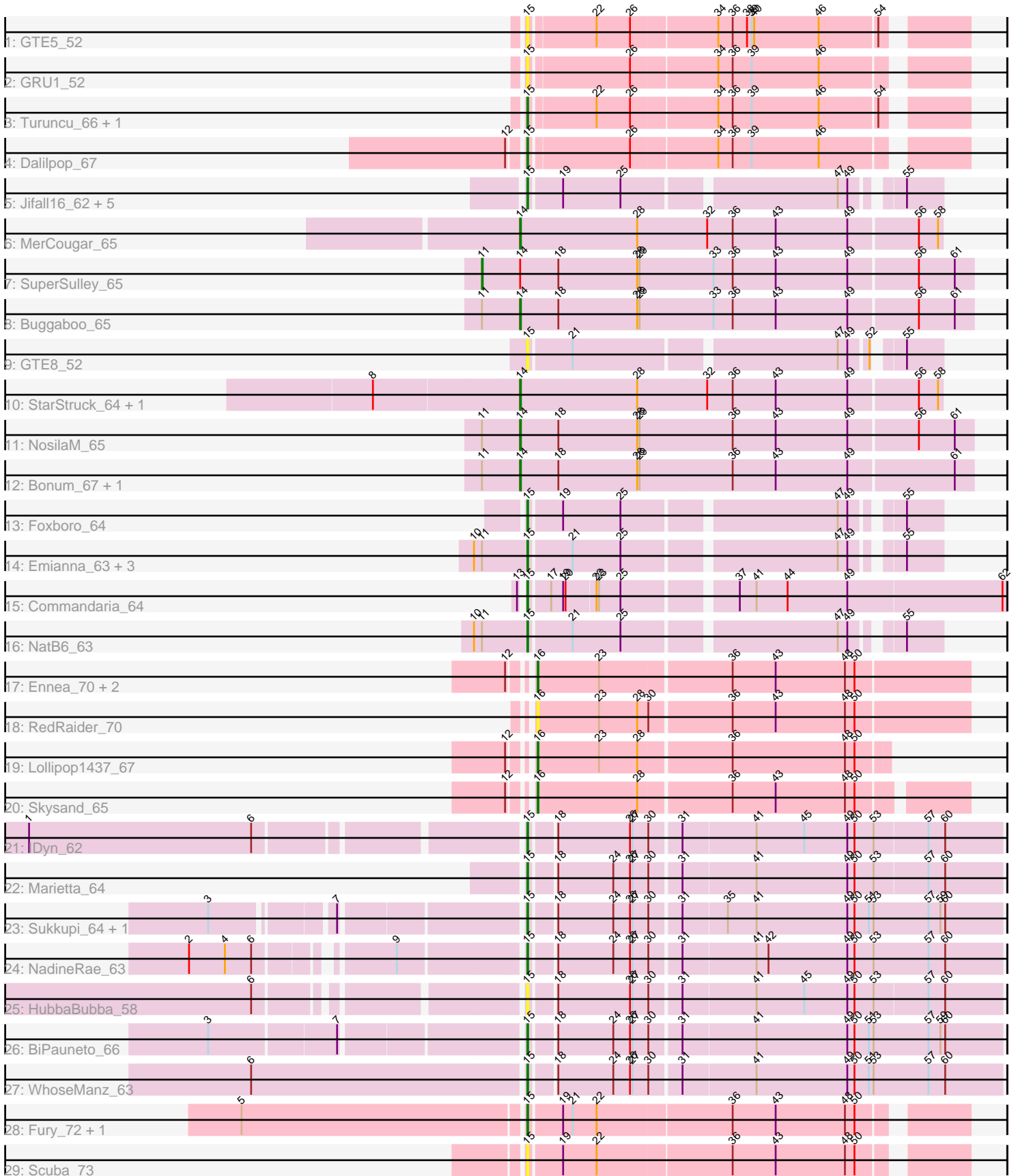


# Pham 200381



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 200381 Report

This analysis was run 01/18/25 on database version 583.

Pham number 200381 has 44 members, 7 are drafts.

Phages represented in each track:

- Track 1 : GTE5\_52
- Track 2 : GRU1\_52
- Track 3 : Turuncu\_66, Flapper\_66
- Track 4 : Dalilpop\_67
- Track 5 : Jifall16\_62, Tracker\_63, Arti\_62, Phomeo\_62, KidneyBean\_63, Wheezy\_63
- Track 6 : MerCougar\_65
- Track 7 : SuperSulley\_65
- Track 8 : Buggaboo\_65
- Track 9 : GTE8\_52
- Track 10 : StarStruck\_64, Outis\_64
- Track 11 : NosilaM\_65
- Track 12 : Bonum\_67, Kabluna\_66
- Track 13 : Foxboro\_64
- Track 14 : Emianna\_63, Kurt\_63, NovumRegina\_63, GrootJr\_65
- Track 15 : Commandaria\_64
- Track 16 : NatB6\_63
- Track 17 : Ennea\_70, Float294\_64, Patio\_65
- Track 18 : RedRaider\_70
- Track 19 : Lollipop1437\_67
- Track 20 : Skysand\_65
- Track 21 : IDyn\_62
- Track 22 : Marietta\_64
- Track 23 : Sukkupi\_64, Yndexa\_64
- Track 24 : NadineRae\_63
- Track 25 : HubbaBubba\_58
- Track 26 : BiPauneto\_66
- Track 27 : WhoseManz\_63
- Track 28 : Fury\_72, Pleakley\_72
- Track 29 : Scuba\_73

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

The start number called the most often in the published annotations is 15, it was called in 24 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_62, BiPauneto\_66, Commandaria\_64, Dalilpop\_67, Emianna\_63, Flapper\_66, Foxboro\_64, Fury\_72, GRU1\_52, GTE5\_52, GTE8\_52, GrootJr\_65, HubbaBubba\_58, IDyn\_62, Jifall16\_62, KidneyBean\_63, Kurt\_63, Marietta\_64, NadineRae\_63, NatB6\_63, NovumRegina\_63, Phomeo\_62, Pleakley\_72, Scuba\_73, Sukkupi\_64, Tracker\_63, Turuncu\_66, Wheezy\_63, WhoseManz\_63, Yndexa\_64,

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

- 

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

- Bonum\_67, Buggaboo\_65, Ennea\_70, Float294\_64, Kabluna\_66, Lollipop1437\_67, MerCougar\_65, NosilaM\_65, Outis\_64, Patio\_65, RedRaider\_70, Skysand\_65, StarStruck\_64, SuperSulley\_65,

### Summary by start number:

Start 11:

- Found in 10 of 44 ( 22.7% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 10.0% of time when present
- Phage (with cluster) where this start called: SuperSulley\_65 (CR2),

Start 14:

- Found in 8 of 44 ( 18.2% ) of genes in pham
- Manual Annotations of this start: 7 of 37
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Bonum\_67 (CR2), Buggaboo\_65 (CR2), Kabluna\_66 (CR2), MerCougar\_65 (CR2), NosilaM\_65 (CR2), Outis\_64 (CR2), StarStruck\_64 (CR2),

Start 15:

- Found in 30 of 44 ( 68.2% ) of genes in pham
- Manual Annotations of this start: 24 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti\_62 (CR2), BiPauneto\_66 (CR4), Commandaria\_64 (CR2), Dalilpop\_67 (CR1), Emianna\_63 (CR2), Flapper\_66 (CR1), Foxboro\_64 (CR2), Fury\_72 (CR5), GRU1\_52 (CR1), GTE5\_52 (CR1), GTE8\_52 (CR2), GrootJr\_65 (CR2), HubbaBubba\_58 (CR4), IDyn\_62 (CR4), Jifall16\_62 (CR2), KidneyBean\_63 (CR2), Kurt\_63 (CR2), Marietta\_64 (CR4), NadineRae\_63 (CR4), NatB6\_63 (CR2), NovumRegina\_63 (CR2), Phomeo\_62 (CR2), Pleakley\_72 (CR5), Scuba\_73 (CR5), Sukkupi\_64 (CR4), Tracker\_63 (CR2), Turuncu\_66 (CR1), Wheezy\_63 (CR2), WhoseManz\_63 (CR4), Yndexa\_64 (CR4),

Start 16:

- Found in 6 of 44 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 5 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ennea\_70 (CR3), Float294\_64 (CR3), Lollipop1437\_67 (CR3), Patio\_65 (CR3), RedRaider\_70 (CR3), Skysand\_65 (CR3),

## Summary by clusters:

There are 5 clusters represented in this pham: CR2, CR3, CR1, CR4, CR5,

Info for manual annotations of cluster CR1:

- Start number 15 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 11 was manually annotated 1 time for cluster CR2.
- Start number 14 was manually annotated 7 times for cluster CR2.
- Start number 15 was manually annotated 12 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 16 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 15 was manually annotated 7 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 15 was manually annotated 2 times for cluster CR5.

## Gene Information:

Gene: Arti\_62 Start: 48954, Stop: 48490, Start Num: 15

Candidate Starts for Arti\_62:

(Start: 15 @48954 has 24 MA's), (19, 48915), (25, 48843), (47, 48594), (49, 48582), (55, 48534),

Gene: BiPauneto\_66 Start: 48649, Stop: 48077, Start Num: 15

Candidate Starts for BiPauneto\_66:

(3, 49012), (7, 48859), (Start: 15 @48649 has 24 MA's), (18, 48622), (24, 48553), (26, 48532), (27, 48529), (30, 48511), (31, 48475), (41, 48385), (49, 48271), (50, 48262), (51, 48244), (53, 48238), (57, 48169), (59, 48154), (60, 48148),

Gene: Bonum\_67 Start: 49827, Stop: 49267, Start Num: 14

Candidate Starts for Bonum\_67:

(Start: 11 @49875 has 1 MA's), (Start: 14 @49827 has 7 MA's), (18, 49779), (28, 49680), (29, 49677), (36, 49563), (43, 49509), (49, 49419), (61, 49290),

Gene: Buggaboo\_65 Start: 50384, Stop: 49824, Start Num: 14

Candidate Starts for Buggaboo\_65:

(Start: 11 @50432 has 1 MA's), (Start: 14 @50384 has 7 MA's), (18, 50336), (28, 50237), (29, 50234), (33, 50144), (36, 50120), (43, 50066), (49, 49976), (56, 49892), (61, 49847),

Gene: Commandaria\_64 Start: 50263, Stop: 49703, Start Num: 15

Candidate Starts for Commandaria\_64:

(13, 50266), (Start: 15 @50263 has 24 MA's), (17, 50239), (19, 50224), (20, 50221), (22, 50185), (23, 50182), (25, 50155), (37, 50029), (41, 50008), (44, 49969), (49, 49894), (62, 49708),

Gene: Dalilpop\_67 Start: 51193, Stop: 50687, Start Num: 15

Candidate Starts for Dalilpop\_67:

(12, 51208), (Start: 15 @51193 has 24 MA's), (26, 51073), (34, 50971), (36, 50953), (39, 50929), (46, 50845),

Gene: Emianna\_63 Start: 50197, Stop: 49733, Start Num: 15

Candidate Starts for Emianna\_63:

(10, 50251), (Start: 11 @50242 has 1 MA's), (Start: 15 @50197 has 24 MA's), (21, 50146), (25, 50086), (47, 49837), (49, 49825), (55, 49777),

Gene: Ennea\_70 Start: 51245, Stop: 50718, Start Num: 16

Candidate Starts for Ennea\_70:

(12, 51263), (Start: 16 @51245 has 5 MA's), (23, 51170), (36, 51011), (43, 50957), (48, 50870), (50, 50858),

Gene: Flapper\_66 Start: 50383, Stop: 49877, Start Num: 15

Candidate Starts for Flapper\_66:

(Start: 15 @50383 has 24 MA's), (22, 50305), (26, 50263), (34, 50161), (36, 50143), (39, 50119), (46, 50035), (54, 49966),

Gene: Float294\_64 Start: 50978, Stop: 50553, Start Num: 16

Candidate Starts for Float294\_64:

(12, 50996), (Start: 16 @50978 has 5 MA's), (23, 50903), (36, 50744), (43, 50690), (48, 50603), (50, 50591),

Gene: Foxboro\_64 Start: 50706, Stop: 50242, Start Num: 15

Candidate Starts for Foxboro\_64:

(Start: 15 @50706 has 24 MA's), (19, 50667), (25, 50595), (47, 50346), (49, 50334), (55, 50286),

Gene: Fury\_72 Start: 49499, Stop: 48987, Start Num: 15

Candidate Starts for Fury\_72:

(5, 49844), (Start: 15 @49499 has 24 MA's), (19, 49460), (21, 49448), (22, 49418), (36, 49253), (43, 49199), (48, 49112), (50, 49100),

Gene: GRU1\_52 Start: 42234, Stop: 41728, Start Num: 15

Candidate Starts for GRU1\_52:

(Start: 15 @42234 has 24 MA's), (26, 42114), (34, 42012), (36, 41994), (39, 41970), (46, 41886),

Gene: GTE5\_52 Start: 43260, Stop: 42754, Start Num: 15

Candidate Starts for GTE5\_52:

(Start: 15 @43260 has 24 MA's), (22, 43182), (26, 43140), (34, 43038), (36, 43020), (38, 43002), (39, 42996), (40, 42993), (46, 42912), (54, 42843),

Gene: GTE8\_52 Start: 43411, Stop: 42947, Start Num: 15

Candidate Starts for GTE8\_52:

(Start: 15 @43411 has 24 MA's), (21, 43360), (47, 43051), (49, 43039), (52, 43018), (55, 42991),

Gene: GrootJr\_65 Start: 49579, Stop: 49115, Start Num: 15

Candidate Starts for GrootJr\_65:

(10, 49633), (Start: 11 @49624 has 1 MA's), (Start: 15 @49579 has 24 MA's), (21, 49528), (25, 49468), (47, 49219), (49, 49207), (55, 49159),

Gene: HubbaBubba\_58 Start: 45153, Stop: 44584, Start Num: 15

Candidate Starts for HubbaBubba\_58:

(6, 45444), (Start: 15 @45153 has 24 MA's), (18, 45126), (26, 45036), (27, 45033), (30, 45015), (31, 44979), (41, 44889), (45, 44829), (49, 44775), (50, 44766), (53, 44742), (57, 44676), (60, 44655),

Gene: IDyn\_62 Start: 46576, Stop: 46007, Start Num: 15

Candidate Starts for IDyn\_62:

(1, 47158), (6, 46879), (Start: 15 @46576 has 24 MA's), (18, 46549), (26, 46459), (27, 46456), (30, 46438), (31, 46402), (41, 46312), (45, 46252), (49, 46198), (50, 46189), (53, 46165), (57, 46099), (60, 46078),

Gene: Jifall16\_62 Start: 49851, Stop: 49387, Start Num: 15

Candidate Starts for Jifall16\_62:

(Start: 15 @49851 has 24 MA's), (19, 49812), (25, 49740), (47, 49491), (49, 49479), (55, 49431),

Gene: Kabluna\_66 Start: 49162, Stop: 48602, Start Num: 14

Candidate Starts for Kabluna\_66:

(Start: 11 @49210 has 1 MA's), (Start: 14 @49162 has 7 MA's), (18, 49114), (28, 49015), (29, 49012), (36, 48898), (43, 48844), (49, 48754), (61, 48625),

Gene: KidneyBean\_63 Start: 49975, Stop: 49511, Start Num: 15

Candidate Starts for KidneyBean\_63:

(Start: 15 @49975 has 24 MA's), (19, 49936), (25, 49864), (47, 49615), (49, 49603), (55, 49555),

Gene: Kurt\_63 Start: 50212, Stop: 49748, Start Num: 15

Candidate Starts for Kurt\_63:

(10, 50266), (Start: 11 @50257 has 1 MA's), (Start: 15 @50212 has 24 MA's), (21, 50161), (25, 50101), (47, 49852), (49, 49840), (55, 49792),

Gene: Lollipop1437\_67 Start: 50943, Stop: 50518, Start Num: 16

Candidate Starts for Lollipop1437\_67:

(12, 50961), (Start: 16 @50943 has 5 MA's), (23, 50868), (28, 50820), (36, 50709), (48, 50568), (50, 50556),

Gene: Marietta\_64 Start: 46706, Stop: 46137, Start Num: 15

Candidate Starts for Marietta\_64:

(Start: 15 @46706 has 24 MA's), (18, 46679), (24, 46610), (26, 46589), (27, 46586), (30, 46568), (31, 46532), (41, 46442), (49, 46328), (50, 46319), (53, 46295), (57, 46229), (60, 46208),

Gene: MerCougar\_65 Start: 50544, Stop: 50023, Start Num: 14

Candidate Starts for MerCougar\_65:

(Start: 14 @50544 has 7 MA's), (28, 50397), (32, 50310), (36, 50280), (43, 50226), (49, 50136), (56, 50052), (58, 50028),

Gene: NadineRae\_63 Start: 46312, Stop: 45740, Start Num: 15

Candidate Starts for NadineRae\_63:

(2, 46678), (4, 46633), (6, 46600), (9, 46459), (Start: 15 @46312 has 24 MA's), (18, 46285), (24, 46216), (26, 46195), (27, 46192), (30, 46174), (31, 46138), (41, 46048), (42, 46033), (49, 45934), (50, 45925), (53, 45901), (57, 45832), (60, 45811),

Gene: NatB6\_63 Start: 49269, Stop: 48805, Start Num: 15

Candidate Starts for NatB6\_63:

(10, 49323), (Start: 11 @49314 has 1 MA's), (Start: 15 @49269 has 24 MA's), (21, 49218), (25, 49158), (47, 48909), (49, 48897), (55, 48849),

Gene: NosilaM\_65 Start: 49839, Stop: 49279, Start Num: 14

Candidate Starts for NosilaM\_65:

(Start: 11 @49887 has 1 MA's), (Start: 14 @49839 has 7 MA's), (18, 49791), (28, 49692), (29, 49689), (36, 49575), (43, 49521), (49, 49431), (56, 49347), (61, 49302),

Gene: NovumRegina\_63 Start: 49578, Stop: 49114, Start Num: 15

Candidate Starts for NovumRegina\_63:

(10, 49632), (Start: 11 @49623 has 1 MA's), (Start: 15 @49578 has 24 MA's), (21, 49527), (25, 49467), (47, 49218), (49, 49206), (55, 49158),

Gene: Outis\_64 Start: 50057, Stop: 49536, Start Num: 14

Candidate Starts for Outis\_64:

(8, 50237), (Start: 14 @50057 has 7 MA's), (28, 49910), (32, 49823), (36, 49793), (43, 49739), (49, 49649), (56, 49565), (58, 49541),

Gene: Patio\_65 Start: 50000, Stop: 49473, Start Num: 16

Candidate Starts for Patio\_65:

(12, 50018), (Start: 16 @50000 has 5 MA's), (23, 49925), (36, 49766), (43, 49712), (48, 49625), (50, 49613),

Gene: Phomeo\_62 Start: 49847, Stop: 49383, Start Num: 15

Candidate Starts for Phomeo\_62:

(Start: 15 @49847 has 24 MA's), (19, 49808), (25, 49736), (47, 49487), (49, 49475), (55, 49427),

Gene: Pleakley\_72 Start: 49500, Stop: 48988, Start Num: 15

Candidate Starts for Pleakley\_72:

(5, 49845), (Start: 15 @49500 has 24 MA's), (19, 49461), (21, 49449), (22, 49419), (36, 49254), (43, 49200), (48, 49113), (50, 49101),

Gene: RedRaider\_70 Start: 52321, Stop: 51794, Start Num: 16

Candidate Starts for RedRaider\_70:

(Start: 16 @52321 has 5 MA's), (23, 52246), (28, 52198), (30, 52186), (36, 52087), (43, 52033), (48, 51946), (50, 51934),

Gene: Scuba\_73 Start: 49593, Stop: 49081, Start Num: 15

Candidate Starts for Scuba\_73:

(Start: 15 @49593 has 24 MA's), (19, 49554), (22, 49512), (36, 49347), (43, 49293), (48, 49206), (50, 49194),

Gene: Skysand\_65 Start: 50481, Stop: 49972, Start Num: 16

Candidate Starts for Skysand\_65:

(12, 50499), (Start: 16 @50481 has 5 MA's), (28, 50358), (36, 50247), (43, 50193), (48, 50106), (50, 50094),

Gene: StarStruck\_64 Start: 50057, Stop: 49536, Start Num: 14

Candidate Starts for StarStruck\_64:

(8, 50237), (Start: 14 @50057 has 7 MA's), (28, 49910), (32, 49823), (36, 49793), (43, 49739), (49, 49649), (56, 49565), (58, 49541),

Gene: Sukkupi\_64 Start: 48540, Stop: 47968, Start Num: 15

Candidate Starts for Sukkupi\_64:

(3, 48885), (7, 48750), (Start: 15 @48540 has 24 MA's), (18, 48513), (24, 48444), (26, 48423), (27, 48420), (30, 48402), (31, 48366), (35, 48312), (41, 48276), (49, 48162), (50, 48153), (51, 48135), (53,

48129), (57, 48060), (59, 48045), (60, 48039),

Gene: SuperSulley\_65 Start: 50432, Stop: 49824, Start Num: 11

Candidate Starts for SuperSulley\_65:

(Start: 11 @50432 has 1 MA's), (Start: 14 @50384 has 7 MA's), (18, 50336), (28, 50237), (29, 50234), (33, 50144), (36, 50120), (43, 50066), (49, 49976), (56, 49892), (61, 49847),

Gene: Tracker\_63 Start: 49020, Stop: 48556, Start Num: 15

Candidate Starts for Tracker\_63:

(Start: 15 @49020 has 24 MA's), (19, 48981), (25, 48909), (47, 48660), (49, 48648), (55, 48600),

Gene: Turuncu\_66 Start: 50072, Stop: 49566, Start Num: 15

Candidate Starts for Turuncu\_66:

(Start: 15 @50072 has 24 MA's), (22, 49994), (26, 49952), (34, 49850), (36, 49832), (39, 49808), (46, 49724), (54, 49655),

Gene: Wheezy\_63 Start: 49228, Stop: 48764, Start Num: 15

Candidate Starts for Wheezy\_63:

(Start: 15 @49228 has 24 MA's), (19, 49189), (25, 49117), (47, 48868), (49, 48856), (55, 48808),

Gene: WhoseManz\_63 Start: 46322, Stop: 45750, Start Num: 15

Candidate Starts for WhoseManz\_63:

(6, 46658), (Start: 15 @46322 has 24 MA's), (18, 46295), (24, 46226), (26, 46205), (27, 46202), (30, 46184), (31, 46148), (41, 46058), (49, 45944), (50, 45935), (51, 45917), (53, 45911), (57, 45842), (60, 45821),

Gene: Yndexa\_64 Start: 48540, Stop: 47968, Start Num: 15

Candidate Starts for Yndexa\_64:

(3, 48885), (7, 48750), (Start: 15 @48540 has 24 MA's), (18, 48513), (24, 48444), (26, 48423), (27, 48420), (30, 48402), (31, 48366), (35, 48312), (41, 48276), (49, 48162), (50, 48153), (51, 48135), (53, 48129), (57, 48060), (59, 48045), (60, 48039),