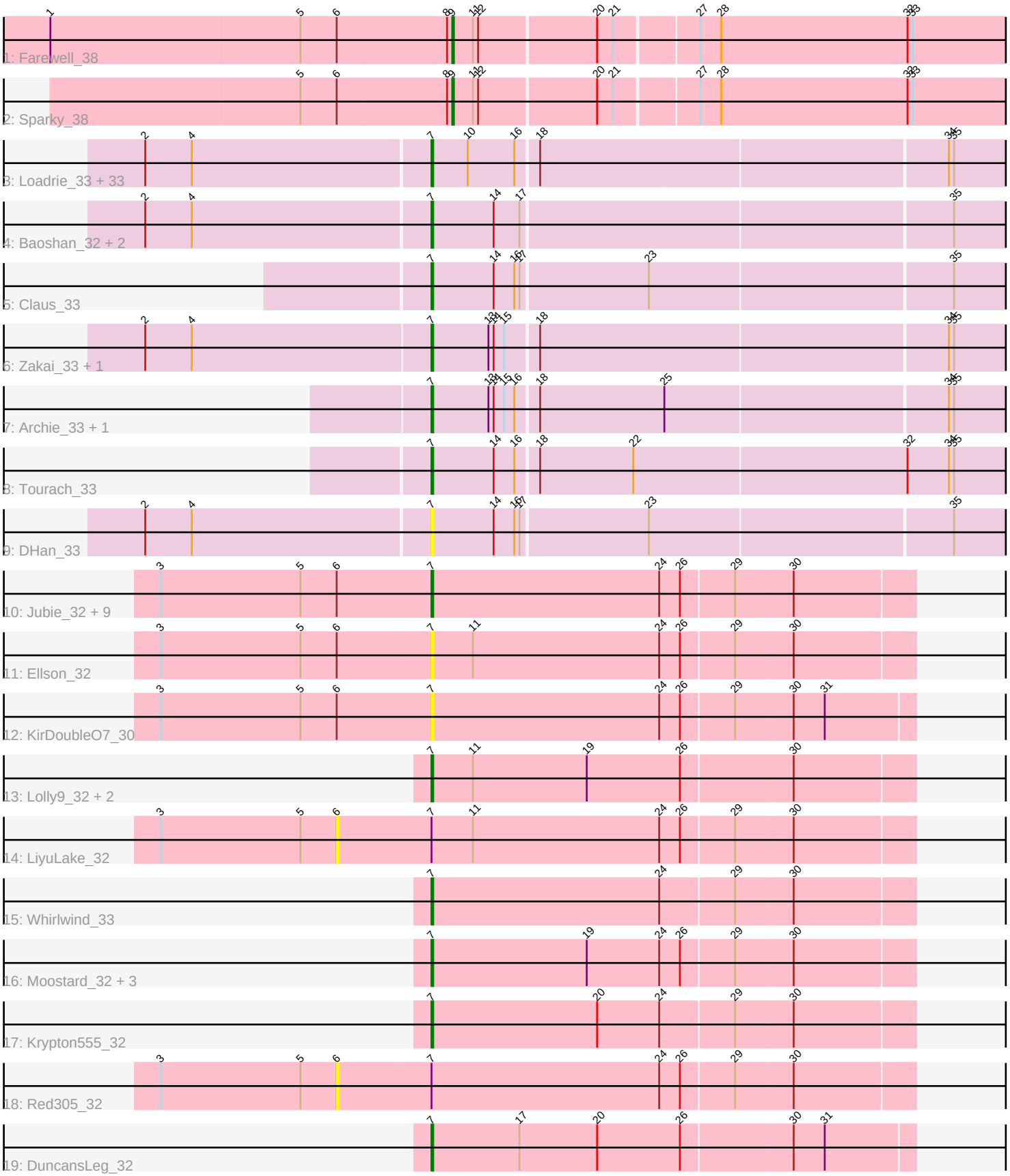
Pham 347577


1: Farewell_38
2: Sparky_38
3: Loadrie_33 + 33
4: Baoshan_32 + 2
5: Claus_33
6: Zakai_33 + 1
7: Archie_33 + 1
8: Tourach_33
9: DHan_33
10: Jubie_32 + 9
11: Ellson_32
12: KirDoubleO7_30
13: Lolly9_32 + 2
14: LiyuLake_32
15: Whirlwind_33
16: Moostard_32 + 3
17: Krypton555_32
18: Red305_32
19: DuncansLeg_32

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 347577 Report

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

Pham number 347577 has 70 members, 17 are drafts.

Phages represented in each track:
• Track 1 : Farewell_38
• Track 2 : Sparky_38
• Track 3 : Loadrie_33, Gabriela_33, ChengKai98_33, Underpass_33, Kahlid_33, Wigglewiggle_33, Molivier_33, BigCheese_33, Rumpelstiltskin_33, Hafay_33, BobsGarage_33, Breezona_33, DrSeegs_33, Sarshaun_33, Finemlucis_33, Soap141_33, Winky_33, Itos_33, OverPar_33, Faith1_33, Vetrix_33, Lynnae_33, GuuelaD_33, LilDestine_33, Gardann_33, Wilder_33, Hiraya_33, MkaliMitinis3_33, Lewan_33, Netyap_33, Nicholasp3_33, SoJulia_34, Crossroads_33, Miley16_33
• Track 4 : Baoshan_32, DanBing_32, ZhongYanYuan_32
• Track 5 : Claus_33
• Track 6 : Zakai_33, Rossetti_33
• Track 7 : Archie_33, Bazzle_33
• Track 8 : Tourach_33
• Track 9 : DHan_33
• Track 10 : Jubie_32, Nicholas_32, BourbonZero_31, MsGreen_32, Clautastrophe_32, Jobypre_32, Kingsolomon_32, TriFive_32, Snenia_32, Lumos_32
• Track 11 : Ellson_32
• Track 12 : KirDoubleO7_30
• Track 13 : Lolly9_32, MiniLon_32, MiniMac_32
• Track 14 : LiyuLake_32
• Track 15 : Whirlwind_33
• Track 16 : Moostard_32, Samty_32, Bellis_32, Finnry_32
• Track 17 : Krypton555_32
• Track 18 : Red305_32
• Track 19 : DuncansLeg_32

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

The start number called the most often in the published annotations is 7, it was called in 51 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Archie_33, Baoshan_32, Bazzle_33, Bellis_32, BigCheese_33, BobsGarage_33, BourbonZero_31, Breezona_33, ChengKai98_33, Claus_33, Clautastrophe_32,

Crossroads_33, DHan_33, DanBing_32, DrSeegs_33, DuncansLeg_32, Ellson_32, Faith1_33, Finemlucis_33, Finnry_32, Gabriela_33, Gardann_33, GuuelaD_33, Hafay_33, Hiraya_33, Itos_33, Jobypre_32, Jubie_32, Kahlid_33, Kingsolomon_32, KirDoubleO7_30, Krypton555_32, Lewan_33, LilDestine_33, Loadrie_33, Lolly9_32, Lumos_32, Lynnae_33, Miley16_33, MiniLon_32, MiniMac_32, MkaliMitinis3_33, Molivier_33, Moostard_32, MsGreen_32, Netyap_33, Nicholas_32, Nicholasp3_33, OverPar_33, Rossetti_33, Rumpelstiltskin_33, Samty_32, Sarshaun_33, Snenia_32, SoJulia_34, Soap141_33, Tourach_33, TriFive_32, Underpass_33, Vetrix_33, Whirlwind_33, Wigglewiggle_33, Wilder_33, Winky_33, Zakai_33, ZhongYanYuan_32,

Genes that have the "Most Annotated" start but do not call it:
• LiyuLake_32, Red305_32,

Genes that do not have the "Most Annotated" start:
• Farewell_38, Sparky_38,

Summary by start number:

Start 6:
• Found in 16 of 70 (22.9%) of genes in pham
• No Manual Annotations of this start.
• Called 12.5% of time when present
• Phage (with cluster) where this start called: LiyuLake_32 (L3), Red305_32 (L3),

Start 7:
• Found in 68 of 70 (97.1%) of genes in pham
• Manual Annotations of this start: 51 of 53
• Called 97.1% of time when present
• Phage (with cluster) where this start called: Archie_33 (L2), Baoshan_32 (L2), Bazzle_33 (L2), Bellis_32 (L3), BigCheese_33 (L2), BobsGarage_33 (L2), BourbonZero_31 (L3), Breezona_33 (L2), ChengKai98_33 (L2), Claus_33 (L2), Clautastrophe_32 (L3), Crossroads_33 (L2), DHan_33 (L2), DanBing_32 (L2), DrSeegs_33 (L2), DuncansLeg_32 (L3), Ellson_32 (L3), Faith1_33 (L2), Finemlucis_33 (L2), Finnry_32 (L3), Gabriela_33 (L2), Gardann_33 (L2), GuuelaD_33 (L2), Hafay_33 (L2), Hiraya_33 (L2), Itos_33 (L2), Jobypre_32 (L3), Jubie_32 (L3), Kahlid_33 (L2), Kingsolomon_32 (L3), KirDoubleO7_30 (L3), Krypton555_32 (L3), Lewan_33 (L2), LilDestine_33 (L2), Loadrie_33 (L2), Lolly9_32 (L3), Lumos_32 (L3), Lynnae_33 (L2), Miley16_33 (L2), MiniLon_32 (L3), MiniMac_32 (L3), MkaliMitinis3_33 (L2), Molivier_33 (L2), Moostard_32 (L3), MsGreen_32 (L3), Netyap_33 (L2), Nicholas_32 (L3), Nicholasp3_33 (L2), OverPar_33 (L2), Rossetti_33 (L2), Rumpelstiltskin_33 (L2), Samty_32 (L3), Sarshaun_33 (L2), Snenia_32 (L3), SoJulia_34 (L2), Soap141_33 (L2), Tourach_33 (L2), TriFive_32 (L3), Underpass_33 (L2), Vetrix_33 (L2), Whirlwind_33 (L3), Wigglewiggle_33 (L2), Wilder_33 (L2), Winky_33 (L2), Zakai_33 (L2), ZhongYanYuan_32 (L2),

Start 9:
• Found in 2 of 70 (2.9%) of genes in pham
• Manual Annotations of this start: 2 of 53
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Farewell_38 (AF), Sparky_38 (AF),

Summary by clusters:

There are 3 clusters represented in this pham: L2, L3, AF,

Info for manual annotations of cluster AF:
•Start number 9 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster L2:
•Start number 7 was manually annotated 32 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 7 was manually annotated 19 times for cluster L3.

Gene Information:

Gene: Archie_33 Start: 29591, Stop: 29247, Start Num: 7
Candidate Starts for Archie_33:
(Start: 7 @29591 has 51 MA's), (13, 29558), (14, 29555), (15, 29549), (16, 29543), (18, 29531), (25, 29459), (34, 29300), (35, 29297),

Gene: Baoshan_32 Start: 28923, Stop: 28579, Start Num: 7
Candidate Starts for Baoshan_32:
(2, 29085), (4, 29058), (Start: 7 @28923 has 51 MA's), (14, 28887), (17, 28872), (35, 28629),

Gene: Bazzle_33 Start: 29340, Stop: 28996, Start Num: 7
Candidate Starts for Bazzle_33:
(Start: 7 @29340 has 51 MA's), (13, 29307), (14, 29304), (15, 29298), (16, 29292), (18, 29280), (25, 29208), (34, 29049), (35, 29046),

Gene: Bellis_32 Start: 29638, Stop: 29363, Start Num: 7
Candidate Starts for Bellis_32:
(Start: 7 @29638 has 51 MA's), (19, 29548), (24, 29506), (26, 29494), (29, 29464), (30, 29431),

Gene: BigCheese_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for BigCheese_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: BobsGarage_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for BobsGarage_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: BourbonZero_31 Start: 29588, Stop: 29313, Start Num: 7
Candidate Starts for BourbonZero_31:
(3, 29744), (5, 29663), (6, 29642), (Start: 7 @29588 has 51 MA's), (24, 29456), (26, 29444), (29, 29414), (30, 29381),

Gene: Breezona_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Breezona_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: ChengKai98_33 Start: 29104, Stop: 28760, Start Num: 7
Candidate Starts for ChengKai98_33:
(2, 29266), (4, 29239), (Start: 7 @29104 has 51 MA's), (10, 29083), (16, 29056), (18, 29044), (34, 28813), (35, 28810),

Gene: Claus_33 Start: 29079, Stop: 28735, Start Num: 7
Candidate Starts for Claus_33:
(Start: 7 @29079 has 51 MA's), (14, 29043), (16, 29031), (17, 29028), (23, 28956), (35, 28785),

Gene: Clautastrophe_32 Start: 29636, Stop: 29361, Start Num: 7
Candidate Starts for Clautastrophe_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: Crossroads_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Crossroads_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: DHan_33 Start: 29015, Stop: 28671, Start Num: 7
Candidate Starts for DHan_33:
(2, 29177), (4, 29150), (Start: 7 @29015 has 51 MA's), (14, 28979), (16, 28967), (17, 28964), (23, 28892), (35, 28721),

Gene: DanBing_32 Start: 28919, Stop: 28575, Start Num: 7
Candidate Starts for DanBing_32:
(2, 29081), (4, 29054), (Start: 7 @28919 has 51 MA's), (14, 28883), (17, 28868), (35, 28625),

Gene: DrSeegs_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for DrSeegs_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: DuncansLeg_32 Start: 29624, Stop: 29349, Start Num: 7
Candidate Starts for DuncansLeg_32:
(Start: 7 @29624 has 51 MA's), (17, 29573), (20, 29528), (26, 29480), (30, 29417), (31, 29399),

Gene: Ellson_32 Start: 29600, Stop: 29325, Start Num: 7
Candidate Starts for Ellson_32:
(3, 29756), (5, 29675), (6, 29654), (Start: 7 @29600 has 51 MA's), (11, 29576), (24, 29468), (26, 29456), (29, 29426), (30, 29393),

Gene: Faith1_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Faith1_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: Farewell_38 Start: 31385, Stop: 31065, Start Num: 9
Candidate Starts for Farewell_38:
(1, 31616), (5, 31472), (6, 31451), (8, 31388), (Start: 9 @31385 has 2 MA's), (11, 31373), (12, 31370), (20, 31304), (21, 31295), (27, 31250), (28, 31238), (32, 31130), (33, 31127),

Gene: Finemlucis_33 Start: 29378, Stop: 29034, Start Num: 7
Candidate Starts for Finemlucis_33:
(2, 29540), (4, 29513), (Start: 7 @29378 has 51 MA's), (10, 29357), (16, 29330), (18, 29318), (34, 29087), (35, 29084),

Gene: Finnry_32 Start: 29640, Stop: 29365, Start Num: 7
Candidate Starts for Finnry_32:
(Start: 7 @29640 has 51 MA's), (19, 29550), (24, 29508), (26, 29496), (29, 29466), (30, 29433),

Gene: Gabriela_33 Start: 29364, Stop: 29020, Start Num: 7
Candidate Starts for Gabriela_33:
(2, 29526), (4, 29499), (Start: 7 @29364 has 51 MA's), (10, 29343), (16, 29316), (18, 29304), (34, 29073), (35, 29070),

Gene: Gardann_33 Start: 29104, Stop: 28760, Start Num: 7
Candidate Starts for Gardann_33:
(2, 29266), (4, 29239), (Start: 7 @29104 has 51 MA's), (10, 29083), (16, 29056), (18, 29044), (34, 28813), (35, 28810),

Gene: GuuelaD_33 Start: 29136, Stop: 28792, Start Num: 7
Candidate Starts for GuuelaD_33:
(2, 29298), (4, 29271), (Start: 7 @29136 has 51 MA's), (10, 29115), (16, 29088), (18, 29076), (34, 28845), (35, 28842),

Gene: Hafay_33 Start: 29135, Stop: 28791, Start Num: 7
Candidate Starts for Hafay_33:
(2, 29297), (4, 29270), (Start: 7 @29135 has 51 MA's), (10, 29114), (16, 29087), (18, 29075), (34, 28844), (35, 28841),

Gene: Hiraya_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Hiraya_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: Itos_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Itos_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: Jobypre_32 Start: 29636, Stop: 29361, Start Num: 7
Candidate Starts for Jobypre_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: Jubie_32 Start: 29637, Stop: 29362, Start Num: 7
Candidate Starts for Jubie_32:
(3, 29793), (5, 29712), (6, 29691), (Start: 7 @29637 has 51 MA's), (24, 29505), (26, 29493), (29, 29463), (30, 29430),

Gene: Kahlid_33 Start: 29107, Stop: 28763, Start Num: 7
Candidate Starts for Kahlid_33:
(2, 29269), (4, 29242), (Start: 7 @29107 has 51 MA's), (10, 29086), (16, 29059), (18, 29047), (34, 28816), (35, 28813),

Gene: Kingsolomon_32 Start: 29636, Stop: 29361, Start Num: 7
Candidate Starts for Kingsolomon_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: KirDoubleO7_30 Start: 29633, Stop: 29358, Start Num: 7
Candidate Starts for KirDoubleO7_30:
(3, 29789), (5, 29708), (6, 29687), (Start: 7 @29633 has 51 MA's), (24, 29501), (26, 29489), (29, 29459), (30, 29426), (31, 29408),

Gene: Krypton555_32 Start: 29543, Stop: 29268, Start Num: 7
Candidate Starts for Krypton555_32:
(Start: 7 @29543 has 51 MA's), (20, 29447), (24, 29411), (29, 29369), (30, 29336),

Gene: Lewan_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Lewan_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: LilDestine_33 Start: 29101, Stop: 28757, Start Num: 7
Candidate Starts for LilDestine_33:
(2, 29263), (4, 29236), (Start: 7 @29101 has 51 MA's), (10, 29080), (16, 29053), (18, 29041), (34, 28810), (35, 28807),

Gene: LiyuLake_32 Start: 29645, Stop: 29316, Start Num: 6
Candidate Starts for LiyuLake_32:
(3, 29747), (5, 29666), (6, 29645), (Start: 7 @29591 has 51 MA's), (11, 29567), (24, 29459), (26, 29447), (29, 29417), (30, 29384),

Gene: Loadrie_33 Start: 29134, Stop: 28790, Start Num: 7
Candidate Starts for Loadrie_33:
(2, 29296), (4, 29269), (Start: 7 @29134 has 51 MA's), (10, 29113), (16, 29086), (18, 29074), (34, 28843), (35, 28840),

Gene: Lolly9_32 Start: 29407, Stop: 29132, Start Num: 7
Candidate Starts for Lolly9_32:
(Start: 7 @29407 has 51 MA's), (11, 29383), (19, 29317), (26, 29263), (30, 29200),

Gene: Lumos_32 Start: 29633, Stop: 29358, Start Num: 7
Candidate Starts for Lumos_32:
(3, 29789), (5, 29708), (6, 29687), (Start: 7 @29633 has 51 MA's), (24, 29501), (26, 29489), (29, 29459), (30, 29426),

Gene: Lynnae_33 Start: 29090, Stop: 28746, Start Num: 7
Candidate Starts for Lynnae_33:
(2, 29252), (4, 29225), (Start: 7 @29090 has 51 MA's), (10, 29069), (16, 29042), (18, 29030), (34, 28799), (35, 28796),

Gene: Miley16_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Miley16_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: MiniLon_32 Start: 29408, Stop: 29133, Start Num: 7
Candidate Starts for MiniLon_32:
(Start: 7 @29408 has 51 MA's), (11, 29384), (19, 29318), (26, 29264), (30, 29201),

Gene: MiniMac_32 Start: 29408, Stop: 29133, Start Num: 7
Candidate Starts for MiniMac_32:
(Start: 7 @29408 has 51 MA's), (11, 29384), (19, 29318), (26, 29264), (30, 29201),

Gene: MkaliMitinis3_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for MkaliMitinis3_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: Molivier_33 Start: 29099, Stop: 28755, Start Num: 7
Candidate Starts for Molivier_33:
(2, 29261), (4, 29234), (Start: 7 @29099 has 51 MA's), (10, 29078), (16, 29051), (18, 29039), (34, 28808), (35, 28805),

Gene: Moostard_32 Start: 29639, Stop: 29364, Start Num: 7
Candidate Starts for Moostard_32:
(Start: 7 @29639 has 51 MA's), (19, 29549), (24, 29507), (26, 29495), (29, 29465), (30, 29432),

Gene: MsGreen_32 Start: 29636, Stop: 29361, Start Num: 7
Candidate Starts for MsGreen_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: Netyap_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Netyap_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: Nicholas_32 Start: 29636, Stop: 29361, Start Num: 7
Candidate Starts for Nicholas_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: Nicholasp3_33 Start: 29104, Stop: 28760, Start Num: 7
Candidate Starts for Nicholasp3_33:
(2, 29266), (4, 29239), (Start: 7 @29104 has 51 MA's), (10, 29083), (16, 29056), (18, 29044), (34, 28813), (35, 28810),

Gene: OverPar_33 Start: 29134, Stop: 28790, Start Num: 7
Candidate Starts for OverPar_33:
(2, 29296), (4, 29269), (Start: 7 @29134 has 51 MA's), (10, 29113), (16, 29086), (18, 29074), (34, 28843), (35, 28840),

Gene: Red305_32 Start: 29690, Stop: 29361, Start Num: 6
Candidate Starts for Red305_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: Rossetti_33 Start: 29374, Stop: 29030, Start Num: 7
Candidate Starts for Rossetti_33:
(2, 29536), (4, 29509), (Start: 7 @29374 has 51 MA's), (13, 29341), (14, 29338), (15, 29332), (18, 29314), (34, 29083), (35, 29080),

Gene: Rumpelstiltskin_33 Start: 29370, Stop: 29026, Start Num: 7
Candidate Starts for Rumpelstiltskin_33:
(2, 29532), (4, 29505), (Start: 7 @29370 has 51 MA's), (10, 29349), (16, 29322), (18, 29310), (34, 29079), (35, 29076),

Gene: Samty_32 Start: 29638, Stop: 29363, Start Num: 7
Candidate Starts for Samty_32:
(Start: 7 @29638 has 51 MA's), (19, 29548), (24, 29506), (26, 29494), (29, 29464), (30, 29431),

Gene: Sarshaun_33 Start: 29135, Stop: 28791, Start Num: 7
Candidate Starts for Sarshaun_33:
(2, 29297), (4, 29270), (Start: 7 @29135 has 51 MA's), (10, 29114), (16, 29087), (18, 29075), (34, 28844), (35, 28841),

Gene: Snenia_32 Start: 29637, Stop: 29362, Start Num: 7
Candidate Starts for Snenia_32:
(3, 29793), (5, 29712), (6, 29691), (Start: 7 @29637 has 51 MA's), (24, 29505), (26, 29493), (29, 29463), (30, 29430),

Gene: SoJulia_34 Start: 29363, Stop: 29019, Start Num: 7
Candidate Starts for SoJulia_34:
(2, 29525), (4, 29498), (Start: 7 @29363 has 51 MA's), (10, 29342), (16, 29315), (18, 29303), (34, 29072), (35, 29069),

Gene: Soap141_33 Start: 29135, Stop: 28791, Start Num: 7
Candidate Starts for Soap141_33:
(2, 29297), (4, 29270), (Start: 7 @29135 has 51 MA's), (10, 29114), (16, 29087), (18, 29075), (34, 28844), (35, 28841),

Gene: Sparky_38 Start: 31421, Stop: 31101, Start Num: 9
Candidate Starts for Sparky_38:
(5, 31508), (6, 31487), (8, 31424), (Start: 9 @31421 has 2 MA's), (11, 31409), (12, 31406), (20, 31340), (21, 31331), (27, 31286), (28, 31274), (32, 31166), (33, 31163),

Gene: Tourach_33 Start: 29096, Stop: 28749, Start Num: 7
Candidate Starts for Tourach_33:
(Start: 7 @29096 has 51 MA's), (14, 29060), (16, 29048), (18, 29036), (22, 28982), (32, 28826), (34, 28802), (35, 28799),

Gene: TriFive_32 Start: 29636, Stop: 29361, Start Num: 7
Candidate Starts for TriFive_32:
(3, 29792), (5, 29711), (6, 29690), (Start: 7 @29636 has 51 MA's), (24, 29504), (26, 29492), (29, 29462), (30, 29429),

Gene: Underpass_33 Start: 29104, Stop: 28760, Start Num: 7
Candidate Starts for Underpass_33:
(2, 29266), (4, 29239), (Start: 7 @29104 has 51 MA's), (10, 29083), (16, 29056), (18, 29044), (34, 28813), (35, 28810),

Gene: Vetrix_33 Start: 29108, Stop: 28764, Start Num: 7
Candidate Starts for Vetrix_33:
(2, 29270), (4, 29243), (Start: 7 @29108 has 51 MA's), (10, 29087), (16, 29060), (18, 29048), (34, 28817), (35, 28814),

Gene: Whirlwind_33 Start: 29385, Stop: 29110, Start Num: 7
Candidate Starts for Whirlwind_33:
(Start: 7 @29385 has 51 MA's), (24, 29253), (29, 29211), (30, 29178),

Gene: Wigglewiggle_33 Start: 29134, Stop: 28790, Start Num: 7
Candidate Starts for Wigglewiggle_33:
(2, 29296), (4, 29269), (Start: 7 @29134 has 51 MA's), (10, 29113), (16, 29086), (18, 29074), (34, 28843), (35, 28840),

Gene: Wilder_33 Start: 29107, Stop: 28763, Start Num: 7
Candidate Starts for Wilder_33:
(2, 29269), (4, 29242), (Start: 7 @29107 has 51 MA's), (10, 29086), (16, 29059), (18, 29047), (34, 28816), (35, 28813),

Gene: Winky_33 Start: 29102, Stop: 28758, Start Num: 7
Candidate Starts for Winky_33:
(2, 29264), (4, 29237), (Start: 7 @29102 has 51 MA's), (10, 29081), (16, 29054), (18, 29042), (34, 28811), (35, 28808),

Gene: Zakai_33 Start: 29358, Stop: 29014, Start Num: 7
Candidate Starts for Zakai_33:
(2, 29520), (4, 29493), (Start: 7 @29358 has 51 MA's), (13, 29325), (14, 29322), (15, 29316), (18, 29298), (34, 29067), (35, 29064),

Gene: ZhongYanYuan_32 Start: 28923, Stop: 28579, Start Num: 7
Candidate Starts for ZhongYanYuan_32:
(2, 29085), (4, 29058), (Start: 7 @28923 has 51 MA's), (14, 28887), (17, 28872), (35, 28629),