Pham 345858


1: Jawnski_40
2: Beans_40
3: King2_39
4: Brent_40 + 1
5: Piccoletto_40
6: NathanVaag_40
7: Wyborn_43
8: BigDome_42
9: Martha_42 + 3
10: Grekaycon_42
11: Shade_42
12: Timinator_42 + 3
13: BossLady_42
14: Pippa_42
15: BarretLemon_42
16: TaeYoung_42
17: Sicarius2_44
18: Zartrosa_42
19: Abba_42
20: Nostromo_41
21: Bolt007_50
22: Lilmac1015_53 + 1
23: Klevey_51
24: Altadena_47
25: Prairie_50
26: Nandito_50
27: Hirko_45
28: Vitus_48
29: Vibaki_47
30: BlackJade_63
31: Gooberta_48 + 1
32: Divya_55
33: SunnyJune_54
34: Jinkies_52
35: Music_47
36: Gilgamesh_23
37: Lukepolites_43

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 345858 Report

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

Pham number 345858 has 46 members, 5 are drafts.

Phages represented in each track:
- Track 1 : Jawnski_40
- Track 2 : Beans_40
- Track 3 : King2_39
- Track 4 : Brent_40, Franzy_40
- Track 5 : Piccoletto_40
- Track 6 : NathanVaag_40
- Track 7 : Wyborn_43
- Track 8 : BigDome_42
- Track 9 : Martha_42, JKerns_42, Sonny_42, Jordan_42
- Track 10 : Grekaycon_42
- Track 11 : Shade_42
- Track 12 : Timinator_42, LeeroyJ_42, GravityBall_42, StevieBAY_42
- Track 13 : BossLady_42
- Track 14 : Pippa_42
- Track 15 : BarretLemon_42
- Track 16 : TaeYoung_42
- Track 17 : Sicarius2_44
- Track 18 : Zartrosa_42
- Track 19 : Abba_42
- Track 20 : Nostromo_41
- Track 21 : Bolt007_50
- Track 22 : Lilmac1015_53, CalWood4100_53
- Track 23 : Klevey_51
- Track 24 : Altadena_47
- Track 25 : Prairie_50
- Track 26 : Nandito_50
- Track 27 : Hirko_45
- Track 28 : Vitus_48
- Track 29 : Vibaki_47
- Track 30 : BlackJade_63
- Track 31 : Gooberta_48, GoldDust_48
- Track 32 : Divya_55
- Track 33 : SunnyJune_54
- Track 34 : Jinkies_52
- Track 35 : Music_47
- Track 36 : Gilgamesh_23
- Track 37 : Lukepolites_43

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

The start number called the most often in the published annotations is 45, it was called in 7 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• BarretLemon_42, BigDome_42, GravityBall_42, LeeroyJ_42, Sicarius2_44, StevieBAY_42, Timinator_42,

Genes that have the "Most Annotated" start but do not call it:
• BossLady_42, Grekaycon_42, JKerns_42, Jordan_42, Martha_42, Pippa_42, Shade_42, Sonny_42, TaeYoung_42, Wyborn_43, Zartrosa_42,

Genes that do not have the "Most Annotated" start:
• Abba_42, Altadena_47, Beans_40, BlackJade_63, Bolt007_50, Brent_40, CalWood4100_53, Divya_55, Franzy_40, Gilgamesh_23, GoldDust_48, Gooberta_48, Hirko_45, Jawnski_40, Jinkies_52, King2_39, Klevey_51, Lilmac1015_53, Lukepolites_43, Music_47, Nandito_50, NathanVaag_40, Nostromo_41, Piccoletto_40, Prairie_50, SunnyJune_54, Vibaki_47, Vitus_48,

Summary by start number:

Start 14:
• Found in 5 of 46 (10.9%) of genes in pham
• Manual Annotations of this start: 4 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GoldDust_48 (FL), Gooberta_48 (FL), Hirko_45 (FL), Music_47 (FL), Vibaki_47 (FL),

Start 16:
• Found in 1 of 46 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Vitus_48 (FL),

Start 18:
• Found in 1 of 46 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gilgamesh_23 (singleton),

Start 21:
• Found in 1 of 46 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Altadena_47 (FH),

Start 24:
• Found in 1 of 46 (2.2%) of genes in pham

• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bolt007_50 (FH),

Start 25:
• Found in 3 of 46 (6.5%) of genes in pham
• Manual Annotations of this start: 3 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Divya_55 (FL), Jinkies_52 (FL), SunnyJune_54 (FL),

Start 27:
• Found in 1 of 46 (2.2%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlackJade_63 (FL),

Start 28:
• Found in 5 of 46 (10.9%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 20.0% of time when present
• Phage (with cluster) where this start called: TaeYoung_42 (AO2),

Start 29:
• Found in 1 of 46 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: King2_39 (AO1),

Start 30:
• Found in 16 of 46 (34.8%) of genes in pham
• Manual Annotations of this start: 7 of 41
• Called 43.8% of time when present
• Phage (with cluster) where this start called: Abba_42 (AO3), Beans_40 (AO1), Jawnski_40 (AO1), NathanVaag_40 (AO1), Nostromo_41 (AO3), Piccoletto_40 (AO1), Wyborn_43 (AO2),

Start 31:
• Found in 3 of 46 (6.5%) of genes in pham
• Manual Annotations of this start: 2 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CalWood4100_53 (FH), Klevey_51 (FH), Lilmac1015_53 (FH),

Start 39:
• Found in 3 of 46 (6.5%) of genes in pham
• Manual Annotations of this start: 2 of 41
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Brent_40 (AO1), Franzy_40 (AO1),

Start 41:
• Found in 15 of 46 (32.6%) of genes in pham
• Manual Annotations of this start: 3 of 41

• Called 20.0% of time when present
• Phage (with cluster) where this start called: BossLady_42 (AO2), Grekaycon_42 (AO2), Zartrosa_42 (AO2),

Start 43:
• Found in 1 of 46 (2.2%) of genes in pham
• Manual Annotations of this start: 1 of 41
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Prairie_50 (FH),

Start 44:
• Found in 10 of 46 (21.7%) of genes in pham
• Manual Annotations of this start: 6 of 41
• Called 60.0% of time when present
• Phage (with cluster) where this start called: JKerns_42 (AO2), Jordan_42 (AO2), Martha_42 (AO2), Pippa_42 (AO2), Shade_42 (AO2), Sonny_42 (AO2),

Start 45:
• Found in 18 of 46 (39.1%) of genes in pham
• Manual Annotations of this start: 7 of 41
• Called 38.9% of time when present
• Phage (with cluster) where this start called: BarretLemon_42 (AO2), BigDome_42 (AO2), GravityBall_42 (AO2), LeeroyJ_42 (AO2), Sicarius2_44 (AO2), StevieBAY_42 (AO2), Timinator_42 (AO2),

Start 48:
• Found in 1 of 46 (2.2%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nandito_50 (FH),

Start 49:
• Found in 1 of 46 (2.2%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lukepolites_43 (singleton),

Summary by clusters:

There are 6 clusters represented in this pham: singleton, AO3, AO2, AO1, FH, FL,

Info for manual annotations of cluster AO1:
•Start number 29 was manually annotated 1 time for cluster AO1.
•Start number 30 was manually annotated 4 times for cluster AO1.
•Start number 39 was manually annotated 2 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 28 was manually annotated 1 time for cluster AO2.
•Start number 30 was manually annotated 1 time for cluster AO2.
•Start number 41 was manually annotated 3 times for cluster AO2.
•Start number 44 was manually annotated 6 times for cluster AO2.
•Start number 45 was manually annotated 7 times for cluster AO2.

Info for manual annotations of cluster AO3:
•Start number 30 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster FH:
•Start number 21 was manually annotated 1 time for cluster FH.
•Start number 24 was manually annotated 1 time for cluster FH.
•Start number 31 was manually annotated 2 times for cluster FH.
•Start number 43 was manually annotated 1 time for cluster FH.

Info for manual annotations of cluster FL:
•Start number 14 was manually annotated 4 times for cluster FL.
•Start number 16 was manually annotated 1 time for cluster FL.
•Start number 25 was manually annotated 3 times for cluster FL.

Gene Information:

Gene: Abba_42 Start: 32269, Stop: 32844, Start Num: 30
Candidate Starts for Abba_42:
(Start: 30 @32269 has 7 MA's), (65, 32494), (77, 32641), (81, 32668), (83, 32680), (89, 32725), (91, 32740), (93, 32761), (96, 32779), (103, 32818), (105, 32824),

Gene: Altadena_47 Start: 32540, Stop: 33031, Start Num: 21
Candidate Starts for Altadena_47:
(Start: 21 @32540 has 1 MA's), (53, 32627), (94, 32954), (98, 32984), (101, 33002),

Gene: BarretLemon_42 Start: 34040, Stop: 34525, Start Num: 45
Candidate Starts for BarretLemon_42:
(4, 33587), (32, 33953), (40, 34001), (Start: 45 @34040 has 7 MA's), (54, 34094), (56, 34145), (69, 34268), (77, 34325), (80, 34334),

Gene: Beans_40 Start: 33728, Stop: 34282, Start Num: 30
Candidate Starts for Beans_40:
(Start: 30 @33728 has 7 MA's), (72, 34040), (76, 34079), (80, 34091), (87, 34163), (90, 34178), (93, 34202),

Gene: BigDome_42 Start: 34064, Stop: 34549, Start Num: 45
Candidate Starts for BigDome_42:
(4, 33611), (12, 33815), (32, 33977), (40, 34025), (Start: 45 @34064 has 7 MA's), (54, 34118), (56, 34169), (69, 34292), (73, 34310), (77, 34349), (80, 34358), (93, 34469),

Gene: BlackJade_63 Start: 38164, Stop: 38751, Start Num: 27
Candidate Starts for BlackJade_63:
(17, 38101), (27, 38164), (34, 38191), (36, 38200), (Start: 41 @38233 has 3 MA's), (42, 38236), (46, 38272), (54, 38323), (61, 38383), (68, 38464), (80, 38551), (94, 38665), (96, 38680), (104, 38722),

Gene: Bolt007_50 Start: 35519, Stop: 35992, Start Num: 24
Candidate Starts for Bolt007_50:
(15, 35456), (Start: 24 @35519 has 1 MA's), (53, 35588), (59, 35630), (71, 35750), (79, 35798), (94, 35915), (95, 35918), (98, 35945), (101, 35963),

Gene: BossLady_42 Start: 34026, Stop: 34520, Start Num: 41

Candidate Starts for BossLady_42:
(7, 33699), (19, 33888), (Start: 28 @33957 has 1 MA's), (Start: 41 @34026 has 3 MA's), (Start: 44 @34050 has 6 MA's), (Start: 45 @34062 has 7 MA's), (76, 34317), (80, 34329),

Gene: Brent_40 Start: 33738, Stop: 34244, Start Num: 39
Candidate Starts for Brent_40:
(Start: 30 @33690 has 7 MA's), (Start: 39 @33738 has 2 MA's), (76, 34041), (80, 34053), (87, 34125), (93, 34164),

Gene: CalWood4100_53 Start: 35216, Stop: 35686, Start Num: 31
Candidate Starts for CalWood4100_53:
(Start: 31 @35216 has 2 MA's), (53, 35282), (59, 35324), (71, 35444), (78, 35489), (89, 35570),

Gene: Divya_55 Start: 37245, Stop: 37871, Start Num: 25
Candidate Starts for Divya_55:
(Start: 25 @37245 has 3 MA's), (Start: 41 @37338 has 3 MA's), (54, 37428), (61, 37488), (62, 37497), (70, 37602), (80, 37662), (88, 37737), (96, 37794), (104, 37836),

Gene: Franzy_40 Start: 33754, Stop: 34260, Start Num: 39
Candidate Starts for Franzy_40:
(Start: 30 @33706 has 7 MA's), (Start: 39 @33754 has 2 MA's), (76, 34057), (80, 34069), (87, 34141), (93, 34180),

Gene: Gilgamesh_23 Start: 14414, Stop: 13791, Start Num: 18
Candidate Starts for Gilgamesh_23:
(Start: 18 @14414 has 1 MA's), (20, 14402), (47, 14240), (52, 14204), (55, 14189), (58, 14159), (64, 14111), (66, 14105), (68, 14060), (85, 13934), (86, 13916), (92, 13883), (97, 13850), (102, 13817),

Gene: GoldDust_48 Start: 36160, Stop: 36810, Start Num: 14
Candidate Starts for GoldDust_48:
(Start: 14 @36160 has 4 MA's), (90, 36709), (103, 36790),

Gene: Gooberta_48 Start: 36159, Stop: 36809, Start Num: 14
Candidate Starts for Gooberta_48:
(Start: 14 @36159 has 4 MA's), (90, 36708), (103, 36789),

Gene: GravityBall_42 Start: 34070, Stop: 34555, Start Num: 45
Candidate Starts for GravityBall_42:
(4, 33617), (32, 33983), (40, 34031), (Start: 45 @34070 has 7 MA's), (54, 34124), (56, 34175), (69, 34298), (77, 34355), (80, 34364), (93, 34475),

Gene: Grekaycon_42 Start: 33972, Stop: 34487, Start Num: 41
Candidate Starts for Grekaycon_42:
(7, 33645), (19, 33834), (Start: 28 @33903 has 1 MA's), (Start: 41 @33972 has 3 MA's), (Start: 44 @33996 has 6 MA's), (Start: 45 @34008 has 7 MA's), (80, 34296), (90, 34383),

Gene: Hirko_45 Start: 35166, Stop: 35819, Start Num: 14
Candidate Starts for Hirko_45:
(1, 34722), (Start: 14 @35166 has 4 MA's), (23, 35235), (Start: 30 @35268 has 7 MA's), (38, 35310), (84, 35670), (90, 35718), (103, 35799),

Gene: JKerns_42 Start: 34045, Stop: 34536, Start Num: 44
Candidate Starts for JKerns_42:

(Start: 30 @33961 has 7 MA's), (Start: 41 @34021 has 3 MA's), (Start: 44 @34045 has 6 MA's), (Start: 45 @34057 has 7 MA's), (80, 34345), (90, 34432),

Gene: Jawnski_40 Start: 33678, Stop: 34232, Start Num: 30
Candidate Starts for Jawnski_40:
(7, 33435), (11, 33510), (Start: 30 @33678 has 7 MA's), (72, 33990), (76, 34029), (80, 34041), (87, 34113), (90, 34128), (93, 34152),

Gene: Jinkies_52 Start: 37258, Stop: 37869, Start Num: 25
Candidate Starts for Jinkies_52:
(9, 37051), (13, 37144), (Start: 25 @37258 has 3 MA's), (36, 37318), (Start: 41 @37351 has 3 MA's), (54, 37441), (61, 37501), (68, 37582), (80, 37669), (94, 37783), (96, 37798), (104, 37840), (107, 37858),

Gene: Jordan_42 Start: 34082, Stop: 34573, Start Num: 44
Candidate Starts for Jordan_42:
(Start: 30 @33998 has 7 MA's), (Start: 41 @34058 has 3 MA's), (Start: 44 @34082 has 6 MA's), (Start: 45 @34094 has 7 MA's), (80, 34382), (90, 34469),

Gene: King2_39 Start: 33684, Stop: 34241, Start Num: 29
Candidate Starts for King2_39:
(7, 33432), (Start: 29 @33684 has 1 MA's), (76, 34038), (80, 34050), (90, 34137), (105, 34224),

Gene: Klevey_51 Start: 34652, Stop: 35122, Start Num: 31
Candidate Starts for Klevey_51:
(Start: 31 @34652 has 2 MA's), (53, 34718), (59, 34760), (71, 34880), (78, 34925), (94, 35045),

Gene: LeeroyJ_42 Start: 34009, Stop: 34494, Start Num: 45
Candidate Starts for LeeroyJ_42:
(4, 33556), (32, 33922), (40, 33970), (Start: 45 @34009 has 7 MA's), (54, 34063), (56, 34114), (69, 34237), (77, 34294), (80, 34303), (93, 34414),

Gene: Lilmac1015_53 Start: 35216, Stop: 35686, Start Num: 31
Candidate Starts for Lilmac1015_53:
(Start: 31 @35216 has 2 MA's), (53, 35282), (59, 35324), (71, 35444), (78, 35489), (89, 35570),

Gene: Lukepolites_43 Start: 33328, Stop: 33786, Start Num: 49
Candidate Starts for Lukepolites_43:
(13, 33172), (49, 33328), (68, 33499), (74, 33556), (77, 33574), (82, 33604), (99, 33742), (103, 33754), (108, 33775),

Gene: Martha_42 Start: 33973, Stop: 34464, Start Num: 44
Candidate Starts for Martha_42:
(Start: 30 @33889 has 7 MA's), (Start: 41 @33949 has 3 MA's), (Start: 44 @33973 has 6 MA's), (Start: 45 @33985 has 7 MA's), (80, 34273), (90, 34360),

Gene: Music_47 Start: 35759, Stop: 36409, Start Num: 14
Candidate Starts for Music_47:
(Start: 14 @35759 has 4 MA's), (23, 35828), (90, 36308), (103, 36389),

Gene: Nandito_50 Start: 34994, Stop: 35419, Start Num: 48
Candidate Starts for Nandito_50:
(48, 34994), (75, 35210), (90, 35318), (101, 35393), (103, 35399), (105, 35405),

Gene: NathanVaag_40 Start: 33677, Stop: 34231, Start Num: 30
Candidate Starts for NathanVaag_40:
(Start: 30 @33677 has 7 MA's), (76, 34028), (80, 34040), (87, 34112), (90, 34127), (93, 34151),

Gene: Nostromo_41 Start: 32524, Stop: 33099, Start Num: 30
Candidate Starts for Nostromo_41:
(Start: 30 @32524 has 7 MA's), (65, 32749), (67, 32779), (77, 32896), (83, 32935), (93, 33016), (96, 33034), (103, 33073), (105, 33079), (106, 33091),

Gene: Piccoletto_40 Start: 33702, Stop: 34256, Start Num: 30
Candidate Starts for Piccoletto_40:
(Start: 30 @33702 has 7 MA's), (76, 34053), (80, 34065), (87, 34137), (91, 34155), (93, 34176),

Gene: Pippa_42 Start: 34152, Stop: 34643, Start Num: 44
Candidate Starts for Pippa_42:
(7, 33801), (19, 33990), (Start: 28 @34059 has 1 MA's), (Start: 41 @34128 has 3 MA's), (Start: 44 @34152 has 6 MA's), (Start: 45 @34164 has 7 MA's), (50, 34185), (80, 34452), (90, 34539),

Gene: Prairie_50 Start: 34461, Stop: 34934, Start Num: 43
Candidate Starts for Prairie_50:
(22, 34320), (26, 34353), (35, 34410), (37, 34425), (Start: 39 @34437 has 2 MA's), (Start: 43 @34461 has 1 MA's), (53, 34530), (59, 34572), (71, 34692), (78, 34737),

Gene: Shade_42 Start: 34080, Stop: 34571, Start Num: 44
Candidate Starts for Shade_42:
(19, 33918), (Start: 28 @33987 has 1 MA's), (Start: 41 @34056 has 3 MA's), (Start: 44 @34080 has 6 MA's), (Start: 45 @34092 has 7 MA's), (80, 34380), (90, 34467),

Gene: Sicarius2_44 Start: 33727, Stop: 34182, Start Num: 45
Candidate Starts for Sicarius2_44:
(Start: 30 @33631 has 7 MA's), (Start: 45 @33727 has 7 MA's), (57, 33799), (80, 33985), (81, 34003), (89, 34060), (90, 34072), (103, 34153), (105, 34159),

Gene: Sonny_42 Start: 34091, Stop: 34582, Start Num: 44
Candidate Starts for Sonny_42:
(Start: 30 @34007 has 7 MA's), (Start: 41 @34067 has 3 MA's), (Start: 44 @34091 has 6 MA's), (Start: 45 @34103 has 7 MA's), (80, 34391), (90, 34478),

Gene: StevieBAY_42 Start: 34070, Stop: 34555, Start Num: 45
Candidate Starts for StevieBAY_42:
(4, 33617), (32, 33983), (40, 34031), (Start: 45 @34070 has 7 MA's), (54, 34124), (56, 34175), (69, 34298), (77, 34355), (80, 34364), (93, 34475),

Gene: SunnyJune_54 Start: 36953, Stop: 37579, Start Num: 25
Candidate Starts for SunnyJune_54:
(6, 36647), (9, 36737), (13, 36830), (Start: 25 @36953 has 3 MA's), (Start: 41 @37046 has 3 MA's), (42, 37049), (51, 37106), (63, 37217), (68, 37286), (80, 37373), (96, 37502), (100, 37532), (109, 37565),

Gene: TaeYoung_42 Start: 33904, Stop: 34488, Start Num: 28
Candidate Starts for TaeYoung_42:

(7, 33646), (19, 33835), (Start: 28 @33904 has 1 MA's), (Start: 41 @33973 has 3 MA's), (Start: 44 @33997 has 6 MA's), (Start: 45 @34009 has 7 MA's), (80, 34297), (90, 34384),

Gene: Timinator_42 Start: 34009, Stop: 34494, Start Num: 45
Candidate Starts for Timinator_42:
(4, 33556), (32, 33922), (40, 33970), (Start: 45 @34009 has 7 MA's), (54, 34063), (56, 34114), (69, 34237), (77, 34294), (80, 34303), (93, 34414),

Gene: Vibaki_47 Start: 35785, Stop: 36435, Start Num: 14
Candidate Starts for Vibaki_47:
(Start: 14 @35785 has 4 MA's), (90, 36334), (103, 36415),

Gene: Vitus_48 Start: 35142, Stop: 35762, Start Num: 16
Candidate Starts for Vitus_48:
(2, 34857), (3, 34860), (5, 34887), (8, 34995), (10, 34998), (Start: 16 @35142 has 1 MA's), (22, 35178), (23, 35187), (33, 35238), (40, 35271), (Start: 41 @35274 has 3 MA's), (50, 35331), (58, 35385), (60, 35409), (76, 35553), (77, 35556), (84, 35604), (87, 35637), (103, 35733),

Gene: Wyborn_43 Start: 34183, Stop: 34734, Start Num: 30
Candidate Starts for Wyborn_43:
(Start: 30 @34183 has 7 MA's), (Start: 45 @34279 has 7 MA's), (57, 34351), (80, 34537), (81, 34555), (89, 34612), (90, 34624), (103, 34705), (105, 34711),

Gene: Zartrosa_42 Start: 33974, Stop: 34489, Start Num: 41
Candidate Starts for Zartrosa_42:
(Start: 30 @33914 has 7 MA's), (Start: 41 @33974 has 3 MA's), (Start: 44 @33998 has 6 MA's), (Start: 45 @34010 has 7 MA's), (80, 34298), (90, 34385),