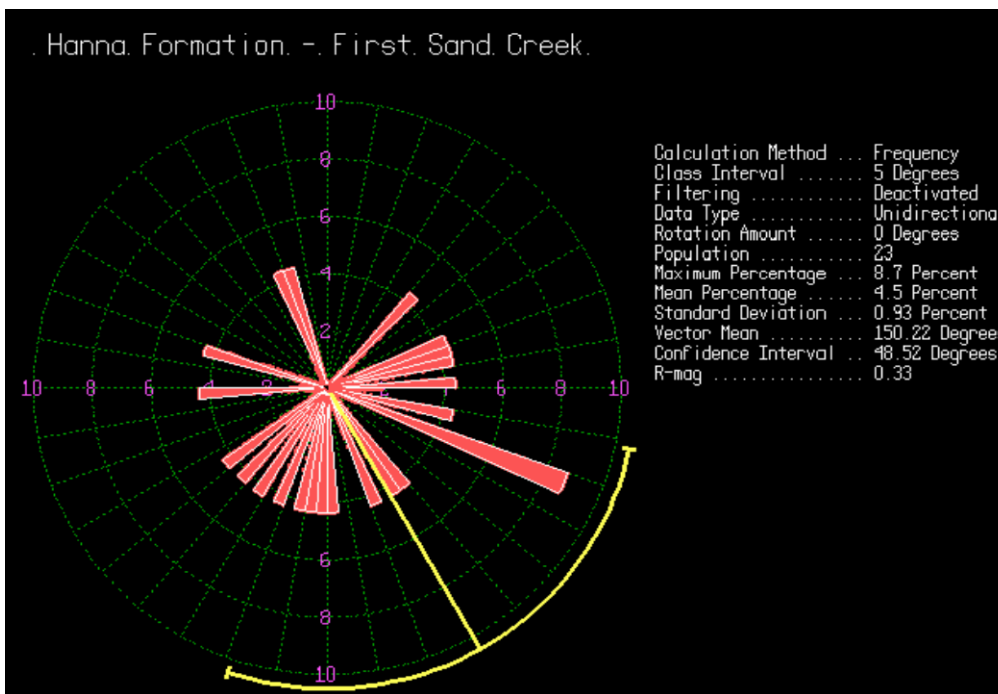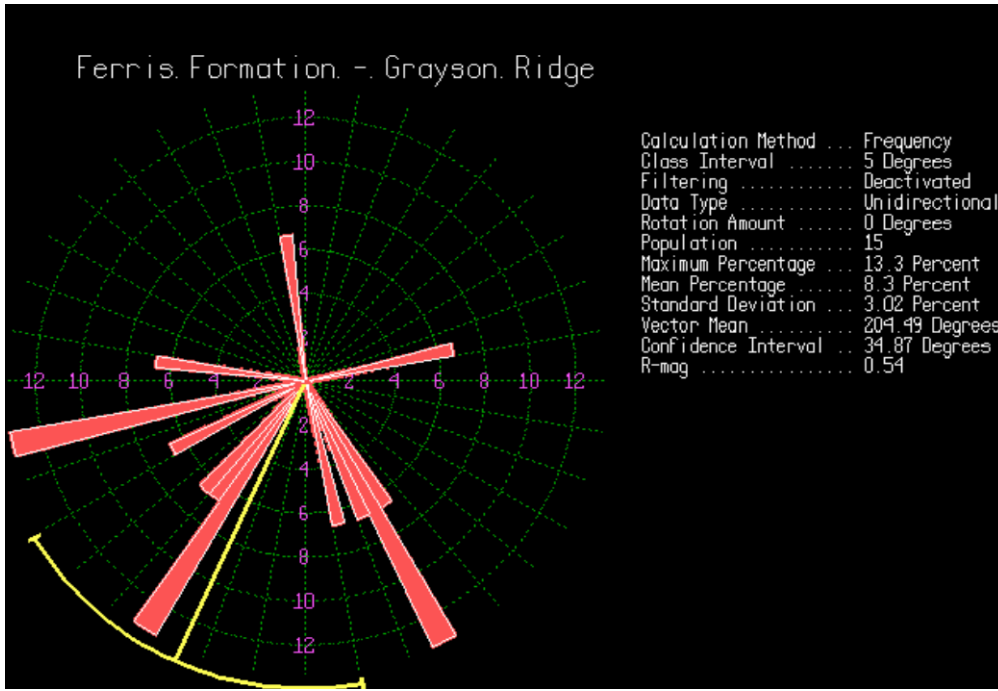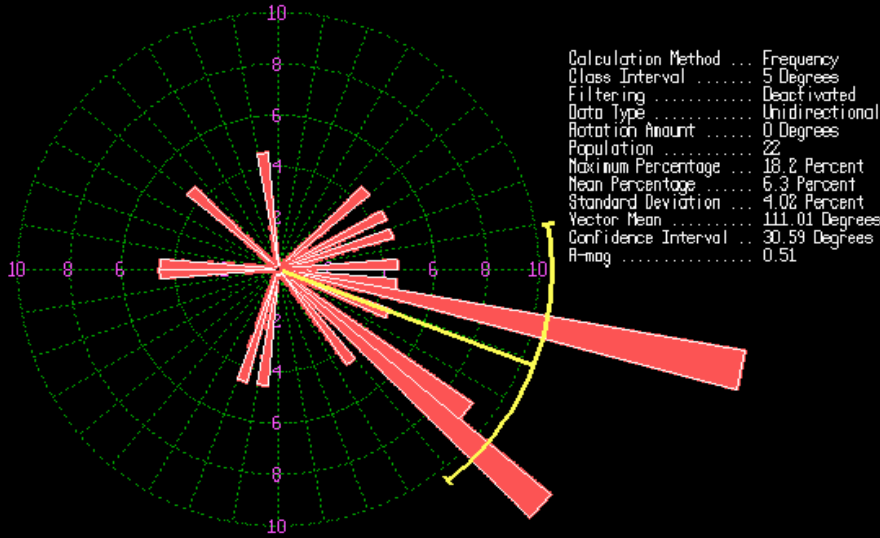Figure S1. Rose diagrams and statistics for paleocurrent directions, generated by Rockware software. Mean paleocurrent vectors are from trough cross-beds. See Fig. 1 for locations.

Ferris. Formation. –. Grayson. Ridge

Calculation Method ... Frequency
Class Interval ...... 5 Degrees
Filtering .... Deactivated
Data Type .... Unidirectional
Rotation Amount ..... 0 Degrees
Population 15
Maximum Percentage ... 13.3 Percent
Mean Percentage ...... 8.3 Percent
Standard Deviation ... 3.02 Percent
Vector Mean .... 204.49 Degrees
Confidence Interval .. 34.87 Degrees
R-mag 0.54

. Hanna. Formation. –. First. Sand. Creek.

Calculation Method ... Frequency
Class Interval ...... 5 Degrees
Filtering .... Deactivated
Data Type .... Unidirectional
Rotation Amount ..... 0 Degrees
Population 23
Maximum Percentage ... 8.7 Percent
Mean Percentage ...... 4.5 Percent
Standard Deviation ... 0.93 Percent
Vector Mean .... 150.22 Degrees
Confidence Interval .. 48.52 Degrees
R-mag 0.33

Hanna. Formation. -. Grayson. Ridge

Calculation Method ... Frequency
Class Interval .... 5 Degrees
Filtering .... Deactivated
Data Type .... Unidirectional
Rotation Amount ...... 0 Degrees
Population 22
Maximum Percentage ... 18.2 Percent
Mean Percentage ...... 6.3 Percent
Standard Deviation ... 4.02 Percent
Vector Mean .... 111.01 Degrees
Confidence Interval .. 30.59 Degrees
R-mag 0.51

Hanna. Formation. -. Carbon. Cliffs...

Calculation Method ... Frequency
Class Interval .... 5 Degrees
Filtering .... Deactivated
Data Type .... Unidirectional
Rotation Amount ...... 0 Degrees
Population 20
Maximum Percentage ... 10 Percent
Mean Percentage ...... 6.7 Percent
Standard Deviation ... 2.44 Percent
Vector Mean .... 137.81 Degrees
Confidence Interval .. 20.16 Degrees
R-mag 0.72