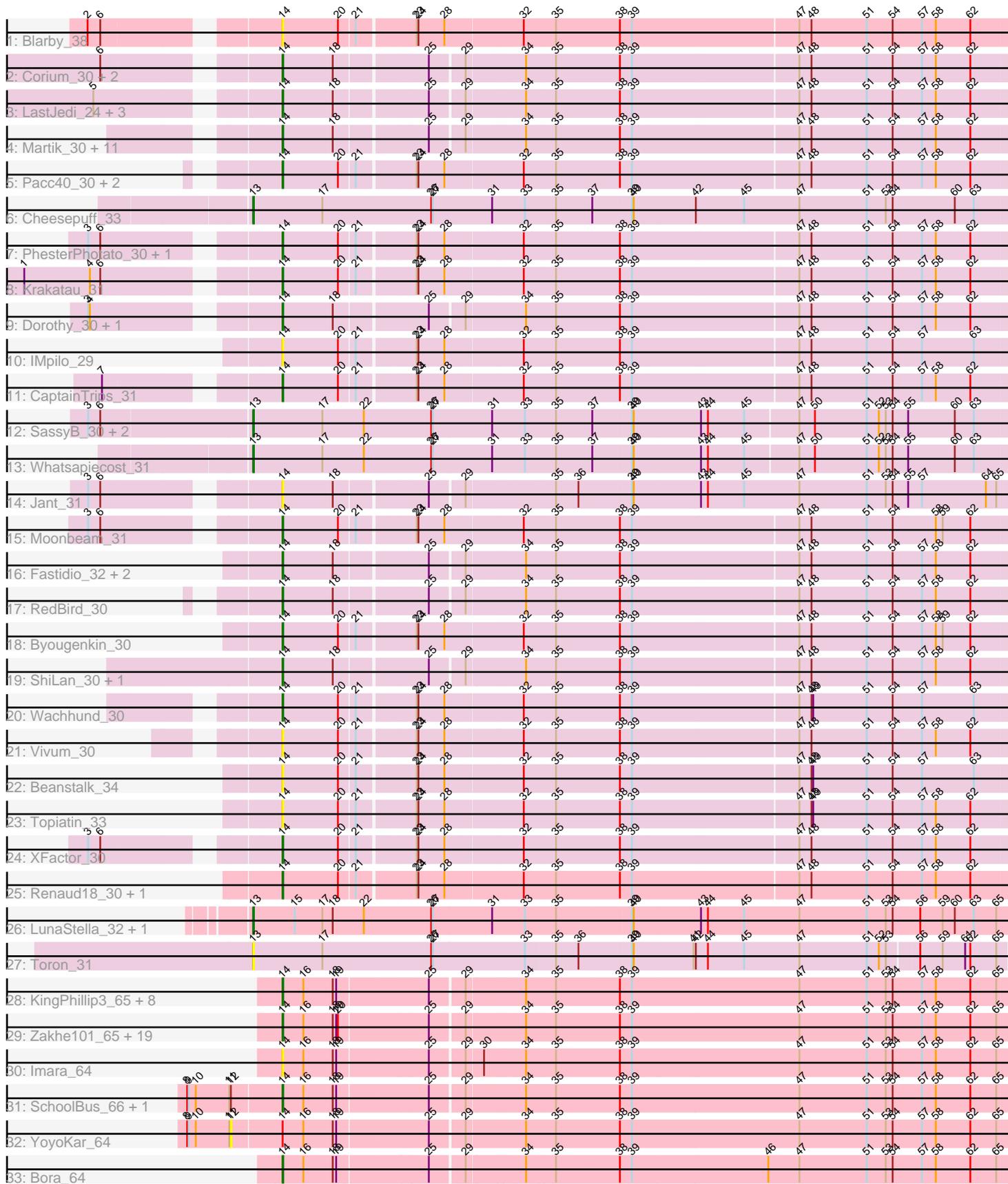# Pham 282148

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 282148 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282148 has 88 members, 15 are drafts.

Phages represented in each track:
• Track 1 : Blarby_38
• Track 2 : Corium_30, PatoPoderoso_30, KingJulian_30
• Track 3 : LastJedi_24, Koella_24, Jennelsea_24, Clifton_24
• Track 4 : Martik_30, Maravista_30, NormanBulbieJr_30, ByChance_30, SwagPigglett_30, Nivrat_30, ShowerHandel_30, Zizzle_30, Yorick_30, LilMoolah_30, Burwell21_30, Lizziana_30
• Track 5 : Pacc40_30, Blexus_30, Leperchaun_30
• Track 6 : Cheesepuff_33
• Track 7 : PhesterPhotato_30, Phalconet_30
• Track 8 : Krakatau_31
• Track 9 : Dorothy_30, DaddyRickover_30
• Track 10 : IMpilo_29
• Track 11 : CaptainTrips_31
• Track 12 : SassyB_30, Seagreen_31, PopTart_30
• Track 13 : Whatsapiecost_31
• Track 14 : Jant_31
• Track 15 : Moonbeam_31
• Track 16 : Fastidio_32, SiSi_30, DillTech15_30
• Track 17 : RedBird_30
• Track 18 : Byougenkin_30
• Track 19 : ShiLan_30, Jarcob_30
• Track 20 : Wachhund_30
• Track 21 : Vivum_30
• Track 22 : Beanstalk_34
• Track 23 : Topiatin_33
• Track 24 : XFactor_30
• Track 25 : Renaud18_30, Chuckly_30
• Track 26 : LunaStella_32, TChen_30
• Track 27 : Toron_31
• Track 28 : KingPhillip3_65, Idergollasper_66, Schuy_67, TelAviv_63, Blessica_67, JangDynasty_66, Catdawg_66, MadKillah_67, Zebo_66
• Track 29 : Zakhe101_65, FoulBall_66, Wildflower_66, Winget_67, Vagabond_66, Firecracker_67, Dylan_66, Smooch_69, Alkhayr_66, Shida_66, YungJamal_71, Ryadel_70, Corndog_69, Krili_65, Vorrps_66, Ashwin_68, Wogge42_65, Murai_67, Mori_66, NiebruSaylor_65
• Track 30 : Imara_64
• Track 31 : SchoolBus_66, Familton_67

• Track 32 : YoyoKar_64
• Track 33 : Bora_64

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

The start number called the most often in the published annotations is 14, it was called in 66 of the 73 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alkhayr_66, Ashwin_68, Beanstalk_34, Blarby_38, Blessica_67, Blexus_30, Bora_64, Burwell21_30, ByChance_30, Byougenkin_30, CaptainTrips_31, Catdawg_66, Chuckly_30, Clifton_24, Corium_30, Corndog_69, DaddyRickover_30, DillTech15_30, Dorothy_30, Dylan_66, Familton_67, Fastidio_32, Firecracker_67, FoulBall_66, IMpilo_29, Idergollasper_66, Imara_64, JangDynasty_66, Jant_31, Jarcob_30, Jennelsea_24, KingJulian_30, KingPhillip3_65, Koella_24, Krakatau_31, Krili_65, LastJedi_24, Leperchaun_30, LilMoolah_30, Lizziana_30, MadKillah_67, Maravista_30, Martik_30, Moonbeam_31, Mori_66, Murai_67, NiebruSaylor_65, Nivrat_30, NormanBulbieJr_30, Pacc40_30, PatoPoderoso_30, Phalconet_30, PhesterPhotato_30, RedBird_30, Renaud18_30, Ryadel_70, SchoolBus_66, Schuy_67, ShiLan_30, Shida_66, ShowerHandel_30, SiSi_30, Smooch_69, SwagPigglett_30, TelAviv_63, Topiatin_33, Vagabond_66, Vivum_30, Vorrps_66, Wachhund_30, Wildflower_66, Winget_67, Wogge42_65, XFactor_30, Yorick_30, YungJamal_71, Zakhe101_65, Zebo_66, Zizzle_30,

Genes that have the "Most Annotated" start but do not call it:
• YoyoKar_64,

Genes that do not have the "Most Annotated" start:
• Cheesepuff_33, LunaStella_32, PopTart_30, SassyB_30, Seagreen_31, TChen_30, Toron_31, Whatsapiecost_31,

Summary by start number:

Start 12:
• Found in 3 of 88 (3.4%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: YoyoKar_64 (O),

Start 13:
• Found in 8 of 88 (9.1%) of genes in pham
• Manual Annotations of this start: 7 of 73
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cheesepuff_33 (F1), LunaStella_32 (F4), PopTart_30 (F1), SassyB_30 (F1), Seagreen_31 (F1), TChen_30 (F4), Toron_31 (F6), Whatsapiecost_31 (F1),

Start 14:
• Found in 80 of 88 (90.9%) of genes in pham
• Manual Annotations of this start: 66 of 73

• Called 98.8% of time when present
• Phage (with cluster) where this start called: Alkhayr_66 (O), Ashwin_68 (O), Beanstalk_34 (F1), Blarby_38 (F), Blessica_67 (O), Blexus_30 (F1), Bora_64 (O), Burwell21_30 (F1), ByChance_30 (F1), Byougenkin_30 (F1), CaptainTrips_31 (F1), Catdawg_66 (O), Chuckly_30 (F1), Clifton_24 (F1), Corium_30 (F1), Corndog_69 (O), DaddyRickover_30 (F1), DillTech15_30 (F1), Dorothy_30 (F1), Dylan_66 (O), Familton_67 (O), Fastidio_32 (F1), Firecracker_67 (O), FoulBall_66 (O), IMpilo_29 (F1), Idergollasper_66 (O), Imara_64 (O), JangDynasty_66 (O), Jant_31 (F1), Jarcob_30 (F1), Jennelsea_24 (F1), KingJulian_30 (F1), KingPhillip3_65 (O), Koella_24 (F1), Krakatau_31 (F1), Krili_65 (O), LastJedi_24 (F1), Leperchaun_30 (F1), LilMoolah_30 (F1), Lizziana_30 (F1), MadKillah_67 (O), Maravista_30 (F1), Martik_30 (F1), Moonbeam_31 (F1), Mori_66 (O), Murai_67 (O), NiebruSaylor_65 (O), Nivrat_30 (F1), NormanBulbieJr_30 (F1), Pacc40_30 (F1), PatoPoderoso_30 (F1), Phalconet_30 (F1), PhesterPhotato_30 (F1), RedBird_30 (F1), Renaud18_30 (F4), Ryadel_70 (O), SchoolBus_66 (O), Schuy_67 (O), ShiLan_30 (F1), Shida_66 (O), ShowerHandel_30 (F1), SiSi_30 (F1), Smooch_69 (O), SwagPigglett_30 (F1), TelAviv_63 (O), Topiatin_33 (F1), Vagabond_66 (O), Vivum_30 (F1), Vorrps_66 (O), Wachhund_30 (F1), Wildflower_66 (O), Winget_67 (O), Wogge42_65 (O), XFactor_30 (F1), Yorick_30 (F1), YungJamal_71 (O), Zakhe101_65 (O), Zebo_66 (O), Zizzle_30 (F1),

Summary by clusters:

There are 5 clusters represented in this pham: F1, F4, F6, O, F,

Info for manual annotations of cluster F1:
•Start number 13 was manually annotated 5 times for cluster F1.
•Start number 14 was manually annotated 35 times for cluster F1.

Info for manual annotations of cluster F4:
•Start number 13 was manually annotated 2 times for cluster F4.
•Start number 14 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster O:
•Start number 14 was manually annotated 30 times for cluster O.

Gene Information:
Gene: Alkhayr_66 Start: 41911, Stop: 43131, Start Num: 14
Candidate Starts for Alkhayr_66:
(Start: 14 @41911 has 66 MA's), (16, 41947), (18, 41998), (19, 42004), (20, 42007), (25, 42154), (29, 42208), (34, 42301), (35, 42349), (38, 42457), (39, 42478), (47, 42766), (51, 42883), (53, 42916), (54, 42928), (57, 42979), (58, 43003), (62, 43063), (65, 43108),

Gene: Ashwin_68 Start: 42681, Stop: 43901, Start Num: 14
Candidate Starts for Ashwin_68:
(Start: 14 @42681 has 66 MA's), (16, 42717), (18, 42768), (19, 42774), (20, 42777), (25, 42924), (29, 42978), (34, 43071), (35, 43119), (38, 43227), (39, 43248), (47, 43536), (51, 43653), (53, 43686), (54, 43698), (57, 43749), (58, 43773), (62, 43833), (65, 43878),

Gene: Beanstalk_34 Start: 26500, Stop: 27711, Start Num: 14
Candidate Starts for Beanstalk_34:
(Start: 14 @26500 has 66 MA's), (20, 26596), (21, 26620), (23, 26713), (24, 26716), (28, 26761), (32, 26890), (35, 26941), (38, 27052), (39, 27073), (47, 27355), (48, 27376), (49, 27379), (51, 27472), (54, 27517), (57, 27565), (63, 27655),

Gene: Blarby_38 Start: 26777, Stop: 27985, Start Num: 14
Candidate Starts for Blarby_38:
(2, 26501), (6, 26522), (Start: 14 @26777 has 66 MA's), (20, 26873), (21, 26897), (23, 26990), (24, 26993), (28, 27038), (32, 27167), (35, 27218), (38, 27329), (39, 27350), (47, 27632), (48, 27653), (51, 27749), (54, 27794), (57, 27839), (58, 27863), (62, 27923),

Gene: Blessica_67 Start: 42510, Stop: 43730, Start Num: 14
Candidate Starts for Blessica_67:
(Start: 14 @42510 has 66 MA's), (16, 42546), (18, 42597), (19, 42603), (25, 42753), (29, 42807), (34, 42900), (35, 42948), (38, 43056), (39, 43077), (47, 43365), (51, 43482), (53, 43515), (54, 43527), (57, 43578), (58, 43602), (62, 43662), (65, 43707),

Gene: Blexus_30 Start: 26628, Stop: 27836, Start Num: 14
Candidate Starts for Blexus_30:
(Start: 14 @26628 has 66 MA's), (20, 26724), (21, 26748), (23, 26841), (24, 26844), (28, 26889), (32, 27018), (35, 27069), (38, 27180), (39, 27201), (47, 27483), (48, 27504), (51, 27600), (54, 27645), (57, 27690), (58, 27714), (62, 27774),

Gene: Bora_64 Start: 41867, Stop: 43111, Start Num: 14
Candidate Starts for Bora_64:
(Start: 14 @41867 has 66 MA's), (16, 41903), (18, 41954), (19, 41960), (25, 42110), (29, 42164), (34, 42257), (35, 42305), (38, 42413), (39, 42434), (46, 42668), (47, 42722), (51, 42839), (53, 42872), (54, 42884), (57, 42935), (58, 42959), (62, 43019), (65, 43064),

Gene: Burwell21_30 Start: 26501, Stop: 27697, Start Num: 14
Candidate Starts for Burwell21_30:
(Start: 14 @26501 has 66 MA's), (18, 26585), (25, 26735), (29, 26789), (34, 26882), (35, 26930), (38, 27041), (39, 27062), (47, 27344), (48, 27365), (51, 27461), (54, 27506), (57, 27551), (58, 27575), (62, 27635),

Gene: ByChance_30 Start: 26478, Stop: 27674, Start Num: 14
Candidate Starts for ByChance_30:
(Start: 14 @26478 has 66 MA's), (18, 26562), (25, 26712), (29, 26766), (34, 26859), (35, 26907), (38, 27018), (39, 27039), (47, 27321), (48, 27342), (51, 27438), (54, 27483), (57, 27528), (58, 27552), (62, 27612),

Gene: Byougenkin_30 Start: 26387, Stop: 27595, Start Num: 14
Candidate Starts for Byougenkin_30:
(Start: 14 @26387 has 66 MA's), (20, 26483), (21, 26507), (23, 26600), (24, 26603), (28, 26648), (32, 26777), (35, 26828), (38, 26939), (39, 26960), (47, 27242), (48, 27263), (51, 27359), (54, 27404), (57, 27449), (58, 27473), (59, 27485), (62, 27533),

Gene: CaptainTrips_31 Start: 26707, Stop: 27915, Start Num: 14
Candidate Starts for CaptainTrips_31:
(7, 26455), (Start: 14 @26707 has 66 MA's), (20, 26803), (21, 26827), (23, 26920), (24, 26923), (28, 26968), (32, 27097), (35, 27148), (38, 27259), (39, 27280), (47, 27562), (48, 27583), (51, 27679), (54,

27724), (57, 27769), (58, 27793), (62, 27853),

Gene: Catdawg_66 Start: 42246, Stop: 43466, Start Num: 14
Candidate Starts for Catdawg_66:
(Start: 14 @42246 has 66 MA's), (16, 42282), (18, 42333), (19, 42339), (25, 42489), (29, 42543), (34, 42636), (35, 42684), (38, 42792), (39, 42813), (47, 43101), (51, 43218), (53, 43251), (54, 43263), (57, 43314), (58, 43338), (62, 43398), (65, 43443),

Gene: Cheesepuff_33 Start: 27483, Stop: 28778, Start Num: 13
Candidate Starts for Cheesepuff_33:
(Start: 13 @27483 has 7 MA's), (17, 27603), (26, 27792), (27, 27795), (31, 27897), (33, 27954), (35, 28008), (37, 28071), (39, 28134), (40, 28137), (42, 28242), (45, 28326), (47, 28422), (51, 28539), (53, 28572), (54, 28584), (60, 28689), (63, 28722),

Gene: Chuckly_30 Start: 26483, Stop: 27691, Start Num: 14
Candidate Starts for Chuckly_30:
(Start: 14 @26483 has 66 MA's), (20, 26579), (21, 26603), (23, 26696), (24, 26699), (28, 26744), (32, 26873), (35, 26924), (38, 27035), (39, 27056), (47, 27338), (48, 27359), (51, 27455), (54, 27500), (57, 27545), (58, 27569), (62, 27629),

Gene: Clifton_24 Start: 22465, Stop: 23661, Start Num: 14
Candidate Starts for Clifton_24:
(5, 22195), (Start: 14 @22465 has 66 MA's), (18, 22549), (25, 22699), (29, 22753), (34, 22846), (35, 22894), (38, 23005), (39, 23026), (47, 23308), (48, 23329), (51, 23425), (54, 23470), (57, 23515), (58, 23539), (62, 23599),

Gene: Corium_30 Start: 26519, Stop: 27715, Start Num: 14
Candidate Starts for Corium_30:
(6, 26267), (Start: 14 @26519 has 66 MA's), (18, 26603), (25, 26753), (29, 26807), (34, 26900), (35, 26948), (38, 27059), (39, 27080), (47, 27362), (48, 27383), (51, 27479), (54, 27524), (57, 27569), (58, 27593), (62, 27653),

Gene: Corndog_69 Start: 43240, Stop: 44460, Start Num: 14
Candidate Starts for Corndog_69:
(Start: 14 @43240 has 66 MA's), (16, 43276), (18, 43327), (19, 43333), (20, 43336), (25, 43483), (29, 43537), (34, 43630), (35, 43678), (38, 43786), (39, 43807), (47, 44095), (51, 44212), (53, 44245), (54, 44257), (57, 44308), (58, 44332), (62, 44392), (65, 44437),

Gene: DaddyRickover_30 Start: 26502, Stop: 27698, Start Num: 14
Candidate Starts for DaddyRickover_30:
(3, 26229), (4, 26232), (Start: 14 @26502 has 66 MA's), (18, 26586), (25, 26736), (29, 26790), (34, 26883), (35, 26931), (38, 27042), (39, 27063), (47, 27345), (48, 27366), (51, 27462), (54, 27507), (57, 27552), (58, 27576), (62, 27636),

Gene: DillTech15_30 Start: 26411, Stop: 27607, Start Num: 14
Candidate Starts for DillTech15_30:
(Start: 14 @26411 has 66 MA's), (18, 26495), (25, 26645), (29, 26699), (34, 26792), (35, 26840), (38, 26951), (39, 26972), (47, 27254), (48, 27275), (51, 27371), (54, 27416), (57, 27461), (58, 27485), (62, 27545),

Gene: Dorothy_30 Start: 26287, Stop: 27483, Start Num: 14
Candidate Starts for Dorothy_30:

(3, 26014), (4, 26017), (Start: 14 @26287 has 66 MA's), (18, 26371), (25, 26521), (29, 26575), (34, 26668), (35, 26716), (38, 26827), (39, 26848), (47, 27130), (48, 27151), (51, 27247), (54, 27292), (57, 27337), (58, 27361), (62, 27421),

Gene: Dylan_66 Start: 42293, Stop: 43513, Start Num: 14
Candidate Starts for Dylan_66:
(Start: 14 @42293 has 66 MA's), (16, 42329), (18, 42380), (19, 42386), (20, 42389), (25, 42536), (29, 42590), (34, 42683), (35, 42731), (38, 42839), (39, 42860), (47, 43148), (51, 43265), (53, 43298), (54, 43310), (57, 43361), (58, 43385), (62, 43445), (65, 43490),

Gene: Familton_67 Start: 42203, Stop: 43423, Start Num: 14
Candidate Starts for Familton_67:
(8, 42050), (9, 42053), (10, 42065), (11, 42119), (12, 42122), (Start: 14 @42203 has 66 MA's), (16, 42239), (18, 42290), (19, 42296), (25, 42446), (29, 42500), (34, 42593), (35, 42641), (38, 42749), (39, 42770), (47, 43058), (51, 43175), (53, 43208), (54, 43220), (57, 43271), (58, 43295), (62, 43355), (65, 43400),

Gene: Fastidio_32 Start: 26640, Stop: 27836, Start Num: 14
Candidate Starts for Fastidio_32:
(Start: 14 @26640 has 66 MA's), (18, 26724), (25, 26874), (29, 26928), (34, 27021), (35, 27069), (38, 27180), (39, 27201), (47, 27483), (48, 27504), (51, 27600), (54, 27645), (57, 27690), (58, 27714), (62, 27774),

Gene: Firecracker_67 Start: 42393, Stop: 43643, Start Num: 14
Candidate Starts for Firecracker_67:
(Start: 14 @42393 has 66 MA's), (16, 42429), (18, 42480), (19, 42486), (20, 42489), (25, 42636), (29, 42690), (34, 42783), (35, 42831), (38, 42939), (39, 42960), (47, 43248), (51, 43365), (53, 43398), (54, 43410), (57, 43461), (58, 43485), (62, 43545), (65, 43590),

Gene: FoulBall_66 Start: 42197, Stop: 43417, Start Num: 14
Candidate Starts for FoulBall_66:
(Start: 14 @42197 has 66 MA's), (16, 42233), (18, 42284), (19, 42290), (20, 42293), (25, 42440), (29, 42494), (34, 42587), (35, 42635), (38, 42743), (39, 42764), (47, 43052), (51, 43169), (53, 43202), (54, 43214), (57, 43265), (58, 43289), (62, 43349), (65, 43394),

Gene: IMpilo_29 Start: 26117, Stop: 27328, Start Num: 14
Candidate Starts for IMpilo_29:
(Start: 14 @26117 has 66 MA's), (20, 26213), (21, 26237), (23, 26330), (24, 26333), (28, 26378), (32, 26507), (35, 26558), (38, 26669), (39, 26690), (47, 26972), (48, 26993), (51, 27089), (54, 27134), (57, 27182), (63, 27272),

Gene: Idergollasper_66 Start: 42197, Stop: 43417, Start Num: 14
Candidate Starts for Idergollasper_66:
(Start: 14 @42197 has 66 MA's), (16, 42233), (18, 42284), (19, 42290), (25, 42440), (29, 42494), (34, 42587), (35, 42635), (38, 42743), (39, 42764), (47, 43052), (51, 43169), (53, 43202), (54, 43214), (57, 43265), (58, 43289), (62, 43349), (65, 43394),

Gene: Imara_64 Start: 41997, Stop: 43217, Start Num: 14
Candidate Starts for Imara_64:
(Start: 14 @41997 has 66 MA's), (16, 42033), (18, 42084), (19, 42090), (25, 42240), (29, 42294), (30, 42321), (34, 42387), (35, 42435), (38, 42543), (39, 42564), (47, 42852), (51, 42969), (53, 43002), (54, 43014), (57, 43065), (58, 43089), (62, 43149), (65, 43194),

Gene: JangDynasty_66 Start: 42283, Stop: 43503, Start Num: 14
Candidate Starts for JangDynasty_66:
(Start: 14 @42283 has 66 MA's), (16, 42319), (18, 42370), (19, 42376), (25, 42526), (29, 42580), (34, 42673), (35, 42721), (38, 42829), (39, 42850), (47, 43138), (51, 43255), (53, 43288), (54, 43300), (57, 43351), (58, 43375), (62, 43435), (65, 43480),

Gene: Jant_31 Start: 26496, Stop: 27698, Start Num: 14
Candidate Starts for Jant_31:
(3, 26223), (6, 26244), (Start: 14 @26496 has 66 MA's), (18, 26580), (25, 26730), (29, 26784), (35, 26925), (36, 26964), (39, 27051), (40, 27054), (43, 27168), (44, 27180), (45, 27243), (47, 27339), (51, 27456), (53, 27489), (54, 27501), (55, 27525), (57, 27549), (64, 27660), (65, 27678),

Gene: Jarcob_30 Start: 26553, Stop: 27749, Start Num: 14
Candidate Starts for Jarcob_30:
(Start: 14 @26553 has 66 MA's), (18, 26637), (25, 26787), (29, 26841), (34, 26934), (35, 26982), (38, 27093), (39, 27114), (47, 27396), (48, 27417), (51, 27513), (54, 27558), (57, 27603), (58, 27627), (62, 27687),

Gene: Jennelsea_24 Start: 22465, Stop: 23661, Start Num: 14
Candidate Starts for Jennelsea_24:
(5, 22195), (Start: 14 @22465 has 66 MA's), (18, 22549), (25, 22699), (29, 22753), (34, 22846), (35, 22894), (38, 23005), (39, 23026), (47, 23308), (48, 23329), (51, 23425), (54, 23470), (57, 23515), (58, 23539), (62, 23599),

Gene: KingJulian_30 Start: 26519, Stop: 27715, Start Num: 14
Candidate Starts for KingJulian_30:
(6, 26267), (Start: 14 @26519 has 66 MA's), (18, 26603), (25, 26753), (29, 26807), (34, 26900), (35, 26948), (38, 27059), (39, 27080), (47, 27362), (48, 27383), (51, 27479), (54, 27524), (57, 27569), (58, 27593), (62, 27653),

Gene: KingPhillip3_65 Start: 42212, Stop: 43432, Start Num: 14
Candidate Starts for KingPhillip3_65:
(Start: 14 @42212 has 66 MA's), (16, 42248), (18, 42299), (19, 42305), (25, 42455), (29, 42509), (34, 42602), (35, 42650), (38, 42758), (39, 42779), (47, 43067), (51, 43184), (53, 43217), (54, 43229), (57, 43280), (58, 43304), (62, 43364), (65, 43409),

Gene: Koella_24 Start: 22477, Stop: 23673, Start Num: 14
Candidate Starts for Koella_24:
(5, 22207), (Start: 14 @22477 has 66 MA's), (18, 22561), (25, 22711), (29, 22765), (34, 22858), (35, 22906), (38, 23017), (39, 23038), (47, 23320), (48, 23341), (51, 23437), (54, 23482), (57, 23527), (58, 23551), (62, 23611),

Gene: Krakatau_31 Start: 27006, Stop: 28214, Start Num: 14
Candidate Starts for Krakatau_31:
(1, 26619), (4, 26733), (6, 26751), (Start: 14 @27006 has 66 MA's), (20, 27102), (21, 27126), (23, 27219), (24, 27222), (28, 27267), (32, 27396), (35, 27447), (38, 27558), (39, 27579), (47, 27861), (48, 27882), (51, 27978), (54, 28023), (57, 28068), (58, 28092), (62, 28152),

Gene: Krili_65 Start: 41707, Stop: 42927, Start Num: 14
Candidate Starts for Krili_65:
(Start: 14 @41707 has 66 MA's), (16, 41743), (18, 41794), (19, 41800), (20, 41803), (25, 41950), (29, 42004), (34, 42097), (35, 42145), (38, 42253), (39, 42274), (47, 42562), (51, 42679), (53, 42712), (54, 42724), (57, 42775), (58, 42799), (62, 42859), (65, 42904),

Gene: LastJedi_24 Start: 22508, Stop: 23704, Start Num: 14
Candidate Starts for LastJedi_24:
(5, 22238), (Start: 14 @22508 has 66 MA's), (18, 22592), (25, 22742), (29, 22796), (34, 22889), (35, 22937), (38, 23048), (39, 23069), (47, 23351), (48, 23372), (51, 23468), (54, 23513), (57, 23558), (58, 23582), (62, 23642),

Gene: Leperchaun_30 Start: 26385, Stop: 27593, Start Num: 14
Candidate Starts for Leperchaun_30:
(Start: 14 @26385 has 66 MA's), (20, 26481), (21, 26505), (23, 26598), (24, 26601), (28, 26646), (32, 26775), (35, 26826), (38, 26937), (39, 26958), (47, 27240), (48, 27261), (51, 27357), (54, 27402), (57, 27447), (58, 27471), (62, 27531),

Gene: LilMoolah_30 Start: 26601, Stop: 27797, Start Num: 14
Candidate Starts for LilMoolah_30:
(Start: 14 @26601 has 66 MA's), (18, 26685), (25, 26835), (29, 26889), (34, 26982), (35, 27030), (38, 27141), (39, 27162), (47, 27444), (48, 27465), (51, 27561), (54, 27606), (57, 27651), (58, 27675), (62, 27735),

Gene: Lizziana_30 Start: 26476, Stop: 27672, Start Num: 14
Candidate Starts for Lizziana_30:
(Start: 14 @26476 has 66 MA's), (18, 26560), (25, 26710), (29, 26764), (34, 26857), (35, 26905), (38, 27016), (39, 27037), (47, 27319), (48, 27340), (51, 27436), (54, 27481), (57, 27526), (58, 27550), (62, 27610),

Gene: LunaStella_32 Start: 26826, Stop: 28124, Start Num: 13
Candidate Starts for LunaStella_32:
(Start: 13 @26826 has 7 MA's), (15, 26898), (17, 26946), (18, 26964), (22, 27018), (26, 27135), (27, 27138), (31, 27240), (33, 27297), (35, 27351), (39, 27477), (40, 27480), (43, 27594), (44, 27606), (45, 27669), (47, 27765), (51, 27882), (53, 27915), (54, 27927), (56, 27972), (59, 28011), (60, 28032), (63, 28065), (65, 28104),

Gene: MadKillah_67 Start: 41976, Stop: 43196, Start Num: 14
Candidate Starts for MadKillah_67:
(Start: 14 @41976 has 66 MA's), (16, 42012), (18, 42063), (19, 42069), (25, 42219), (29, 42273), (34, 42366), (35, 42414), (38, 42522), (39, 42543), (47, 42831), (51, 42948), (53, 42981), (54, 42993), (57, 43044), (58, 43068), (62, 43128), (65, 43173),

Gene: Maravista_30 Start: 26258, Stop: 27454, Start Num: 14
Candidate Starts for Maravista_30:
(Start: 14 @26258 has 66 MA's), (18, 26342), (25, 26492), (29, 26546), (34, 26639), (35, 26687), (38, 26798), (39, 26819), (47, 27101), (48, 27122), (51, 27218), (54, 27263), (57, 27308), (58, 27332), (62, 27392),

Gene: Martik_30 Start: 26503, Stop: 27699, Start Num: 14
Candidate Starts for Martik_30:
(Start: 14 @26503 has 66 MA's), (18, 26587), (25, 26737), (29, 26791), (34, 26884), (35, 26932), (38, 27043), (39, 27064), (47, 27346), (48, 27367), (51, 27463), (54, 27508), (57, 27553), (58, 27577), (62, 27637),

Gene: Moonbeam_31 Start: 26999, Stop: 28207, Start Num: 14
Candidate Starts for Moonbeam_31:

(3, 26726), (6, 26747), (Start: 14 @26999 has 66 MA's), (20, 27095), (21, 27119), (23, 27212), (24, 27215), (28, 27260), (32, 27389), (35, 27440), (38, 27551), (39, 27572), (47, 27854), (48, 27875), (51, 27971), (54, 28016), (58, 28085), (59, 28097), (62, 28145),

Gene: Mori_66 Start: 42238, Stop: 43458, Start Num: 14
Candidate Starts for Mori_66:
(Start: 14 @42238 has 66 MA's), (16, 42274), (18, 42325), (19, 42331), (20, 42334), (25, 42481), (29, 42535), (34, 42628), (35, 42676), (38, 42784), (39, 42805), (47, 43093), (51, 43210), (53, 43243), (54, 43255), (57, 43306), (58, 43330), (62, 43390), (65, 43435),

Gene: Murai_67 Start: 42419, Stop: 43639, Start Num: 14
Candidate Starts for Murai_67:
(Start: 14 @42419 has 66 MA's), (16, 42455), (18, 42506), (19, 42512), (20, 42515), (25, 42662), (29, 42716), (34, 42809), (35, 42857), (38, 42965), (39, 42986), (47, 43274), (51, 43391), (53, 43424), (54, 43436), (57, 43487), (58, 43511), (62, 43571), (65, 43616),

Gene: NiebruSaylor_65 Start: 41626, Stop: 42846, Start Num: 14
Candidate Starts for NiebruSaylor_65:
(Start: 14 @41626 has 66 MA's), (16, 41662), (18, 41713), (19, 41719), (20, 41722), (25, 41869), (29, 41923), (34, 42016), (35, 42064), (38, 42172), (39, 42193), (47, 42481), (51, 42598), (53, 42631), (54, 42643), (57, 42694), (58, 42718), (62, 42778), (65, 42823),

Gene: Nivrat_30 Start: 26475, Stop: 27671, Start Num: 14
Candidate Starts for Nivrat_30:
(Start: 14 @26475 has 66 MA's), (18, 26559), (25, 26709), (29, 26763), (34, 26856), (35, 26904), (38, 27015), (39, 27036), (47, 27318), (48, 27339), (51, 27435), (54, 27480), (57, 27525), (58, 27549), (62, 27609),

Gene: NormanBulbieJr_30 Start: 26490, Stop: 27686, Start Num: 14
Candidate Starts for NormanBulbieJr_30:
(Start: 14 @26490 has 66 MA's), (18, 26574), (25, 26724), (29, 26778), (34, 26871), (35, 26919), (38, 27030), (39, 27051), (47, 27333), (48, 27354), (51, 27450), (54, 27495), (57, 27540), (58, 27564), (62, 27624),

Gene: Pacc40_30 Start: 26481, Stop: 27689, Start Num: 14
Candidate Starts for Pacc40_30:
(Start: 14 @26481 has 66 MA's), (20, 26577), (21, 26601), (23, 26694), (24, 26697), (28, 26742), (32, 26871), (35, 26922), (38, 27033), (39, 27054), (47, 27336), (48, 27357), (51, 27453), (54, 27498), (57, 27543), (58, 27567), (62, 27627),

Gene: PatoPoderoso_30 Start: 26519, Stop: 27715, Start Num: 14
Candidate Starts for PatoPoderoso_30:
(6, 26267), (Start: 14 @26519 has 66 MA's), (18, 26603), (25, 26753), (29, 26807), (34, 26900), (35, 26948), (38, 27059), (39, 27080), (47, 27362), (48, 27383), (51, 27479), (54, 27524), (57, 27569), (58, 27593), (62, 27653),

Gene: Phalconet_30 Start: 26423, Stop: 27631, Start Num: 14
Candidate Starts for Phalconet_30:
(3, 26147), (6, 26168), (Start: 14 @26423 has 66 MA's), (20, 26519), (21, 26543), (23, 26636), (24, 26639), (28, 26684), (32, 26813), (35, 26864), (38, 26975), (39, 26996), (47, 27278), (48, 27299), (51, 27395), (54, 27440), (57, 27485), (58, 27509), (62, 27569),

Gene: PhesterPhotato_30 Start: 26343, Stop: 27551, Start Num: 14

Candidate Starts for PhesterPhotato_30:
(3, 26067), (6, 26088), (Start: 14 @26343 has 66 MA's), (20, 26439), (21, 26463), (23, 26556), (24, 26559), (28, 26604), (32, 26733), (35, 26784), (38, 26895), (39, 26916), (47, 27198), (48, 27219), (51, 27315), (54, 27360), (57, 27405), (58, 27429), (62, 27489),

Gene: PopTart_30 Start: 26544, Stop: 27830, Start Num: 13
Candidate Starts for PopTart_30:
(3, 26271), (6, 26292), (Start: 13 @26544 has 7 MA's), (17, 26664), (22, 26736), (26, 26853), (27, 26856), (31, 26958), (33, 27015), (35, 27069), (37, 27132), (39, 27195), (40, 27198), (43, 27312), (44, 27324), (45, 27387), (47, 27474), (50, 27501), (51, 27591), (52, 27612), (53, 27624), (54, 27636), (55, 27660), (60, 27741), (63, 27774),

Gene: RedBird_30 Start: 26299, Stop: 27495, Start Num: 14
Candidate Starts for RedBird_30:
(Start: 14 @26299 has 66 MA's), (18, 26383), (25, 26533), (29, 26587), (34, 26680), (35, 26728), (38, 26839), (39, 26860), (47, 27142), (48, 27163), (51, 27259), (54, 27304), (57, 27349), (58, 27373), (62, 27433),

Gene: Renaud18_30 Start: 26514, Stop: 27722, Start Num: 14
Candidate Starts for Renaud18_30:
(Start: 14 @26514 has 66 MA's), (20, 26610), (21, 26634), (23, 26727), (24, 26730), (28, 26775), (32, 26904), (35, 26955), (38, 27066), (39, 27087), (47, 27369), (48, 27390), (51, 27486), (54, 27531), (57, 27576), (58, 27600), (62, 27660),

Gene: Ryadel_70 Start: 43007, Stop: 44251, Start Num: 14
Candidate Starts for Ryadel_70:
(Start: 14 @43007 has 66 MA's), (16, 43043), (18, 43094), (19, 43100), (20, 43103), (25, 43250), (29, 43304), (34, 43397), (35, 43445), (38, 43553), (39, 43574), (47, 43862), (51, 43979), (53, 44012), (54, 44024), (57, 44075), (58, 44099), (62, 44159), (65, 44204),

Gene: SassyB_30 Start: 26544, Stop: 27830, Start Num: 13
Candidate Starts for SassyB_30:
(3, 26271), (6, 26292), (Start: 13 @26544 has 7 MA's), (17, 26664), (22, 26736), (26, 26853), (27, 26856), (31, 26958), (33, 27015), (35, 27069), (37, 27132), (39, 27195), (40, 27198), (43, 27312), (44, 27324), (45, 27387), (47, 27474), (50, 27501), (51, 27591), (52, 27612), (53, 27624), (54, 27636), (55, 27660), (60, 27741), (63, 27774),

Gene: SchoolBus_66 Start: 42191, Stop: 43411, Start Num: 14
Candidate Starts for SchoolBus_66:
(8, 42038), (9, 42041), (10, 42053), (11, 42107), (12, 42110), (Start: 14 @42191 has 66 MA's), (16, 42227), (18, 42278), (19, 42284), (25, 42434), (29, 42488), (34, 42581), (35, 42629), (38, 42737), (39, 42758), (47, 43046), (51, 43163), (53, 43196), (54, 43208), (57, 43259), (58, 43283), (62, 43343), (65, 43388),

Gene: Schuy_67 Start: 41982, Stop: 43202, Start Num: 14
Candidate Starts for Schuy_67:
(Start: 14 @41982 has 66 MA's), (16, 42018), (18, 42069), (19, 42075), (25, 42225), (29, 42279), (34, 42372), (35, 42420), (38, 42528), (39, 42549), (47, 42837), (51, 42954), (53, 42987), (54, 42999), (57, 43050), (58, 43074), (62, 43134), (65, 43179),

Gene: Seagreen_31 Start: 26351, Stop: 27637, Start Num: 13
Candidate Starts for Seagreen_31:

(3, 26078), (6, 26099), (Start: 13 @26351 has 7 MA's), (17, 26471), (22, 26543), (26, 26660), (27, 26663), (31, 26765), (33, 26822), (35, 26876), (37, 26939), (39, 27002), (40, 27005), (43, 27119), (44, 27131), (45, 27194), (47, 27281), (50, 27308), (51, 27398), (52, 27419), (53, 27431), (54, 27443), (55, 27467), (60, 27548), (63, 27581),

Gene: ShiLan_30 Start: 26544, Stop: 27740, Start Num: 14
Candidate Starts for ShiLan_30:
(Start: 14 @26544 has 66 MA's), (18, 26628), (25, 26778), (29, 26832), (34, 26925), (35, 26973), (38, 27084), (39, 27105), (47, 27387), (48, 27408), (51, 27504), (54, 27549), (57, 27594), (58, 27618), (62, 27678),

Gene: Shida_66 Start: 41889, Stop: 43109, Start Num: 14
Candidate Starts for Shida_66:
(Start: 14 @41889 has 66 MA's), (16, 41925), (18, 41976), (19, 41982), (20, 41985), (25, 42132), (29, 42186), (34, 42279), (35, 42327), (38, 42435), (39, 42456), (47, 42744), (51, 42861), (53, 42894), (54, 42906), (57, 42957), (58, 42981), (62, 43041), (65, 43086),

Gene: ShowerHandel_30 Start: 26503, Stop: 27699, Start Num: 14
Candidate Starts for ShowerHandel_30:
(Start: 14 @26503 has 66 MA's), (18, 26587), (25, 26737), (29, 26791), (34, 26884), (35, 26932), (38, 27043), (39, 27064), (47, 27346), (48, 27367), (51, 27463), (54, 27508), (57, 27553), (58, 27577), (62, 27637),

Gene: SiSi_30 Start: 26302, Stop: 27498, Start Num: 14
Candidate Starts for SiSi_30:
(Start: 14 @26302 has 66 MA's), (18, 26386), (25, 26536), (29, 26590), (34, 26683), (35, 26731), (38, 26842), (39, 26863), (47, 27145), (48, 27166), (51, 27262), (54, 27307), (57, 27352), (58, 27376), (62, 27436),

Gene: Smooch_69 Start: 43911, Stop: 45155, Start Num: 14
Candidate Starts for Smooch_69:
(Start: 14 @43911 has 66 MA's), (16, 43947), (18, 43998), (19, 44004), (20, 44007), (25, 44154), (29, 44208), (34, 44301), (35, 44349), (38, 44457), (39, 44478), (47, 44766), (51, 44883), (53, 44916), (54, 44928), (57, 44979), (58, 45003), (62, 45063), (65, 45108),

Gene: SwagPigglett_30 Start: 26314, Stop: 27510, Start Num: 14
Candidate Starts for SwagPigglett_30:
(Start: 14 @26314 has 66 MA's), (18, 26398), (25, 26548), (29, 26602), (34, 26695), (35, 26743), (38, 26854), (39, 26875), (47, 27157), (48, 27178), (51, 27274), (54, 27319), (57, 27364), (58, 27388), (62, 27448),

Gene: TChen_30 Start: 26827, Stop: 28125, Start Num: 13
Candidate Starts for TChen_30:
(Start: 13 @26827 has 7 MA's), (15, 26899), (17, 26947), (18, 26965), (22, 27019), (26, 27136), (27, 27139), (31, 27241), (33, 27298), (35, 27352), (39, 27478), (40, 27481), (43, 27595), (44, 27607), (45, 27670), (47, 27766), (51, 27883), (53, 27916), (54, 27928), (56, 27973), (59, 28012), (60, 28033), (63, 28066), (65, 28105),

Gene: TelAviv_63 Start: 42164, Stop: 43384, Start Num: 14
Candidate Starts for TelAviv_63:
(Start: 14 @42164 has 66 MA's), (16, 42200), (18, 42251), (19, 42257), (25, 42407), (29, 42461), (34, 42554), (35, 42602), (38, 42710), (39, 42731), (47, 43019), (51, 43136), (53, 43169), (54, 43181), (57, 43232), (58, 43256), (62, 43316), (65, 43361),

Gene: Topiatin_33 Start: 26996, Stop: 28204, Start Num: 14
Candidate Starts for Topiatin_33:
(Start: 14 @26996 has 66 MA's), (20, 27092), (21, 27116), (23, 27209), (24, 27212), (28, 27257), (32, 27386), (35, 27437), (38, 27548), (39, 27569), (47, 27851), (48, 27872), (49, 27875), (51, 27968), (54, 28013), (57, 28058), (58, 28082), (62, 28142),

Gene: Toron_31 Start: 26744, Stop: 28024, Start Num: 13
Candidate Starts for Toron_31:
(Start: 13 @26744 has 7 MA's), (17, 26864), (26, 27053), (27, 27056), (33, 27215), (35, 27266), (36, 27305), (39, 27392), (40, 27395), (41, 27497), (42, 27500), (44, 27521), (45, 27584), (47, 27680), (51, 27797), (52, 27818), (53, 27830), (56, 27875), (59, 27914), (61, 27953), (62, 27962), (65, 28007),

Gene: Vagabond_66 Start: 42027, Stop: 43247, Start Num: 14
Candidate Starts for Vagabond_66:
(Start: 14 @42027 has 66 MA's), (16, 42063), (18, 42114), (19, 42120), (20, 42123), (25, 42270), (29, 42324), (34, 42417), (35, 42465), (38, 42573), (39, 42594), (47, 42882), (51, 42999), (53, 43032), (54, 43044), (57, 43095), (58, 43119), (62, 43179), (65, 43224),

Gene: Vivum_30 Start: 26313, Stop: 27521, Start Num: 14
Candidate Starts for Vivum_30:
(Start: 14 @26313 has 66 MA's), (20, 26409), (21, 26433), (23, 26526), (24, 26529), (28, 26574), (32, 26703), (35, 26754), (38, 26865), (39, 26886), (47, 27168), (48, 27189), (51, 27285), (54, 27330), (57, 27375), (58, 27399), (62, 27459),

Gene: Vorrps_66 Start: 42239, Stop: 43459, Start Num: 14
Candidate Starts for Vorrps_66:
(Start: 14 @42239 has 66 MA's), (16, 42275), (18, 42326), (19, 42332), (20, 42335), (25, 42482), (29, 42536), (34, 42629), (35, 42677), (38, 42785), (39, 42806), (47, 43094), (51, 43211), (53, 43244), (54, 43256), (57, 43307), (58, 43331), (62, 43391), (65, 43436),

Gene: Wachhund_30 Start: 26486, Stop: 27697, Start Num: 14
Candidate Starts for Wachhund_30:
(Start: 14 @26486 has 66 MA's), (20, 26582), (21, 26606), (23, 26699), (24, 26702), (28, 26747), (32, 26876), (35, 26927), (38, 27038), (39, 27059), (47, 27341), (48, 27362), (49, 27365), (51, 27458), (54, 27503), (57, 27551), (63, 27641),

Gene: Whatsapiecost_31 Start: 26670, Stop: 27956, Start Num: 13
Candidate Starts for Whatsapiecost_31:
(Start: 13 @26670 has 7 MA's), (17, 26790), (22, 26862), (26, 26979), (27, 26982), (31, 27084), (33, 27141), (35, 27195), (37, 27258), (39, 27321), (40, 27324), (43, 27438), (44, 27450), (45, 27513), (47, 27600), (50, 27627), (51, 27717), (52, 27738), (53, 27750), (54, 27762), (55, 27786), (60, 27867), (63, 27900),

Gene: Wildflower_66 Start: 41751, Stop: 42971, Start Num: 14
Candidate Starts for Wildflower_66:
(Start: 14 @41751 has 66 MA's), (16, 41787), (18, 41838), (19, 41844), (20, 41847), (25, 41994), (29, 42048), (34, 42141), (35, 42189), (38, 42297), (39, 42318), (47, 42606), (51, 42723), (53, 42756), (54, 42768), (57, 42819), (58, 42843), (62, 42903), (65, 42948),

Gene: Winget_67 Start: 42457, Stop: 43677, Start Num: 14
Candidate Starts for Winget_67:

(Start: 14 @42457 has 66 MA's), (16, 42493), (18, 42544), (19, 42550), (20, 42553), (25, 42700), (29, 42754), (34, 42847), (35, 42895), (38, 43003), (39, 43024), (47, 43312), (51, 43429), (53, 43462), (54, 43474), (57, 43525), (58, 43549), (62, 43609), (65, 43654),

Gene: Wogge42_65 Start: 41898, Stop: 43118, Start Num: 14
Candidate Starts for Wogge42_65:
(Start: 14 @41898 has 66 MA's), (16, 41934), (18, 41985), (19, 41991), (20, 41994), (25, 42141), (29, 42195), (34, 42288), (35, 42336), (38, 42444), (39, 42465), (47, 42753), (51, 42870), (53, 42903), (54, 42915), (57, 42966), (58, 42990), (62, 43050), (65, 43095),

Gene: XFactor_30 Start: 26489, Stop: 27697, Start Num: 14
Candidate Starts for XFactor_30:
(3, 26213), (6, 26234), (Start: 14 @26489 has 66 MA's), (20, 26585), (21, 26609), (23, 26702), (24, 26705), (28, 26750), (32, 26879), (35, 26930), (38, 27041), (39, 27062), (47, 27344), (48, 27365), (51, 27461), (54, 27506), (57, 27551), (58, 27575), (62, 27635),

Gene: Yorick_30 Start: 26501, Stop: 27697, Start Num: 14
Candidate Starts for Yorick_30:
(Start: 14 @26501 has 66 MA's), (18, 26585), (25, 26735), (29, 26789), (34, 26882), (35, 26930), (38, 27041), (39, 27062), (47, 27344), (48, 27365), (51, 27461), (54, 27506), (57, 27551), (58, 27575), (62, 27635),

Gene: YoyoKar_64 Start: 41660, Stop: 42961, Start Num: 12
Candidate Starts for YoyoKar_64:
(8, 41588), (9, 41591), (10, 41603), (11, 41657), (12, 41660), (Start: 14 @41741 has 66 MA's), (16, 41777), (18, 41828), (19, 41834), (25, 41984), (29, 42038), (34, 42131), (35, 42179), (38, 42287), (39, 42308), (47, 42596), (51, 42713), (53, 42746), (54, 42758), (57, 42809), (58, 42833), (62, 42893), (65, 42938),

Gene: YungJamal_71 Start: 43649, Stop: 44869, Start Num: 14
Candidate Starts for YungJamal_71:
(Start: 14 @43649 has 66 MA's), (16, 43685), (18, 43736), (19, 43742), (20, 43745), (25, 43892), (29, 43946), (34, 44039), (35, 44087), (38, 44195), (39, 44216), (47, 44504), (51, 44621), (53, 44654), (54, 44666), (57, 44717), (58, 44741), (62, 44801), (65, 44846),

Gene: Zakhe101_65 Start: 42297, Stop: 43517, Start Num: 14
Candidate Starts for Zakhe101_65:
(Start: 14 @42297 has 66 MA's), (16, 42333), (18, 42384), (19, 42390), (20, 42393), (25, 42540), (29, 42594), (34, 42687), (35, 42735), (38, 42843), (39, 42864), (47, 43152), (51, 43269), (53, 43302), (54, 43314), (57, 43365), (58, 43389), (62, 43449), (65, 43494),

Gene: Zebo_66 Start: 42200, Stop: 43420, Start Num: 14
Candidate Starts for Zebo_66:
(Start: 14 @42200 has 66 MA's), (16, 42236), (18, 42287), (19, 42293), (25, 42443), (29, 42497), (34, 42590), (35, 42638), (38, 42746), (39, 42767), (47, 43055), (51, 43172), (53, 43205), (54, 43217), (57, 43268), (58, 43292), (62, 43352), (65, 43397),

Gene: Zizzle_30 Start: 26445, Stop: 27641, Start Num: 14
Candidate Starts for Zizzle_30:
(Start: 14 @26445 has 66 MA's), (18, 26529), (25, 26679), (29, 26733), (34, 26826), (35, 26874), (38, 26985), (39, 27006), (47, 27288), (48, 27309), (51, 27405), (54, 27450), (57, 27495), (58, 27519), (62, 27579),