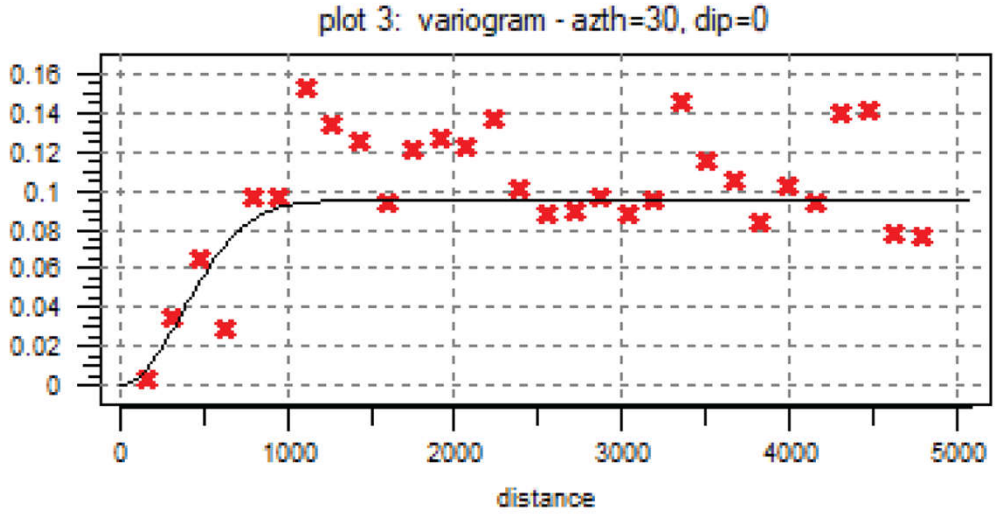
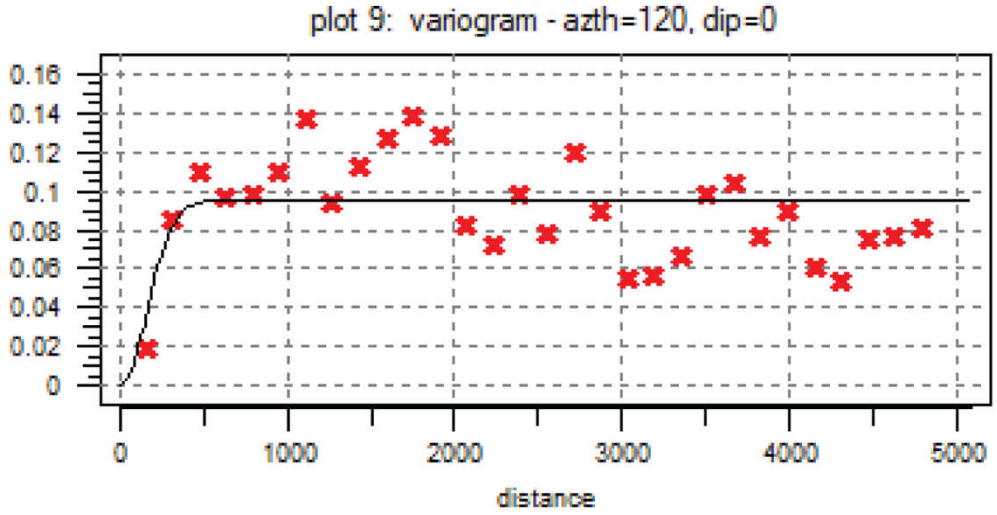
APPENDIX B – INDICATOR VARIOGRAMS

A)



B)



(A) Maximum Correlation Length 912 Feet at Azimuth 30 degrees (B) Minimum Correlation Length 384 Feet at Azimuth 120 degrees. Variance = 0.095, Nugget Variance = 0. Fit with Gaussian Variogram Model.

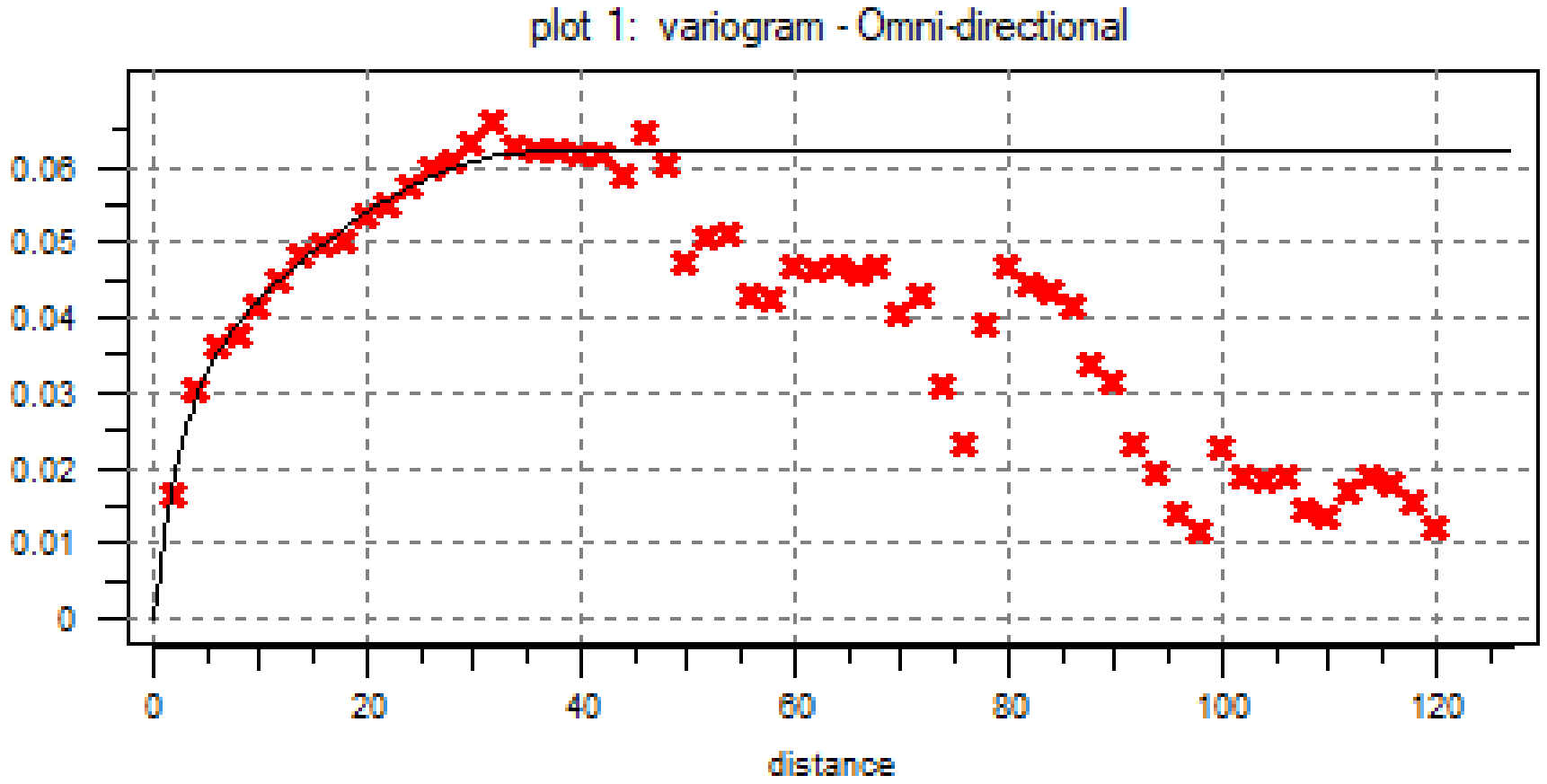
TTL

FIGURE 1: HORIZONTAL VARIOGRAM FOR SILTY CLAYEY SAND (SC-SM)

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 36 Feet & 8 Feet, Variance = 0.032 & 0.03, Nugget Variance = 0. Fit with Spherical & Exponential Variogram Models.

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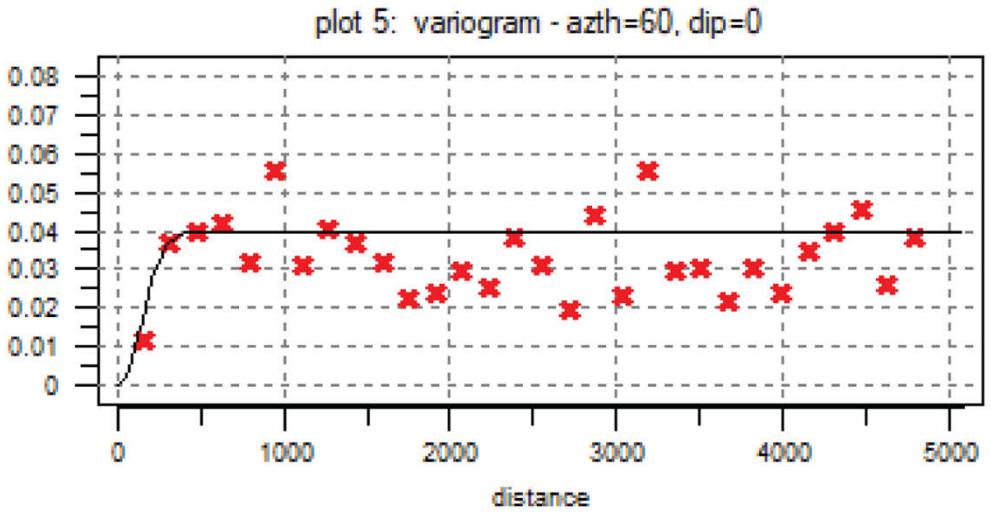
FIGURE 2: VERTICAL VARIOGRAM FOR SILTY CLAYEY SAND (SC-SM)

TWIN PINES MINERALS

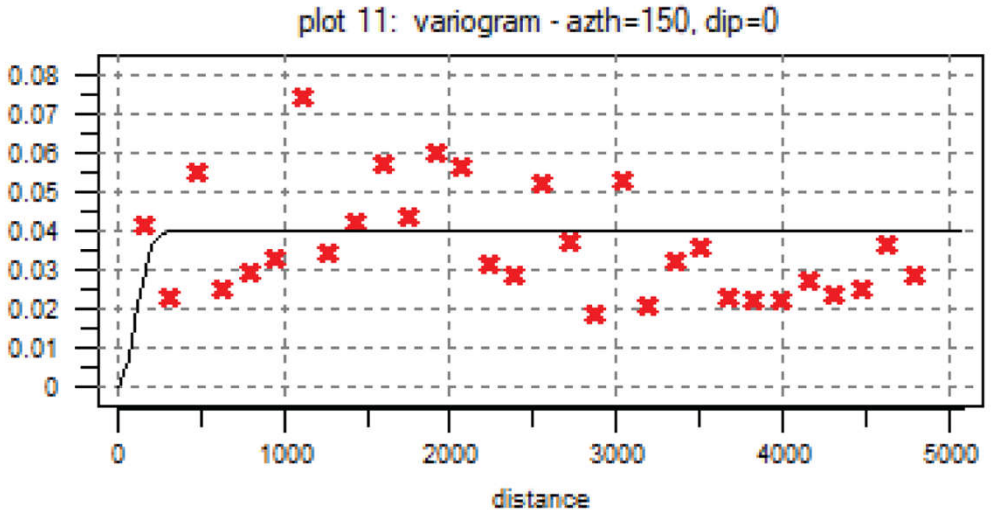
ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:

A)



B)



(A) Maximum Correlation Length 432 Feet at Azimuth 90 degrees (B) Minimum Correlation Length 240 Feet at Azimuth 0 degrees. Variance = 0.080, Nugget Variance = 0. Fit with Gaussian Variogram Model.

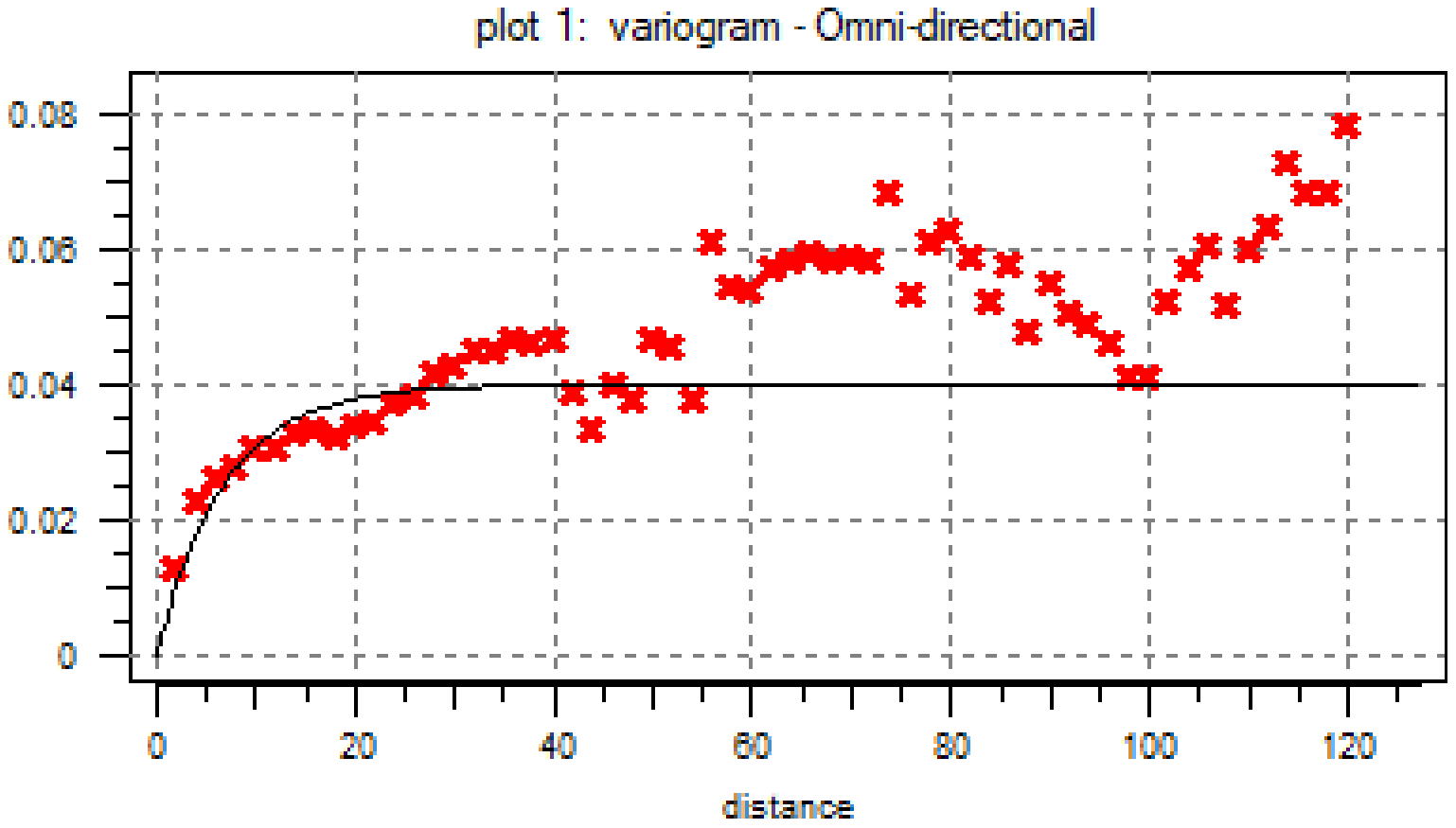
TTL

FIGURE 3: HORIZONTAL VARIOGRAM FOR CLAYEY SAND (SC)

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 33.6 Feet, Variance = 0.0723, Nugget Variance = 0. Fit with Spherical Variogram Model.

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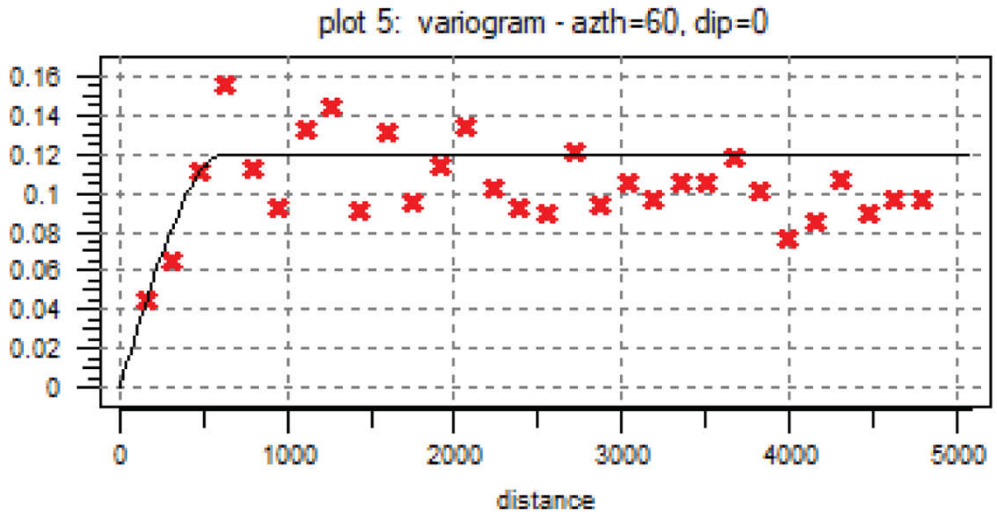
FIGURE 4: VERTICAL VARIOGRAM FOR CLAYEY SAND (SC)

TWIN PINES MINERALS

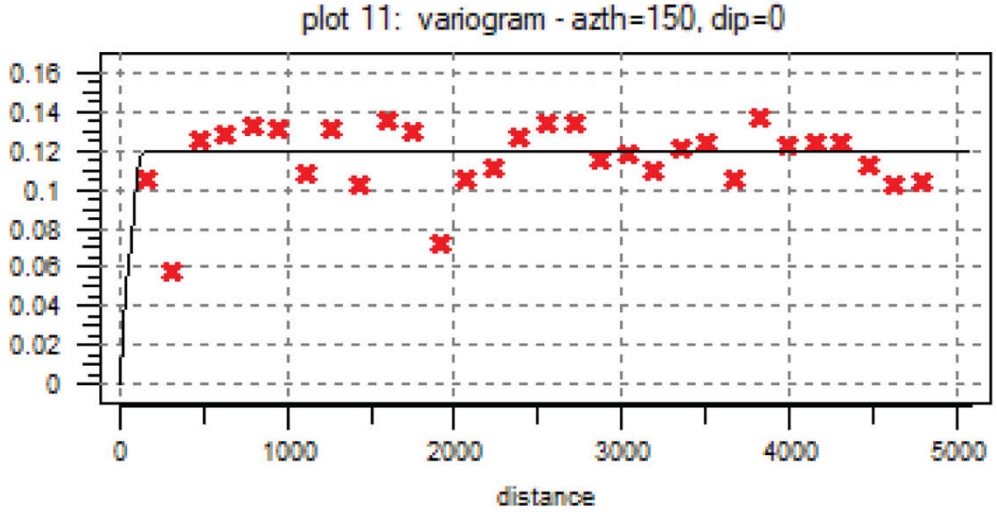
ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:

A)



B)



(A) Maximum Correlation Length 624 Feet at Azimuth 60 degrees (B) Minimum Correlation Length 144 Feet at Azimuth 150 degrees. Variance = 0.120, Nugget Variance = 0. Fit with Spherical Variogram Model.

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FIGURE 5: HORIZONTAL VARIOGRAM FOR SEMI-CONSOLIDATED SAND

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
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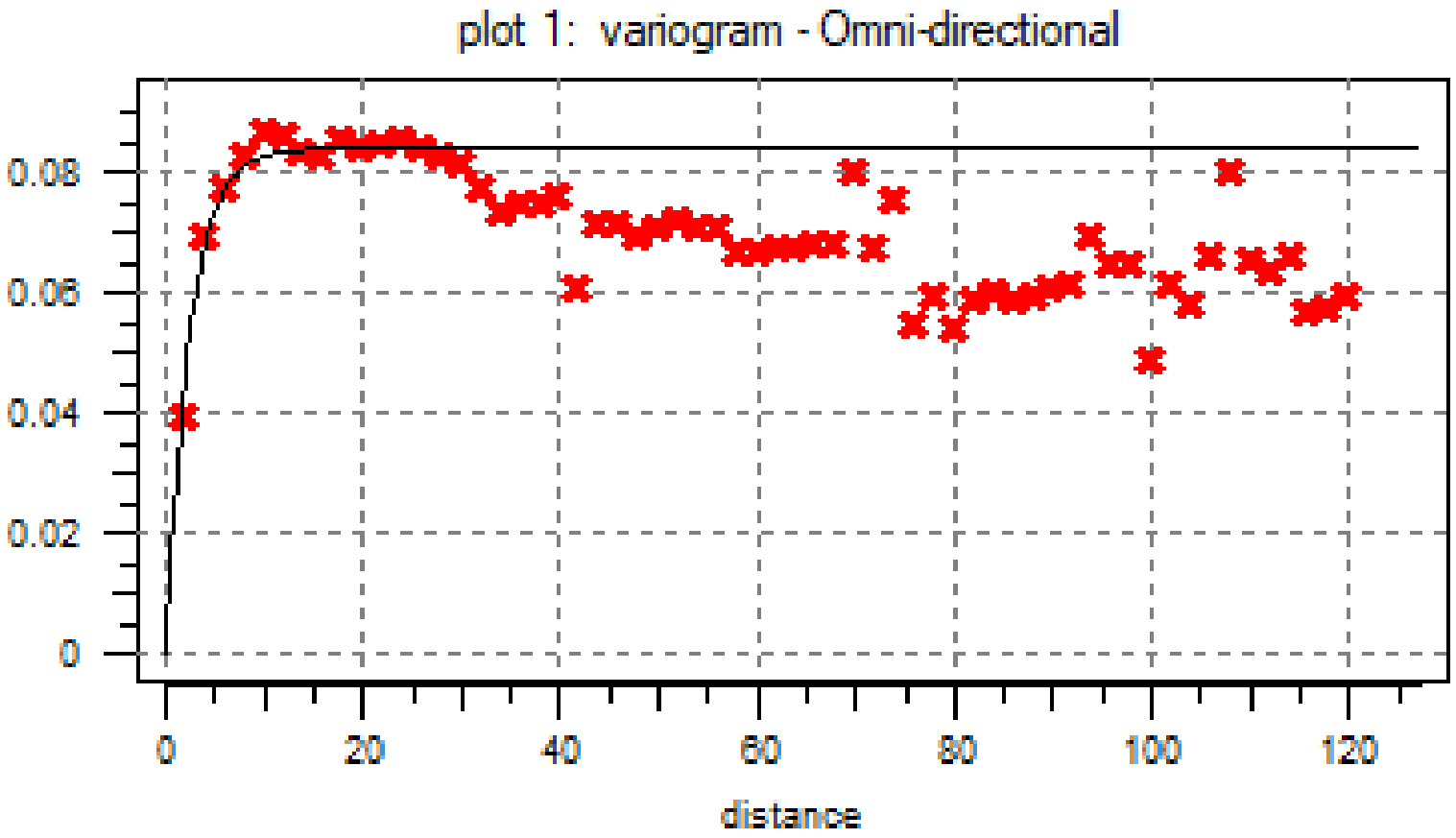
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 7.2 Feet, Variance = 0.084, Nugget Variance = 0. Fit with Exponential Variogram Model.

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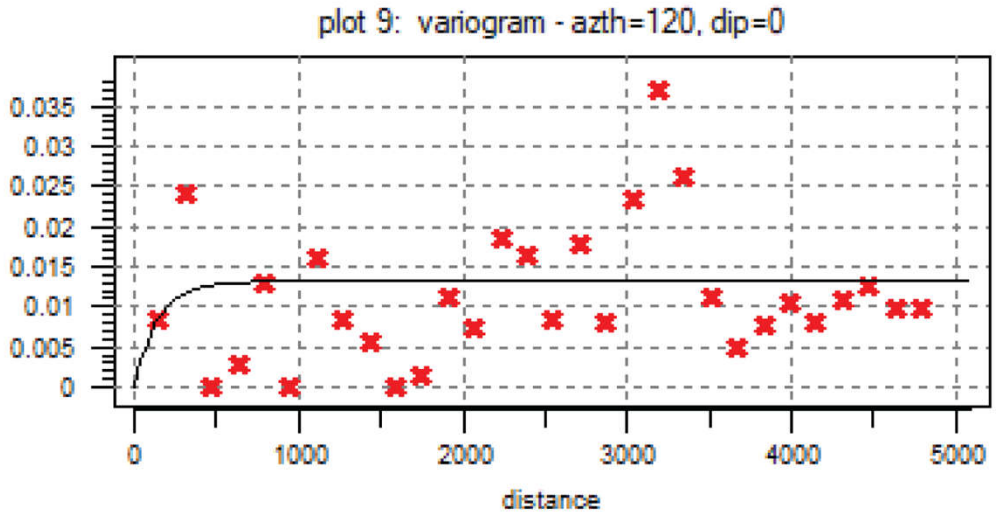
FIGURE 6: VERTICAL VARIOGRAM FOR SEMI-CONSOLIDATED SAND

TWIN PINES MINERALS

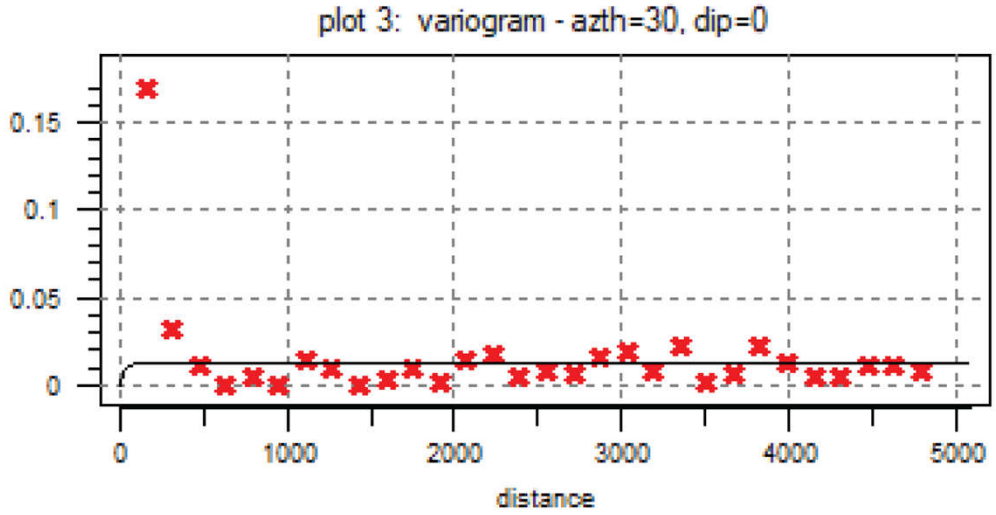
ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:

A)



B)



(A) Maximum Correlation Length 432 Feet at Azimuth 120 degrees (B) Minimum Correlation Length 96 Feet at Azimuth 30 degrees. Variance = 0.013, Nugget Variance = 0. Fit with Exponential Variogram Model.

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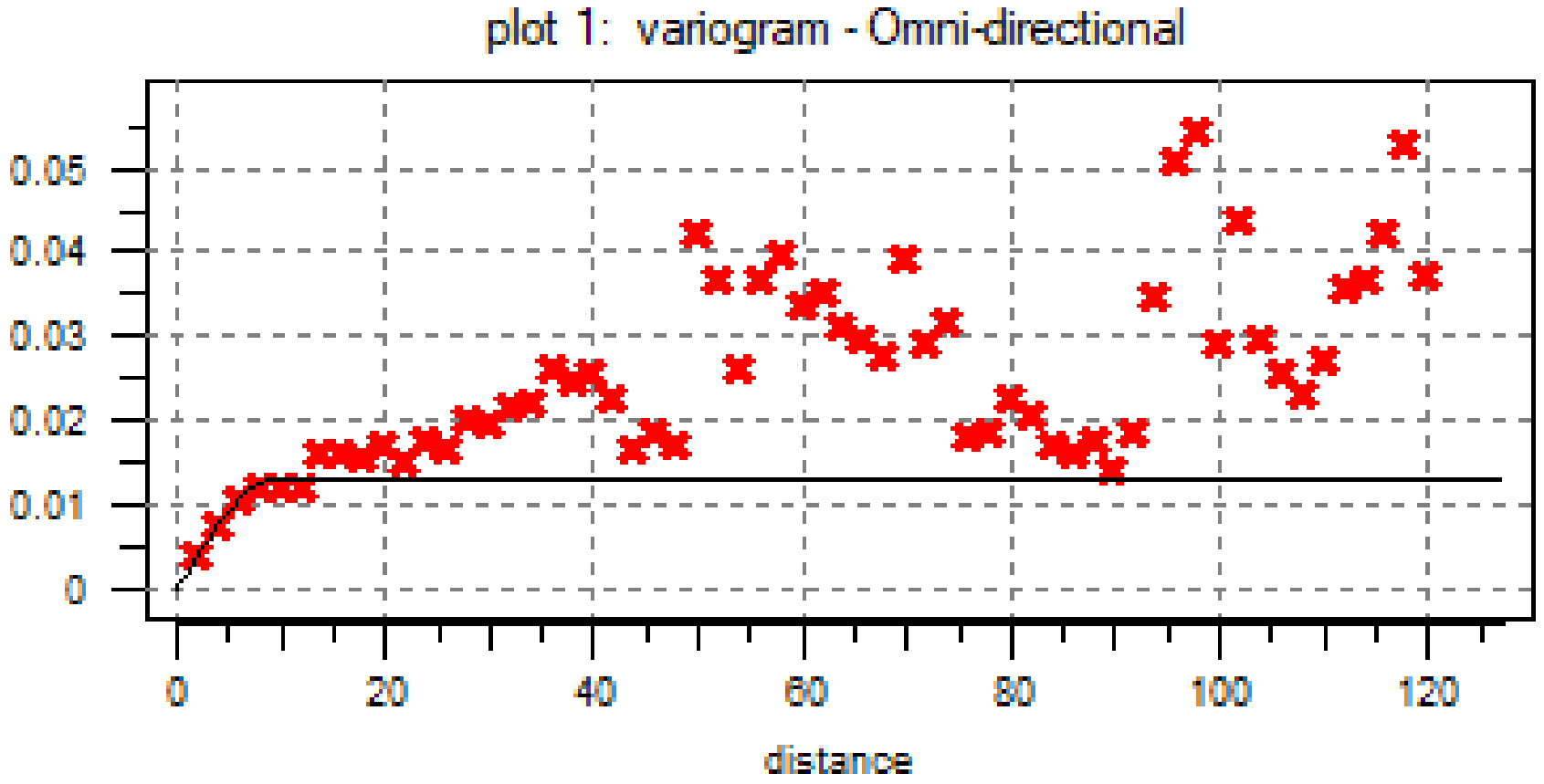
FIGURE 7: HORIZONTAL VARIOGRAM FOR UNCONSOLIDATED BLACK SAND

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 9.6 Feet, Variance = 0.0132, Nugget Variance = 0. Fit with Spherical Variogram Model.

TTL

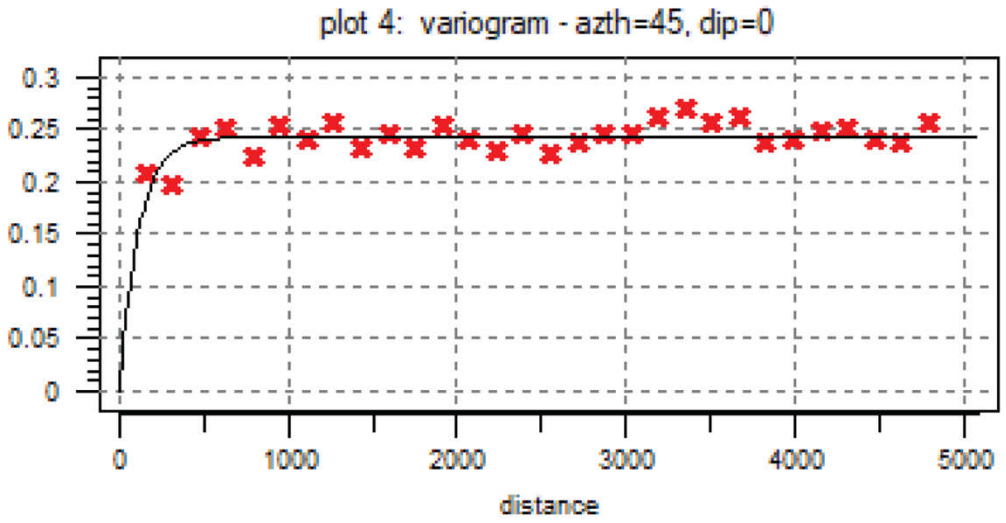
FIGURE 8: VERTICAL VARIOGRAM FOR UNCONSOLIDATED BLACK SAND

TWIN PINES MINERALS

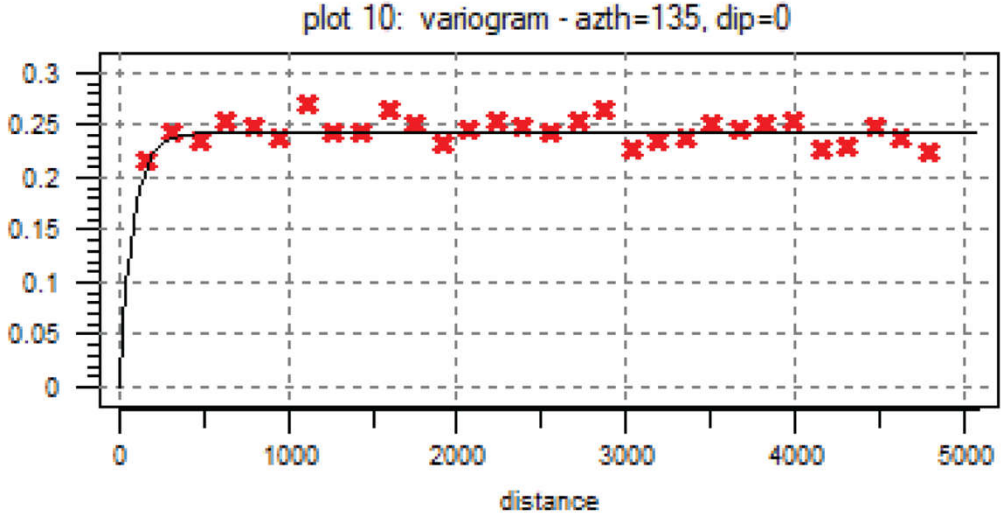
ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:

A)



B)



(A) Maximum Correlation Length 336 Feet at Azimuth 45 degrees (B) Minimum Correlation Length 240 Feet at Azimuth 135 degrees. Variance = 0.243, Nugget Variance = 0. Fit with Exponential Variogram Model.

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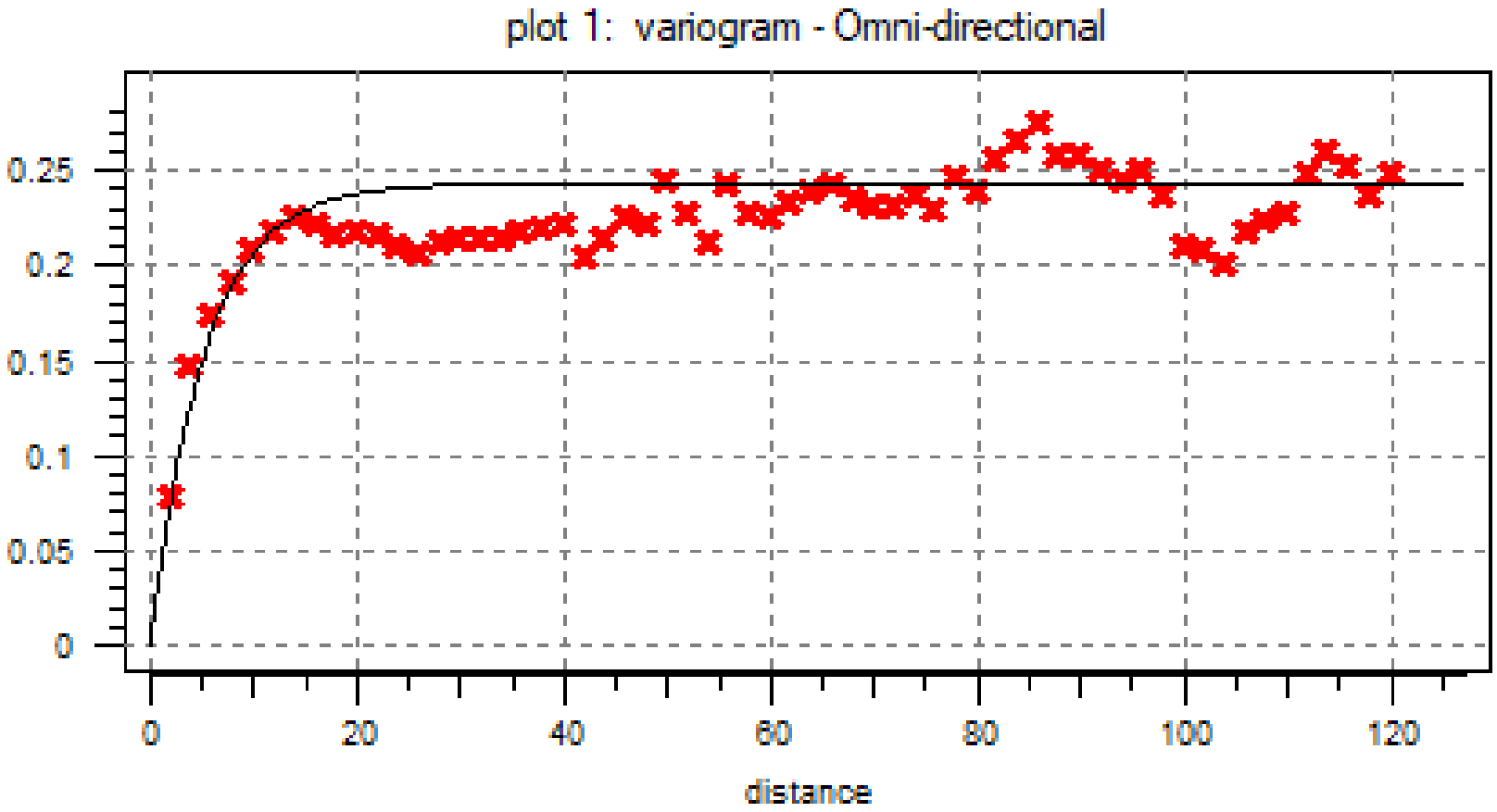
FIGURE 9: HORIZONTAL VARIOGRAM FOR UNCONSOLIDATED SAND

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 15.6 Feet, Variance = 0.243, Nugget Variance = 0. Fit with Exponential Variogram Model.

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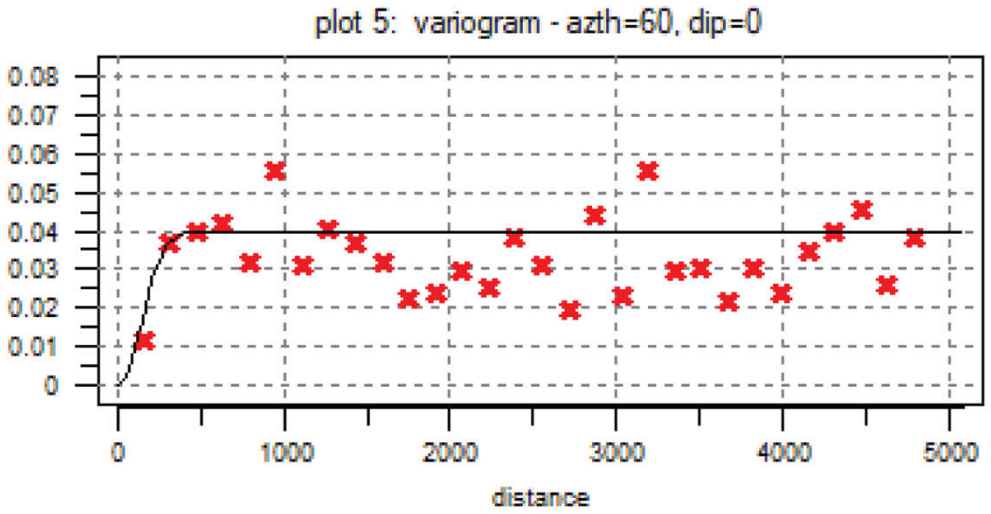
FIGURE 10: VERTICAL VARIOGRAM FOR UNCONSOLIDATED SAND

TWIN PINES MINERALS

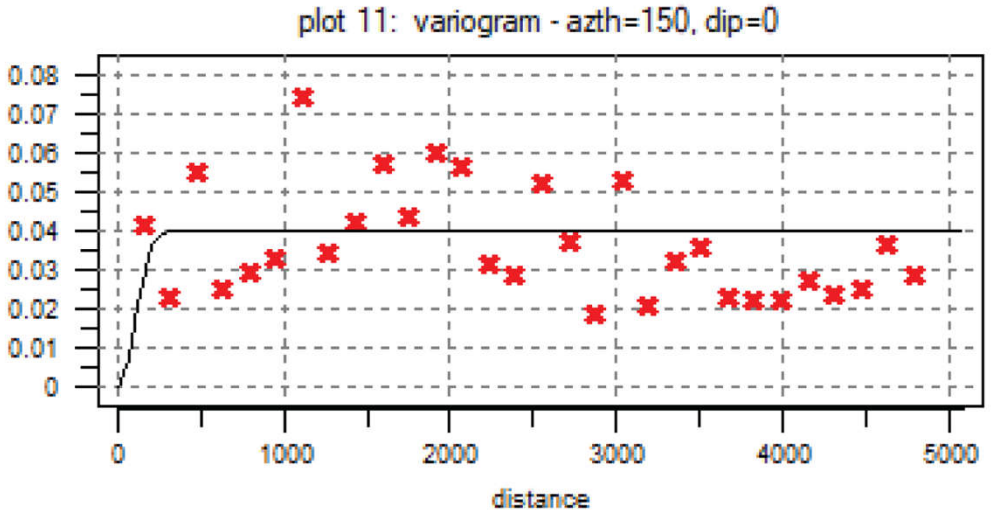
ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:

A)



B)



(A) Maximum Correlation Length 336 Feet at Azimuth 60 degrees (B) Minimum Correlation Length 240 Feet at Azimuth 150 degrees. Variance = 0.040, Nugget = 0. Fit with Gaussian Variogram Model.

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FIGURE 11: HORIZONTAL VARIOGRAM FOR CLAY

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
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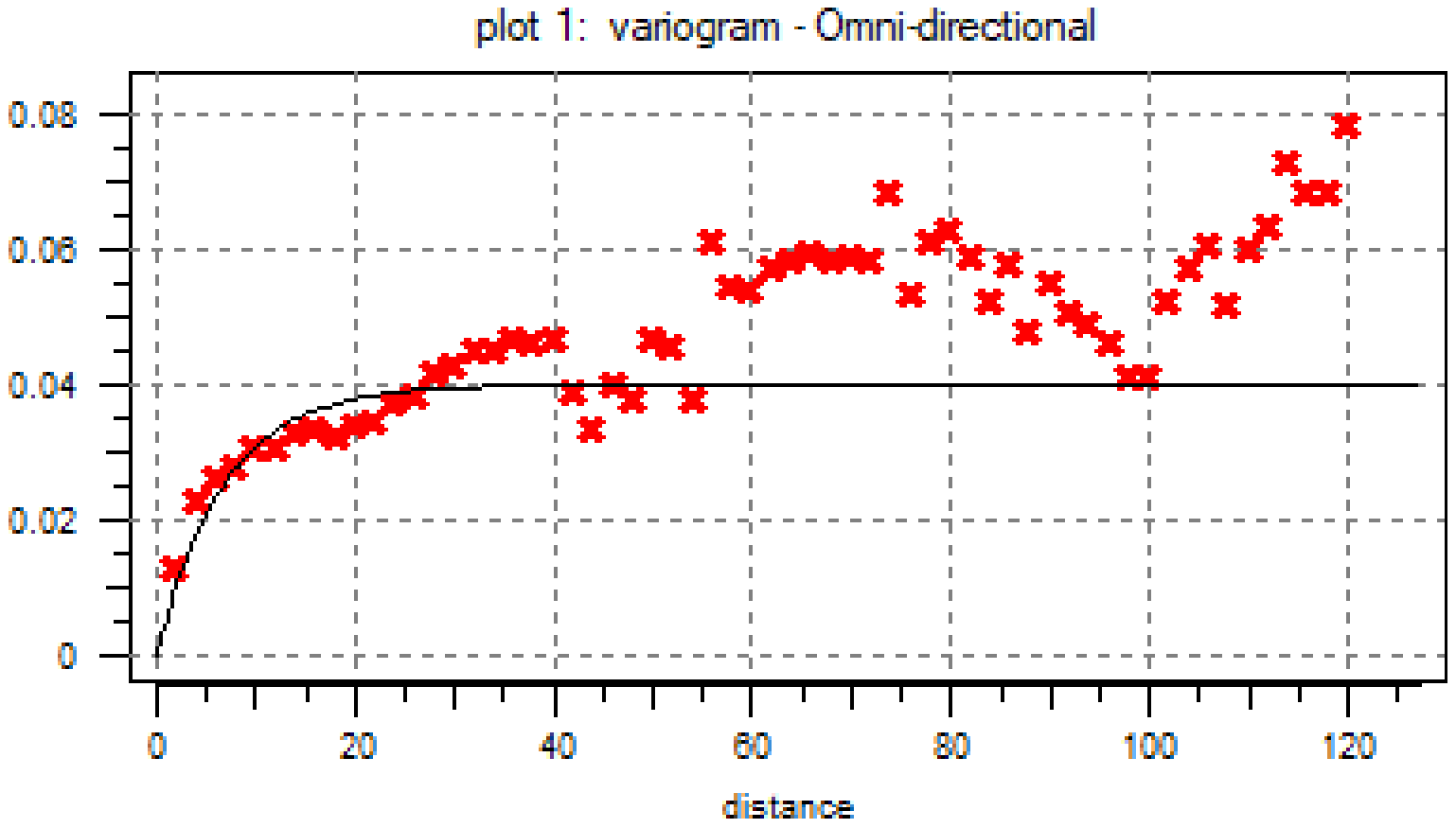
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 20.4 Feet, Variance = 0.040, Nugget = 0. Fit with Exponential Variogram Model.

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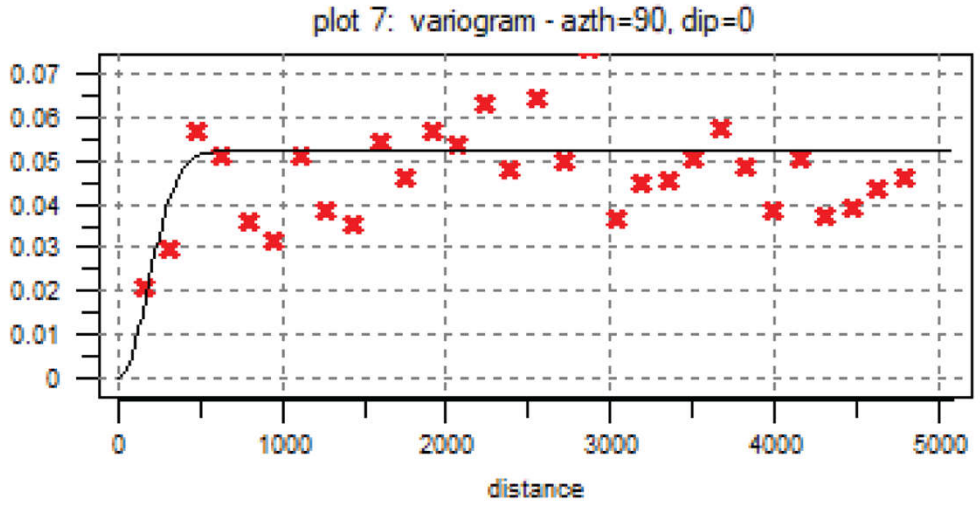
FIGURE 12: VERTICAL VARIOGRAM FOR CLAY

TWIN PINES MINERALS

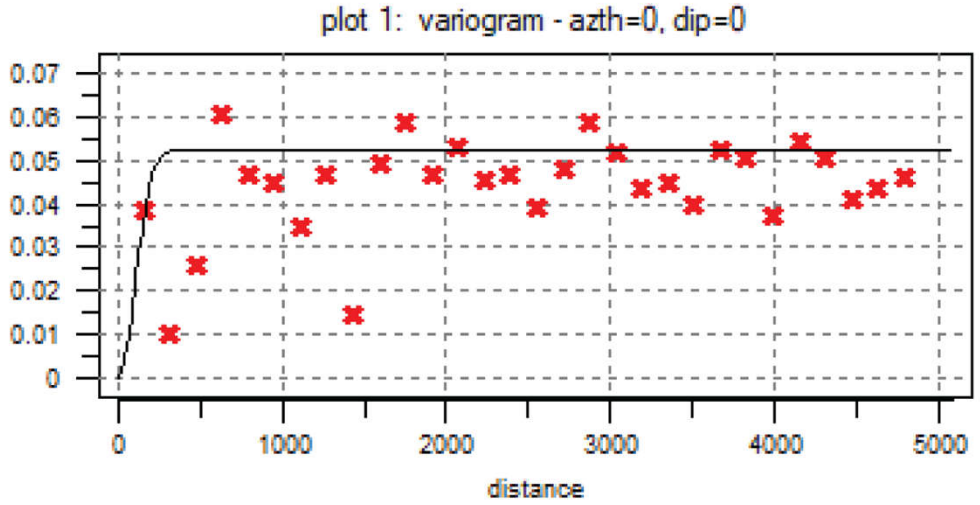
ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:

A)



B)



(A) Maximum Correlation Length 432 Feet at Azimuth 90 degrees (B) Minimum Correlation Length 240 Feet at Azimuth 0 degrees. Variance = 0.052, Nugget Variance = 0. Fit with Gaussian Variogram Model.

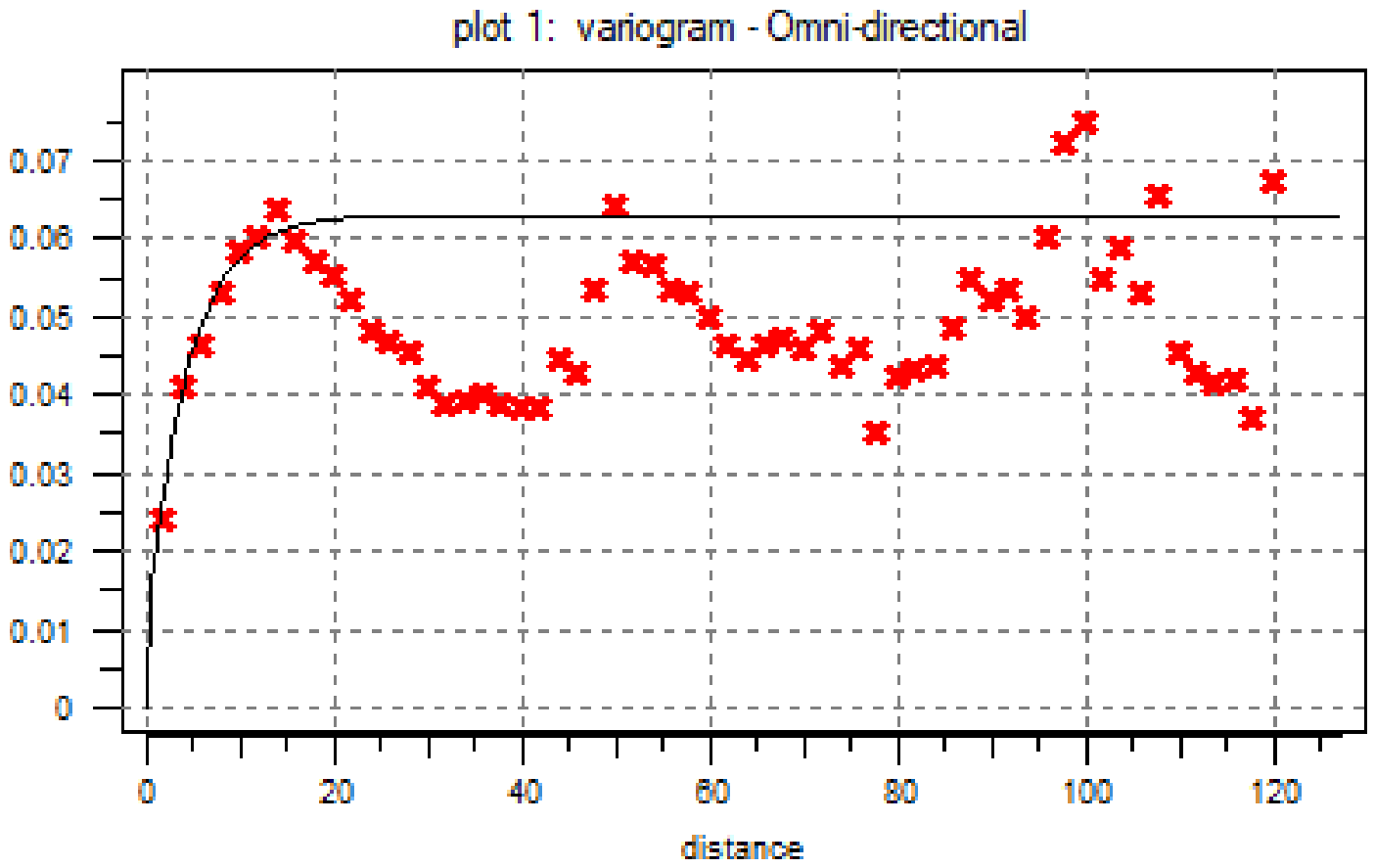
TTL

FIGURE 13: HORIZONTAL VARIOGRAM FOR CONSOLIDATED SAND

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
DRAWING DATE: 2/28/2020
REVISION DATE: N/A
TTL JOB NO.: 000180200804.00
APPROX. SCALE:



Maximum Correlation Length = 18 Feet, Variance = 0.053, Nugget Variance = 0.01. Fit with Exponential Variogram Model.

TTL

FIGURE 14: VERTICAL VARIOGRAM FOR CONSOLIDATED SAND

TWIN PINES MINERALS

ST. GEORGE, CHARLTON COUNTY, GEORGIA

DRAWN BY: DEK
CHECKED BY: RMH
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TTL JOB NO.: 000180200804.00
APPROX. SCALE: