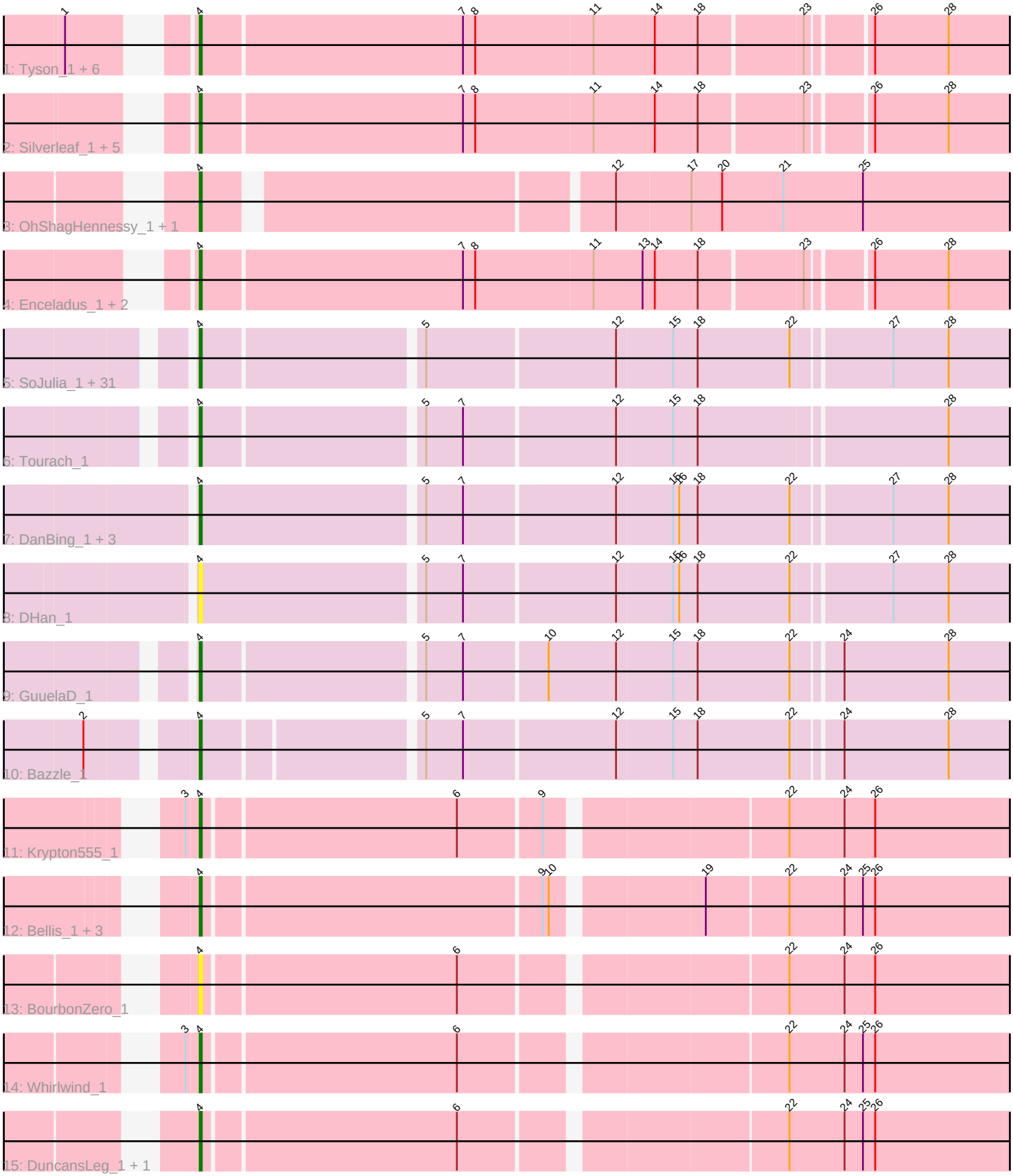
Pham 308572


1: Tyson_1 + 6
2: Silverleaf_1 + 5
3: OhShagHennessy_1 + 1
4: Enceladus_1 + 2
5: SoJulia_1 + 31
6: Tourach_1
7: DanBing_1 + 3
8: DHan_1
9: GuuelaD_1
10: Bazzle_1
11: Krypton555_1
12: Bellis_1 + 3
13: BourbonZero_1
14: Whirlwind_1
15: DuncansLeg_1 + 1

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 308572 Report

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

Pham number 308572 has 67 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Tyson_1, Wyatt2_1, Calm_1, Zaria_1, Wamburgrxpress_1, Acquire49_1, Rose5_1
• Track 2 : Silverleaf_1, MAckerman_1, AvadaKedavra_1, CicholasNage_1, JoeDirt_1, Halena_1
• Track 3 : OhShagHennessy_1, Appletree2_1
• Track 4 : Enceladus_1, LeBron_1, UPIE_1
• Track 5 : SoJulia_1, Kahlid_1, DrSeegs_1, Wilder_1, Crossroads_1, Netyap_1, Nicholasp3_1, Miley16_1, Breezona_1, Sarshaun_1, Underpass_1, OverPar_1, Gabriela_1, Finemlucis_1, Vetrix_1, LilDestine_1, Zakai_1, MkaliMitinis3_1, Faith1_1, Itos_1, Hafay_1, BigCheese_1, Loadrie_1, Soap141_1, Rossetti_1, Lewan_1, Winky_1, Rumpelstiltskin_1, BobsGarage_1, Wigglewiggle_1, Lynnae_1, Gardann_1
• Track 6 : Tourach_1
• Track 7 : DanBing_1, Claus_1, Baoshan_1, ZhongYanYuan_1
• Track 8 : DHan_1
• Track 9 : GuuelaD_1
• Track 10 : Bazzle_1
• Track 11 : Krypton555_1
• Track 12 : Bellis_1, Samty_1, Moostard_1, Finnry_1
• Track 13 : BourbonZero_1
• Track 14 : Whirlwind_1
• Track 15 : DuncansLeg_1, LiyuLake_1

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

The start number called the most often in the published annotations is 4, it was called in 56 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acquire49_1, Appletree2_1, AvadaKedavra_1, Baoshan_1, Bazzle_1, Bellis_1, BigCheese_1, BobsGarage_1, BourbonZero_1, Breezona_1, Calm_1, CicholasNage_1, Claus_1, Crossroads_1, DHan_1, DanBing_1, DrSeegs_1, DuncansLeg_1, Enceladus_1, Faith1_1, Finemlucis_1, Finnry_1, Gabriela_1, Gardann_1, GuuelaD_1, Hafay_1, Halena_1, Itos_1, JoeDirt_1, Kahlid_1, Krypton555_1, LeBron_1, Lewan_1, LilDestine_1, LiyuLake_1, Loadrie_1, Lynnae_1,

MAckerman_1, Miley16_1, MkaliMitinis3_1, Moostard_1, Netyap_1, Nicholasp3_1, OhShagHennessy_1, OverPar_1, Rose5_1, Rossetti_1, Rumpelstiltskin_1, Samty_1, Sarshaun_1, Silverleaf_1, SoJulia_1, Soap141_1, Tourach_1, Tyson_1, UPIE_1, Underpass_1, Vetrix_1, Wamburgrxpress_1, Whirlwind_1, Wigglewiggle_1, Wilder_1, Winky_1, Wyatt2_1, Zakai_1, Zaria_1, ZhongYanYuan_1,

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

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

Summary by start number:

Start 4:
• Found in 67 of 67 (100.0%) of genes in pham
• Manual Annotations of this start: 56 of 56
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acquire49_1 (L1), Appletree2_1 (L1), AvadaKedavra_1 (L1), Baoshan_1 (L2), Bazzle_1 (L2), Bellis_1 (L3), BigCheese_1 (L2), BobsGarage_1 (L2), BourbonZero_1 (L3), Breezona_1 (L2), Calm_1 (L1), CicholasNage_1 (L1), Claus_1 (L2), Crossroads_1 (L2), DHan_1 (L2), DanBing_1 (L2), DrSeegs_1 (L2), DuncansLeg_1 (L3), Enceladus_1 (L1), Faith1_1 (L2), Finemlucis_1 (L2), Finnry_1 (L3), Gabriela_1 (L2), Gardann_1 (L2), GuuelaD_1 (L2), Hafay_1 (L2), Halena_1 (L1), Itos_1 (L2), JoeDirt_1 (L1), Kahlid_1 (L2), Krypton555_1 (L3), LeBron_1 (L1), Lewan_1 (L2), LilDestine_1 (L2), LiyuLake_1 (L3), Loadrie_1 (L2), Lynnae_1 (L2), MAckerman_1 (L1), Miley16_1 (L2), MkaliMitinis3_1 (L2), Moostard_1 (L3), Netyap_1 (L2), Nicholasp3_1 (L2), OhShagHennessy_1 (L1), OverPar_1 (L2), Rose5_1 (L1), Rossetti_1 (L2), Rumpelstiltskin_1 (L2), Samty_1 (L3), Sarshaun_1 (L2), Silverleaf_1 (L1), SoJulia_1 (L2), Soap141_1 (L2), Tourach_1 (L2), Tyson_1 (L1), UPIE_1 (L1), Underpass_1 (L2), Vetrix_1 (L2), Wamburgrxpress_1 (L1), Whirlwind_1 (L3), Wigglewiggle_1 (L2), Wilder_1 (L2), Winky_1 (L2), Wyatt2_1 (L1), Zakai_1 (L2), Zaria_1 (L1), ZhongYanYuan_1 (L2),

Summary by clusters:

There are 3 clusters represented in this pham: L2, L3, L1,

Info for manual annotations of cluster L1:
•Start number 4 was manually annotated 18 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 4 was manually annotated 31 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 4 was manually annotated 7 times for cluster L3.

Gene Information:

Gene: Acquire49_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Acquire49_1:

(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Appletree2_1 Start: 80, Stop: 463, Start Num: 4
Candidate Starts for Appletree2_1:
(Start: 4 @80 has 56 MA's), (12, 263), (17, 299), (20, 314), (21, 344), (25, 383),

Gene: AvadaKedavra_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for AvadaKedavra_1:
(Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Baoshan_1 Start: 100, Stop: 480, Start Num: 4
Candidate Starts for Baoshan_1:
(Start: 4 @100 has 56 MA's), (5, 205), (7, 223), (12, 295), (15, 322), (16, 325), (18, 334), (22, 379), (27, 424), (28, 451),

Gene: Bazzle_1 Start: 95, Stop: 469, Start Num: 4
Candidate Starts for Bazzle_1:
(2, 50), (Start: 4 @95 has 56 MA's), (5, 194), (7, 212), (12, 284), (15, 311), (18, 323), (22, 368), (24, 389), (28, 440),

Gene: Bellis_1 Start: 84, Stop: 461, Start Num: 4
Candidate Starts for Bellis_1:
(Start: 4 @84 has 56 MA's), (9, 243), (10, 246), (19, 312), (22, 351), (24, 378), (25, 387), (26, 393),

Gene: BigCheese_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for BigCheese_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: BobsGarage_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for BobsGarage_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: BourbonZero_1 Start: 84, Stop: 464, Start Num: 4
Candidate Starts for BourbonZero_1:
(Start: 4 @84 has 56 MA's), (6, 204), (22, 351), (24, 378), (26, 393),

Gene: Breezona_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Breezona_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Calm_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Calm_1:
(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: CicholasNage_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for CicholasNage_1:
(Start: 4 @83 has 56 MA's), (7, 209), (8, 215), (11, 272), (14, 302), (18, 323), (23, 371), (26, 398), (28, 434),

Gene: Claus_1 Start: 100, Stop: 480, Start Num: 4

Candidate Starts for Claus_1:
(Start: 4 @100 has 56 MA's), (5, 205), (7, 223), (12, 295), (15, 322), (16, 325), (18, 334), (22, 379), (27, 424), (28, 451),

Gene: Crossroads_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Crossroads_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: DHan_1 Start: 99, Stop: 479, Start Num: 4
Candidate Starts for DHan_1:
(Start: 4 @99 has 56 MA's), (5, 204), (7, 222), (12, 294), (15, 321), (16, 324), (18, 333), (22, 378), (27, 423), (28, 450),

Gene: DanBing_1 Start: 100, Stop: 480, Start Num: 4
Candidate Starts for DanBing_1:
(Start: 4 @100 has 56 MA's), (5, 205), (7, 223), (12, 295), (15, 322), (16, 325), (18, 334), (22, 379), (27, 424), (28, 451),

Gene: DrSeegs_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for DrSeegs_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: DuncansLeg_1 Start: 86, Stop: 466, Start Num: 4
Candidate Starts for DuncansLeg_1:
(Start: 4 @86 has 56 MA's), (6, 206), (22, 353), (24, 380), (25, 389), (26, 395),

Gene: Enceladus_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for Enceladus_1:
(Start: 4 @83 has 56 MA's), (7, 209), (8, 215), (11, 272), (13, 296), (14, 302), (18, 323), (23, 371), (26, 398), (28, 434),

Gene: Faith1_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Faith1_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Finemlucis_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Finemlucis_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Finnry_1 Start: 84, Stop: 461, Start Num: 4
Candidate Starts for Finnry_1:
(Start: 4 @84 has 56 MA's), (9, 243), (10, 246), (19, 312), (22, 351), (24, 378), (25, 387), (26, 393),

Gene: Gabriela_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Gabriela_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Gardann_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Gardann_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: GuuelaD_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for GuuelaD_1:

(Start: 4 @91 has 56 MA's), (5, 193), (7, 211), (10, 250), (12, 283), (15, 310), (18, 322), (22, 367), (24, 388), (28, 439),

Gene: Hafay_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Hafay_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Halena_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Halena_1:
(Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Itos_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Itos_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: JoeDirt_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for JoeDirt_1:
(Start: 4 @83 has 56 MA's), (7, 209), (8, 215), (11, 272), (14, 302), (18, 323), (23, 371), (26, 398), (28, 434),

Gene: Kahlid_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Kahlid_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Krypton555_1 Start: 84, Stop: 464, Start Num: 4
Candidate Starts for Krypton555_1:
(3, 78), (Start: 4 @84 has 56 MA's), (6, 204), (9, 243), (22, 351), (24, 378), (26, 393),

Gene: LeBron_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for LeBron_1:
(Start: 4 @83 has 56 MA's), (7, 209), (8, 215), (11, 272), (13, 296), (14, 302), (18, 323), (23, 371), (26, 398), (28, 434),

Gene: Lewan_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Lewan_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: LilDestine_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for LilDestine_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: LiyuLake_1 Start: 86, Stop: 466, Start Num: 4
Candidate Starts for LiyuLake_1:
(Start: 4 @86 has 56 MA's), (6, 206), (22, 353), (24, 380), (25, 389), (26, 395),

Gene: Loadrie_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Loadrie_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Lynnae_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Lynnae_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: MAckerman_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for MAckerman_1:
(Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Miley16_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Miley16_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: MkaliMitinis3_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for MkaliMitinis3_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Moostard_1 Start: 84, Stop: 461, Start Num: 4
Candidate Starts for Moostard_1:
(Start: 4 @84 has 56 MA's), (9, 243), (10, 246), (19, 312), (22, 351), (24, 378), (25, 387), (26, 393),

Gene: Netyap_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Netyap_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Nicholasp3_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Nicholasp3_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: OhShagHennessy_1 Start: 80, Stop: 463, Start Num: 4
Candidate Starts for OhShagHennessy_1:
(Start: 4 @80 has 56 MA's), (12, 263), (17, 299), (20, 314), (21, 344), (25, 383),

Gene: OverPar_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for OverPar_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Rose5_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Rose5_1:
(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Rossetti_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Rossetti_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Rumpelstiltskin_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Rumpelstiltskin_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Samty_1 Start: 84, Stop: 461, Start Num: 4
Candidate Starts for Samty_1:
(Start: 4 @84 has 56 MA's), (9, 243), (10, 246), (19, 312), (22, 351), (24, 378), (25, 387), (26, 393),

Gene: Sarshaun_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Sarshaun_1:

(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Silverleaf_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Silverleaf_1:
(Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: SoJulia_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for SoJulia_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Soap141_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Soap141_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Tourach_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Tourach_1:
(Start: 4 @91 has 56 MA's), (5, 193), (7, 211), (12, 283), (15, 310), (18, 322), (28, 439),

Gene: Tyson_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Tyson_1:
(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: UPIE_1 Start: 83, Stop: 466, Start Num: 4
Candidate Starts for UPIE_1:
(Start: 4 @83 has 56 MA's), (7, 209), (8, 215), (11, 272), (13, 296), (14, 302), (18, 323), (23, 371), (26, 398), (28, 434),

Gene: Underpass_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Underpass_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Vetrix_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Vetrix_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Wamburgrxpress_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Wamburgrxpress_1:
(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Whirlwind_1 Start: 84, Stop: 464, Start Num: 4
Candidate Starts for Whirlwind_1:
(3, 78), (Start: 4 @84 has 56 MA's), (6, 204), (22, 351), (24, 378), (25, 387), (26, 393),

Gene: Wigglewiggle_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Wigglewiggle_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Wilder_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Wilder_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Winky_1 Start: 91, Stop: 468, Start Num: 4
Candidate Starts for Winky_1:
(Start: 4 @91 has 56 MA's), (5, 193), (12, 283), (15, 310), (18, 322), (22, 367), (27, 412), (28, 439),

Gene: Wyatt2_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Wyatt2_1:
(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: Zakai_1 Start: 91, Stop: 456, Start Num: 4
Candidate Starts for Zakai_1:
(Start: 4 @91 has 56 MA's), (5, 181), (12, 271), (15, 298), (18, 310), (22, 355), (27, 400), (28, 427),

Gene: Zaria_1 Start: 82, Stop: 465, Start Num: 4
Candidate Starts for Zaria_1:
(1, 40), (Start: 4 @82 has 56 MA's), (7, 208), (8, 214), (11, 271), (14, 301), (18, 322), (23, 370), (26, 397), (28, 433),

Gene: ZhongYanYuan_1 Start: 100, Stop: 480, Start Num: 4
Candidate Starts for ZhongYanYuan_1:
(Start: 4 @100 has 56 MA's), (5, 205), (7, 223), (12, 295), (15, 322), (16, 325), (18, 334), (22, 379), (27, 424), (28, 451),