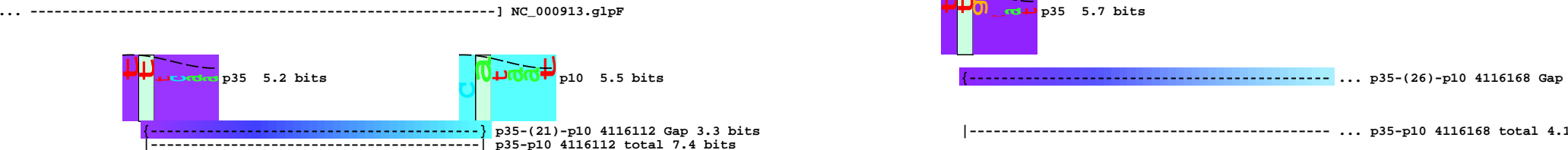


piece 1, NC\_000913, glpF\_yiiU+, config: linear, direction: +, begin: 4116084, end: 4116557

```

*         *4116090 *         *4116100 *         *4116110 *         *4116120 *         *4116130 *         *4116140 *         *4116150 *         *4116160 *
5' c t g g c c t t t c a a g g t t g a t g t t t g a c t c a t a a t c g g a t c c t g a a g a g t t a a t g t t g t t g t a t g c g t g a a a g t c a c g g a c c 3'
- leu - ala - phe - gln - gly - fMet - thr - his - asn - arg - ile - leu - lys - ser - fMet - leu - tyr - ala - fMet - arg - glu - ser - his - gly - pro -
- trp - pro - phe - lys - val - asp - val - fMet - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- gly - leu - ser - arg - leu - met - phe - asp - ser - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

```



```

*         *4116170 *         *4116180 *         *4116190 *         *4116200 *         *4116210 *         *4116220 *         *4116230 *         *4116240 *
5' t c c a c g a t g c t t g t a g g c a t g c t a a a c t t a t c g t t a a c g a g c a a a a a c g a g a a a t a t c g a a c t t a a a a t g t g t g c c t 3'
- pro - arg - cys - leu - val - gly - met - leu - fMet - leu - val - gly - met - leu - fMet - cys - val - pro -
- his - asp - ala - cys - arg - his - ala - val - asn - leu - ser - leu - thr - ser - lys - asn - glu - lys - tyr - arg - thr - fMet - cys - ala - ser -

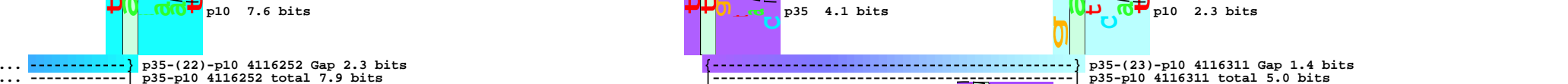
```



```

*         *4116250 *         *4116260 *         *4116270 *         *4116280 *         *4116290 *         *4116300 *         *4116310 *         *4116320 *
5' c g t c a t a a a t g a g c g t t a t c g c g c c a t t t a t c c a t t c g a t t g t a c a t g a t g c a t g t t g t t a g a t c a t t c g c g c a a c a a 3'
- arg - his - lys - met - ser - val - ile - ala - pro - phe - ile - pro - ser - asp - cys - thr - fMet - phe - val - arg - ser - phe - ala - gln - gln -
- val - ile - lys - fMet - tyr - met - met - his - val - cys - fMet - leu - asp - his - ser - arg - asn - lys -
- ser - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

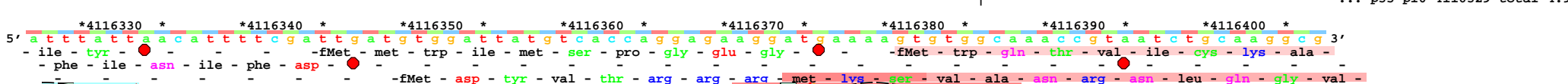
```



```

*         *4116330 *         *4116340 *         *4116350 *         *4116360 *         *4116370 *         *4116380 *         *4116390 *         *4116400 *
5' a t t t a t t a a a t g a g c g t t a t c g c g c c a t t t a t g t c a c c a g g a g a a g g a t g a a a a g t g t g g c a a a c g t a a t c t g c a a g g c g 3'
- ile - tyr - phe - ile - asn - ile - phe - asp - fMet - met - trp - ile - met - ser - pro - gly - glu - gly - fMet - trp - gln - thr - val - ile - cys - lys - ala -
- phe - ile - asn - ile - phe - asp - fMet - asp - tyr - val - thr - arg - arg - arc - met - lys - ser - val - ala - asn - arg - asn - leu - gln - gly - val -

```



```

*         *4116330 *         *4116340 *         *4116350 *         *4116360 *         *4116370 *         *4116380 *         *4116390 *         *4116400 *
5' a t t t a t t a a a t g a g c g t t a t c g c g c c a t t t a t g t c a c c a g g a g a a g g a t g a a a a g t g t g g c a a a c g t a a t c t g c a a g g c g 3'
- ile - tyr - phe - ile - asn - ile - phe - asp - fMet - met - trp - ile - met - ser - pro - gly - glu - gly - fMet - trp - gln - thr - val - ile - cys - lys - ala -
- phe - ile - asn - ile - phe - asp - fMet - asp - tyr - val - thr - arg - arg - arc - met - lys - ser - val - ala - asn - arg - asn - leu - gln - gly - val -

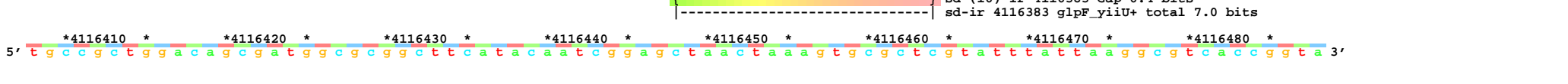
```



```

*         *4116330 *         *4116340 *         *4116350 *         *4116360 *         *4116370 *         *4116380 *         *4116390 *         *4116400 *
5' a t t t a t t a a a t g a g c g t t a t c g c g c c a t t t a t g t c a c c a g g a g a a g g a t g a a a a g t g t g g c a a a c g t a a t c t g c a a g g c g 3'
- ile - tyr - phe - ile - asn - ile - phe - asp - fMet - met - trp - ile - met - ser - pro - gly - glu - gly - fMet - trp - gln - thr - val - ile - cys - lys - ala -
- phe - ile - asn - ile - phe - asp - fMet - asp - tyr - val - thr - arg - arg - arc - met - lys - ser - val - ala - asn - arg - asn - leu - gln - gly - val -

```



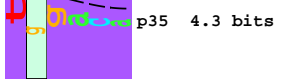
```

*         *4116410 *         *4116420 *         *4116430 *         *4116440 *         *4116450 *         *4116460 *         *4116470 *         *4116480 *
5' t g c c g c t g g a c a g c g a t g g c g c g g c t c a t a c a a t c g g a g c t a a c t a a a g t g c g c t c g t a t t t a t t a a g c g t c a c c g g t a 3'

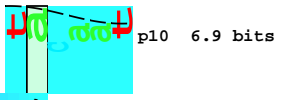
```

- 2 -

cys - arg - trp - thr - ala - met - ala - arg - leu - his - thr - ile - gly - ala - asn -  
 pro - leu - asp - ser - asp - gly - ala - ala - ser - tyr - asn - arg - ser -  
 -fMet - arg - ser - tyr - leu - leu - arg - arg - his - arg -



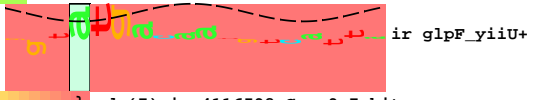
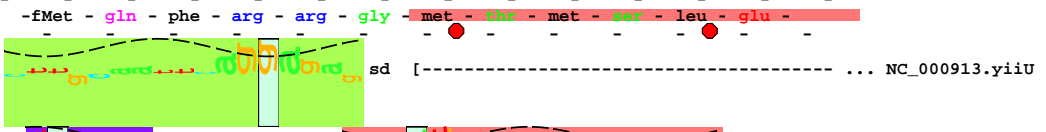
###> orf 26 codons



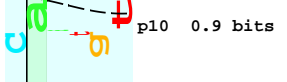
###> orf 25 codons

p35-(23)-p10 4116438 Gap 1.4 bits  
 p35-p10 4116438 total 9.8 bits

\*4116490 \* \*4116500 \* \*4116510 \* \*4116520 \* \*4116530 \* \*4116540 \* \*4116550 \*  
 5' a t c g g g a c g a g g a t t t t t a t c c a t c a a c g c c t t g c a a t t c a g g a g a g g t a t g a c a a t g t c a t t a g a a g t 3'



sd-(7)-ir 4116538 Gap 3.7 bits  
 sd-ir 4116538 glpF\_yiiU+ total 12.5 bits



p35-(22)-p10 4116543 Gap 2.3 bits  
 p35-p10 4116543 total 4.7 bits