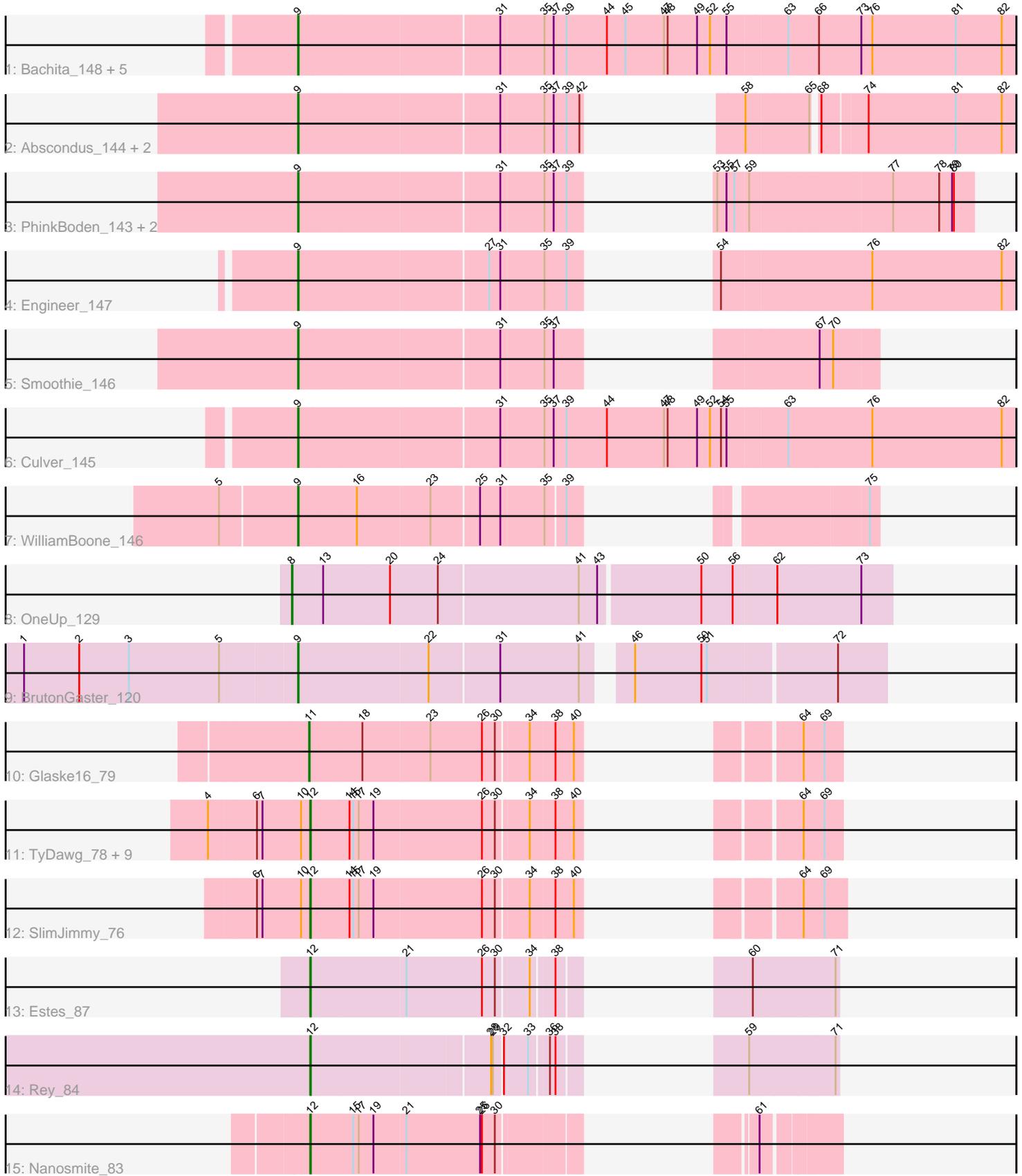# Pham 291376

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 291376 Report

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

Pham number 291376 has 33 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Bachita_148, Lozinak_145, ClubL_145, Toniann_145, Norvs_143, Cucurbita_144
• Track 2 : Abscondus_144, Geeche_146, Dusty_143
• Track 3 : PhinkBoden_143, Aphelion_144, Miskis_139
• Track 4 : Engineer_147
• Track 5 : Smoothie_146
• Track 6 : Culver_145
• Track 7 : WilliamBoone_146
• Track 8 : OneUp_129
• Track 9 : BrutonGaster_120
• Track 10 : Glaske16_79
• Track 11 : TyDawg_78, Skinny_81, LilhomieP_78, Dulcita_79, IPhane7_77, Diminimus_79, Bongo_78, Bricole_76, Auspice_78, Izel_79
• Track 12 : SlimJimmy_76
• Track 13 : Estes_87
• Track 14 : Rey_84
• Track 15 : Nanosmite_83

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

The start number called the most often in the published annotations is 9, it was called in 16 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abscondus_144, Aphelion_144, Bachita_148, BrutonGaster_120, ClubL_145, Cucurbita_144, Culver_145, Dusty_143, Engineer_147, Geeche_146, Lozinak_145, Miskis_139, Norvs_143, PhinkBoden_143, Smoothie_146, Toniann_145, WilliamBoone_146,

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

Genes that do not have the "Most Annotated" start:

• Auspice_78, Bongo_78, Bricole_76, Diminimus_79, Dulcita_79, Estes_87, Glaske16_79, IPhane7_77, Izel_79, LilhomieP_78, Nanosmite_83, OneUp_129, Rey_84, Skinny_81, SlimJimmy_76, TyDawg_78,

Summary by start number:

Start 8:
• Found in 1 of 33 (3.0%) of genes in pham
• Manual Annotations of this start: 1 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: OneUp_129 (CQ2),

Start 9:
• Found in 17 of 33 (51.5%) of genes in pham
• Manual Annotations of this start: 16 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abscondus_144 (CQ1), Aphelion_144 (CQ1), Bachita_148 (CQ1), BrutonGaster_120 (CQ2), ClubL_145 (CQ1), Cucurbita_144 (CQ1), Culver_145 (CQ1), Dusty_143 (CQ1), Engineer_147 (CQ1), Geeche_146 (CQ1), Lozinak_145 (CQ1), Miskis_139 (CQ1), Norvs_143 (CQ1), PhinkBoden_143 (CQ1), Smoothie_146 (CQ1), Toniann_145 (CQ1), WilliamBoone_146 (CQ1),

Start 11:
• Found in 1 of 33 (3.0%) of genes in pham
• Manual Annotations of this start: 1 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Glaske16_79 (M1),

Start 12:
• Found in 14 of 33 (42.4%) of genes in pham
• Manual Annotations of this start: 14 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Auspice_78 (M1), Bongo_78 (M1), Bricole_76 (M1), Diminimus_79 (M1), Dulcita_79 (M1), Estes_87 (M2), IPhane7_77 (M1), Izel_79 (M1), LilhomieP_78 (M1), Nanosmite_83 (M3), Rey_84 (M2), Skinny_81 (M1), SlimJimmy_76 (M1), TyDawg_78 (M1),

Summary by clusters:

There are 5 clusters represented in this pham: CQ2, CQ1, M1, M3, M2,

Info for manual annotations of cluster CQ1:
•Start number 9 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:
•Start number 8 was manually annotated 1 time for cluster CQ2.
•Start number 9 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster M1:
•Start number 11 was manually annotated 1 time for cluster M1.
•Start number 12 was manually annotated 11 times for cluster M1.

Info for manual annotations of cluster M2:
•Start number 12 was manually annotated 2 times for cluster M2.

Info for manual annotations of cluster M3:
•Start number 12 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: Abscondus_144 Start: 78207, Stop: 79091, Start Num: 9
Candidate Starts for Abscondus_144:
(Start: 9 @78207 has 16 MA's), (31, 78519), (35, 78585), (37, 78600), (39, 78621), (42, 78642), (58, 78687), (65, 78780), (68, 78786), (74, 78855), (81, 78993), (82, 79068),

Gene: Aphelion_144 Start: 79132, Stop: 79980, Start Num: 9
Candidate Starts for Aphelion_144:
(Start: 9 @79132 has 16 MA's), (31, 79444), (35, 79510), (37, 79525), (39, 79546), (53, 79579), (55, 79594), (57, 79606), (59, 79627), (77, 79849), (78, 79924), (79, 79945), (80, 79948),

Gene: Auspice_78 Start: 49587, Stop: 50189, Start Num: 12
Candidate Starts for Auspice_78:
(4, 49428), (6, 49500), (7, 49509), (10, 49572), (Start: 12 @49587 has 14 MA's), (14, 49647), (15, 49653), (17, 49662), (19, 49686), (26, 49860), (30, 49881), (34, 49929), (38, 49965), (40, 49995), (64, 50133), (69, 50163),

Gene: Bachita_148 Start: 78997, Stop: 80130, Start Num: 9
Candidate Starts for Bachita_148:
(Start: 9 @78997 has 16 MA's), (31, 79309), (35, 79375), (37, 79390), (39, 79411), (44, 79477), (45, 79507), (47, 79570), (48, 79576), (49, 79624), (52, 79645), (55, 79672), (63, 79765), (66, 79810), (73, 79879), (76, 79897), (81, 80032), (82, 80107),

Gene: Bongo_78 Start: 49591, Stop: 50193, Start Num: 12
Candidate Starts for Bongo_78:
(4, 49432), (6, 49504), (7, 49513), (10, 49576), (Start: 12 @49591 has 14 MA's), (14, 49651), (15, 49657), (17, 49666), (19, 49690), (26, 49864), (30, 49885), (34, 49933), (38, 49969), (40, 49999), (64, 50137), (69, 50167),

Gene: Bricole_76 Start: 49076, Stop: 49687, Start Num: 12
Candidate Starts for Bricole_76:
(4, 48917), (6, 48989), (7, 48998), (10, 49061), (Start: 12 @49076 has 14 MA's), (14, 49136), (15, 49142), (17, 49151), (19, 49175), (26, 49349), (30, 49370), (34, 49418), (38, 49454), (40, 49484), (64, 49622), (69, 49652),

Gene: BrutonGaster_120 Start: 72413, Stop: 73297, Start Num: 9
Candidate Starts for BrutonGaster_120:
(1, 71975), (2, 72065), (3, 72146), (5, 72293), (Start: 9 @72413 has 16 MA's), (22, 72617), (31, 72725), (41, 72851), (46, 72905), (50, 73013), (51, 73022), (72, 73220),

Gene: ClubL_145 Start: 77571, Stop: 78704, Start Num: 9
Candidate Starts for ClubL_145:
(Start: 9 @77571 has 16 MA's), (31, 77883), (35, 77949), (37, 77964), (39, 77985), (44, 78051), (45, 78081), (47, 78144), (48, 78150), (49, 78198), (52, 78219), (55, 78246), (63, 78339), (66, 78384), (73,

78453), (76, 78471), (81, 78606), (82, 78681),

Gene: Cucurbita_144 Start: 79310, Stop: 80443, Start Num: 9
Candidate Starts for Cucurbita_144:
(Start: 9 @79310 has 16 MA's), (31, 79622), (35, 79688), (37, 79703), (39, 79724), (44, 79790), (45, 79820), (47, 79883), (48, 79889), (49, 79937), (52, 79958), (55, 79985), (63, 80078), (66, 80123), (73, 80192), (76, 80210), (81, 80345), (82, 80420),

Gene: Culver_145 Start: 77574, Stop: 78707, Start Num: 9
Candidate Starts for Culver_145:
(Start: 9 @77574 has 16 MA's), (31, 77886), (35, 77952), (37, 77967), (39, 77988), (44, 78054), (47, 78147), (48, 78153), (49, 78201), (52, 78222), (54, 78240), (55, 78249), (63, 78342), (76, 78474), (82, 78684),

Gene: Diminimus_79 Start: 49586, Stop: 50188, Start Num: 12
Candidate Starts for Diminimus_79:
(4, 49427), (6, 49499), (7, 49508), (10, 49571), (Start: 12 @49586 has 14 MA's), (14, 49646), (15, 49652), (17, 49661), (19, 49685), (26, 49859), (30, 49880), (34, 49928), (38, 49964), (40, 49994), (64, 50132), (69, 50162),

Gene: Dulcita_79 Start: 49587, Stop: 50189, Start Num: 12
Candidate Starts for Dulcita_79:
(4, 49428), (6, 49500), (7, 49509), (10, 49572), (Start: 12 @49587 has 14 MA's), (14, 49647), (15, 49653), (17, 49662), (19, 49686), (26, 49860), (30, 49881), (34, 49929), (38, 49965), (40, 49995), (64, 50133), (69, 50163),

Gene: Dusty_143 Start: 78034, Stop: 78918, Start Num: 9
Candidate Starts for Dusty_143:
(Start: 9 @78034 has 16 MA's), (31, 78346), (35, 78412), (37, 78427), (39, 78448), (42, 78469), (58, 78514), (65, 78607), (68, 78613), (74, 78682), (81, 78820), (82, 78895),

Gene: Engineer_147 Start: 79046, Stop: 79966, Start Num: 9
Candidate Starts for Engineer_147:
(Start: 9 @79046 has 16 MA's), (27, 79340), (31, 79358), (35, 79424), (39, 79460), (54, 79499), (76, 79733), (82, 79943),

Gene: Estes_87 Start: 51851, Stop: 52453, Start Num: 12
Candidate Starts for Estes_87:
(Start: 12 @51851 has 14 MA's), (21, 52001), (26, 52124), (30, 52145), (34, 52193), (38, 52226), (60, 52325), (71, 52448),

Gene: Geeche_146 Start: 78460, Stop: 79344, Start Num: 9
Candidate Starts for Geeche_146:
(Start: 9 @78460 has 16 MA's), (31, 78772), (35, 78838), (37, 78853), (39, 78874), (42, 78895), (58, 78940), (65, 79033), (68, 79039), (74, 79108), (81, 79246), (82, 79321),

Gene: Glaske16_79 Start: 49651, Stop: 50253, Start Num: 11
Candidate Starts for Glaske16_79:
(Start: 11 @49651 has 1 MA's), (18, 49732), (23, 49840), (26, 49924), (30, 49945), (34, 49993), (38, 50029), (40, 50059), (64, 50197), (69, 50227),

Gene: IPhane7_77 Start: 49591, Stop: 50193, Start Num: 12
Candidate Starts for IPhane7_77:

(4, 49432), (6, 49504), (7, 49513), (10, 49576), (Start: 12 @49591 has 14 MA's), (14, 49651), (15, 49657), (17, 49666), (19, 49690), (26, 49864), (30, 49885), (34, 49933), (38, 49969), (40, 49999), (64, 50137), (69, 50167),

Gene: Izel_79 Start: 49586, Stop: 50188, Start Num: 12
Candidate Starts for Izel_79:
(4, 49427), (6, 49499), (7, 49508), (10, 49571), (Start: 12 @49586 has 14 MA's), (14, 49646), (15, 49652), (17, 49661), (19, 49685), (26, 49859), (30, 49880), (34, 49928), (38, 49964), (40, 49994), (64, 50132), (69, 50162),

Gene: LilhomieP_78 Start: 50070, Stop: 50672, Start Num: 12
Candidate Starts for LilhomieP_78:
(4, 49911), (6, 49983), (7, 49992), (10, 50055), (Start: 12 @50070 has 14 MA's), (14, 50130), (15, 50136), (17, 50145), (19, 50169), (26, 50343), (30, 50364), (34, 50412), (38, 50448), (40, 50478), (64, 50616), (69, 50646),

Gene: Lozinak_145 Start: 78838, Stop: 79971, Start Num: 9
Candidate Starts for Lozinak_145:
(Start: 9 @78838 has 16 MA's), (31, 79150), (35, 79216), (37, 79231), (39, 79252), (44, 79318), (45, 79348), (47, 79411), (48, 79417), (49, 79465), (52, 79486), (55, 79513), (63, 79606), (66, 79651), (73, 79720), (76, 79738), (81, 79873), (82, 79948),

Gene: Miskis_139 Start: 77881, Stop: 78729, Start Num: 9
Candidate Starts for Miskis_139:
(Start: 9 @77881 has 16 MA's), (31, 78193), (35, 78259), (37, 78274), (39, 78295), (53, 78328), (55, 78343), (57, 78355), (59, 78376), (77, 78598), (78, 78673), (79, 78694), (80, 78697),

Gene: Nanosmite_83 Start: 51032, Stop: 51622, Start Num: 12
Candidate Starts for Nanosmite_83:
(Start: 12 @51032 has 14 MA's), (15, 51098), (17, 51107), (19, 51128), (21, 51179), (25, 51299), (26, 51302), (30, 51323), (61, 51509),

Gene: Norvs_143 Start: 78029, Stop: 79162, Start Num: 9
Candidate Starts for Norvs_143:
(Start: 9 @78029 has 16 MA's), (31, 78341), (35, 78407), (37, 78422), (39, 78443), (44, 78509), (45, 78539), (47, 78602), (48, 78608), (49, 78656), (52, 78677), (55, 78704), (63, 78797), (66, 78842), (73, 78911), (76, 78929), (81, 79064), (82, 79139),

Gene: OneUp_129 Start: 76870, Stop: 77817, Start Num: 8
Candidate Starts for OneUp_129:
(Start: 8 @76870 has 1 MA's), (13, 76921), (20, 77029), (24, 77107), (41, 77326), (43, 77356), (50, 77515), (56, 77566), (62, 77635), (73, 77767),

Gene: PhinkBoden_143 Start: 78709, Stop: 79557, Start Num: 9
Candidate Starts for PhinkBoden_143:
(Start: 9 @78709 has 16 MA's), (31, 79021), (35, 79087), (37, 79102), (39, 79123), (53, 79156), (55, 79171), (57, 79183), (59, 79204), (77, 79426), (78, 79501), (79, 79522), (80, 79525),

Gene: Rey_84 Start: 51185, Stop: 51778, Start Num: 12
Candidate Starts for Rey_84:
(Start: 12 @51185 has 14 MA's), (28, 51464), (29, 51467), (32, 51479), (33, 51512), (36, 51539), (38, 51548), (59, 51644), (71, 51773),

Gene: Skinny_81 Start: 50499, Stop: 51101, Start Num: 12
Candidate Starts for Skinny_81:
(4, 50340), (6, 50412), (7, 50421), (10, 50484), (Start: 12 @50499 has 14 MA's), (14, 50559), (15, 50565), (17, 50574), (19, 50598), (26, 50772), (30, 50793), (34, 50841), (38, 50877), (40, 50907), (64, 51045), (69, 51075),

Gene: SlimJimmy_76 Start: 49649, Stop: 50260, Start Num: 12
Candidate Starts for SlimJimmy_76:
(6, 49562), (7, 49571), (10, 49634), (Start: 12 @49649 has 14 MA's), (14, 49709), (15, 49715), (17, 49724), (19, 49748), (26, 49922), (30, 49943), (34, 49991), (38, 50027), (40, 50057), (64, 50195), (69, 50225),

Gene: Smoothie_146 Start: 78850, Stop: 79545, Start Num: 9
Candidate Starts for Smoothie_146:
(Start: 9 @78850 has 16 MA's), (31, 79162), (35, 79228), (37, 79243), (67, 79456), (70, 79477),

Gene: Toniann_145 Start: 78170, Stop: 79303, Start Num: 9
Candidate Starts for Toniann_145:
(Start: 9 @78170 has 16 MA's), (31, 78482), (35, 78548), (37, 78563), (39, 78584), (44, 78650), (45, 78680), (47, 78743), (48, 78749), (49, 78797), (52, 78818), (55, 78845), (63, 78938), (66, 78983), (73, 79052), (76, 79070), (81, 79205), (82, 79280),

Gene: TyDawg_78 Start: 49591, Stop: 50193, Start Num: 12
Candidate Starts for TyDawg_78:
(4, 49432), (6, 49504), (7, 49513), (10, 49576), (Start: 12 @49591 has 14 MA's), (14, 49651), (15, 49657), (17, 49666), (19, 49690), (26, 49864), (30, 49885), (34, 49933), (38, 49969), (40, 49999), (64, 50137), (69, 50167),

Gene: WilliamBoone_146 Start: 76888, Stop: 77556, Start Num: 9
Candidate Starts for WilliamBoone_146:
(5, 76765), (Start: 9 @76888 has 16 MA's), (16, 76978), (23, 77095), (25, 77167), (31, 77200), (35, 77266), (39, 77296), (75, 77542),