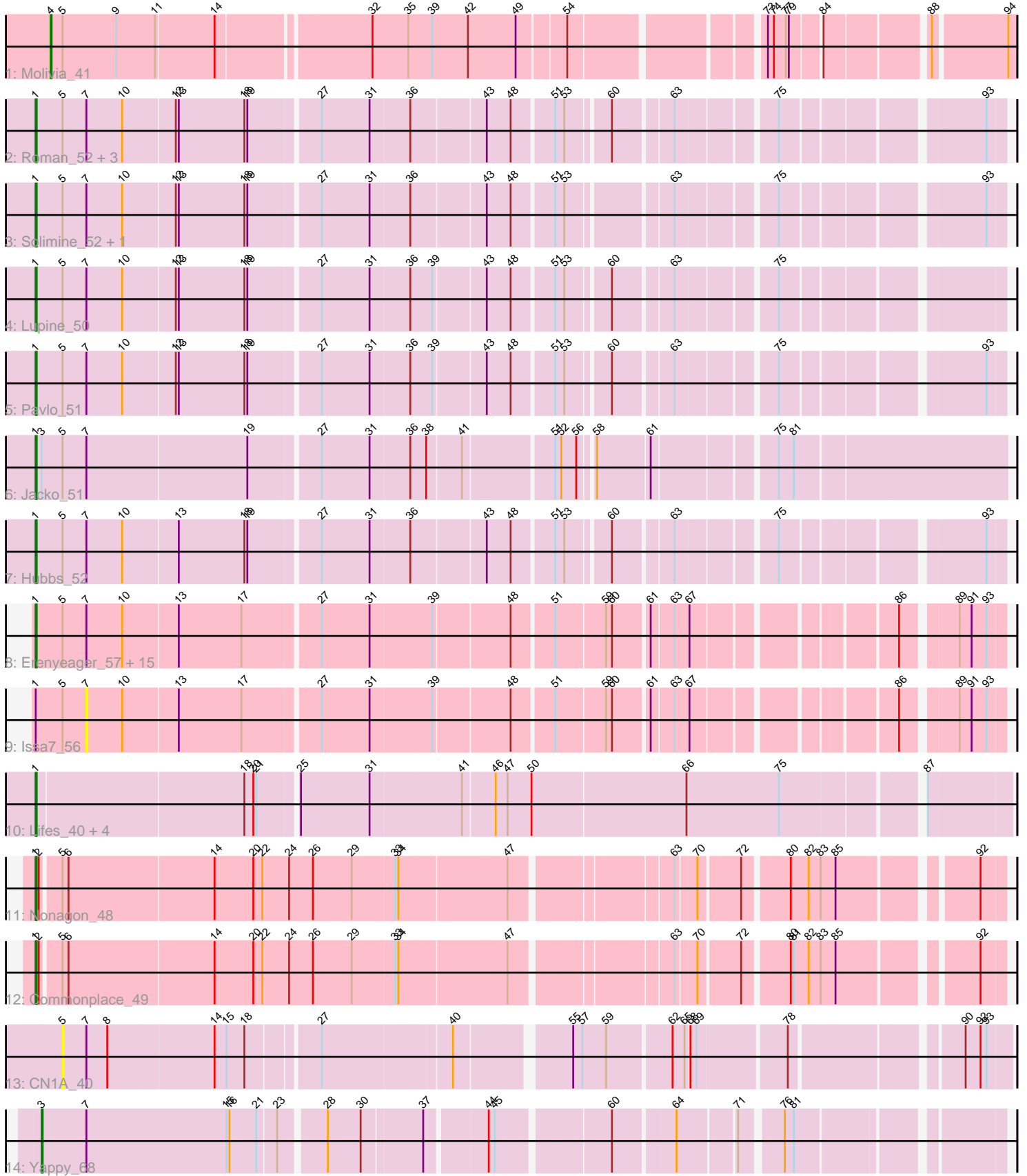


Pham 308914



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 308914 Report

This analysis was run 06/27/26 on database version 652.

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 308914 has 37 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Molivia\_41
- Track 2 : Roman\_52, Uterion\_54, Saradis\_52, DejaVu\_53
- Track 3 : Solimine\_52, PhillyPhilly\_51
- Track 4 : Lupine\_50
- Track 5 : Pavlo\_51
- Track 6 : Jacko\_51
- Track 7 : Hubbs\_52
- Track 8 : Erenyeager\_57, RunningBrook\_58, Fork\_53, StevieWelch\_57, Shroomer\_61, SteakFry\_59, Necrophoxinus\_59, DustyDino\_60, Yuma\_56, HollowPurple\_58, Casablanacas\_58, Deschain\_58, Welcome\_58, Musetta\_57, Lyell\_57, ASegato\_56
- Track 9 : Issa7\_56
- Track 10 : Lifes\_40, BarnCat\_38, Cassita\_44, WaterT\_43, LeeroyJenkins\_45
- Track 11 : Nonagon\_48
- Track 12 : Commonplace\_49
- Track 13 : CN1A\_40
- Track 14 : Yappy\_68

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

The start number called the most often in the published annotations is 1, it was called in 29 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASegato\_56, BarnCat\_38, Casablanacas\_58, Cassita\_44, Commonplace\_49, DejaVu\_53, Deschain\_58, DustyDino\_60, Erenyeager\_57, Fork\_53, HollowPurple\_58, Hubbs\_52, Jacko\_51, LeeroyJenkins\_45, Lifes\_40, Lupine\_50, Lyell\_57, Musetta\_57, Necrophoxinus\_59, Nonagon\_48, Pavlo\_51, PhillyPhilly\_51, Roman\_52, RunningBrook\_58, Saradis\_52, Shroomer\_61, Solimine\_52, SteakFry\_59, StevieWelch\_57, Uterion\_54, WaterT\_43, Welcome\_58, Yuma\_56,

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

- Issa7\_56,

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

- CN1A\_40, Molivia\_41, Yappy\_68,

### Summary by start number:

Start 1:

- Found in 34 of 37 ( 91.9% ) of genes in pham
- Manual Annotations of this start: 29 of 31
- Called 97.1% of time when present
- Phage (with cluster) where this start called: ASegato\_56 (ED2), BarnCat\_38 (GB), Casablanco\_58 (ED2), Cassita\_44 (GB), Commonplace\_49 (JD), DejaVu\_53 (ED1), Deschain\_58 (ED2), DustyDino\_60 (ED2), Erenyeager\_57 (ED2), Fork\_53 (ED2), HollowPurple\_58 (ED2), Hubbs\_52 (ED1), Jacko\_51 (ED1), LeeroyJenkins\_45 (GB), Lifes\_40 (GB), Lupine\_50 (ED1), Lyell\_57 (ED2), Musetta\_57 (ED2), Necrophoxinus\_59 (ED2), Nonagon\_48 (JD), Pavlo\_51 (ED1), PhillyPhilly\_51 (ED1), Roman\_52 (ED1), RunningBrook\_58 (ED2), Saradis\_52 (ED1), Shroomer\_61 (ED2), Solimine\_52 (ED1), SteakFry\_59 (ED2), StevieWelch\_57 (ED2), Uterion\_54 (ED1), WaterT\_43 (GB), Welcome\_58 (ED2), Yuma\_56 (ED2),

Start 3:

- Found in 2 of 37 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Yappy\_68 (singleton),

Start 4:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Molivia\_41 (AQ),

Start 5:

- Found in 31 of 37 ( 83.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.2% of time when present
- Phage (with cluster) where this start called: CN1A\_40 (singleton),

Start 7:

- Found in 29 of 37 ( 78.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.4% of time when present
- Phage (with cluster) where this start called: Issa7\_56 (ED2),

### Summary by clusters:

There are 6 clusters represented in this pham: AQ, singleton, ED2, ED1, GB, JD,

Info for manual annotations of cluster AQ:

- Start number 4 was manually annotated 1 time for cluster AQ.

Info for manual annotations of cluster ED1:

- Start number 1 was manually annotated 7 times for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 1 was manually annotated 15 times for cluster ED2.

Info for manual annotations of cluster GB:

- Start number 1 was manually annotated 5 times for cluster GB.

Info for manual annotations of cluster JD:

- Start number 1 was manually annotated 2 times for cluster JD.

### **Gene Information:**

Gene: ASegato\_56 Start: 30433, Stop: 31311, Start Num: 1

Candidate Starts for ASegato\_56:

(Start: 1 @30433 has 29 MA's), (5, 30460), (7, 30484), (10, 30520), (13, 30574), (17, 30637), (27, 30709), (31, 30757), (39, 30817), (48, 30889), (51, 30928), (59, 30976), (60, 30982), (61, 31015), (63, 31036), (67, 31048), (86, 31219), (89, 31267), (91, 31279), (93, 31294),

Gene: BarnCat\_38 Start: 23070, Stop: 23999, Start Num: 1

Candidate Starts for BarnCat\_38:

(Start: 1 @23070 has 29 MA's), (18, 23274), (20, 23283), (21, 23286), (25, 23322), (31, 23391), (41, 23481), (46, 23511), (47, 23523), (50, 23547), (66, 23700), (75, 23793), (87, 23919),

Gene: CN1A\_40 Start: 26610, Stop: 25744, Start Num: 5

Candidate Starts for CN1A\_40:

(5, 26610), (7, 26586), (8, 26565), (14, 26460), (15, 26448), (18, 26430), (27, 26364), (40, 26241), (55, 26139), (57, 26130), (59, 26106), (62, 26046), (65, 26034), (68, 26031), (69, 26025), (78, 25941), (90, 25788), (92, 25773), (93, 25767),

Gene: Casablanclas\_58 Start: 30173, Stop: 31051, Start Num: 1

Candidate Starts for Casablanclas\_58:

(Start: 1 @30173 has 29 MA's), (5, 30200), (7, 30224), (10, 30260), (13, 30314), (17, 30377), (27, 30449), (31, 30497), (39, 30557), (48, 30629), (51, 30668), (59, 30716), (60, 30722), (61, 30755), (63, 30776), (67, 30788), (86, 30959), (89, 31007), (91, 31019), (93, 31034),

Gene: Cassita\_44 Start: 25446, Stop: 26375, Start Num: 1

Candidate Starts for Cassita\_44:

(Start: 1 @25446 has 29 MA's), (18, 25650), (20, 25659), (21, 25662), (25, 25698), (31, 25767), (41, 25857), (46, 25887), (47, 25899), (50, 25923), (66, 26076), (75, 26169), (87, 26295),

Gene: Commonplace\_49 Start: 30925, Stop: 31818, Start Num: 1

Candidate Starts for Commonplace\_49:

(Start: 1 @30925 has 29 MA's), (2, 30928), (5, 30946), (6, 30952), (14, 31096), (20, 31135), (22, 31144), (24, 31171), (26, 31195), (29, 31234), (33, 31276), (34, 31279), (47, 31384), (63, 31531), (70, 31549), (72, 31588), (80, 31630), (81, 31633), (82, 31648), (83, 31660), (85, 31675), (92, 31795),

Gene: DejaVu\_53 Start: 29647, Stop: 30525, Start Num: 1

Candidate Starts for DejaVu\_53:

(Start: 1 @29647 has 29 MA's), (5, 29674), (7, 29698), (10, 29734), (12, 29785), (13, 29788), (18, 29854), (19, 29857), (27, 29923), (31, 29971), (36, 30010), (43, 30079), (48, 30103), (51, 30142), (53, 30151), (60, 30190), (63, 30244), (75, 30331), (93, 30508),

Gene: Deschain\_58 Start: 30837, Stop: 31715, Start Num: 1

Candidate Starts for Deschain\_58:

(Start: 1 @30837 has 29 MA's), (5, 30864), (7, 30888), (10, 30924), (13, 30978), (17, 31041), (27, 31113), (31, 31161), (39, 31221), (48, 31293), (51, 31332), (59, 31380), (60, 31386), (61, 31419), (63, 31440), (67, 31452), (86, 31623), (89, 31671), (91, 31683), (93, 31698),

Gene: DustyDino\_60 Start: 31031, Stop: 31909, Start Num: 1

Candidate Starts for DustyDino\_60:

(Start: 1 @31031 has 29 MA's), (5, 31058), (7, 31082), (10, 31118), (13, 31172), (17, 31235), (27, 31307), (31, 31355), (39, 31415), (48, 31487), (51, 31526), (59, 31574), (60, 31580), (61, 31613), (63, 31634), (67, 31646), (86, 31817), (89, 31865), (91, 31877), (93, 31892),

Gene: Erenyeager\_57 Start: 30423, Stop: 31301, Start Num: 1

Candidate Starts for Erenyeager\_57:

(Start: 1 @30423 has 29 MA's), (5, 30450), (7, 30474), (10, 30510), (13, 30564), (17, 30627), (27, 30699), (31, 30747), (39, 30807), (48, 30879), (51, 30918), (59, 30966), (60, 30972), (61, 31005), (63, 31026), (67, 31038), (86, 31209), (89, 31257), (91, 31269), (93, 31284),

Gene: Fork\_53 Start: 30083, Stop: 30961, Start Num: 1

Candidate Starts for Fork\_53:

(Start: 1 @30083 has 29 MA's), (5, 30110), (7, 30134), (10, 30170), (13, 30224), (17, 30287), (27, 30359), (31, 30407), (39, 30467), (48, 30539), (51, 30578), (59, 30626), (60, 30632), (61, 30665), (63, 30686), (67, 30698), (86, 30869), (89, 30917), (91, 30929), (93, 30944),

Gene: HollowPurple\_58 Start: 30639, Stop: 31517, Start Num: 1

Candidate Starts for HollowPurple\_58:

(Start: 1 @30639 has 29 MA's), (5, 30666), (7, 30690), (10, 30726), (13, 30780), (17, 30843), (27, 30915), (31, 30963), (39, 31023), (48, 31095), (51, 31134), (59, 31182), (60, 31188), (61, 31221), (63, 31242), (67, 31254), (86, 31425), (89, 31473), (91, 31485), (93, 31500),

Gene: Hubbs\_52 Start: 29859, Stop: 30737, Start Num: 1

Candidate Starts for Hubbs\_52:

(Start: 1 @29859 has 29 MA's), (5, 29886), (7, 29910), (10, 29946), (13, 30000), (18, 30066), (19, 30069), (27, 30135), (31, 30183), (36, 30222), (43, 30291), (48, 30315), (51, 30354), (53, 30363), (60, 30402), (63, 30456), (75, 30543), (93, 30720),

Gene: Issa7\_56 Start: 30138, Stop: 30965, Start Num: 7

Candidate Starts for Issa7\_56:

(Start: 1 @30087 has 29 MA's), (5, 30114), (7, 30138), (10, 30174), (13, 30228), (17, 30291), (27, 30363), (31, 30411), (39, 30471), (48, 30543), (51, 30582), (59, 30630), (60, 30636), (61, 30669), (63, 30690), (67, 30702), (86, 30873), (89, 30921), (91, 30933), (93, 30948),

Gene: Jacko\_51 Start: 27653, Stop: 28564, Start Num: 1

Candidate Starts for Jacko\_51:

(Start: 1 @27653 has 29 MA's), (Start: 3 @27659 has 1 MA's), (5, 27680), (7, 27704), (19, 27863), (27, 27929), (31, 27977), (36, 28016), (38, 28031), (41, 28064), (51, 28148), (52, 28154), (56, 28169), (58, 28181), (61, 28232), (75, 28343), (81, 28358),

Gene: LeeroyJenkins\_45 Start: 26329, Stop: 27258, Start Num: 1

Candidate Starts for LeeroyJenkins\_45:

(Start: 1 @26329 has 29 MA's), (18, 26533), (20, 26542), (21, 26545), (25, 26581), (31, 26650), (41, 26740), (46, 26770), (47, 26782), (50, 26806), (66, 26959), (75, 27052), (87, 27178),

Gene: Lifes\_40 Start: 23101, Stop: 24030, Start Num: 1

Candidate Starts for Lifes\_40:

(Start: 1 @23101 has 29 MA's), (18, 23305), (20, 23314), (21, 23317), (25, 23353), (31, 23422), (41, 23512), (46, 23542), (47, 23554), (50, 23578), (66, 23731), (75, 23824), (87, 23950),

Gene: Lupine\_50 Start: 29061, Stop: 29939, Start Num: 1

Candidate Starts for Lupine\_50:

(Start: 1 @29061 has 29 MA's), (5, 29088), (7, 29112), (10, 29148), (12, 29199), (13, 29202), (18, 29268), (19, 29271), (27, 29337), (31, 29385), (36, 29424), (39, 29445), (43, 29493), (48, 29517), (51, 29556), (53, 29565), (60, 29604), (63, 29658), (75, 29745),

Gene: Lyell\_57 Start: 30342, Stop: 31220, Start Num: 1

Candidate Starts for Lyell\_57:

(Start: 1 @30342 has 29 MA's), (5, 30369), (7, 30393), (10, 30429), (13, 30483), (17, 30546), (27, 30618), (31, 30666), (39, 30726), (48, 30798), (51, 30837), (59, 30885), (60, 30891), (61, 30924), (63, 30945), (67, 30957), (86, 31128), (89, 31176), (91, 31188), (93, 31203),

Gene: Molivia\_41 Start: 23895, Stop: 24779, Start Num: 4

Candidate Starts for Molivia\_41:

(Start: 4 @23895 has 1 MA's), (5, 23907), (9, 23961), (11, 24000), (14, 24057), (32, 24201), (35, 24237), (39, 24261), (42, 24297), (49, 24345), (54, 24390), (73, 24561), (74, 24567), (77, 24579), (79, 24582), (84, 24609), (88, 24702), (94, 24771),

Gene: Musetta\_57 Start: 30803, Stop: 31681, Start Num: 1

Candidate Starts for Musetta\_57:

(Start: 1 @30803 has 29 MA's), (5, 30830), (7, 30854), (10, 30890), (13, 30944), (17, 31007), (27, 31079), (31, 31127), (39, 31187), (48, 31259), (51, 31298), (59, 31346), (60, 31352), (61, 31385), (63, 31406), (67, 31418), (86, 31589), (89, 31637), (91, 31649), (93, 31664),

Gene: Necrophoxinus\_59 Start: 31037, Stop: 31915, Start Num: 1

Candidate Starts for Necrophoxinus\_59:

(Start: 1 @31037 has 29 MA's), (5, 31064), (7, 31088), (10, 31124), (13, 31178), (17, 31241), (27, 31313), (31, 31361), (39, 31421), (48, 31493), (51, 31532), (59, 31580), (60, 31586), (61, 31619), (63, 31640), (67, 31652), (86, 31823), (89, 31871), (91, 31883), (93, 31898),

Gene: Nonagon\_48 Start: 30631, Stop: 31524, Start Num: 1

Candidate Starts for Nonagon\_48:

(Start: 1 @30631 has 29 MA's), (2, 30634), (5, 30652), (6, 30658), (14, 30802), (20, 30841), (22, 30850), (24, 30877), (26, 30901), (29, 30940), (33, 30982), (34, 30985), (47, 31090), (63, 31237), (70, 31255), (72, 31294), (80, 31336), (82, 31354), (83, 31366), (85, 31381), (92, 31501),

Gene: Pavlo\_51 Start: 29706, Stop: 30584, Start Num: 1

Candidate Starts for Pavlo\_51:

(Start: 1 @29706 has 29 MA's), (5, 29733), (7, 29757), (10, 29793), (12, 29844), (13, 29847), (18, 29913), (19, 29916), (27, 29982), (31, 30030), (36, 30069), (39, 30090), (43, 30138), (48, 30162), (51, 30201), (53, 30210), (60, 30249), (63, 30303), (75, 30390), (93, 30567),

Gene: PhillyPhilly\_51 Start: 29240, Stop: 30118, Start Num: 1

Candidate Starts for PhillyPhilly\_51:

(Start: 1 @29240 has 29 MA's), (5, 29267), (7, 29291), (10, 29327), (12, 29378), (13, 29381), (18, 29447), (19, 29450), (27, 29516), (31, 29564), (36, 29603), (43, 29672), (48, 29696), (51, 29735), (53, 29744), (63, 29837), (75, 29924), (93, 30101),

Gene: Roman\_52 Start: 29707, Stop: 30585, Start Num: 1

Candidate Starts for Roman\_52:

(Start: 1 @29707 has 29 MA's), (5, 29734), (7, 29758), (10, 29794), (12, 29845), (13, 29848), (18, 29914), (19, 29917), (27, 29983), (31, 30031), (36, 30070), (43, 30139), (48, 30163), (51, 30202), (53, 30211), (60, 30250), (63, 30304), (75, 30391), (93, 30568),

Gene: RunningBrook\_58 Start: 31031, Stop: 31909, Start Num: 1

Candidate Starts for RunningBrook\_58:

(Start: 1 @31031 has 29 MA's), (5, 31058), (7, 31082), (10, 31118), (13, 31172), (17, 31235), (27, 31307), (31, 31355), (39, 31415), (48, 31487), (51, 31526), (59, 31574), (60, 31580), (61, 31613), (63, 31634), (67, 31646), (86, 31817), (89, 31865), (91, 31877), (93, 31892),

Gene: Saradis\_52 Start: 29299, Stop: 30177, Start Num: 1

Candidate Starts for Saradis\_52:

(Start: 1 @29299 has 29 MA's), (5, 29326), (7, 29350), (10, 29386), (12, 29437), (13, 29440), (18, 29506), (19, 29509), (27, 29575), (31, 29623), (36, 29662), (43, 29731), (48, 29755), (51, 29794), (53, 29803), (60, 29842), (63, 29896), (75, 29983), (93, 30160),

Gene: Shroomer\_61 Start: 30573, Stop: 31451, Start Num: 1

Candidate Starts for Shroomer\_61:

(Start: 1 @30573 has 29 MA's), (5, 30600), (7, 30624), (10, 30660), (13, 30714), (17, 30777), (27, 30849), (31, 30897), (39, 30957), (48, 31029), (51, 31068), (59, 31116), (60, 31122), (61, 31155), (63, 31176), (67, 31188), (86, 31359), (89, 31407), (91, 31419), (93, 31434),

Gene: Solimine\_52 Start: 29713, Stop: 30591, Start Num: 1

Candidate Starts for Solimine\_52:

(Start: 1 @29713 has 29 MA's), (5, 29740), (7, 29764), (10, 29800), (12, 29851), (13, 29854), (18, 29920), (19, 29923), (27, 29989), (31, 30037), (36, 30076), (43, 30145), (48, 30169), (51, 30208), (53, 30217), (63, 30310), (75, 30397), (93, 30574),

Gene: SteakFry\_59 Start: 30639, Stop: 31517, Start Num: 1

Candidate Starts for SteakFry\_59:

(Start: 1 @30639 has 29 MA's), (5, 30666), (7, 30690), (10, 30726), (13, 30780), (17, 30843), (27, 30915), (31, 30963), (39, 31023), (48, 31095), (51, 31134), (59, 31182), (60, 31188), (61, 31221), (63, 31242), (67, 31254), (86, 31425), (89, 31473), (91, 31485), (93, 31500),

Gene: StevieWelch\_57 Start: 30423, Stop: 31301, Start Num: 1

Candidate Starts for StevieWelch\_57:

(Start: 1 @30423 has 29 MA's), (5, 30450), (7, 30474), (10, 30510), (13, 30564), (17, 30627), (27, 30699), (31, 30747), (39, 30807), (48, 30879), (51, 30918), (59, 30966), (60, 30972), (61, 31005), (63, 31026), (67, 31038), (86, 31209), (89, 31257), (91, 31269), (93, 31284),

Gene: Uterion\_54 Start: 29808, Stop: 30686, Start Num: 1

Candidate Starts for Uterion\_54:

(Start: 1 @29808 has 29 MA's), (5, 29835), (7, 29859), (10, 29895), (12, 29946), (13, 29949), (18, 30015), (19, 30018), (27, 30084), (31, 30132), (36, 30171), (43, 30240), (48, 30264), (51, 30303), (53, 30312), (60, 30351), (63, 30405), (75, 30492), (93, 30669),

Gene: WaterT\_43 Start: 25190, Stop: 26119, Start Num: 1

Candidate Starts for WaterT\_43:

(Start: 1 @25190 has 29 MA's), (18, 25394), (20, 25403), (21, 25406), (25, 25442), (31, 25511), (41, 25601), (46, 25631), (47, 25643), (50, 25667), (66, 25820), (75, 25913), (87, 26039),

Gene: Welcome\_58 Start: 30788, Stop: 31666, Start Num: 1

Candidate Starts for Welcome\_58:

(Start: 1 @30788 has 29 MA's), (5, 30815), (7, 30839), (10, 30875), (13, 30929), (17, 30992), (27, 31064), (31, 31112), (39, 31172), (48, 31244), (51, 31283), (59, 31331), (60, 31337), (61, 31370), (63, 31391), (67, 31403), (86, 31574), (89, 31622), (91, 31634), (93, 31649),

Gene: Yappy\_68 Start: 28969, Stop: 29838, Start Num: 3

Candidate Starts for Yappy\_68:

(Start: 3 @28969 has 1 MA's), (7, 29014), (15, 29155), (16, 29158), (21, 29185), (23, 29203), (28, 29245), (30, 29278), (37, 29335), (44, 29389), (45, 29395), (60, 29500), (64, 29557), (71, 29611), (76, 29647), (81, 29656),

Gene: Yuma\_56 Start: 30357, Stop: 31235, Start Num: 1

Candidate Starts for Yuma\_56:

(Start: 1 @30357 has 29 MA's), (5, 30384), (7, 30408), (10, 30444), (13, 30498), (17, 30561), (27, 30633), (31, 30681), (39, 30741), (48, 30813), (51, 30852), (59, 30900), (60, 30906), (61, 30939), (63, 30960), (67, 30972), (86, 31143), (89, 31191), (91, 31203), (93, 31218),