), Lila22_37 (DV), LuckyLeo_37 (DV), Mima20_36 (DV), MoiGyank_40 (DV), Nettle_39 (DV), NorManre_39 (DV), NovaSharks_38 (DV), OtterstedtS21_38 (DV), ParvusTarda_38 (DV), Patos_39 (DV), Pywacket_37 (DV), RazorC_37 (DV), Rota_37 (DV), Rukungu_38 (DV), Rumi_38 (DV), Sadboi_39 (DV), Sampudon_38 (DV), Stormer_37 (DV), Tillicus_37 (DV), Wojtek_37 (DV), Zany_37 (DV),

Start 31:
• Found in 41 of 153 (26.8%) of genes in pham
• Manual Annotations of this start: 5 of 138
• Called 12.2% of time when present
• Phage (with cluster) where this start called: DaviePasture_38 (DV), Lambo_38 (DV), Ranch_38 (DV), Riduram_36 (DV), Yikes_39 (DV),

Start 34:
• Found in 5 of 153 (3.3%) of genes in pham
• Manual Annotations of this start: 3 of 138
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Applejacks_23 (CD), Magritte_41 (singleton), Reynauld_36 (CH), Srilaccoli3_35 (CH),

Start 35:
• Found in 1 of 153 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 138
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bubbykins_27 (UNK),

Start 36:
• Found in 1 of 153 (0.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DocB7_028 (singleton),

Start 38:
• Found in 20 of 153 (13.1%) of genes in pham
• Manual Annotations of this start: 13 of 138

• Called 65.0% of time when present
• Phage (with cluster) where this start called: BossLady_25 (AO2), Chipper1996_280 (AR), Chocolat_28 (AR), Chubster_28 (AR), Conboy_28 (AR), EdgarPoe_28 (AR), HumptyDumpty_28 (AR), Kabreeze_28 (AR), Martha_25 (AO2), Pippa_25 (AO2), PrincessTrina_28 (AR), RosiePosie_28 (AR), Scavito_28 (AR),

Start 39:
• Found in 79 of 153 (51.6%) of genes in pham
• Manual Annotations of this start: 58 of 138
• Called 78.5% of time when present
• Phage (with cluster) where this start called: Abba_24 (AO3), Agueybana_23 (CZ1), AlumE_23 (CZ1), Antonio_24 (CZ1), ArchiDore_27 (DW), BarretLemon_25 (AO2), BaxterFox_22 (CZ3), Beans_23 (AO1), BigDome_25 (AO2), Bolt007_25 (FH), BoyNamedSue_23 (CZ1), Brent_23 (AO1), CalWood4100_26 (FH), Colucci_27 (AR), Dillpickles_25 (CZ1), DrYang_28 (AR), EastWest_26 (AO), Eudoria_24 (CZ1), Eyre_20 (singleton), Franzy_23 (AO1), GravityBall_25 (AO2), Grekaycon_25 (AO2), Hyzer_24 (CZ1), JKerns_25 (AO2), JaNo_28 (AR), Jawnski_23 (AO1), JayCookie_28 (AR), Jordan_25 (AO2), KBurrousTX_28 (AR), Kita_24 (CZ1), LeeroyJ_25 (AO2), Lilmac1015_26 (FH), Linus_28 (AR), Lymara_28 (AR), Manasvini_24 (CZ1), Maridalia_23 (CZ1), Mordred_28 (AR), MoyaNatalis_28 (AR), Nandito_24 (FH), NathanVaag_23 (AO1), Neobush_24 (CZ1), Nostromo_24 (AO3), PantheRoc_23 (CZ3), Petra_24 (CV), Piccoletto_23 (AO1), Prairie_24 (FH), Ranunculus_39 (AP), Shade_25 (AO2), Shambre1_23 (singleton), Sicarius2_26 (AO2), Sonny_25 (AO2), StevieBAY_25 (AO2), Suscepit_24 (CZ1), TaeYoung_25 (AO2), Tayonia_24 (CZ1), Timinator_25 (AO2), Tophat_28 (AR), Trumpet_24 (CZ1), Wyborn_26 (AO2), Yeezy_24 (CZ3), Zameen_24 (CZ1), Zartrosa_25 (AO2),

Start 41:
• Found in 6 of 153 (3.9%) of genes in pham
• Manual Annotations of this start: 1 of 138
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Klevey_25 (FH),

Start 42:
• Found in 8 of 153 (5.2%) of genes in pham
• Manual Annotations of this start: 1 of 138
• Called 12.5% of time when present
• Phage (with cluster) where this start called: King2_23 (AO1),

Start 44:
• Found in 5 of 153 (3.3%) of genes in pham
• Manual Annotations of this start: 3 of 138
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Altadena_24 (FH), Bumble_24 (FH), Circuit_24 (FH),

Summary by clusters:

There are 20 clusters represented in this pham: AP1, singleton, CH, AO, AP, AP2, AP3, CZ1, AP4, CD, FH, AR, AO3, AO2, AO1, CZ3, DV, DW, UNK, CV,

Info for manual annotations of cluster AO:
•Start number 39 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 39 was manually annotated 6 times for cluster AO1.
•Start number 42 was manually annotated 1 time for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 38 was manually annotated 3 times for cluster AO2.
•Start number 39 was manually annotated 15 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 39 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AP:
•Start number 39 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:
•Start number 26 was manually annotated 1 time for cluster AP1.

Info for manual annotations of cluster AP2:
•Start number 23 was manually annotated 15 times for cluster AP2.

Info for manual annotations of cluster AP3:
•Start number 23 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:
•Start number 23 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster AR:
•Start number 38 was manually annotated 10 times for cluster AR.
•Start number 39 was manually annotated 9 times for cluster AR.

Info for manual annotations of cluster CH:
•Start number 34 was manually annotated 2 times for cluster CH.

Info for manual annotations of cluster CV:
•Start number 39 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ1:
•Start number 39 was manually annotated 14 times for cluster CZ1.

Info for manual annotations of cluster CZ3:
•Start number 39 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster DV:
•Start number 29 was manually annotated 33 times for cluster DV.
•Start number 31 was manually annotated 5 times for cluster DV.

Info for manual annotations of cluster DW:
•Start number 39 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster FH:
•Start number 39 was manually annotated 3 times for cluster FH.

•Start number 41 was manually annotated 1 time for cluster FH.
•Start number 44 was manually annotated 3 times for cluster FH.

Info for manual annotations of cluster UNK:
•Start number 35 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: AWGoat_35 Start: 33444, Stop: 33779, Start Num: 23
Candidate Starts for AWGoat_35:
(Start: 23 @33444 has 18 MA's), (32, 33480), (50, 33549), (51, 33552), (53, 33561), (80, 33675), (91, 33729), (92, 33732), (95, 33741),

Gene: Aaravos_35 Start: 31929, Stop: 32201, Start Num: 29
Candidate Starts for Aaravos_35:
(Start: 29 @31929 has 33 MA's), (33, 31935), (51, 32001), (52, 32007), (59, 32028), (79, 32109),

Gene: Abba_24 Start: 22694, Stop: 22966, Start Num: 39
Candidate Starts for Abba_24:
(Start: 39 @22694 has 58 MA's), (52, 22742), (58, 22760), (62, 22778), (64, 22784), (68, 22802), (92, 22919),

Gene: Agueybana_23 Start: 21382, Stop: 21633, Start Num: 39
Candidate Starts for Agueybana_23:
(Start: 39 @21382 has 58 MA's), (53, 21442), (62, 21472), (76, 21526), (84, 21559), (89, 21583), (92, 21601), (96, 21613),

Gene: Alephilan_35 Start: 31809, Stop: 32081, Start Num: 29
Candidate Starts for Alephilan_35:
(Start: 29 @31809 has 33 MA's), (Start: 31 @31812 has 5 MA's), (50, 31878), (51, 31881), (55, 31896), (58, 31905), (61, 31917), (78, 31980), (79, 31989), (90, 32037), (92, 32049),

Gene: Altadena_24 Start: 21892, Stop: 22152, Start Num: 44
Candidate Starts for Altadena_24:
(3, 21250), (6, 21340), (7, 21370), (10, 21526), (11, 21637), (22, 21814), (Start: 44 @21892 has 3 MA's), (47, 21907), (92, 22117),

Gene: AlumE_23 Start: 21381, Stop: 21632, Start Num: 39
Candidate Starts for AlumE_23:
(Start: 39 @21381 has 58 MA's), (53, 21441), (62, 21471), (76, 21525), (84, 21558), (89, 21582), (92, 21600), (96, 21612),

Gene: Alyssamiracle_39 Start: 30903, Stop: 31175, Start Num: 29
Candidate Starts for Alyssamiracle_39:
(Start: 29 @30903 has 33 MA's), (Start: 31 @30906 has 5 MA's), (50, 30972), (51, 30975), (55, 30990), (58, 30999), (62, 31014), (78, 31074), (84, 31101), (92, 31143),

Gene: Antonio_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Antonio_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Apeppi_35 Start: 31991, Stop: 32263, Start Num: 29
Candidate Starts for Apeppi_35:
(Start: 29 @31991 has 33 MA's), (33, 31997), (51, 32063), (52, 32069), (59, 32090), (79, 32171),

Gene: Applejacks_23 Start: 18683, Stop: 18985, Start Num: 34
Candidate Starts for Applejacks_23:
(Start: 31 @18677 has 5 MA's), (Start: 34 @18683 has 3 MA's), (56, 18767), (61, 18785), (67, 18806), (69, 18815), (72, 18839), (83, 18878), (97, 18932),

Gene: ArchiDore_27 Start: 23687, Stop: 23947, Start Num: 39
Candidate Starts for ArchiDore_27:
(Start: 39 @23687 has 58 MA's), (54, 23750), (58, 23762),

Gene: Astralis_36 Start: 30493, Stop: 30765, Start Num: 29
Candidate Starts for Astralis_36:
(Start: 29 @30493 has 33 MA's), (Start: 31 @30496 has 5 MA's), (50, 30562), (51, 30565), (55, 30580), (58, 30589), (62, 30604), (78, 30664), (84, 30691), (92, 30733),

Gene: Avian_36 Start: 30885, Stop: 31157, Start Num: 29
Candidate Starts for Avian_36:
(Start: 29 @30885 has 33 MA's), (Start: 31 @30888 has 5 MA's), (50, 30954), (51, 30957), (55, 30972), (58, 30981), (62, 30996), (78, 31056), (84, 31083), (92, 31125),

Gene: BarretLemon_25 Start: 22825, Stop: 23112, Start Num: 39
Candidate Starts for BarretLemon_25:
(Start: 39 @22825 has 58 MA's), (48, 22861), (54, 22891), (62, 22921), (87, 23029), (90, 23050), (92, 23062),

Gene: BaxterFox_22 Start: 20708, Stop: 20956, Start Num: 39
Candidate Starts for BaxterFox_22:
(Start: 39 @20708 has 58 MA's), (48, 20741), (53, 20768), (54, 20771), (62, 20798), (89, 20909), (92, 20927), (96, 20939),

Gene: Beagle_46 Start: 34747, Stop: 35091, Start Num: 23
Candidate Starts for Beagle_46:
(17, 34687), (20, 34723), (Start: 23 @34747 has 18 MA's), (28, 34783), (49, 34855), (57, 34885), (69, 34930), (80, 34987), (81, 34990), (92, 35044),

Gene: Beans_23 Start: 22491, Stop: 22778, Start Num: 39
Candidate Starts for Beans_23:
(21, 22416), (Start: 39 @22491 has 58 MA's), (51, 22545), (80, 22671), (88, 22704), (90, 22716), (92, 22728),

Gene: BetaFish_45 Start: 34941, Stop: 35285, Start Num: 23
Candidate Starts for BetaFish_45:
(17, 34881), (18, 34890), (20, 34917), (Start: 23 @34941 has 18 MA's), (28, 34977), (49, 35049), (57, 35079), (69, 35124), (80, 35181), (81, 35184), (92, 35238),

Gene: BigDome_25 Start: 22814, Stop: 23101, Start Num: 39
Candidate Starts for BigDome_25:
(Start: 39 @22814 has 58 MA's), (48, 22850), (54, 22880), (62, 22910), (87, 23018), (90, 23039), (92, 23051),

Gene: BirthdayBoy_39 Start: 32632, Stop: 32904, Start Num: 29
Candidate Starts for BirthdayBoy_39:
(Start: 29 @32632 has 33 MA's), (Start: 31 @32635 has 5 MA's), (50, 32701), (51, 32704), (55, 32719), (58, 32728), (61, 32740), (62, 32743), (78, 32803), (79, 32812), (84, 32830), (90, 32860), (92, 32872),

Gene: Bolt007_25 Start: 20917, Stop: 21198, Start Num: 39
Candidate Starts for Bolt007_25:
(3, 20293), (6, 20383), (9, 20560), (10, 20572), (22, 20863), (Start: 39 @20917 has 58 MA's), (Start: 41 @20920 has 1 MA's), (48, 20953), (92, 21154), (95, 21163),

Gene: BossLady_25 Start: 22799, Stop: 23089, Start Num: 38
Candidate Starts for BossLady_25:
(21, 22727), (Start: 38 @22799 has 13 MA's), (Start: 39 @22802 has 58 MA's), (48, 22838), (62, 22898), (87, 23006), (88, 23015), (90, 23027), (92, 23039),

Gene: BoyNamedSue_23 Start: 21381, Stop: 21632, Start Num: 39
Candidate Starts for BoyNamedSue_23:
(Start: 39 @21381 has 58 MA's), (53, 21441), (62, 21471), (76, 21525), (84, 21558), (89, 21582), (92, 21600), (96, 21612),

Gene: Brent_23 Start: 22473, Stop: 22760, Start Num: 39
Candidate Starts for Brent_23:
(Start: 39 @22473 has 58 MA's), (46, 22497), (80, 22653), (90, 22698), (92, 22710),

Gene: BruhMoment_42 Start: 36111, Stop: 36455, Start Num: 23
Candidate Starts for BruhMoment_42:
(12, 35940), (13, 35952), (Start: 23 @36111 has 18 MA's), (51, 36228), (62, 36267), (63, 36270), (65, 36276), (80, 36351), (90, 36396), (92, 36408),

Gene: Bubbykins_27 Start: 23094, Stop: 23369, Start Num: 35
Candidate Starts for Bubbykins_27:
(30, 23091), (Start: 35 @23094 has 1 MA's), (46, 23118), (57, 23169), (62, 23190), (69, 23217), (74, 23244), (79, 23268), (80, 23274), (85, 23289), (92, 23331),

Gene: Bumble_24 Start: 21766, Stop: 22026, Start Num: 44
Candidate Starts for Bumble_24:
(Start: 44 @21766 has 3 MA's), (92, 21991),

Gene: CalWood4100_26 Start: 20907, Stop: 21188, Start Num: 39
Candidate Starts for CalWood4100_26:
(11, 20673), (22, 20853), (Start: 39 @20907 has 58 MA's), (Start: 41 @20910 has 1 MA's), (92, 21144), (95, 21153),

Gene: Charminar_36 Start: 30496, Stop: 30768, Start Num: 29
Candidate Starts for Charminar_36:
(Start: 29 @30496 has 33 MA's), (Start: 31 @30499 has 5 MA's), (50, 30565), (51, 30568), (55, 30583), (58, 30592), (62, 30607), (78, 30667), (84, 30694), (92, 30736),

Gene: Chipper1996_280 Start: 25644, Stop: 25934, Start Num: 38
Candidate Starts for Chipper1996_280:
(21, 25575), (Start: 38 @25644 has 13 MA's), (Start: 39 @25647 has 58 MA's), (51, 25701), (53, 25710), (54, 25713), (55, 25716), (62, 25743), (74, 25797), (79, 25821), (85, 25842), (87, 25851), (88,

25860), (90, 25872), (92, 25884), (95, 25893),

Gene: Chocolat_28 Start: 25644, Stop: 25934, Start Num: 38
Candidate Starts for Chocolat_28:
(21, 25575), (Start: 38 @25644 has 13 MA's), (Start: 39 @25647 has 58 MA's), (51, 25701), (53, 25710), (54, 25713), (55, 25716), (62, 25743), (74, 25797), (79, 25821), (85, 25842), (87, 25851), (88, 25860), (90, 25872), (92, 25884), (95, 25893),

Gene: Chubster_28 Start: 25415, Stop: 25705, Start Num: 38
Candidate Starts for Chubster_28:
(21, 25346), (Start: 38 @25415 has 13 MA's), (Start: 39 @25418 has 58 MA's), (51, 25472), (53, 25481), (54, 25484), (55, 25487), (62, 25514), (74, 25568), (79, 25592), (85, 25613), (87, 25622), (88, 25631), (90, 25643), (92, 25655), (95, 25664),

Gene: Circuit_24 Start: 21828, Stop: 22088, Start Num: 44
Candidate Starts for Circuit_24:
(22, 21753), (Start: 44 @21828 has 3 MA's), (52, 21876), (80, 21996), (92, 22053),

Gene: Colucci_27 Start: 25113, Stop: 25400, Start Num: 39
Candidate Starts for Colucci_27:
(21, 25041), (Start: 39 @25113 has 58 MA's), (53, 25176), (79, 25287), (87, 25317), (88, 25326), (90, 25338), (92, 25350),

Gene: Conboy_28 Start: 25643, Stop: 25933, Start Num: 38
Candidate Starts for Conboy_28:
(21, 25574), (Start: 38 @25643 has 13 MA's), (Start: 39 @25646 has 58 MA's), (51, 25700), (53, 25709), (54, 25712), (55, 25715), (62, 25742), (74, 25796), (79, 25820), (85, 25841), (87, 25850), (88, 25859), (90, 25871), (92, 25883), (95, 25892),

Gene: DaviePasture_38 Start: 32439, Stop: 32708, Start Num: 31
Candidate Starts for DaviePasture_38:
(Start: 29 @32436 has 33 MA's), (Start: 31 @32439 has 5 MA's), (50, 32505), (51, 32508), (55, 32523), (58, 32532), (61, 32544), (62, 32547), (78, 32607), (79, 32616), (84, 32634), (90, 32664), (92, 32676),

Gene: Dillpickles_25 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Dillpickles_25:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: DocB7_028 Start: 33620, Stop: 33901, Start Num: 36
Candidate Starts for DocB7_028:
(Start: 34 @33617 has 3 MA's), (36, 33620), (62, 33716), (66, 33731), (102, 33887),

Gene: DogYard_45 Start: 34641, Stop: 34985, Start Num: 23
Candidate Starts for DogYard_45:
(17, 34581), (18, 34590), (20, 34617), (Start: 23 @34641 has 18 MA's), (28, 34677), (49, 34749), (57, 34779), (69, 34824), (80, 34881), (81, 34884), (92, 34938),

Gene: DoobyDoo_37 Start: 31583, Stop: 31855, Start Num: 29
Candidate Starts for DoobyDoo_37:
(Start: 29 @31583 has 33 MA's), (Start: 31 @31586 has 5 MA's), (50, 31652), (51, 31655), (55, 31670), (58, 31679), (61, 31691), (62, 31694), (78, 31754), (79, 31763), (84, 31781), (90, 31811), (92, 31823),

Gene: DrYang_28 Start: 26738, Stop: 27025, Start Num: 39
Candidate Starts for DrYang_28:
(Start: 39 @26738 has 58 MA's), (51, 26792), (53, 26801), (54, 26804), (61, 26831), (74, 26888), (79, 26912), (88, 26951), (90, 26963), (92, 26975), (101, 27017),

Gene: EastWest_26 Start: 22751, Stop: 23047, Start Num: 39
Candidate Starts for EastWest_26:
(21, 22676), (Start: 39 @22751 has 58 MA's), (46, 22775), (48, 22787), (51, 22805), (54, 22817), (62, 22847), (67, 22865), (88, 22964), (91, 22985),

Gene: EdgarPoe_28 Start: 25643, Stop: 25933, Start Num: 38
Candidate Starts for EdgarPoe_28:
(21, 25574), (Start: 38 @25643 has 13 MA's), (Start: 39 @25646 has 58 MA's), (51, 25700), (53, 25709), (54, 25712), (55, 25715), (62, 25742), (74, 25796), (79, 25820), (85, 25841), (87, 25850), (88, 25859), (90, 25871), (92, 25883), (95, 25892),

Gene: Erutan_38 Start: 32091, Stop: 32363, Start Num: 29
Candidate Starts for Erutan_38:
(Start: 29 @32091 has 33 MA's), (Start: 31 @32094 has 5 MA's), (51, 32163), (55, 32178), (61, 32199), (62, 32202), (78, 32262), (79, 32271), (84, 32289), (90, 32319), (92, 32331),

Gene: Eudoria_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Eudoria_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Eyre_20 Start: 18730, Stop: 18987, Start Num: 39
Candidate Starts for Eyre_20:
(Start: 39 @18730 has 58 MA's), (48, 18763), (53, 18790), (55, 18796), (57, 18802), (62, 18820), (82, 18904), (89, 18931), (92, 18949),

Gene: Forrestell_42 Start: 33116, Stop: 33460, Start Num: 23
Candidate Starts for Forrestell_42:
(17, 33056), (Start: 23 @33116 has 18 MA's), (28, 33152), (Start: 42 @33179 has 1 MA's), (49, 33224), (57, 33254), (69, 33299), (80, 33356), (81, 33359), (92, 33413),

Gene: Franzy_23 Start: 22472, Stop: 22759, Start Num: 39
Candidate Starts for Franzy_23:
(Start: 39 @22472 has 58 MA's), (46, 22496), (80, 22652), (90, 22697), (92, 22709),

Gene: Fulcrum_39 Start: 32612, Stop: 32884, Start Num: 29
Candidate Starts for Fulcrum_39:
(Start: 29 @32612 has 33 MA's), (Start: 31 @32615 has 5 MA's), (50, 32681), (51, 32684), (55, 32699), (58, 32708), (61, 32720), (62, 32723), (78, 32783), (79, 32792), (84, 32810), (90, 32840), (92, 32852),

Gene: GOATification_39 Start: 32612, Stop: 32884, Start Num: 29
Candidate Starts for GOATification_39:
(Start: 29 @32612 has 33 MA's), (Start: 31 @32615 has 5 MA's), (50, 32681), (51, 32684), (55, 32699), (58, 32708), (61, 32720), (62, 32723), (78, 32783), (79, 32792), (84, 32810), (90, 32840), (92, 32852),

Gene: Genamy16_39 Start: 30903, Stop: 31175, Start Num: 29
Candidate Starts for Genamy16_39:

(Start: 29 @30903 has 33 MA's), (Start: 31 @30906 has 5 MA's), (50, 30972), (51, 30975), (55, 30990), (58, 30999), (62, 31014), (78, 31074), (84, 31101), (92, 31143),

Gene: Gibbin_39 Start: 32710, Stop: 32982, Start Num: 29
Candidate Starts for Gibbin_39:
(Start: 29 @32710 has 33 MA's), (Start: 31 @32713 has 5 MA's), (50, 32779), (51, 32782), (55, 32797), (58, 32806), (61, 32818), (62, 32821), (78, 32881), (79, 32890), (84, 32908), (90, 32938), (92, 32950),

Gene: GravityBall_25 Start: 22824, Stop: 23111, Start Num: 39
Candidate Starts for GravityBall_25:
(Start: 39 @22824 has 58 MA's), (48, 22860), (54, 22890), (62, 22920), (87, 23028), (90, 23049), (92, 23061),

Gene: Grekaycon_25 Start: 22811, Stop: 23101, Start Num: 39
Candidate Starts for Grekaycon_25:
(Start: 39 @22811 has 58 MA's), (60, 22901), (62, 22907), (87, 23015), (92, 23048), (94, 23054),

Gene: GretelLyn_38 Start: 32976, Stop: 33248, Start Num: 29
Candidate Starts for GretelLyn_38:
(Start: 29 @32976 has 33 MA's), (Start: 31 @32979 has 5 MA's), (50, 33045), (51, 33048), (55, 33063), (58, 33072), (61, 33084), (62, 33087), (78, 33147), (79, 33156), (84, 33174), (90, 33204), (92, 33216),

Gene: Gudmit_21 Start: 18691, Stop: 19032, Start Num: 24
Candidate Starts for Gudmit_21:
(15, 18556), (Start: 24 @18691 has 1 MA's), (48, 18769), (54, 18799), (58, 18811), (92, 18967),

Gene: Hive_43 Start: 34822, Stop: 35166, Start Num: 23
Candidate Starts for Hive_43:
(16, 34756), (17, 34762), (18, 34771), (20, 34798), (Start: 23 @34822 has 18 MA's), (28, 34858), (49, 34930), (57, 34960), (69, 35005), (80, 35062), (81, 35065), (92, 35119),

Gene: HumptyDumpty_28 Start: 25642, Stop: 25932, Start Num: 38
Candidate Starts for HumptyDumpty_28:
(21, 25573), (Start: 38 @25642 has 13 MA's), (Start: 39 @25645 has 58 MA's), (51, 25699), (53, 25708), (54, 25711), (55, 25714), (62, 25741), (74, 25795), (79, 25819), (85, 25840), (87, 25849), (88, 25858), (90, 25870), (92, 25882), (95, 25891),

Gene: Hyzer_24 Start: 22048, Stop: 22296, Start Num: 39
Candidate Starts for Hyzer_24:
(Start: 39 @22048 has 58 MA's), (45, 22066), (52, 22105), (53, 22108), (54, 22111), (62, 22138), (89, 22249), (92, 22267),

Gene: JKerns_25 Start: 22838, Stop: 23128, Start Num: 39
Candidate Starts for JKerns_25:
(Start: 39 @22838 has 58 MA's), (62, 22934), (87, 23042), (92, 23075), (94, 23081),

Gene: JaNo_28 Start: 25645, Stop: 25932, Start Num: 39
Candidate Starts for JaNo_28:
(21, 25573), (Start: 38 @25642 has 13 MA's), (Start: 39 @25645 has 58 MA's), (51, 25699), (53, 25708), (54, 25711), (55, 25714), (62, 25741), (74, 25795), (79, 25819), (85, 25840), (87, 25849), (88, 25858), (90, 25870), (92, 25882), (95, 25891),

Gene: Jalebi_37 Start: 33145, Stop: 33417, Start Num: 29

Candidate Starts for Jalebi_37:
(Start: 29 @33145 has 33 MA's), (Start: 31 @33148 has 5 MA's), (50, 33214), (51, 33217), (55, 33232), (58, 33241), (61, 33253), (62, 33256), (78, 33316), (79, 33325), (84, 33343), (90, 33373), (92, 33385),

Gene: Jamemuya19_36 Start: 30493, Stop: 30765, Start Num: 29
Candidate Starts for Jamemuya19_36:
(Start: 29 @30493 has 33 MA's), (Start: 31 @30496 has 5 MA's), (50, 30562), (51, 30565), (55, 30580), (58, 30589), (62, 30604), (78, 30664), (84, 30691), (92, 30733),

Gene: Jawnski_23 Start: 22486, Stop: 22773, Start Num: 39
Candidate Starts for Jawnski_23:
(21, 22411), (Start: 39 @22486 has 58 MA's), (51, 22540), (80, 22666), (90, 22711), (92, 22723),

Gene: JayCookie_28 Start: 25648, Stop: 25935, Start Num: 39
Candidate Starts for JayCookie_28:
(21, 25576), (Start: 38 @25645 has 13 MA's), (Start: 39 @25648 has 58 MA's), (51, 25702), (53, 25711), (54, 25714), (55, 25717), (62, 25744), (74, 25798), (79, 25822), (85, 25843), (87, 25852), (88, 25861), (90, 25873), (92, 25885), (95, 25894),

Gene: Jordan_25 Start: 22808, Stop: 23098, Start Num: 39
Candidate Starts for Jordan_25:
(Start: 39 @22808 has 58 MA's), (62, 22904), (87, 23012), (92, 23045), (94, 23051),

Gene: KBurrousTX_28 Start: 26559, Stop: 26852, Start Num: 39
Candidate Starts for KBurrousTX_28:
(Start: 39 @26559 has 58 MA's), (48, 26595), (51, 26613), (54, 26625), (79, 26733), (88, 26772), (90, 26784), (92, 26796),

Gene: Kabreeze_28 Start: 25642, Stop: 25932, Start Num: 38
Candidate Starts for Kabreeze_28:
(21, 25573), (Start: 38 @25642 has 13 MA's), (Start: 39 @25645 has 58 MA's), (51, 25699), (53, 25708), (54, 25711), (55, 25714), (62, 25741), (74, 25795), (79, 25819), (85, 25840), (87, 25849), (88, 25858), (90, 25870), (92, 25882), (95, 25891),

Gene: King2_23 Start: 22491, Stop: 22778, Start Num: 42
Candidate Starts for King2_23:
(21, 22401), (Start: 39 @22476 has 58 MA's), (Start: 42 @22491 has 1 MA's), (46, 22515), (80, 22671), (90, 22716), (92, 22728),

Gene: Kita_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Kita_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Klevey_25 Start: 20920, Stop: 21198, Start Num: 41
Candidate Starts for Klevey_25:
(11, 20683), (22, 20863), (Start: 39 @20917 has 58 MA's), (Start: 41 @20920 has 1 MA's), (92, 21154), (95, 21163),

Gene: Kubulix_46 Start: 34589, Stop: 34933, Start Num: 23
Candidate Starts for Kubulix_46:
(17, 34529), (20, 34565), (Start: 23 @34589 has 18 MA's), (28, 34625), (49, 34697), (57, 34727), (69, 34772), (80, 34829), (81, 34832), (92, 34886),

Gene: Lambo_38 Start: 32633, Stop: 32902, Start Num: 31
Candidate Starts for Lambo_38:
(Start: 29 @32630 has 33 MA's), (Start: 31 @32633 has 5 MA's), (50, 32699), (51, 32702), (55, 32717), (58, 32726), (61, 32738), (62, 32741), (78, 32801), (84, 32828), (92, 32870),

Gene: LavAbarElk_36 Start: 31084, Stop: 31356, Start Num: 29
Candidate Starts for LavAbarElk_36:
(Start: 29 @31084 has 33 MA's), (Start: 31 @31087 has 5 MA's), (50, 31153), (51, 31156), (55, 31171), (58, 31180), (61, 31192), (62, 31195), (78, 31255), (79, 31264), (84, 31282), (90, 31312), (92, 31324),

Gene: LeeroyJ_25 Start: 22824, Stop: 23111, Start Num: 39
Candidate Starts for LeeroyJ_25:
(Start: 39 @22824 has 58 MA's), (48, 22860), (54, 22890), (62, 22920), (87, 23028), (90, 23049), (92, 23061),

Gene: Lila22_37 Start: 32585, Stop: 32857, Start Num: 29
Candidate Starts for Lila22_37:
(Start: 29 @32585 has 33 MA's), (Start: 31 @32588 has 5 MA's), (50, 32654), (51, 32657), (55, 32672), (58, 32681), (61, 32693), (62, 32696), (78, 32756), (79, 32765), (84, 32783), (90, 32813), (92, 32825),

Gene: Lilmac1015_26 Start: 20907, Stop: 21188, Start Num: 39
Candidate Starts for Lilmac1015_26:
(11, 20673), (22, 20853), (Start: 39 @20907 has 58 MA's), (Start: 41 @20910 has 1 MA's), (92, 21144), (95, 21153),

Gene: Linus_28 Start: 25645, Stop: 25932, Start Num: 39
Candidate Starts for Linus_28:
(21, 25573), (Start: 38 @25642 has 13 MA's), (Start: 39 @25645 has 58 MA's), (51, 25699), (53, 25708), (54, 25711), (55, 25714), (62, 25741), (74, 25795), (79, 25819), (85, 25840), (87, 25849), (88, 25858), (90, 25870), (92, 25882), (95, 25891),

Gene: LuckyLeo_37 Start: 31991, Stop: 32263, Start Num: 29
Candidate Starts for LuckyLeo_37:
(Start: 29 @31991 has 33 MA's), (33, 31997), (51, 32063), (52, 32069), (59, 32090), (79, 32171),

Gene: Lymara_28 Start: 25643, Stop: 25930, Start Num: 39
Candidate Starts for Lymara_28:
(21, 25571), (Start: 38 @25640 has 13 MA's), (Start: 39 @25643 has 58 MA's), (51, 25697), (53, 25706), (54, 25709), (55, 25712), (74, 25793), (77, 25805), (79, 25817), (85, 25838), (87, 25847), (88, 25856), (90, 25868), (92, 25880),

Gene: Magritte_41 Start: 43668, Stop: 44006, Start Num: 34
Candidate Starts for Magritte_41:
(33, 43665), (Start: 34 @43668 has 3 MA's), (53, 43740), (61, 43767), (69, 43797), (75, 43830), (99, 43944), (100, 43953),

Gene: Manasvini_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Manasvini_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Maridalia_23 Start: 21502, Stop: 21753, Start Num: 39

Candidate Starts for Maridalia_23:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Martha_25 Start: 22746, Stop: 23036, Start Num: 38
Candidate Starts for Martha_25:
(21, 22674), (Start: 38 @22746 has 13 MA's), (Start: 39 @22749 has 58 MA's), (48, 22785), (62, 22845), (87, 22953), (88, 22962), (90, 22974), (92, 22986),

Gene: MellowYellow_42 Start: 33482, Stop: 33826, Start Num: 23
Candidate Starts for MellowYellow_42:
(17, 33422), (Start: 23 @33482 has 18 MA's), (28, 33518), (Start: 42 @33545 has 1 MA's), (49, 33590), (57, 33620), (69, 33665), (80, 33722), (81, 33725), (92, 33779),

Gene: Mima20_36 Start: 32334, Stop: 32606, Start Num: 29
Candidate Starts for Mima20_36:
(Start: 29 @32334 has 33 MA's), (Start: 31 @32337 has 5 MA's), (50, 32403), (51, 32406), (55, 32421), (58, 32430), (61, 32442), (62, 32445), (78, 32505), (79, 32514), (84, 32532), (90, 32562), (92, 32574),

Gene: MoiGyank_40 Start: 33015, Stop: 33287, Start Num: 29
Candidate Starts for MoiGyank_40:
(Start: 29 @33015 has 33 MA's), (Start: 31 @33018 has 5 MA's), (50, 33084), (51, 33087), (55, 33102), (58, 33111), (61, 33123), (62, 33126), (78, 33186), (79, 33195), (84, 33213), (90, 33243), (92, 33255),

Gene: Mordred_28 Start: 25645, Stop: 25932, Start Num: 39
Candidate Starts for Mordred_28:
(21, 25573), (Start: 38 @25642 has 13 MA's), (Start: 39 @25645 has 58 MA's), (51, 25699), (53, 25708), (54, 25711), (55, 25714), (62, 25741), (74, 25795), (79, 25819), (85, 25840), (87, 25849), (88, 25858), (90, 25870), (92, 25882), (95, 25891),

Gene: MoyaNatalis_28 Start: 25648, Stop: 25935, Start Num: 39
Candidate Starts for MoyaNatalis_28:
(21, 25576), (Start: 38 @25645 has 13 MA's), (Start: 39 @25648 has 58 MA's), (51, 25702), (53, 25711), (54, 25714), (55, 25717), (62, 25744), (74, 25798), (79, 25822), (85, 25843), (87, 25852), (88, 25861), (90, 25873), (92, 25885), (95, 25894),

Gene: Nandito_24 Start: 19902, Stop: 20183, Start Num: 39
Candidate Starts for Nandito_24:
(1, 19161), (2, 19218), (4, 19296), (5, 19308), (10, 19557), (11, 19668), (22, 19845), (Start: 39 @19902 has 58 MA's), (Start: 41 @19905 has 1 MA's), (69, 20025), (92, 20139), (95, 20148),

Gene: NathanVaag_23 Start: 22467, Stop: 22754, Start Num: 39
Candidate Starts for NathanVaag_23:
(Start: 39 @22467 has 58 MA's), (51, 22521), (80, 22647), (88, 22680), (90, 22692), (92, 22704),

Gene: Neobush_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Neobush_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Nettle_39 Start: 32869, Stop: 33141, Start Num: 29
Candidate Starts for Nettle_39:

(Start: 29 @32869 has 33 MA's), (Start: 31 @32872 has 5 MA's), (50, 32938), (51, 32941), (55, 32956), (58, 32965), (61, 32977), (62, 32980), (78, 33040), (79, 33049), (84, 33067), (90, 33097), (92, 33109),

Gene: Nikan_42 Start: 33765, Stop: 34109, Start Num: 23
Candidate Starts for Nikan_42:
(Start: 23 @33765 has 18 MA's), (28, 33801), (Start: 42 @33828 has 1 MA's), (43, 33837), (51, 33882), (57, 33903), (69, 33948), (86, 34023),

Gene: NorManre_39 Start: 32221, Stop: 32493, Start Num: 29
Candidate Starts for NorManre_39:
(19, 32134), (Start: 29 @32221 has 33 MA's), (Start: 31 @32224 has 5 MA's), (50, 32290), (51, 32293), (55, 32308), (58, 32317), (61, 32329), (62, 32332), (78, 32392), (79, 32401), (84, 32419), (90, 32449), (92, 32461),

Gene: Nostromo_24 Start: 22545, Stop: 22817, Start Num: 39
Candidate Starts for Nostromo_24:
(14, 22365), (22, 22494), (Start: 39 @22545 has 58 MA's), (58, 22611), (62, 22629), (64, 22635), (68, 22653), (92, 22770),

Gene: NovaSharks_38 Start: 30493, Stop: 30765, Start Num: 29
Candidate Starts for NovaSharks_38:
(Start: 29 @30493 has 33 MA's), (Start: 31 @30496 has 5 MA's), (50, 30562), (51, 30565), (55, 30580), (58, 30589), (62, 30604), (78, 30664), (84, 30691), (92, 30733),

Gene: NyleyClemson_40 Start: 33097, Stop: 33441, Start Num: 23
Candidate Starts for NyleyClemson_40:
(17, 33037), (Start: 23 @33097 has 18 MA's), (28, 33133), (Start: 42 @33160 has 1 MA's), (49, 33205), (57, 33235), (69, 33280), (80, 33337), (81, 33340), (92, 33394),

Gene: Odyssey395_47 Start: 34766, Stop: 35110, Start Num: 23
Candidate Starts for Odyssey395_47:
(17, 34706), (18, 34715), (20, 34742), (Start: 23 @34766 has 18 MA's), (28, 34802), (49, 34874), (57, 34904), (69, 34949), (80, 35006), (81, 35009), (92, 35063),

Gene: Ollypop_43 Start: 34857, Stop: 35201, Start Num: 23
Candidate Starts for Ollypop_43:
(Start: 23 @34857 has 18 MA's), (28, 34893), (Start: 42 @34920 has 1 MA's), (43, 34929), (57, 34995), (69, 35040), (86, 35115), (93, 35157),

Gene: OtterstedtS21_38 Start: 32292, Stop: 32564, Start Num: 29
Candidate Starts for OtterstedtS21_38:
(Start: 29 @32292 has 33 MA's), (Start: 31 @32295 has 5 MA's), (50, 32361), (51, 32364), (55, 32379), (58, 32388), (61, 32400), (62, 32403), (78, 32463), (79, 32472), (84, 32490), (90, 32520), (92, 32532),

Gene: PantheRoc_23 Start: 20700, Stop: 20951, Start Num: 39
Candidate Starts for PantheRoc_23:
(Start: 39 @20700 has 58 MA's), (53, 20760), (62, 20790), (76, 20844), (84, 20877), (89, 20901), (92, 20919), (96, 20931),

Gene: ParvusTarda_38 Start: 31760, Stop: 32032, Start Num: 29
Candidate Starts for ParvusTarda_38:
(Start: 29 @31760 has 33 MA's), (Start: 31 @31763 has 5 MA's), (50, 31829), (51, 31832), (55, 31847), (58, 31856), (61, 31868), (62, 31871), (78, 31931), (79, 31940), (84, 31958), (90, 31988), (92, 32000),

Gene: Patos_39 Start: 32221, Stop: 32493, Start Num: 29
Candidate Starts for Patos_39:
(19, 32134), (Start: 29 @32221 has 33 MA's), (Start: 31 @32224 has 5 MA's), (50, 32290), (51, 32293), (55, 32308), (58, 32317), (61, 32329), (62, 32332), (78, 32392), (79, 32401), (84, 32419), (90, 32449), (92, 32461),

Gene: Petra_24 Start: 20354, Stop: 20602, Start Num: 39
Candidate Starts for Petra_24:
(8, 19934), (Start: 39 @20354 has 58 MA's), (45, 20372), (48, 20387), (55, 20420), (57, 20426), (61, 20441), (62, 20444), (76, 20498), (84, 20531), (89, 20555),

Gene: PhuzzTulsa_42 Start: 34726, Stop: 35070, Start Num: 23
Candidate Starts for PhuzzTulsa_42:
(17, 34666), (Start: 23 @34726 has 18 MA's), (28, 34762), (49, 34834), (57, 34864), (69, 34909), (80, 34966), (81, 34969), (92, 35023),

Gene: Piccoletto_23 Start: 22466, Stop: 22753, Start Num: 39
Candidate Starts for Piccoletto_23:
(Start: 39 @22466 has 58 MA's), (51, 22520), (80, 22646), (88, 22679), (90, 22691), (92, 22703),

Gene: Pippa_25 Start: 22844, Stop: 23134, Start Num: 38
Candidate Starts for Pippa_25:
(21, 22772), (Start: 38 @22844 has 13 MA's), (Start: 39 @22847 has 58 MA's), (48, 22883), (62, 22943), (88, 23060), (90, 23072), (92, 23084),

Gene: Pointis_44 Start: 34764, Stop: 35108, Start Num: 23
Candidate Starts for Pointis_44:
(17, 34704), (20, 34740), (Start: 23 @34764 has 18 MA's), (28, 34800), (49, 34872), (57, 34902), (69, 34947), (80, 35004), (81, 35007), (92, 35061),

Gene: Popstraw_42 Start: 34586, Stop: 34894, Start Num: 28
Candidate Starts for Popstraw_42:
(16, 34484), (17, 34490), (18, 34499), (20, 34526), (Start: 23 @34550 has 18 MA's), (28, 34586), (49, 34658), (57, 34688), (69, 34733), (80, 34790), (81, 34793), (92, 34847),

Gene: Prairie_24 Start: 20935, Stop: 21216, Start Num: 39
Candidate Starts for Prairie_24:
(11, 20701), (22, 20881), (Start: 39 @20935 has 58 MA's), (Start: 41 @20938 has 1 MA's), (92, 21172), (95, 21181),

Gene: PrincessTrina_28 Start: 25645, Stop: 25935, Start Num: 38
Candidate Starts for PrincessTrina_28:
(21, 25576), (Start: 38 @25645 has 13 MA's), (Start: 39 @25648 has 58 MA's), (51, 25702), (53, 25711), (54, 25714), (55, 25717), (62, 25744), (74, 25798), (79, 25822), (85, 25843), (87, 25852), (88, 25861), (90, 25873), (92, 25885), (95, 25894),

Gene: Pureglobe5_46 Start: 34947, Stop: 35291, Start Num: 23
Candidate Starts for Pureglobe5_46:
(17, 34887), (20, 34923), (Start: 23 @34947 has 18 MA's), (28, 34983), (49, 35055), (57, 35085), (69, 35130), (80, 35187), (81, 35190), (92, 35244),

Gene: Pywacket_37 Start: 33106, Stop: 33378, Start Num: 29

Candidate Starts for Pywacket_37:
(Start: 29 @33106 has 33 MA's), (Start: 31 @33109 has 5 MA's), (50, 33175), (51, 33178), (55, 33193), (58, 33202), (61, 33214), (62, 33217), (78, 33277), (79, 33286), (84, 33304), (90, 33334), (92, 33346),

Gene: RIPWilbur_43 Start: 34080, Stop: 34424, Start Num: 23
Candidate Starts for RIPWilbur_43:
(17, 34020), (Start: 23 @34080 has 18 MA's), (28, 34116), (49, 34188), (57, 34218), (69, 34263), (80, 34320), (81, 34323), (92, 34377),

Gene: Ranch_38 Start: 31121, Stop: 31390, Start Num: 31
Candidate Starts for Ranch_38:
(Start: 29 @31118 has 33 MA's), (Start: 31 @31121 has 5 MA's), (50, 31187), (51, 31190), (55, 31205), (58, 31214), (61, 31226), (62, 31229), (78, 31289), (79, 31298), (84, 31316), (90, 31346), (92, 31358),

Gene: Ranunculus_39 Start: 36875, Stop: 37153, Start Num: 39
Candidate Starts for Ranunculus_39:
(Start: 39 @36875 has 58 MA's), (40, 36878), (53, 36935), (56, 36944), (70, 36983), (96, 37106),

Gene: RazorC_37 Start: 30885, Stop: 31157, Start Num: 29
Candidate Starts for RazorC_37:
(Start: 29 @30885 has 33 MA's), (Start: 31 @30888 has 5 MA's), (50, 30954), (51, 30957), (55, 30972), (58, 30981), (62, 30996), (78, 31056), (84, 31083), (92, 31125),

Gene: RazzB_41 Start: 33228, Stop: 33572, Start Num: 23
Candidate Starts for RazzB_41:
(17, 33168), (Start: 23 @33228 has 18 MA's), (28, 33264), (Start: 42 @33291 has 1 MA's), (49, 33336), (57, 33366), (69, 33411), (80, 33468), (81, 33471), (92, 33525),

Gene: Ren19_42 Start: 33765, Stop: 34109, Start Num: 23
Candidate Starts for Ren19_42:
(Start: 23 @33765 has 18 MA's), (28, 33801), (Start: 42 @33828 has 1 MA's), (43, 33837), (51, 33882), (57, 33903), (69, 33948), (86, 34023),

Gene: Reynauld_36 Start: 37401, Stop: 37718, Start Num: 34
Candidate Starts for Reynauld_36:
(Start: 34 @37401 has 3 MA's), (Start: 39 @37410 has 58 MA's), (Start: 44 @37425 has 3 MA's), (49, 37458), (53, 37476), (65, 37515), (73, 37560), (96, 37662), (98, 37671), (103, 37713),

Gene: Riduram_36 Start: 30466, Stop: 30735, Start Num: 31
Candidate Starts for Riduram_36:
(Start: 29 @30463 has 33 MA's), (Start: 31 @30466 has 5 MA's), (50, 30532), (51, 30535), (55, 30550), (58, 30559), (62, 30574), (78, 30634), (84, 30661), (92, 30703),

Gene: Rizwana_35 Start: 34988, Stop: 35311, Start Num: 26
Candidate Starts for Rizwana_35:
(Start: 26 @34988 has 1 MA's), (27, 34997), (46, 35054), (61, 35120), (62, 35123), (71, 35162), (82, 35216), (85, 35222), (90, 35252),

Gene: RosiePosie_28 Start: 25645, Stop: 25935, Start Num: 38
Candidate Starts for RosiePosie_28:
(21, 25576), (Start: 38 @25645 has 13 MA's), (Start: 39 @25648 has 58 MA's), (51, 25702), (53, 25711), (54, 25714), (55, 25717), (62, 25744), (74, 25798), (79, 25822), (85, 25843), (87, 25852), (88, 25861), (90, 25873), (92, 25885), (95, 25894),

Gene: Rota_37 Start: 32501, Stop: 32773, Start Num: 29
Candidate Starts for Rota_37:
(Start: 29 @32501 has 33 MA's), (Start: 31 @32504 has 5 MA's), (50, 32570), (51, 32573), (55, 32588), (58, 32597), (61, 32609), (62, 32612), (78, 32672), (79, 32681), (84, 32699), (90, 32729), (92, 32741), (96, 32753),

Gene: Rukungu_38 Start: 32810, Stop: 33082, Start Num: 29
Candidate Starts for Rukungu_38:
(Start: 29 @32810 has 33 MA's), (Start: 31 @32813 has 5 MA's), (50, 32879), (51, 32882), (55, 32897), (58, 32906), (61, 32918), (62, 32921), (78, 32981), (79, 32990), (84, 33008), (90, 33038), (92, 33050),

Gene: Rumi_38 Start: 30496, Stop: 30768, Start Num: 29
Candidate Starts for Rumi_38:
(Start: 29 @30496 has 33 MA's), (Start: 31 @30499 has 5 MA's), (50, 30565), (51, 30568), (55, 30583), (58, 30592), (62, 30607), (78, 30667), (84, 30694), (92, 30736),

Gene: Sadboi_39 Start: 32977, Stop: 33249, Start Num: 29
Candidate Starts for Sadboi_39:
(Start: 29 @32977 has 33 MA's), (Start: 31 @32980 has 5 MA's), (50, 33046), (51, 33049), (55, 33064), (58, 33073), (61, 33085), (62, 33088), (78, 33148), (79, 33157), (84, 33175), (90, 33205), (92, 33217),

Gene: Sampudon_38 Start: 33145, Stop: 33417, Start Num: 29
Candidate Starts for Sampudon_38:
(Start: 29 @33145 has 33 MA's), (Start: 31 @33148 has 5 MA's), (50, 33214), (51, 33217), (55, 33232), (58, 33241), (61, 33253), (62, 33256), (78, 33316), (79, 33325), (84, 33343), (90, 33373), (92, 33385),

Gene: Scavito_28 Start: 25642, Stop: 25932, Start Num: 38
Candidate Starts for Scavito_28:
(21, 25573), (Start: 38 @25642 has 13 MA's), (Start: 39 @25645 has 58 MA's), (51, 25699), (53, 25708), (54, 25711), (55, 25714), (62, 25741), (74, 25795), (79, 25819), (85, 25840), (87, 25849), (88, 25858), (90, 25870), (92, 25882), (95, 25891),

Gene: Shade_25 Start: 22787, Stop: 23077, Start Num: 39
Candidate Starts for Shade_25:
(Start: 39 @22787 has 58 MA's), (60, 22877), (62, 22883), (87, 22991), (92, 23024), (94, 23030),

Gene: Shambre1_23 Start: 19730, Stop: 20017, Start Num: 39
Candidate Starts for Shambre1_23:
(25, 19694), (Start: 39 @19730 has 58 MA's), (53, 19787),

Gene: Sicarius2_26 Start: 23226, Stop: 23498, Start Num: 39
Candidate Starts for Sicarius2_26:
(Start: 39 @23226 has 58 MA's), (47, 23241), (53, 23277), (57, 23289), (62, 23310), (64, 23316), (79, 23388), (88, 23427), (91, 23448), (92, 23451),

Gene: SilentRX_37 Start: 34506, Stop: 34829, Start Num: 23
Candidate Starts for SilentRX_37:
(Start: 23 @34506 has 18 MA's), (37, 34551), (46, 34572), (50, 34599), (51, 34602), (53, 34611), (92, 34782), (95, 34791),

Gene: Sonny_25 Start: 22808, Stop: 23098, Start Num: 39
Candidate Starts for Sonny_25:

(Start: 39 @22808 has 58 MA's), (62, 22904), (87, 23012), (92, 23045), (94, 23051),

Gene: Srilaccoli3_35 Start: 36321, Stop: 36638, Start Num: 34
Candidate Starts for Srilaccoli3_35:
(Start: 34 @36321 has 3 MA's), (Start: 39 @36330 has 58 MA's), (Start: 44 @36345 has 3 MA's), (49, 36378), (53, 36396), (65, 36435), (96, 36582), (98, 36591),

Gene: StevieBAY_25 Start: 22824, Stop: 23111, Start Num: 39
Candidate Starts for StevieBAY_25:
(Start: 39 @22824 has 58 MA's), (48, 22860), (54, 22890), (62, 22920), (87, 23028), (90, 23049), (92, 23061),

Gene: Stormer_37 Start: 30499, Stop: 30771, Start Num: 29
Candidate Starts for Stormer_37:
(Start: 29 @30499 has 33 MA's), (Start: 31 @30502 has 5 MA's), (50, 30568), (51, 30571), (55, 30586), (58, 30595), (62, 30610), (78, 30670), (84, 30697), (92, 30739),

Gene: Suscepit_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Suscepit_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: TaeYoung_25 Start: 22812, Stop: 23102, Start Num: 39
Candidate Starts for TaeYoung_25:
(Start: 39 @22812 has 58 MA's), (60, 22902), (62, 22908), (87, 23016), (92, 23049), (94, 23055),

Gene: Tayonia_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Tayonia_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Tillicus_37 Start: 31585, Stop: 31857, Start Num: 29
Candidate Starts for Tillicus_37:
(Start: 29 @31585 has 33 MA's), (33, 31591), (51, 31657), (52, 31663), (59, 31684), (79, 31765),

Gene: Timinator_25 Start: 22824, Stop: 23111, Start Num: 39
Candidate Starts for Timinator_25:
(Start: 39 @22824 has 58 MA's), (48, 22860), (54, 22890), (62, 22920), (87, 23028), (90, 23049), (92, 23061),

Gene: Tophat_28 Start: 25647, Stop: 25934, Start Num: 39
Candidate Starts for Tophat_28:
(21, 25575), (Start: 38 @25644 has 13 MA's), (Start: 39 @25647 has 58 MA's), (51, 25701), (53, 25710), (54, 25713), (55, 25716), (62, 25743), (74, 25797), (79, 25821), (85, 25842), (87, 25851), (88, 25860), (90, 25872), (92, 25884), (95, 25893),

Gene: Trumpet_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Trumpet_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Wojtek_37 Start: 31844, Stop: 32116, Start Num: 29
Candidate Starts for Wojtek_37:

(Start: 29 @31844 has 33 MA's), (Start: 31 @31847 has 5 MA's), (50, 31913), (51, 31916), (55, 31931), (58, 31940), (61, 31952), (62, 31955), (78, 32015), (79, 32024), (84, 32042), (90, 32072), (92, 32084),

Gene: Wyborn_26 Start: 23201, Stop: 23473, Start Num: 39
Candidate Starts for Wyborn_26:
(Start: 39 @23201 has 58 MA's), (47, 23216), (54, 23255), (57, 23264), (62, 23285), (64, 23291), (79, 23363), (88, 23402), (92, 23426),

Gene: Yeezy_24 Start: 20724, Stop: 20975, Start Num: 39
Candidate Starts for Yeezy_24:
(Start: 39 @20724 has 58 MA's), (53, 20784), (62, 20814), (76, 20868), (84, 20901), (89, 20925), (92, 20943), (96, 20955),

Gene: Yikes_39 Start: 33227, Stop: 33496, Start Num: 31
Candidate Starts for Yikes_39:
(Start: 29 @33224 has 33 MA's), (Start: 31 @33227 has 5 MA's), (50, 33293), (51, 33296), (55, 33311), (58, 33320), (61, 33332), (62, 33335), (78, 33395), (79, 33404), (84, 33422), (90, 33452), (92, 33464),

Gene: Zameen_24 Start: 21502, Stop: 21753, Start Num: 39
Candidate Starts for Zameen_24:
(Start: 39 @21502 has 58 MA's), (53, 21562), (62, 21592), (76, 21646), (84, 21679), (89, 21703), (92, 21721), (96, 21733),

Gene: Zany_37 Start: 32749, Stop: 33021, Start Num: 29
Candidate Starts for Zany_37:
(Start: 29 @32749 has 33 MA's), (Start: 31 @32752 has 5 MA's), (50, 32818), (51, 32821), (55, 32836), (58, 32845), (61, 32857), (62, 32860), (78, 32920), (79, 32929), (84, 32947), (90, 32977), (92, 32989),

Gene: Zartrosa_25 Start: 22811, Stop: 23101, Start Num: 39
Candidate Starts for Zartrosa_25:
(Start: 39 @22811 has 58 MA's), (60, 22901), (87, 23015), (92, 23048), (94, 23054),