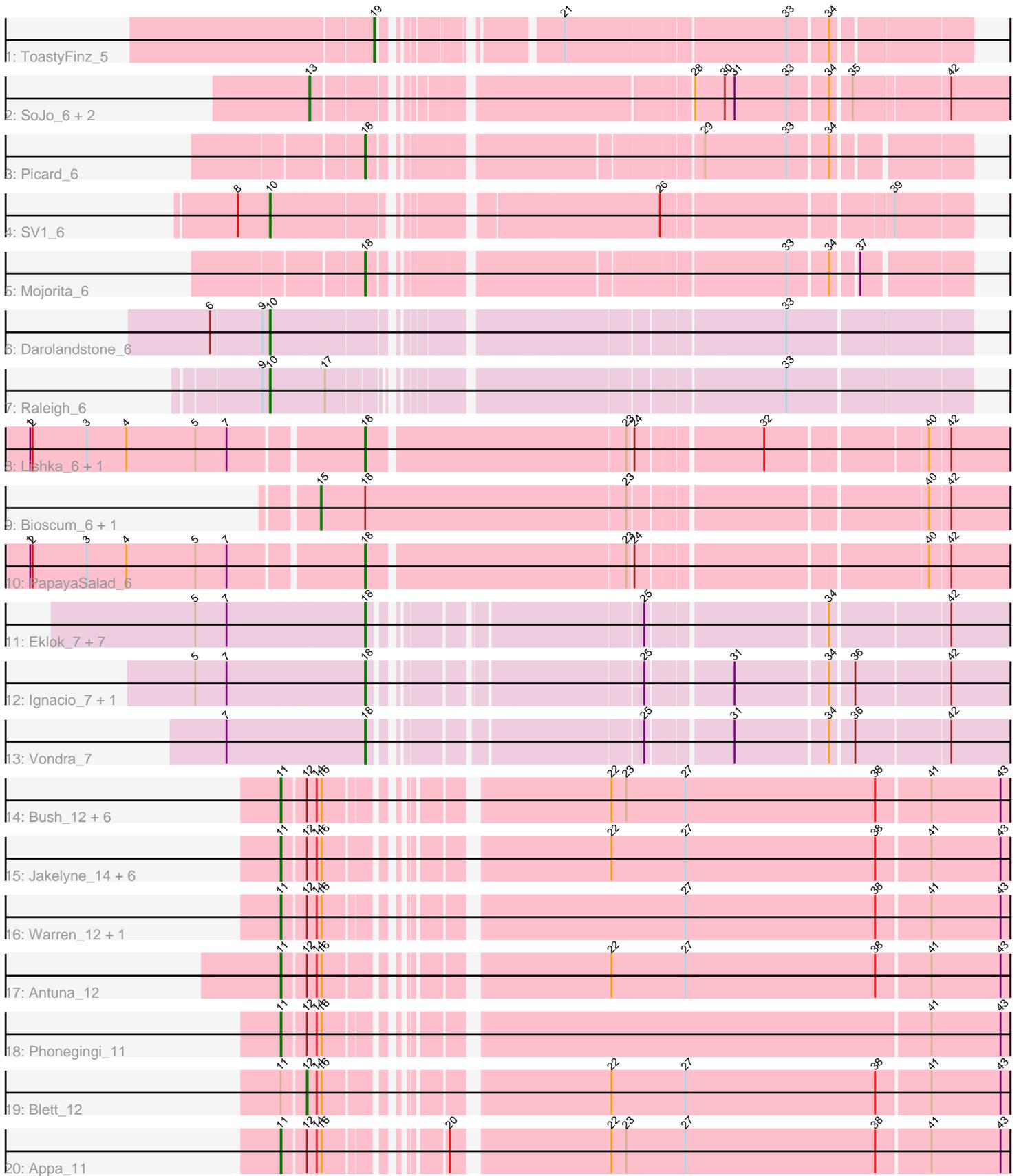# Pham 289511

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 289511 Report

This analysis was run 03/28/26 on database version 641.

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 289511 has 45 members, 10 are drafts.

Phages represented in each track:
• Track 1 : ToastyFinz_5
• Track 2 : SoJo_6, Tubberson_6, DaRealMyers_6
• Track 3 : Picard_6
• Track 4 : SV1_6
• Track 5 : Mojorita_6
• Track 6 : Darolandstone_6
• Track 7 : Raleigh_6
• Track 8 : Lishka_6, Austintatious_6
• Track 9 : Bioscum_6, Ididsumtinwong_6
• Track 10 : PapayaSalad_6
• Track 11 : Eklok_7, Piccadilly_7, FrumpyGal_7, Cumberbatch_7, AxeJC_7, Eastland_7, Schlegelian_7, ArizonaGT_7
• Track 12 : Ignacio_7, HFrancette_7
• Track 13 : Vondra_7
• Track 14 : Bush_12, PhillyJawn_12, CookieDog_12, Dropshot_11, NCRodriguez_13, Winchester007_27, Losacky_13
• Track 15 : Jakelyne_14, Guzman_13, MenE_12, Phingu_14, Mariel_15, Violeta_13, Carrillo_13
• Track 16 : Warren_12, Pickles13_11
• Track 17 : Antuna_12
• Track 18 : Phonegingi_11
• Track 19 : Blett_12
• Track 20 : Appa_11

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

The start number called the most often in the published annotations is 18, it was called in 16 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ArizonaGT_7, Austintatious_6, AxeJC_7, Cumberbatch_7, Eastland_7, Eklok_7, FrumpyGal_7, HFrancette_7, Ignacio_7, Lishka_6, Mojorita_6, PapayaSalad_6, Picard_6, Piccadilly_7, Schlegelian_7, Vondra_7,

Genes that have the "Most Annotated" start but do not call it:
• Bioscum_6, Ididsumtinwong_6,

Genes that do not have the "Most Annotated" start:
• Antuna_12, Appa_11, Blett_12, Bush_12, Carrillo_13, CookieDog_12, DaRealMyers_6, Darolandstone_6, Dropshot_11, Guzman_13, Jakelyne_14, Losacky_13, Mariel_15, MenE_12, NCRodriguez_13, PhillyJawn_12, Phingu_14, Phonegingi_11, Pickles13_11, Raleigh_6, SV1_6, SoJo_6, ToastyFinz_5, Tubberson_6, Violeta_13, Warren_12, Winchester007_27,

Summary by start number:

Start 10:
• Found in 3 of 45 (6.7%) of genes in pham
• Manual Annotations of this start: 3 of 35
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Darolandstone_6 (BC2), Raleigh_6 (BC2), SV1_6 (BC1),

Start 11:
• Found in 20 of 45 (44.4%) of genes in pham
• Manual Annotations of this start: 10 of 35
• Called 95.0% of time when present
• Phage (with cluster) where this start called: Antuna_12 (GA), Appa_11 (GA), Bush_12 (GA), Carrillo_13 (GA), CookieDog_12 (GA), Dropshot_11 (GA), Guzman_13 (GA), Jakelyne_14 (GA), Losacky_13 (GA), Mariel_15 (GA), MenE_12 (GA), NCRodriguez_13 (GA), PhillyJawn_12 (GA), Phingu_14 (GA), Phonegingi_11 (GA), Pickles13_11 (GA), Violeta_13 (GA), Warren_12 (GA), Winchester007_27 (GA),

Start 12:
• Found in 20 of 45 (44.4%) of genes in pham
• Manual Annotations of this start: 1 of 35
• Called 5.0% of time when present
• Phage (with cluster) where this start called: Blett_12 (GA),

Start 13:
• Found in 3 of 45 (6.7%) of genes in pham
• Manual Annotations of this start: 2 of 35
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DaRealMyers_6 (BC1), SoJo_6 (BC1), Tubberson_6 (BC1),

Start 15:
• Found in 2 of 45 (4.4%) of genes in pham
• Manual Annotations of this start: 2 of 35
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bioscum_6 (BC3), Ididsumtinwong_6 (BC3),

Start 18:
• Found in 18 of 45 (40.0%) of genes in pham
• Manual Annotations of this start: 16 of 35
• Called 88.9% of time when present
• Phage (with cluster) where this start called: ArizonaGT_7 (BP), Austintatious_6 (BC3), AxeJC_7 (BP), Cumberbatch_7 (BP), Eastland_7 (BP), Eklok_7 (BP), FrumpyGal_7 (BP), HFrancette_7 (BP), Ignacio_7 (BP), Lishka_6 (BC3), Mojorita_6 (BC1), PapayaSalad_6 (BC3), Picard_6 (BC1), Piccadilly_7 (BP), Schlegelian_7 (BP), Vondra_7 (BP),

Start 19:
• Found in 1 of 45 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 35
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ToastyFinz_5 (BC1),

Summary by clusters:

There are 5 clusters represented in this pham: BC2, BP, BC1, GA, BC3,

Info for manual annotations of cluster BC1:
•Start number 10 was manually annotated 1 time for cluster BC1.
•Start number 13 was manually annotated 2 times for cluster BC1.
•Start number 18 was manually annotated 2 times for cluster BC1.
•Start number 19 was manually annotated 1 time for cluster BC1.

Info for manual annotations of cluster BC2:
•Start number 10 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:
•Start number 15 was manually annotated 2 times for cluster BC3.
•Start number 18 was manually annotated 3 times for cluster BC3.

Info for manual annotations of cluster BP:
•Start number 18 was manually annotated 11 times for cluster BP.

Info for manual annotations of cluster GA:
•Start number 11 was manually annotated 10 times for cluster GA.
•Start number 12 was manually annotated 1 time for cluster GA.

Gene Information:
Gene: Antuna_12 Start: 6246, Stop: 7052, Start Num: 11
Candidate Starts for Antuna_12:
(Start: 11 @6246 has 10 MA's), (Start: 12 @6273 has 1 MA's), (14, 6285), (16, 6291), (22, 6573), (27, 6663), (38, 6894), (41, 6957), (43, 7041),

Gene: Appa_11 Start: 6111, Stop: 6914, Start Num: 11
Candidate Starts for Appa_11:

(Start: 11 @6111 has 10 MA's), (Start: 12 @6138 has 1 MA's), (14, 6150), (16, 6156), (20, 6258), (22, 6435), (23, 6453), (27, 6525), (38, 6756), (41, 6819), (43, 6903),

Gene: ArizonaGT_7 Start: 5592, Stop: 6266, Start Num: 18
Candidate Starts for ArizonaGT_7:
(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: Austintatious_6 Start: 5252, Stop: 5971, Start Num: 18
Candidate Starts for Austintatious_6:
(1, 4865), (2, 4868), (3, 4934), (4, 4982), (5, 5066), (7, 5102), (Start: 18 @5252 has 16 MA's), (23, 5555), (24, 5561), (32, 5702), (40, 5876), (42, 5900),

Gene: AxeJC_7 Start: 5605, Stop: 6279, Start Num: 18
Candidate Starts for AxeJC_7:
(5, 5407), (7, 5443), (Start: 18 @5605 has 16 MA's), (25, 5881), (34, 6079), (42, 6211),

Gene: Bioscum_6 Start: 5214, Stop: 6005, Start Num: 15
Candidate Starts for Bioscum_6:
(Start: 15 @5214 has 2 MA's), (Start: 18 @5268 has 16 MA's), (23, 5583), (40, 5910), (42, 5934),

Gene: Blett_12 Start: 6287, Stop: 7066, Start Num: 12
Candidate Starts for Blett_12:
(Start: 11 @6260 has 10 MA's), (Start: 12 @6287 has 1 MA's), (14, 6299), (16, 6305), (22, 6587), (27, 6677), (38, 6908), (41, 6971), (43, 7055),

Gene: Bush_12 Start: 6255, Stop: 7058, Start Num: 11
Candidate Starts for Bush_12:
(Start: 11 @6255 has 10 MA's), (Start: 12 @6282 has 1 MA's), (14, 6294), (16, 6300), (22, 6579), (23, 6597), (27, 6669), (38, 6900), (41, 6963), (43, 7047),

Gene: Carrillo_13 Start: 6215, Stop: 7021, Start Num: 11
Candidate Starts for Carrillo_13:
(Start: 11 @6215 has 10 MA's), (Start: 12 @6242 has 1 MA's), (14, 6254), (16, 6260), (22, 6542), (27, 6632), (38, 6863), (41, 6926), (43, 7010),

Gene: CookieDog_12 Start: 6255, Stop: 7058, Start Num: 11
Candidate Starts for CookieDog_12:
(Start: 11 @6255 has 10 MA's), (Start: 12 @6282 has 1 MA's), (14, 6294), (16, 6300), (22, 6579), (23, 6597), (27, 6669), (38, 6900), (41, 6963), (43, 7047),

Gene: Cumberbatch_7 Start: 5592, Stop: 6266, Start Num: 18
Candidate Starts for Cumberbatch_7:
(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: DaRealMyers_6 Start: 5536, Stop: 6282, Start Num: 13
Candidate Starts for DaRealMyers_6:
(Start: 13 @5536 has 2 MA's), (28, 5926), (30, 5962), (31, 5974), (33, 6037), (34, 6079), (35, 6100), (42, 6211),

Gene: Darolandstone_6 Start: 5453, Stop: 6211, Start Num: 10
Candidate Starts for Darolandstone_6:
(6, 5384), (9, 5444), (Start: 10 @5453 has 3 MA's), (33, 5999),

Gene: Dropshot_11 Start: 6111, Stop: 6914, Start Num: 11
Candidate Starts for Dropshot_11:
(Start: 11 @6111 has 10 MA's), (Start: 12 @6138 has 1 MA's), (14, 6150), (16, 6156), (22, 6435), (23, 6453), (27, 6525), (38, 6756), (41, 6819), (43, 6903),

Gene: Eastland_7 Start: 5593, Stop: 6267, Start Num: 18
Candidate Starts for Eastland_7:
(5, 5395), (7, 5431), (Start: 18 @5593 has 16 MA's), (25, 5869), (34, 6067), (42, 6199),

Gene: Eklok_7 Start: 5605, Stop: 6279, Start Num: 18
Candidate Starts for Eklok_7:
(5, 5407), (7, 5443), (Start: 18 @5605 has 16 MA's), (25, 5881), (34, 6079), (42, 6211),

Gene: FrumpyGal_7 Start: 5593, Stop: 6267, Start Num: 18
Candidate Starts for FrumpyGal_7:
(5, 5395), (7, 5431), (Start: 18 @5593 has 16 MA's), (25, 5869), (34, 6067), (42, 6199),

Gene: Guzman_13 Start: 6526, Stop: 7329, Start Num: 11
Candidate Starts for Guzman_13:
(Start: 11 @6526 has 10 MA's), (Start: 12 @6553 has 1 MA's), (14, 6565), (16, 6571), (22, 6850), (27, 6940), (38, 7171), (41, 7234), (43, 7318),

Gene: HFrancette_7 Start: 5597, Stop: 6271, Start Num: 18
Candidate Starts for HFrancette_7:
(5, 5399), (7, 5435), (Start: 18 @5597 has 16 MA's), (25, 5873), (31, 5966), (34, 6071), (36, 6095), (42, 6203),

Gene: Ididsumtinwong_6 Start: 5214, Stop: 6005, Start Num: 15
Candidate Starts for Ididsumtinwong_6:
(Start: 15 @5214 has 2 MA's), (Start: 18 @5268 has 16 MA's), (23, 5583), (40, 5910), (42, 5934),

Gene: Ignacio_7 Start: 5597, Stop: 6271, Start Num: 18
Candidate Starts for Ignacio_7:
(5, 5399), (7, 5435), (Start: 18 @5597 has 16 MA's), (25, 5873), (31, 5966), (34, 6071), (36, 6095), (42, 6203),

Gene: Jakelyne_14 Start: 6259, Stop: 7065, Start Num: 11
Candidate Starts for Jakelyne_14:
(Start: 11 @6259 has 10 MA's), (Start: 12 @6286 has 1 MA's), (14, 6298), (16, 6304), (22, 6586), (27, 6676), (38, 6907), (41, 6970), (43, 7054),

Gene: Lishka_6 Start: 5252, Stop: 5971, Start Num: 18
Candidate Starts for Lishka_6:
(1, 4865), (2, 4868), (3, 4934), (4, 4982), (5, 5066), (7, 5102), (Start: 18 @5252 has 16 MA's), (23, 5555), (24, 5561), (32, 5702), (40, 5876), (42, 5900),

Gene: Losacky_13 Start: 6401, Stop: 7204, Start Num: 11
Candidate Starts for Losacky_13:
(Start: 11 @6401 has 10 MA's), (Start: 12 @6428 has 1 MA's), (14, 6440), (16, 6446), (22, 6725), (23, 6743), (27, 6815), (38, 7046), (41, 7109), (43, 7193),

Gene: Mariel_15 Start: 6419, Stop: 7225, Start Num: 11
Candidate Starts for Mariel_15:

(Start: 11 @6419 has 10 MA's), (Start: 12 @6446 has 1 MA's), (14, 6458), (16, 6464), (22, 6746), (27, 6836), (38, 7067), (41, 7130), (43, 7214),

Gene: MenE_12 Start: 6376, Stop: 7182, Start Num: 11
Candidate Starts for MenE_12:
(Start: 11 @6376 has 10 MA's), (Start: 12 @6403 has 1 MA's), (14, 6415), (16, 6421), (22, 6703), (27, 6793), (38, 7024), (41, 7087), (43, 7171),

Gene: Mojorita_6 Start: 5599, Stop: 6231, Start Num: 18
Candidate Starts for Mojorita_6:
(Start: 18 @5599 has 16 MA's), (33, 6040), (34, 6082), (37, 6106),

Gene: NCRodriguez_13 Start: 6379, Stop: 7182, Start Num: 11
Candidate Starts for NCRodriguez_13:
(Start: 11 @6379 has 10 MA's), (Start: 12 @6406 has 1 MA's), (14, 6418), (16, 6424), (22, 6703), (23, 6721), (27, 6793), (38, 7024), (41, 7087), (43, 7171),

Gene: PapayaSalad_6 Start: 5252, Stop: 5977, Start Num: 18
Candidate Starts for PapayaSalad_6:
(1, 4865), (2, 4868), (3, 4934), (4, 4982), (5, 5066), (7, 5102), (Start: 18 @5252 has 16 MA's), (23, 5555), (24, 5561), (40, 5882), (42, 5906),

Gene: PhillyJawn_12 Start: 6111, Stop: 6914, Start Num: 11
Candidate Starts for PhillyJawn_12:
(Start: 11 @6111 has 10 MA's), (Start: 12 @6138 has 1 MA's), (14, 6150), (16, 6156), (22, 6435), (23, 6453), (27, 6525), (38, 6756), (41, 6819), (43, 6903),

Gene: Phingu_14 Start: 6266, Stop: 7072, Start Num: 11
Candidate Starts for Phingu_14:
(Start: 11 @6266 has 10 MA's), (Start: 12 @6293 has 1 MA's), (14, 6305), (16, 6311), (22, 6593), (27, 6683), (38, 6914), (41, 6977), (43, 7061),

Gene: Phonegingi_11 Start: 6105, Stop: 6908, Start Num: 11
Candidate Starts for Phonegingi_11:
(Start: 11 @6105 has 10 MA's), (Start: 12 @6132 has 1 MA's), (14, 6144), (16, 6150), (41, 6813), (43, 6897),

Gene: Picard_6 Start: 5599, Stop: 6231, Start Num: 18
Candidate Starts for Picard_6:
(Start: 18 @5599 has 16 MA's), (29, 5941), (33, 6040), (34, 6082),

Gene: Piccadilly_7 Start: 5592, Stop: 6266, Start Num: 18
Candidate Starts for Piccadilly_7:
(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: Pickles13_11 Start: 6248, Stop: 7060, Start Num: 11
Candidate Starts for Pickles13_11:
(Start: 11 @6248 has 10 MA's), (Start: 12 @6275 has 1 MA's), (14, 6287), (16, 6293), (27, 6671), (38, 6902), (41, 6965), (43, 7049),

Gene: Raleigh_6 Start: 5425, Stop: 6174, Start Num: 10
Candidate Starts for Raleigh_6:
(9, 5416), (Start: 10 @5425 has 3 MA's), (17, 5488), (33, 5962),

Gene: SV1_6 Start: 5267, Stop: 6019, Start Num: 10
Candidate Starts for SV1_6:
(8, 5228), (Start: 10 @5267 has 3 MA's), (26, 5675), (39, 5927),

Gene: Schlegelian_7 Start: 5592, Stop: 6266, Start Num: 18
Candidate Starts for Schlegelian_7:
(5, 5394), (7, 5430), (Start: 18 @5592 has 16 MA's), (25, 5868), (34, 6066), (42, 6198),

Gene: SoJo_6 Start: 5536, Stop: 6282, Start Num: 13
Candidate Starts for SoJo_6:
(Start: 13 @5536 has 2 MA's), (28, 5926), (30, 5962), (31, 5974), (33, 6037), (34, 6079), (35, 6100),
(42, 6211),

Gene: ToastyFinz_5 Start: 5393, Stop: 6004, Start Num: 19
Candidate Starts for ToastyFinz_5:
(Start: 19 @5393 has 1 MA's), (21, 5549), (33, 5807), (34, 5849),

Gene: Tubberson_6 Start: 5536, Stop: 6282, Start Num: 13
Candidate Starts for Tubberson_6:
(Start: 13 @5536 has 2 MA's), (28, 5926), (30, 5962), (31, 5974), (33, 6037), (34, 6079), (35, 6100),
(42, 6211),

Gene: Violeta_13 Start: 6206, Stop: 7012, Start Num: 11
Candidate Starts for Violeta_13:
(Start: 11 @6206 has 10 MA's), (Start: 12 @6233 has 1 MA's), (14, 6245), (16, 6251), (22, 6533), (27,
6623), (38, 6854), (41, 6917), (43, 7001),

Gene: Vondra_7 Start: 5594, Stop: 6271, Start Num: 18
Candidate Starts for Vondra_7:
(7, 5432), (Start: 18 @5594 has 16 MA's), (25, 5873), (31, 5966), (34, 6071), (36, 6095), (42, 6203),

Gene: Warren_12 Start: 6290, Stop: 7093, Start Num: 11
Candidate Starts for Warren_12:
(Start: 11 @6290 has 10 MA's), (Start: 12 @6317 has 1 MA's), (14, 6329), (16, 6335), (27, 6704), (38,
6935), (41, 6998), (43, 7082),

Gene: Winchester007_27 Start: 12228, Stop: 13031, Start Num: 11
Candidate Starts for Winchester007_27:
(Start: 11 @12228 has 10 MA's), (Start: 12 @12255 has 1 MA's), (14, 12267), (16, 12273), (22, 12552),
(23, 12570), (27, 12642), (38, 12873), (41, 12936), (43, 13020),