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Sediment Magnetic Data and Thermomagnetic Determinations of
Modern and Ancient Soils and Parent Materials near McCook, Red
Willow County, Nebraska: Contributions to Quaternary Paleoclimatic
Studies of Midcontinent Loess Deposits

by

Stephen S. Harlan¹, Joseph G. Rosenbaum¹, Dan Muhs¹, and E.A. Bettis, III²

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¹U.S. Geological Survey, Denver, Colorado, 80225

²Iowa Department of Natural Resources, Geological Survey Bureau, Iowa City, Iowa, 52242-1319

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INTRODUCTION

This paper presents sediment magnetic data from Quaternary soil and parent loess material from near McCook in western Nebraska. These data were collected as part of a broader study of the magnetic properties of Midcontinent soils and loess. The ultimate objective is to better understand the types, properties, and origin of magnetic minerals in midcontinent soils and loess and their relations to past amounts of precipitation. The magnetic data presented here are part of a larger study by the U.S. Geological Survey of North American paleoclimates during the last interglacial period.

The exposure is a borrow pit south of McCook, Nebraska on the north side of U.S. Highway 34. The geology of this exposure locality has not been previously described. The modern soil at this locality is eroded, so an intact modern soil was collected on a flat, stable upland approximately 2 km northwest of McCook. At the borrow pit, approximately 5 m of Peoria loess are exposed, underlain by the Gilman Canyon Formation (0.55 m thick), a Sangamon soil (1.3 m thick), and by Loveland loess (0.35 m).

METHODS

Sampling

Samples were collected in two traverses that consisted of a modern soil profile developed on the Peoria Loess and two paleosols and loesses exposed in a nearby borrow pit. Samples were collected as representative "channel" samples from each of the major soil units (e.g., the A1 horizon, the BK2 horizon, etc.). Each sample was collected from material over the exposed depth range of the horizon.

For the analysis of magnetic properties such as magnetic susceptibility and laboratory induced magnetizations, splits of the soil and loess samples were packed into plastic cubes that are capable of holding approximately 3.2 cm³ of material. Each sample and cube were weighed, and the average weight of an empty sample holder was subtracted from the gross weight in order to get the true weight of the sample.

Magnetic Susceptibility

A susceptibility meter, operating at a sensitivity better than 10⁻⁵ volume SI at about 600 Hz or 6000 Hz, was used to measure low-frequency (LFMS) and high-frequency (HFMS) magnetic susceptibility of soil and loess samples. In addition, useful magnetic parameters, the frequency dependence of magnetic susceptibility (FDMS) and the percentage of FDMS (%FDMS), were calculated using the following formulas:

$$\text{FDMS} = \text{LFMS} - \text{HFMS},$$

and

$$\% \text{FDMS} = [(\text{LFMS} - \text{HFMS}) / \text{LFMS}] * 100.$$

Magnetic susceptibility data are listed in Table 1.

Laboratory Induced Magnetizations

An anhysteretic remanent magnetization was imparted to each sample by placing it in a slowly decaying alternating field with a peak field of 100 mT while it was subjected to a DC bias of 0.1 mT. The ARM was then measured using a high-speed spinner magnetometer operating at 90 Hz. Following the ARM acquisition experiments, an impulse magnetizer was used to impart isothermal remanent magnetizations (IRMs) to each specimen. Each specimen was given an initial IRM in an induction of 1.2 T (i.e., $\text{IRM}_{1.2\text{T}}$), and the resultant magnetization was measured using the spinner magnetometer. Each sample was then given an oppositely directed IRM in an induction of 0.3 T ($\text{IRM}_{0.3\text{T}}$) and the remanence was again measured with the magnetometer. The “hard” isothermal remanent magnetization (HIRM) and the S parameter were then calculated as:

$$\text{HIRM} = (\text{IRM}_{1.2} + \text{IRM}_{0.3}) / 2,$$

$$\text{and } S = -\text{IRM}_{0.3} / \text{IRM}_{1.2},$$

as suggested by King and Channel (1991).

Induced magnetization data and the HIRM and S parameters are listed in Table 1.

Thermomagnetic Determinations

Curie temperatures were determined for magnetic minerals separated from several bulk sediment/soil samples. Separation of the magnetic phases was made by dispersing the soil or loess sample in distilled water, along with a small amount of a surfactant, in an ultrasonic cleaner. The resultant slurry was then pumped past a permanent magnet using a technique similar to that described by Petersen and others (1986). The resultant magnetic separates were rinsed with acetone to remove water and then allowed to dry in air.

Curie temperatures of the soil and loess samples were investigated using two different types of thermomagnetic devices. The first consisted of sensitive electrobalance similar to that described by Larson and others (1975). In this

device, saturation magnetization in an applied field of 0.2 to 0.45 T was measured as a function of temperature. The samples were heated in air up to a maximum temperature of about 660°C (approximately 15°C/min) and then allowed to cool to near room temperature. Each sample consisted of about 0.15 to 0.40 mg of magnetic material separated from the magnetic separate using a hand magnet. Thermomagnetic curves obtained using the Curie balance are given in Figure 1.

The second device used in the thermomagnetic experiments measured magnetic susceptibility as a function of temperature. In this device, the magnetic separate was placed in dry Al₂O₃ powder and placed in a quartz tube. A platinum temperature sensor was then inserted into the tube such that the end of the sensor was nearly in contact with the magnetic separate. The sample was then heated in a series of steps to a peak temperature of 630 to 660°C and then cooled. Magnetic susceptibility was measured approximately every 3°C by inserting the furnace assembly into a coil and switching off the furnace current. Thermomagnetic experiments were performed both in an atmospheric environment and by allowing a low flow (approximately 0.05 liters/min) of argon to pass over the sample. The magnetic susceptibility of all samples were corrected for the diamagnetic susceptibility of the quartz tube and Al₂O₃ powder by subtracting the average susceptibility of a "blank" sample consisting of a quartz tube containing an approximately equivalent amount of Al₂O₃ to that used in each experiment.

Experiments at the U.S. Geological Survey sediment magnetism laboratory (Denver) have shown that the Curie temperature of individual samples determined using this device, held in a constant position from experiment to experiment, are reproducible to about 1 to 2°C (assuming no significant phase changes during the experiments). The presence of temperature gradients in the furnace system and inherent uncertainties in the position of samples in individual heating experiments, however, indicates that the uncertainty in the determination of Curie temperatures for individual samples is probably on the order of 4 to 5°C (one standard deviation). Thermomagnetic curves of magnetic susceptibility vs. temperature are shown in Figure 2; analytical data obtained during these experiments are listed in Table 2.

ACKNOWLEDGMENTS

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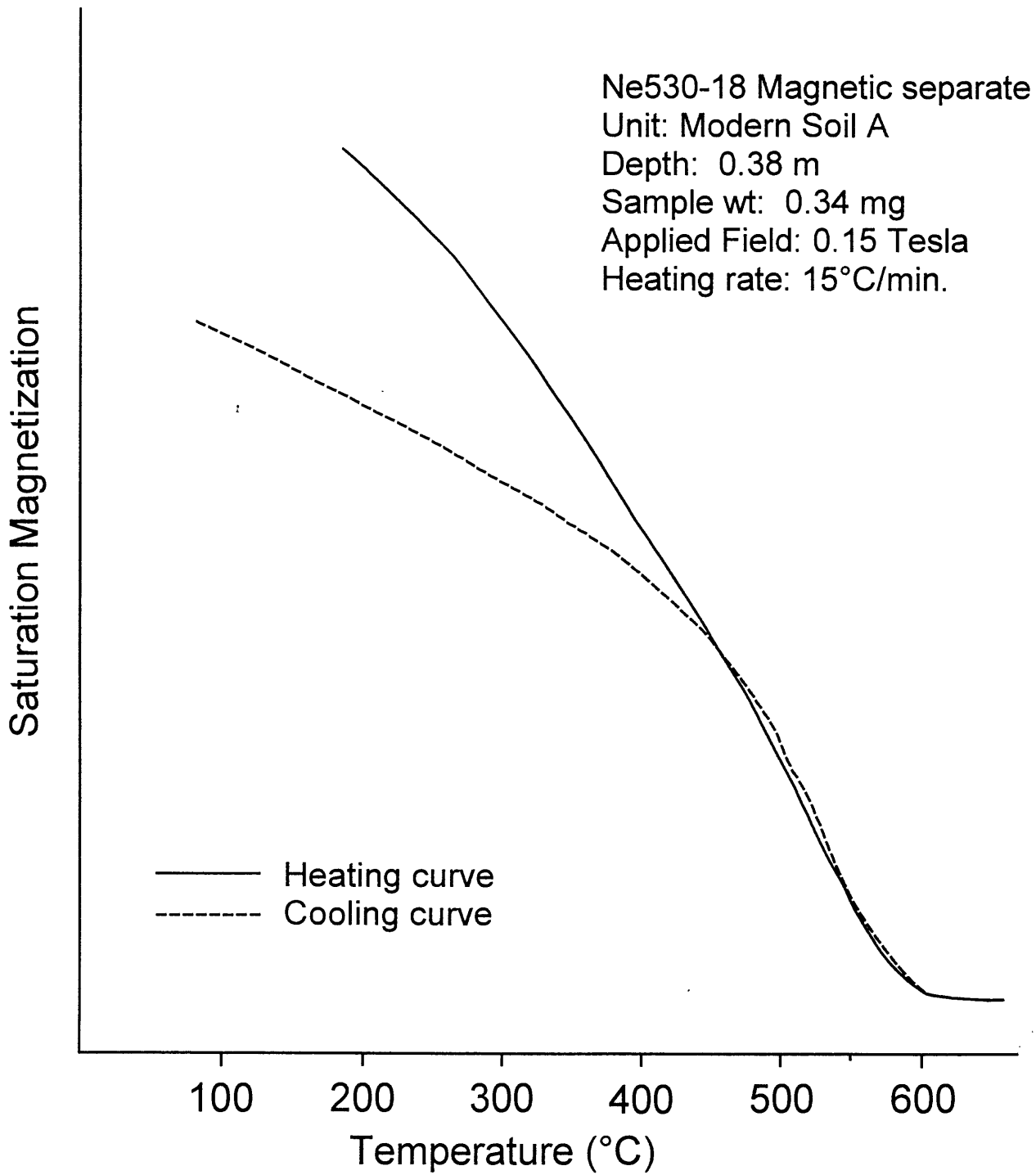
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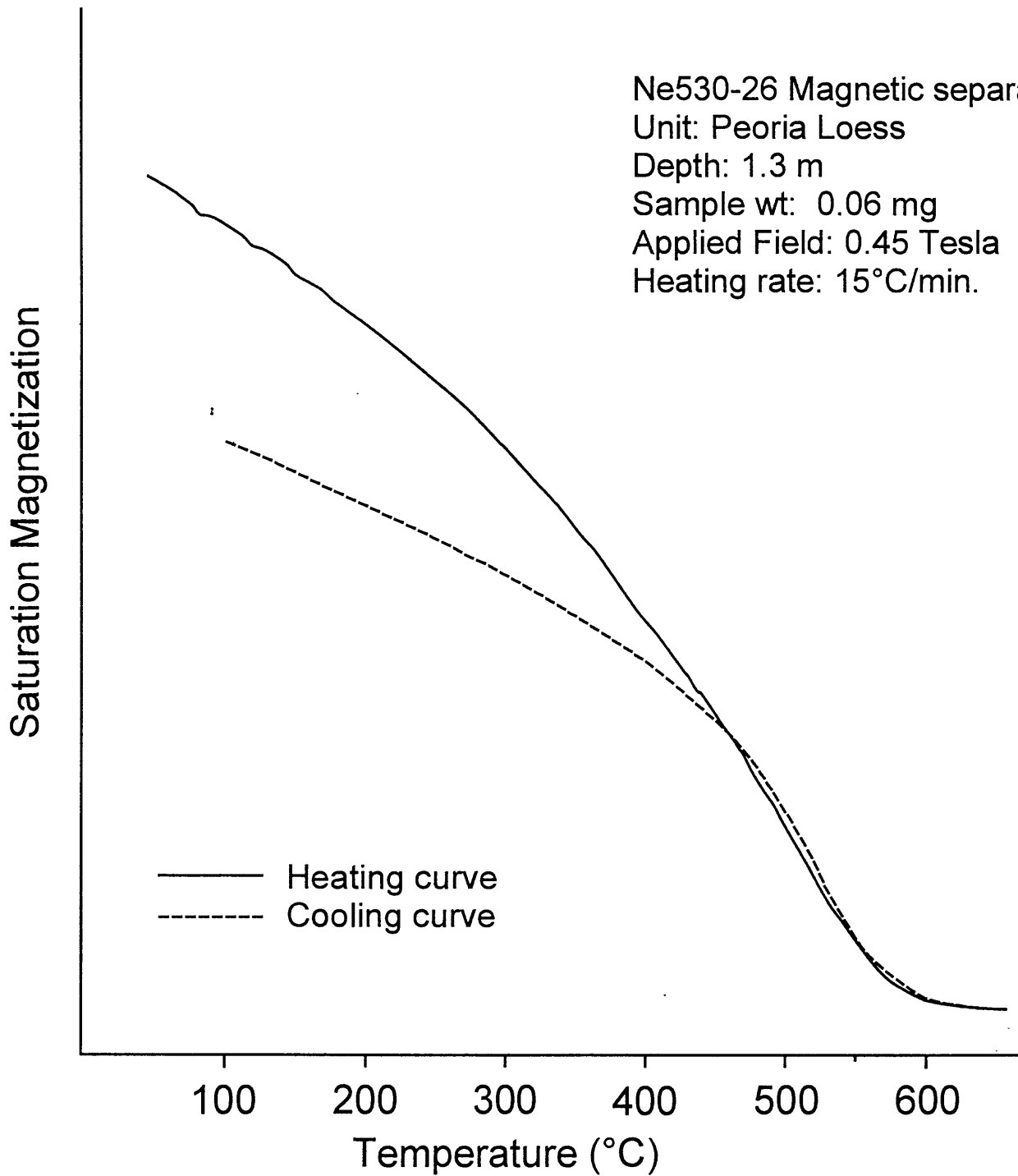
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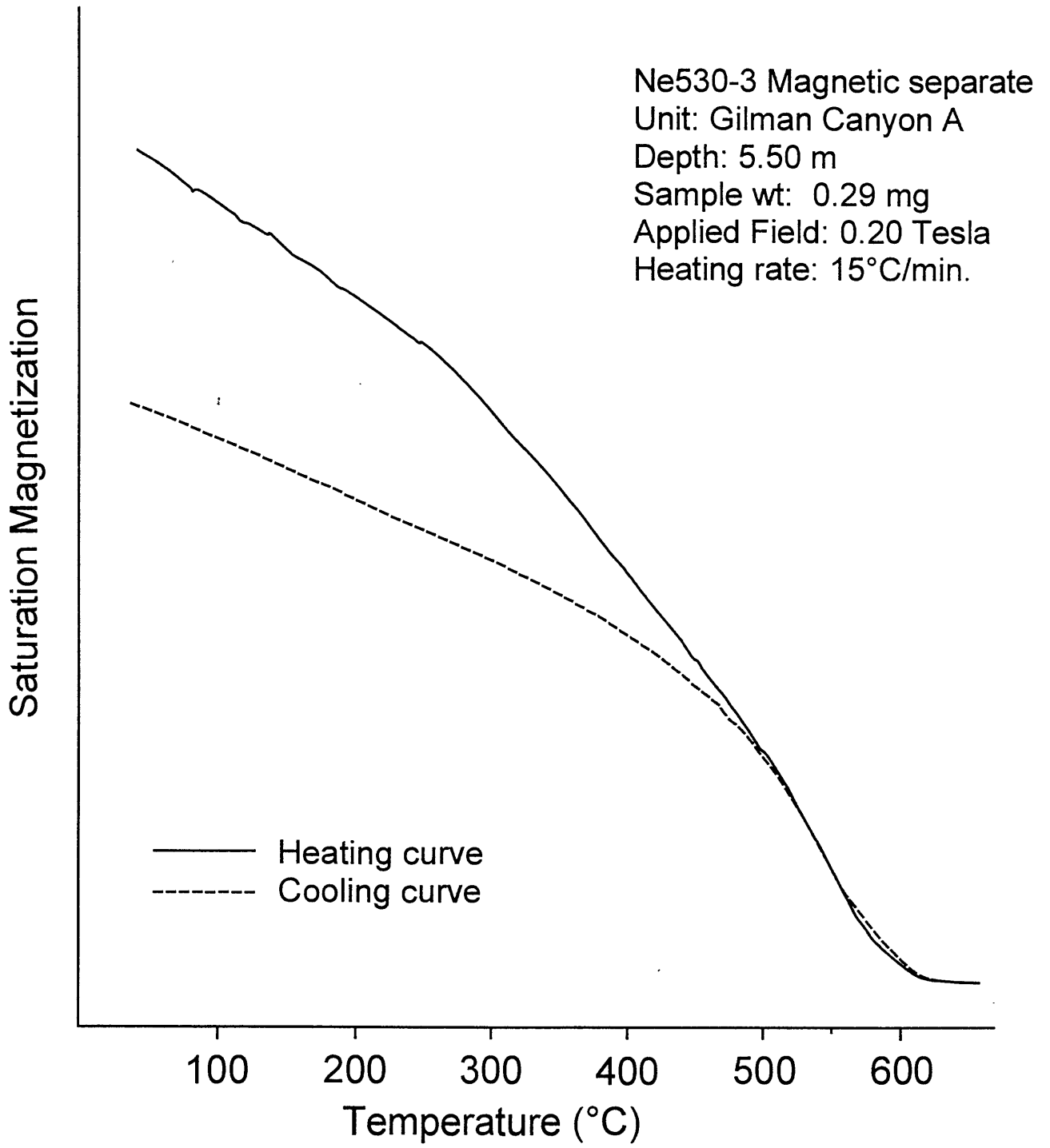
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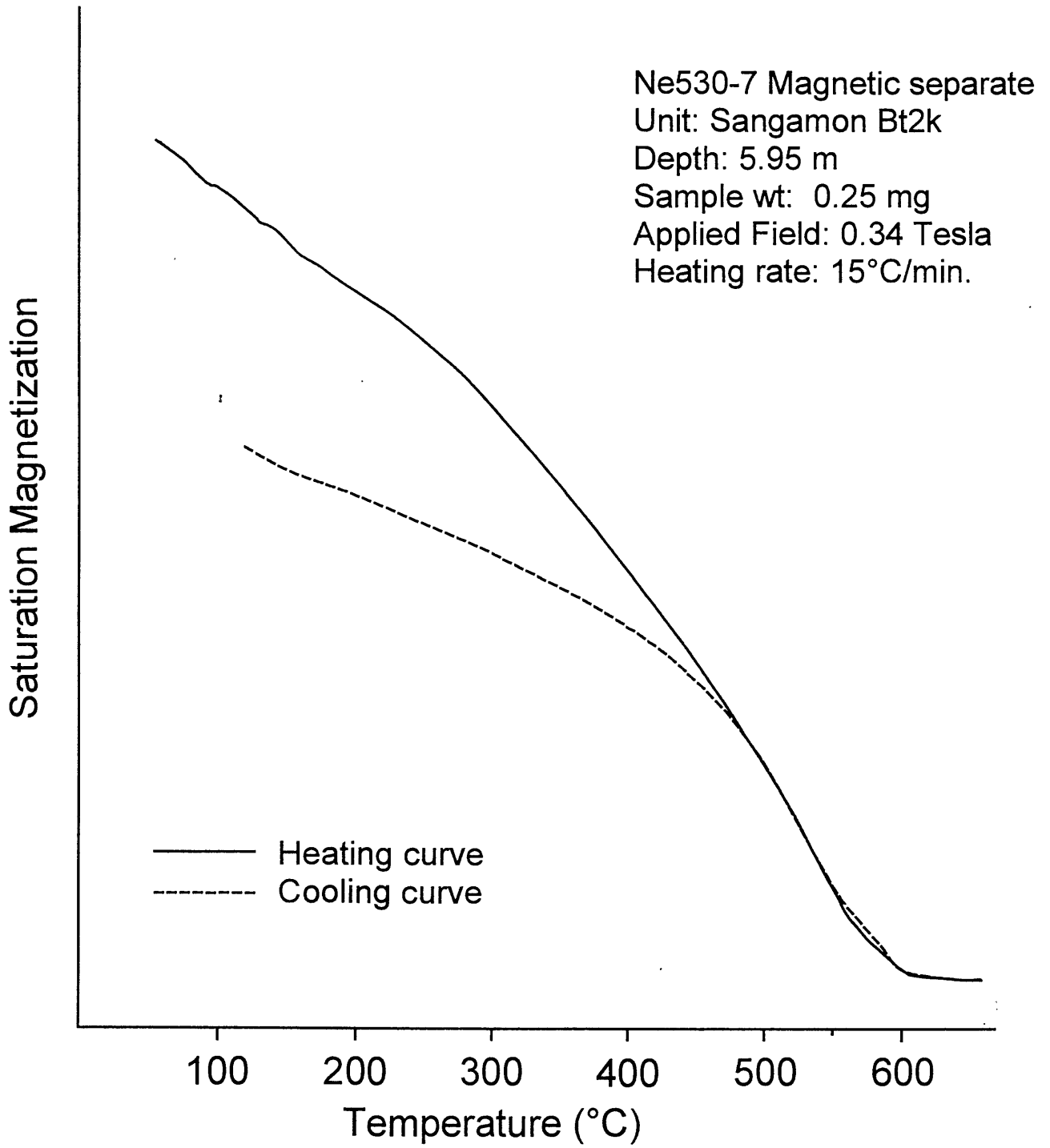
Figure 1. Thermomagnetic curves of saturation magnetization vs. temperature for magnetic separates of soil and loess samples from the McCook localities. For each sample the sample depth given is the true depth of the sample midpoint. All thermomagnetic determinations were made in air.



Ne530-26 Magnetic separate
Unit: Peoria Loess
Depth: 1.3 m
Sample wt: 0.06 mg
Applied Field: 0.45 Tesla
Heating rate: 15°C/min.







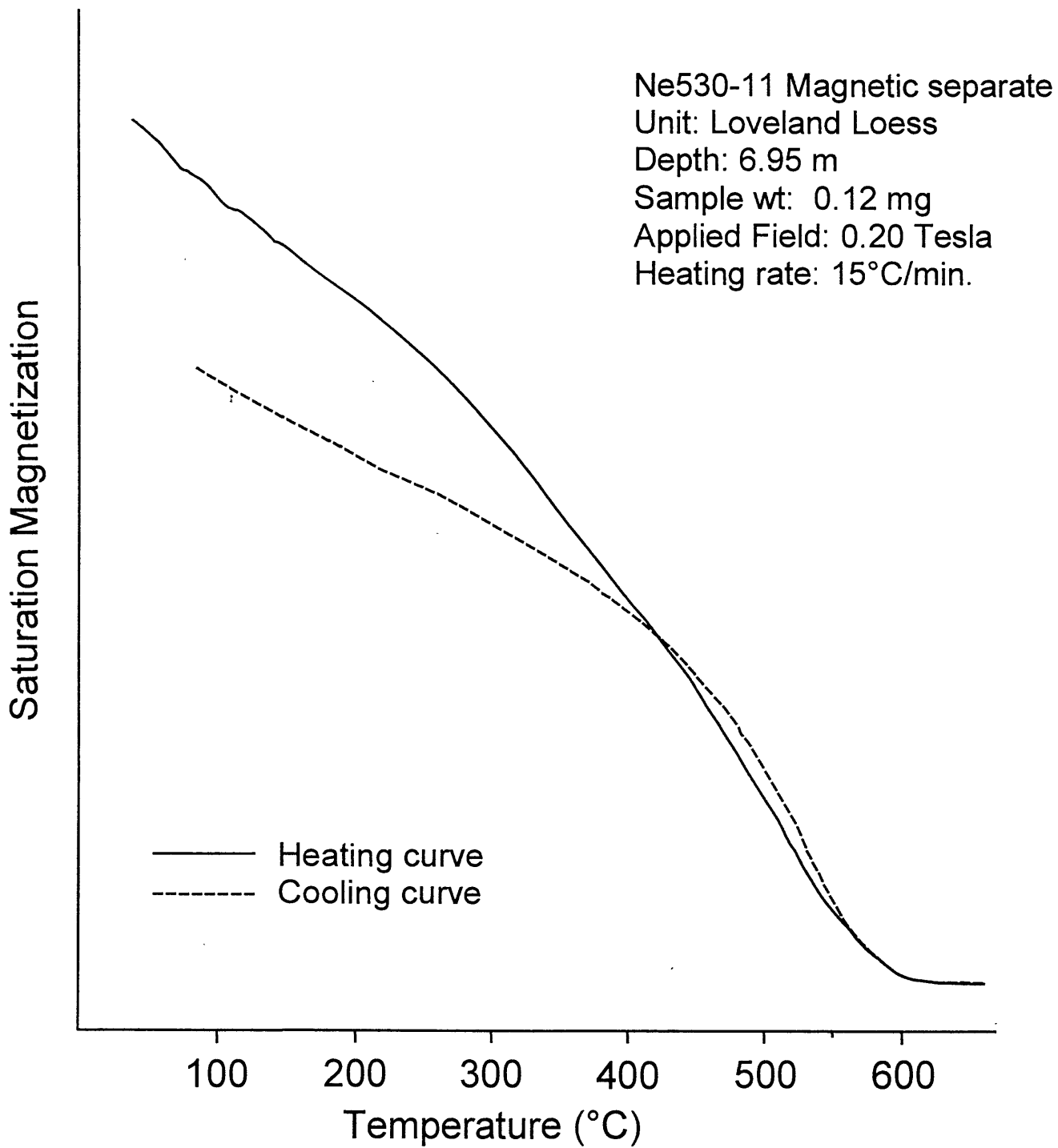
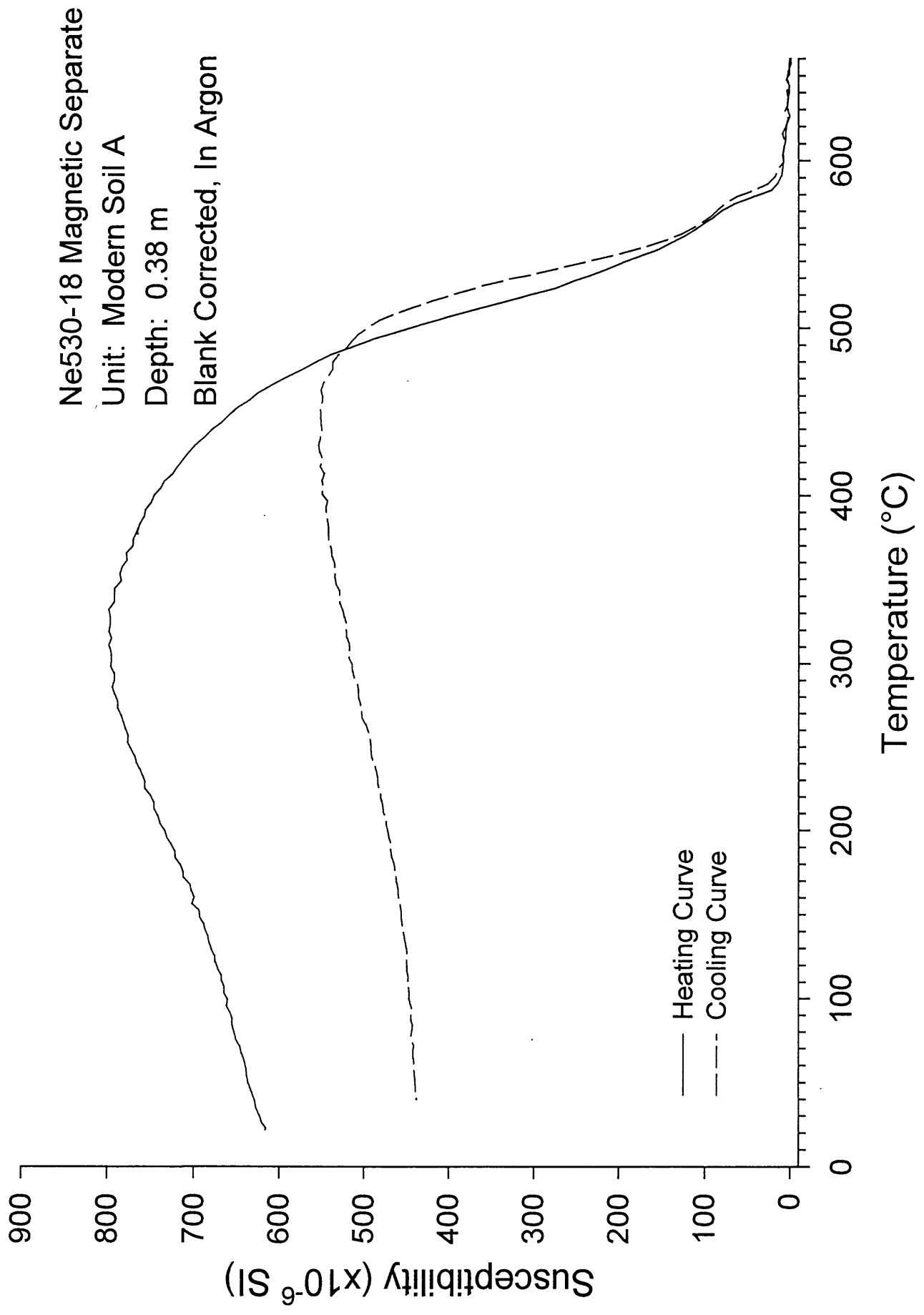
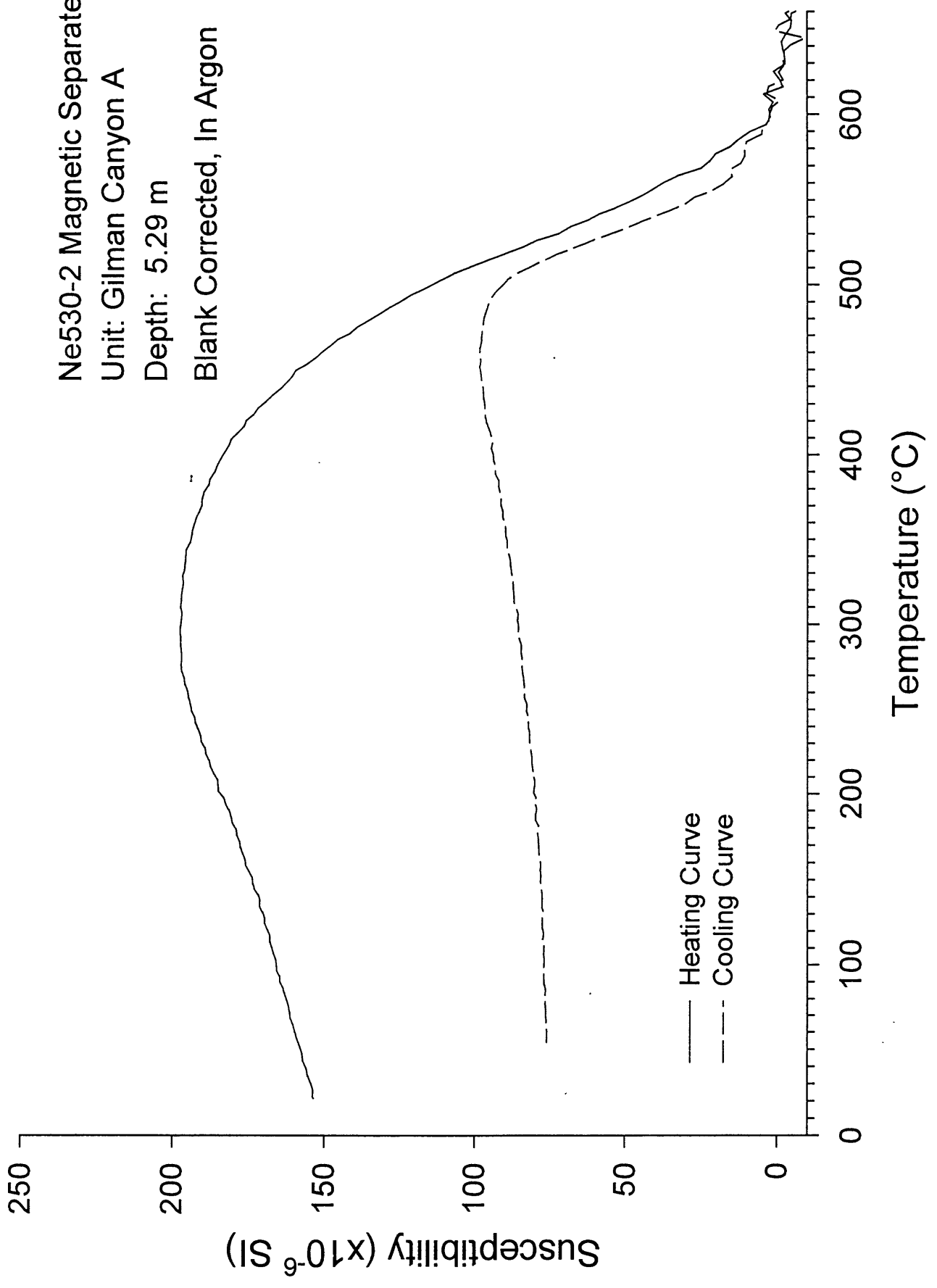
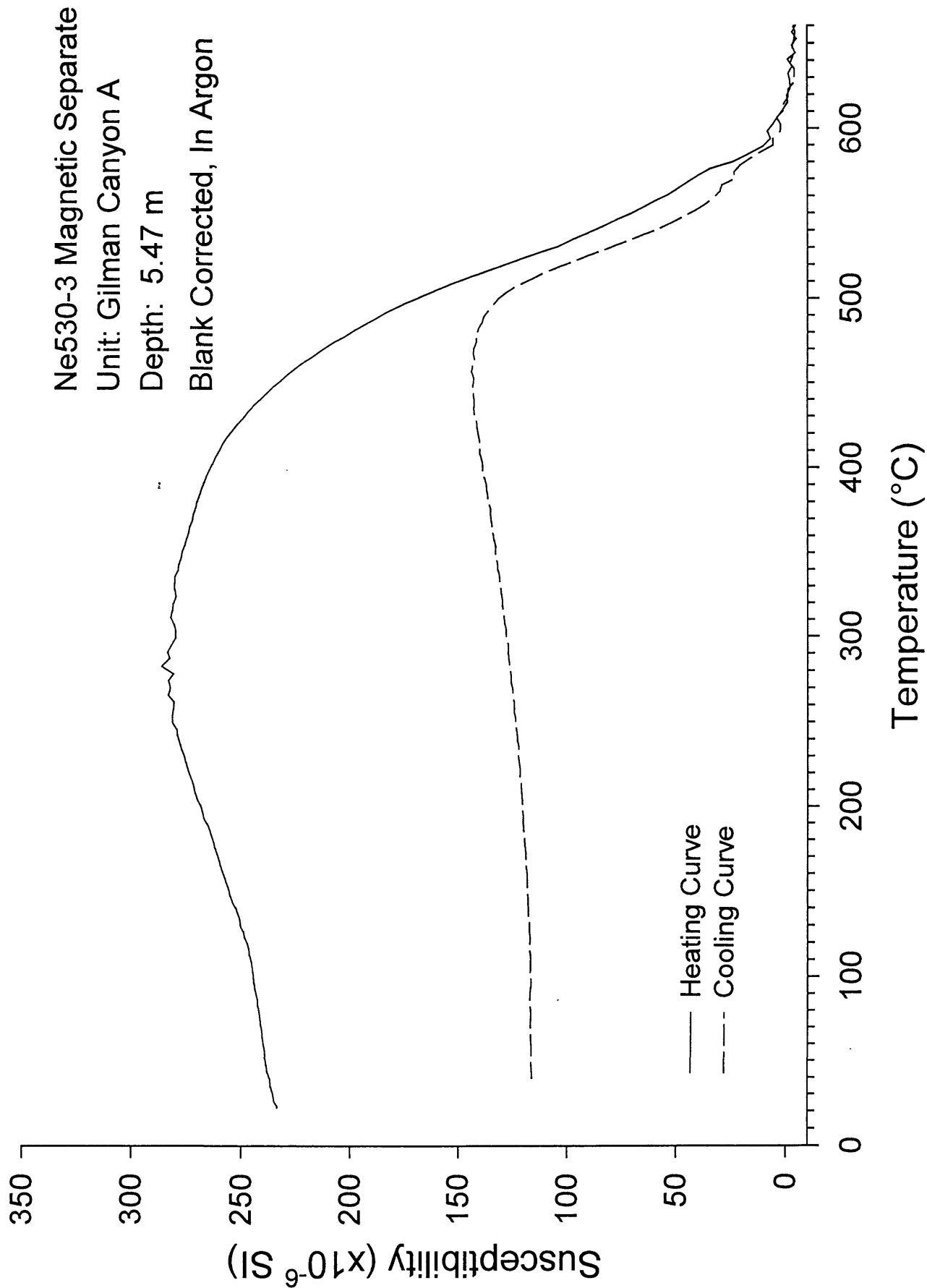


Figure 2. Thermomagnetic curves of magnetic susceptibility vs. temperature for magnetic separates of soil and loess samples from the McCook localities. Thermomagnetic experiments were either conducted in air or in a flowing argon environment as specified on each plot. Depth measurements as in Fig. 1.



Ne530-2 Magnetic Separate
Unit: Gilman Canyon A
Depth: 5.29 m
Blank Corrected, In Argon





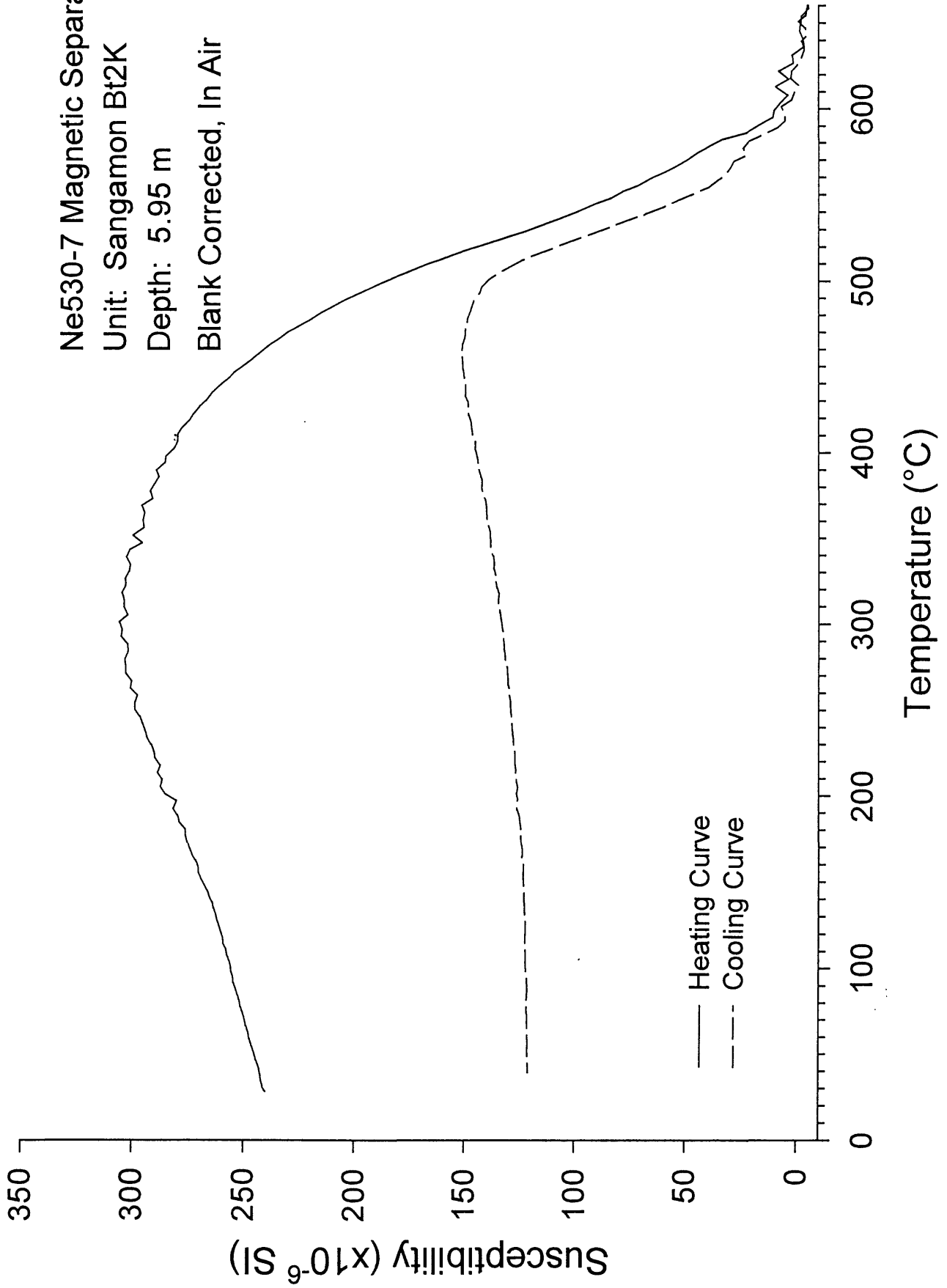


Table 1. Sediment Magnetic Data from McCook Localities, Red Willow County, Nebraska.

Sample No: A unique number assigned to loess and/or sediment samples that are placed in approximately 3.2 cm³ plastic boxes.

Unit: The lithologic unit from which the sample was derived.

Depth (m): The original depth in the section from which the sample was obtained. In general, this number represents the midpoint of the interval over which the sample was collected.

Com. Depth (m): The depth obtained after combining the Elba Modern soil with the other two sampling profiles. Because there is a break in section, the composite depth for the loess sections was calculated by arbitrarily adding 1.8 m to the true sampling depth for both the detailed section and the “bulk” section.

Mass (g): Sample mass after correction for weight of the empty sample box.

LFMS (m³/kg): the low frequency magnetic susceptibility obtained by multiplying the LFMS (emu/g) by 4π/1000 to obtain units of m³/kg.

HFMS (m³/kg): the high frequency magnetic susceptibility (in m³/kg) obtained by multiplying the HFMS (emu/g) by 4π/1000 to obtain units of m³/kg.

FDMS (m³/kg): Frequency dependent magnetic susceptibility = LFMS-HFMS in units of m³/kg.

%FDMS: The percent frequency dependent magnetic susceptibility = [(LFMS-HFMS)/LFMS] × 100.

ARM (Am²/kg): the raw moment of the anhysteretic remanent magnetization divided by the sample mass to obtain units of Am²/kg.

IRM 1.2T (Am²/kg): the raw moment of the isothermal remanent magnetization acquired in an induction of 1.2 T, divided by the sample mass to obtain units of Am²/kg.

IRM-0.3T (Am²/kg): the raw moment of the isothermal remanent magnetization acquired after first exposing the sample to an induction of 1.2 T, followed by the application of an oppositely directed induction of 0.3T. The moment of the IRM has been divided by the sample mass to obtain units of Am²/kg.

HIRM: the “hard” isothermal remanent magnetization obtained by the formula: (IRM_{1.2T}+IRM_{0.3T})/2, in units of Am²/kg.

S: the S parameter defined as: $-IRM_{0.3T}/IRM_{1.2T}$ (dimensionless).

ARM/MS: The ratio of the anhysteretic remanent magnetization divided by the low frequency magnetic susceptibility, in A/m

SIRM/MS: the ratio of the isothermal remanent magnetization at 1.2T divided by the low frequency magnetic susceptibility, in A/m.

MS/SIRM: the inverse of the SIRM/MS, in m/A.

Table 1. Sediment Magnetic Data from the McCook Localities, Red Willow County, Nebraska

| Sample No. | Soil Unit | Depth Range (cm) | Depth (m) | Mass (g) | LFMS (m3/kg) | HFMS (m3/kg) | FDMS (m3/kg) | %FDMS |
|--|-----------------|------------------|-----------|----------|--------------|--------------|--------------|-------|
| <i>Modern Soil</i> | | | | | | | | |
| <i>Locality, About 2 km NW of McCook, NE</i> | | | | | | | | |
| NE 530 18 | Modern soil Ap | 0-25 | 0.13 | 4.1495 | 1.1902E-06 | 1.1517E-06 | 3.8461E-08 | 3.23 |
| NE 530 19 | Modern soil A | 25-50 | 0.38 | 4.1063 | 1.0986E-06 | 1.0630E-06 | 3.5683E-08 | 3.25 |
| NE 530 20 | Modern soil Bw1 | 50-60 | 0.55 | 3.7401 | 8.6548E-07 | 8.4354E-07 | 2.1940E-08 | 2.54 |
| NE 530 21 | Modern soil Bw1 | 60-70 | 0.65 | 4.1332 | 8.1177E-07 | 7.9277E-07 | 1.9002E-08 | 2.34 |
| NE 530 22 | Modern soil Bw2 | 70-83 | 0.77 | 4.0215 | 7.8798E-07 | 7.7064E-07 | 1.7343E-08 | 2.20 |
| NE 530 23 | Modern soil Bw2 | 83-100 | 0.92 | 4.1697 | 7.8658E-07 | 7.7043E-07 | 1.6154E-08 | 2.05 |
| NE 530 24 | Modern soil BC | 100-110 | 1.05 | 4.1693 | 7.8413E-07 | 7.6710E-07 | 1.7029E-08 | 2.17 |
| NE 530 25 | Modern soil BC? | 100-125 | 1.13 | 3.9757 | 7.9298E-07 | 7.7304E-07 | 1.9945E-08 | 2.52 |
| NE 530 26 | Peoria Loess | 125-135 | 1.30 | 4.1885 | 7.6127E-07 | 7.4651E-07 | 1.4761E-08 | 1.94 |
| NE 530 27 | Peoria Loess | 135-145 | 1.40 | 4.2448 | 7.7764E-07 | 7.6130E-07 | 1.6341E-08 | 2.10 |
| NE 530 28 | Peoria Loess | 145-155 | 1.50 | 4.2097 | 7.8081E-07 | 7.6469E-07 | 1.6120E-08 | 2.06 |
| NE 530 29 | Peoria Loess | 155-165 | 1.60 | 4.2517 | 7.6196E-07 | 7.4585E-07 | 1.6108E-08 | 2.11 |
| <i>Borrow Pit</i> | | | | | | | | |
| <i>Locality, about 1.5 km SW of McCook, NE</i> | | | | | | | | |
| NE 530 17 | Peoria Loess | 400 | 4.00 | 3.7834 | 8.3368E-07 | 8.1831E-07 | 1.5378E-08 | 1.84 |
| NE 530 16 | Peoria Loess | 420 | 4.20 | 3.8533 | 8.2834E-07 | 8.1527E-07 | 1.3077E-08 | 1.58 |
| NE 530 15 | Peoria Loess | 440 | 4.40 | 3.9835 | 9.0282E-07 | 8.8395E-07 | 1.8865E-08 | 2.09 |
| NE 530 14 | Peoria Loess | 460 | 4.60 | 4.1537 | 8.6065E-07 | 8.4195E-07 | 1.8697E-08 | 2.17 |
| NE 530 13 | Peoria Loess | 480 | 4.80 | 4.2348 | 8.3408E-07 | 8.1449E-07 | 1.9585E-08 | 2.35 |
| NE 530 1 | Gilman Canyon A | 500-520 | 5.10 | 3.6324 | 8.9602E-07 | 8.6941E-07 | 2.6604E-08 | 2.97 |
| NE 530 2 | Gilman Canyon A | 520-538 | 5.29 | 3.7679 | 9.2716E-07 | 8.9711E-07 | 3.0049E-08 | 3.24 |
| NE 530 3 | Gilman Canyon A | 538-555 | 5.47 | 4.0276 | 9.2666E-07 | 8.9618E-07 | 3.0483E-08 | 3.29 |
| NE 530 4 | Sangamon Bt1k | 555-565 | 5.50 | 3.7383 | 9.2106E-07 | 8.9732E-07 | 2.3732E-08 | 2.58 |
| NE 530 5 | Sangamon Bt1k | 565-578 | 5.72 | 3.9146 | 8.3784E-07 | 8.1746E-07 | 2.0384E-08 | 2.43 |
| NE 530 6 | Sangamon Bt2k | 578-590 | 5.84 | 4.1936 | 9.4691E-07 | 9.2782E-07 | 1.9088E-08 | 2.02 |
| NE 530 7 | Sangamon Bt2k | 590-600 | 5.95 | 4.3171 | 9.7222E-07 | 9.5260E-07 | 1.9619E-08 | 2.02 |
| NE 530 8 | Sangamon Bk1 | 600-630 | 6.15 | 4.1695 | 7.8964E-07 | 7.7357E-07 | 1.6064E-08 | 2.03 |
| NE 530 9 | Sangamon Bk2 | 630-650 | 6.40 | 4.1674 | 8.4130E-07 | 8.2565E-07 | 1.5650E-08 | 1.86 |
| NE 530 10 | Sangamon Bk3 | 650-685 | 6.68 | 4.4823 | 8.9433E-07 | 8.7684E-07 | 1.7494E-08 | 1.96 |
| NE 530 11 | Loveland loess | 685-705 | 6.95 | 4.4029 | 8.7336E-07 | 8.5292E-07 | 2.0435E-08 | 2.34 |
| NE 530 12 | Loveland loess | 705-720 | 7.13 | 4.6144 | 8.2516E-07 | 8.0541E-07 | 1.9744E-08 | 2.39 |

Table 1. Sediment Magnetic Data from the McCook Localities, Red Willow County, Nebraska

| Sample No. | ARM (Am²/kg) | IRM 1.2T (Am²/kg) | IRM-0.3T (Am²/kg) | HIRM (Am²/kg) | S | ARM/MS (A/m) | SIRM/MS (A/m) | MS/SIRM (m/A) |
|--------------------------|------------------------------------|---|---|-------------------------------------|----------|-------------------------|--------------------------|--------------------------|
| <i>Modern Soil</i> | | | | | | | | |
| <i>Locality, About 2</i> | | | | | | | | |
| <i>km NW of</i> | | | | | | | | |
| <i>McCook, NE</i> | | | | | | | | |
| NE 530 18 | 3.1136E-04 | 1.1542E-02 | -1.0777E-02 | 3.8234E-04 | 0.93 | 261.6 | 9698 | 1.0312E-04 |
| NE 530 19 | 3.0806E-04 | 1.0734E-02 | -1.0035E-02 | 3.4950E-04 | 0.93 | 280.4 | 9770 | 1.0235E-04 |
| NE 530 20 | 2.1930E-04 | 8.6655E-03 | -8.1121E-03 | 2.7673E-04 | 0.94 | 253.4 | 10012 | 9.9876E-05 |
| NE 530 21 | 2.0227E-04 | 8.3109E-03 | -7.7712E-03 | 2.6983E-04 | 0.94 | 249.2 | 10238 | 9.7676E-05 |
| NE 530 22 | 1.8879E-04 | 8.0816E-03 | -7.5295E-03 | 2.7602E-04 | 0.93 | 239.6 | 10256 | 9.7503E-05 |
| NE 530 23 | 1.9219E-04 | 8.1321E-03 | -7.5681E-03 | 2.8200E-04 | 0.93 | 244.3 | 10338 | 9.6726E-05 |
| NE 530 24 | 2.3764E-04 | 8.1453E-03 | -7.5696E-03 | 2.8782E-04 | 0.93 | 303.1 | 10388 | 9.6268E-05 |
| NE 530 25 | 1.9452E-04 | 8.2124E-03 | -7.6151E-03 | 2.9862E-04 | 0.93 | 245.3 | 10356 | 9.6559E-05 |
| NE 530 26 | 1.7885E-04 | 7.9909E-03 | -7.4155E-03 | 2.8769E-04 | 0.93 | 234.9 | 10497 | 9.5267E-05 |
| NE 530 27 | 1.8229E-04 | 8.1347E-03 | -7.5528E-03 | 2.9094E-04 | 0.93 | 234.4 | 10461 | 9.5596E-05 |
| NE 530 28 | 1.8231E-04 | 8.1119E-03 | -7.5695E-03 | 2.7118E-04 | 0.93 | 233.5 | 10389 | 9.6256E-05 |
| NE 530 29 | 1.7186E-04 | 7.9215E-03 | -7.3500E-03 | 2.8577E-04 | 0.93 | 225.6 | 10396 | 9.6188E-05 |
| <i>Borrow Pit</i> | | | | | | | | |
| <i>Locality, about</i> | | | | | | | | |
| <i>1.5 km SW of</i> | | | | | | | | |
| <i>McCook, NE</i> | | | | | | | | |
| NE 530 17 | 1.9650E-04 | 8.6063E-03 | -7.9770E-03 | 3.1463E-04 | 0.93 | 235.7 | 10323 | 9.6869E-05 |
| NE 530 16 | 2.0447E-04 | 8.7553E-03 | -8.1151E-03 | 3.2009E-04 | 0.93 | 246.8 | 10570 | 9.4611E-05 |
| NE 530 15 | 2.4679E-04 | 9.7226E-03 | -9.0046E-03 | 3.5898E-04 | 0.93 | 273.4 | 10769 | 9.2857E-05 |
| NE 530 14 | 2.6242E-04 | 9.4639E-03 | -8.7657E-03 | 3.4909E-04 | 0.93 | 304.9 | 10996 | 9.0941E-05 |
| NE 530 13 | 2.6566E-04 | 9.1433E-03 | -8.4325E-03 | 3.5539E-04 | 0.92 | 318.5 | 10962 | 9.1223E-05 |
| NE 530 1 | 3.1788E-04 | 9.4742E-03 | -8.7403E-03 | 3.6696E-04 | 0.92 | 354.8 | 10574 | 9.4575E-05 |
| NE 530 2 | 3.3654E-04 | 9.7752E-03 | -9.0607E-03 | 3.5724E-04 | 0.93 | 363.0 | 10543 | 9.4848E-05 |
| NE 530 3 | 3.2868E-04 | 9.6403E-03 | -8.9287E-03 | 3.5581E-04 | 0.93 | 354.7 | 10403 | 9.6123E-05 |
| NE 530 4 | 2.8938E-04 | 9.4112E-03 | -8.7371E-03 | 3.3707E-04 | 0.93 | 314.2 | 10218 | 9.7868E-05 |
| NE 530 5 | 2.3738E-04 | 8.6060E-03 | -7.9635E-03 | 3.2123E-04 | 0.93 | 283.3 | 10272 | 9.7356E-05 |
| NE 530 6 | 2.5263E-04 | 9.7185E-03 | -9.0164E-03 | 3.5103E-04 | 0.93 | 266.8 | 10263 | 9.7434E-05 |
| NE 530 7 | 2.3958E-04 | 1.0013E-02 | -9.2705E-03 | 3.7124E-04 | 0.93 | 246.4 | 10299 | 9.7096E-05 |
| NE 530 8 | 2.1613E-04 | 8.1988E-03 | -7.5874E-03 | 3.0569E-04 | 0.93 | 273.7 | 10383 | 9.6311E-05 |
| NE 530 9 | 1.9519E-04 | 8.6604E-03 | -7.9859E-03 | 3.3729E-04 | 0.92 | 232.0 | 10294 | 9.7143E-05 |
| NE 530 10 | 2.0754E-04 | 9.1418E-03 | -8.4709E-03 | 3.3547E-04 | 0.93 | 232.1 | 10222 | 9.7829E-05 |
| NE 530 11 | 2.0149E-04 | 8.6648E-03 | -8.0127E-03 | 3.2607E-04 | 0.92 | 230.7 | 9921 | 1.0079E-04 |
| NE 530 12 | 1.9588E-04 | 8.4338E-03 | -7.7760E-03 | 3.2886E-04 | 0.92 | 237.4 | 10221 | 9.7840E-05 |

Table 2. Magnetic Susceptibility vs. Temperature Data from the McCook Localities, Red Willow County, Nebraska.

Sample No: A unique number assigned to loess and/or sediment samples.

Heating time (sec): The time in seconds during the progressive heating experiment.

Heating susceptibility: The raw susceptibility value ($\times 10^{-6}$ SI) for the sample during the progressive heating experiment.

Heating susceptibility corrected: The corrected susceptibility value ($\times 10^{-6}$ SI) during progressive heating after subtracting out the diamagnetic effects of the quartz tube and Al_2O_3 powder.

Cooling time (sec): The time in seconds during the progressive cooling of the sample following the attainment of peak heating temperatures.

Cooling susceptibility: The raw susceptibility value ($\times 10^{-6}$ SI) for the sample during progressive cooling.

Cooling susceptibility corrected: The corrected susceptibility value ($\times 10^{-6}$ SI) during cooling after subtracting out the diamagnetic effects of the quartz tube and Al_2O_3 powder.

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localities, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-18 | 0 | 21.60 | 475.5 | 616.5306 | 2683 | 672.7 | -146.6 | -0.3093 |
| Ne530-18 | 19 | 22.60 | 474.9 | 615.9387 | 2700 | 671.2 | -143.6 | 2.6785 |
| Ne530-18 | 36 | 25.90 | 479.8 | 620.8654 | 2718 | 669.4 | -145.5 | 0.7640 |
| Ne530-18 | 52 | 29.90 | 482.7 | 623.7977 | 2735 | 667.2 | -146.5 | -0.2538 |
| Ne530-18 | 69 | 34.20 | 486.3 | 627.4324 | 2752 | 664.7 | -144.8 | 1.4260 |
| Ne530-18 | 86 | 39.00 | 488.2 | 629.3712 | 2769 | 661.1 | -145.8 | 0.3970 |
| Ne530-18 | 103 | 43.80 | 491.3 | 632.5099 | 2786 | 657.9 | -145.0 | 1.1711 |
| Ne530-18 | 120 | 48.80 | 495.2 | 636.4503 | 2803 | 654.6 | -144.5 | 1.6445 |
| Ne530-18 | 136 | 53.40 | 496.9 | 638.1875 | 2820 | 651.0 | -145.5 | 0.6154 |
| Ne530-18 | 153 | 57.70 | 497.8 | 639.1222 | 2838 | 647.5 | -141.3 | 4.7871 |
| Ne530-18 | 170 | 62.00 | 499.9 | 641.2570 | 2855 | 643.9 | -144.5 | 1.5580 |
| Ne530-18 | 187 | 66.40 | 503.0 | 644.3925 | 2872 | 640.7 | -141.9 | 4.1322 |
| Ne530-18 | 204 | 70.70 | 504.8 | 646.2272 | 2889 | 636.8 | -143.4 | 2.6006 |
| Ne530-18 | 221 | 75.10 | 509.6 | 651.0628 | 2906 | 632.9 | -142.9 | 3.0692 |
| Ne530-18 | 237 | 79.20 | 511.8 | 653.2959 | 2923 | 628.7 | -139.4 | 6.5352 |
| Ne530-18 | 254 | 83.30 | 514.0 | 655.5291 | 2941 | 624.5 | -143.3 | 2.6013 |
| Ne530-18 | 271 | 87.20 | 513.6 | 655.1605 | 2958 | 620.2 | -140.7 | 5.1666 |
| Ne530-18 | 288 | 91.10 | 516.8 | 658.3921 | 2975 | 615.7 | -136.4 | 9.4302 |
| Ne530-18 | 304 | 95.00 | 520.6 | 662.2236 | 2992 | 611.5 | -138.9 | 6.8963 |
| Ne530-18 | 321 | 98.80 | 519.2 | 660.8543 | 3009 | 607.3 | -138.2 | 7.5623 |
| Ne530-18 | 338 | 102.50 | 523.1 | 664.7842 | 3027 | 603.2 | -136.0 | 9.7292 |
| Ne530-18 | 355 | 106.10 | 523.1 | 664.8132 | 3044 | 599.0 | -137.9 | 7.7953 |
| Ne530-18 | 371 | 110.00 | 526.5 | 668.2448 | 3061 | 594.5 | -130.4 | 15.2589 |
| Ne530-18 | 388 | 113.40 | 526.6 | 668.3722 | 3078 | 590.4 | -127.5 | 18.1258 |
| Ne530-18 | 405 | 117.10 | 530.7 | 672.5021 | 3095 | 586.3 | -119.2 | 26.3927 |
| Ne530-18 | 421 | 121.00 | 533.6 | 675.4336 | 3111 | 582.5 | -102.5 | 43.0620 |
| Ne530-18 | 438 | 124.70 | 534.1 | 675.9635 | 3127 | 578.4 | -81.5 | 63.9989 |
| Ne530-18 | 455 | 128.70 | 538.0 | 679.8958 | 3142 | 574.7 | -69.0 | 76.5490 |
| Ne530-18 | 471 | 132.40 | 540.9 | 682.8257 | 3158 | 571.0 | -61.1 | 84.3391 |
| Ne530-18 | 488 | 136.30 | 542.2 | 684.1572 | 3174 | 567.2 | -53.2 | 92.2884 |
| Ne530-18 | 505 | 140.00 | 545.2 | 687.1871 | 3190 | 563.8 | -43.7 | 101.6709 |
| Ne530-18 | 521 | 144.00 | 547.3 | 689.3195 | 3205 | 559.8 | -31.3 | 114.1186 |
| Ne530-18 | 538 | 147.70 | 551.5 | 693.5493 | 3221 | 556.1 | -17.6 | 127.7287 |
| Ne530-18 | 555 | 151.70 | 552.6 | 694.6816 | 3237 | 552.4 | -0.4 | 144.9600 |
| Ne530-18 | 571 | 155.50 | 560.4 | 702.5123 | 3252 | 548.4 | 22.9 | 168.1565 |
| Ne530-18 | 588 | 159.20 | 558.1 | 700.2422 | 3268 | 544.4 | 51.4 | 196.6842 |
| Ne530-18 | 605 | 163.00 | 561.3 | 703.4729 | 3284 | 540.7 | 81.7 | 226.9043 |
| Ne530-18 | 621 | 166.70 | 562.7 | 704.9028 | 3299 | 536.7 | 115.2 | 260.3920 |
| Ne530-18 | 638 | 170.80 | 570.3 | 712.5359 | 3317 | 532.1 | 153.6 | 298.7548 |
| Ne530-18 | 654 | 174.50 | 571.2 | 713.4658 | 3334 | 528.1 | 191.1 | 336.2225 |
| Ne530-18 | 671 | 178.60 | 574.1 | 716.3989 | 3351 | 523.8 | 222.9 | 367.9877 |
| Ne530-18 | 687 | 182.60 | 579.6 | 721.9313 | 3369 | 519.6 | 250.3 | 395.3538 |
| Ne530-18 | 704 | 187.00 | 580.6 | 722.9668 | 3386 | 515.6 | 275.7 | 420.7215 |
| Ne530-18 | 720 | 191.30 | 584.7 | 727.1016 | 3403 | 511.7 | 298.6 | 443.5900 |
| Ne530-18 | 737 | 195.20 | 589.9 | 732.3331 | 3420 | 507.8 | 320.8 | 465.7585 |
| Ne530-18 | 753 | 199.50 | 592.5 | 734.9678 | 3437 | 503.9 | 338.5 | 483.4270 |
| Ne530-18 | 770 | 203.60 | 597.6 | 740.1009 | 3454 | 499.7 | 351.7 | 496.5931 |
| Ne530-18 | 786 | 208.00 | 600.3 | 742.8364 | 3472 | 495.5 | 363.3 | 508.1591 |
| Ne530-18 | 803 | 211.90 | 604.1 | 746.6680 | 3489 | 491.6 | 370.5 | 515.3276 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localities, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-18 | 819 | 216.00 | 604.4 | 747.0011 | 3506 | 487.4 | 377.6 | 522.3937 |
| Ne530-18 | 836 | 219.90 | 608.2 | 750.8326 | 3523 | 483.2 | 386.9 | 531.6597 |
| Ne530-18 | 853 | 224.00 | 614.5 | 757.1658 | 3540 | 479.1 | 393.3 | 538.0266 |
| Ne530-18 | 869 | 227.90 | 614.3 | 756.9973 | 3558 | 474.9 | 393.5 | 538.1927 |
| Ne530-18 | 886 | 231.80 | 617.2 | 759.9288 | 3575 | 470.8 | 398.6 | 543.2596 |
| Ne530-18 | 903 | 235.90 | 620.5 | 763.2618 | 3592 | 466.6 | 404.7 | 549.3257 |
| Ne530-18 | 919 | 239.90 | 624.3 | 767.0942 | 3609 | 462.5 | 407.6 | 552.1925 |
| Ne530-18 | 936 | 243.80 | 626.3 | 769.1257 | 3626 | 458.4 | 405.4 | 549.9594 |
| Ne530-18 | 953 | 247.70 | 630.2 | 773.0573 | 3644 | 454.3 | 406.6 | 551.1263 |
| Ne530-18 | 969 | 251.90 | 634.2 | 777.0911 | 3661 | 450.2 | 408.3 | 552.7932 |
| Ne530-18 | 986 | 255.80 | 633.6 | 776.5226 | 3678 | 446.1 | 408.4 | 552.8600 |
| Ne530-18 | 1003 | 259.80 | 637.0 | 779.9550 | 3695 | 442.0 | 407.6 | 552.0269 |
| Ne530-18 | 1019 | 263.70 | 639.1 | 782.0864 | 3712 | 438.0 | 407.1 | 551.4946 |
| Ne530-18 | 1036 | 267.70 | 641.5 | 784.5188 | 3729 | 433.6 | 409.1 | 553.4590 |
| Ne530-18 | 1053 | 272.00 | 645.4 | 788.4536 | 3746 | 429.6 | 411.1 | 555.4268 |
| Ne530-18 | 1069 | 276.20 | 645.7 | 788.7875 | 3763 | 425.2 | 409.5 | 553.7912 |
| Ne530-18 | 1086 | 280.80 | 649.2 | 792.3246 | 3781 | 420.9 | 406.3 | 550.5564 |
| Ne530-18 | 1103 | 284.80 | 652.1 | 795.2569 | 3798 | 416.9 | 409.2 | 553.4241 |
| Ne530-18 | 1119 | 289.40 | 649.2 | 792.3941 | 3815 | 412.6 | 404.3 | 548.4894 |
| Ne530-18 | 1136 | 293.40 | 649.5 | 792.7264 | 3832 | 408.3 | 407.3 | 551.4547 |
| Ne530-18 | 1153 | 297.40 | 653.5 | 796.7587 | 3849 | 404.3 | 405.7 | 549.8223 |
| Ne530-18 | 1170 | 301.70 | 652.6 | 795.8934 | 3866 | 400.0 | 407.1 | 551.1876 |
| Ne530-18 | 1187 | 306.10 | 653.1 | 796.4290 | 3883 | 396.0 | 400.6 | 544.6553 |
| Ne530-18 | 1204 | 310.10 | 655.9 | 799.2614 | 3900 | 392.1 | 402.8 | 546.8237 |
| Ne530-18 | 1221 | 314.20 | 652.5 | 795.8944 | 3918 | 387.8 | 401.7 | 545.6890 |
| Ne530-18 | 1237 | 318.30 | 655.3 | 798.7275 | 3935 | 383.6 | 400.6 | 544.5551 |
| Ne530-18 | 1254 | 322.70 | 653.9 | 797.3632 | 3952 | 379.4 | 399.5 | 543.4211 |
| Ne530-18 | 1271 | 326.70 | 653.9 | 797.3954 | 3969 | 375.1 | 399.4 | 543.2864 |
| Ne530-18 | 1288 | 331.10 | 655.7 | 799.2310 | 3986 | 371.2 | 399.2 | 543.0549 |
| Ne530-18 | 1305 | 335.60 | 648.8 | 792.3673 | 4003 | 367.0 | 396.1 | 539.9210 |
| Ne530-18 | 1321 | 339.70 | 648.9 | 792.5005 | 4020 | 362.8 | 395.6 | 539.3871 |
| Ne530-18 | 1338 | 343.80 | 648.5 | 792.1335 | 4037 | 358.7 | 392.6 | 536.3539 |
| Ne530-18 | 1355 | 348.00 | 641.0 | 784.6675 | 4054 | 354.5 | 391.7 | 535.4200 |
| Ne530-18 | 1372 | 352.10 | 642.8 | 786.5006 | 4071 | 350.6 | 392.3 | 535.9885 |
| Ne530-18 | 1389 | 356.30 | 640.0 | 783.7346 | 4088 | 346.5 | 390.5 | 534.1554 |
| Ne530-18 | 1406 | 360.40 | 634.0 | 777.7677 | 4105 | 342.6 | 386.4 | 530.0239 |
| Ne530-18 | 1423 | 364.60 | 635.2 | 779.0016 | 4122 | 338.5 | 386.4 | 529.9907 |
| Ne530-18 | 1439 | 368.80 | 627.5 | 771.3356 | 4139 | 334.7 | 386.0 | 529.5601 |
| Ne530-18 | 1456 | 373.00 | 627.0 | 770.8695 | 4156 | 330.9 | 382.8 | 526.3293 |
| Ne530-18 | 1473 | 377.50 | 623.0 | 766.9058 | 4173 | 327.0 | 381.0 | 524.4979 |
| Ne530-18 | 1490 | 381.80 | 619.8 | 763.7405 | 4191 | 322.9 | 378.5 | 521.9647 |
| Ne530-18 | 1507 | 386.30 | 614.7 | 758.6769 | 4208 | 318.9 | 378.5 | 521.9324 |
| Ne530-18 | 1524 | 390.50 | 612.8 | 756.8109 | 4225 | 314.8 | 378.1 | 521.4993 |
| Ne530-18 | 1541 | 394.80 | 606.7 | 750.7456 | 4242 | 311.0 | 375.0 | 518.3686 |
| Ne530-18 | 1558 | 399.10 | 603.1 | 747.1803 | 4259 | 306.9 | 374.7 | 518.0355 |
| Ne530-18 | 1575 | 403.70 | 595.2 | 739.3175 | 4276 | 302.6 | 375.4 | 518.7007 |
| Ne530-18 | 1592 | 407.60 | 591.0 | 735.1490 | 4293 | 298.9 | 371.5 | 514.7708 |
| Ne530-18 | 1609 | 411.90 | 581.8 | 725.9837 | 4310 | 294.8 | 371.5 | 514.7377 |
| Ne530-18 | 1626 | 416.20 | 576.3 | 720.5184 | 4327 | 290.8 | 369.4 | 512.6054 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-18 | 1643 | 420.60 | 569.8 | 714.0540 | 4344 | 286.5 | 365.4 | 508.5706 |
| Ne530-18 | 1660 | 424.90 | 563.0 | 707.2888 | 4361 | 282.5 | 364.3 | 507.4383 |
| Ne530-18 | 1677 | 429.20 | 555.7 | 700.0235 | 4378 | 278.5 | 364.3 | 507.4060 |
| Ne530-18 | 1694 | 433.60 | 545.6 | 689.9590 | 4395 | 274.5 | 362.0 | 505.0737 |
| Ne530-18 | 1711 | 438.60 | 536.1 | 680.4994 | 4412 | 270.5 | 361.1 | 504.1414 |
| Ne530-18 | 1728 | 443.00 | 524.8 | 669.2350 | 4429 | 266.6 | 360.2 | 503.2099 |
| Ne530-18 | 1745 | 447.70 | 515.6 | 660.0729 | 4446 | 262.6 | 355.7 | 498.6776 |
| Ne530-18 | 1762 | 452.10 | 504.6 | 649.1085 | 4463 | 258.9 | 353.5 | 496.4477 |
| Ne530-18 | 1779 | 456.50 | 491.1 | 635.6440 | 4480 | 255.0 | 351.3 | 494.2162 |
| Ne530-18 | 1796 | 460.90 | 481.0 | 625.5796 | 4497 | 250.8 | 350.0 | 492.8823 |
| Ne530-18 | 1813 | 465.40 | 465.4 | 610.0159 | 4514 | 246.8 | 349.7 | 492.5499 |
| Ne530-18 | 1830 | 470.10 | 448.3 | 592.9539 | 4531 | 242.9 | 348.9 | 491.7184 |
| Ne530-18 | 1847 | 474.60 | 429.5 | 574.1903 | 4548 | 238.7 | 346.2 | 488.9845 |
| Ne530-18 | 1865 | 479.10 | 413.4 | 558.1266 | 4565 | 234.6 | 343.7 | 486.4514 |
| Ne530-18 | 1882 | 483.50 | 396.0 | 540.7622 | 4582 | 230.4 | 341.9 | 484.6174 |
| Ne530-18 | 1899 | 488.00 | 370.2 | 514.9985 | 4599 | 226.5 | 341.9 | 484.5859 |
| Ne530-18 | 1916 | 492.60 | 346.2 | 491.0357 | 4616 | 222.3 | 338.7 | 481.3520 |
| Ne530-18 | 1933 | 496.80 | 319.0 | 463.8696 | 4633 | 218.2 | 338.5 | 481.1189 |
| Ne530-18 | 1950 | 501.30 | 289.7 | 434.6060 | 4650 | 214.1 | 336.2 | 478.7858 |
| Ne530-18 | 1967 | 505.80 | 259.4 | 404.3423 | 4667 | 210.2 | 335.4 | 477.9542 |
| Ne530-18 | 1984 | 510.10 | 229.0 | 373.9771 | 4684 | 206.1 | 332.3 | 474.8211 |
| Ne530-18 | 2001 | 514.70 | 194.0 | 339.0142 | 4701 | 202.3 | 332.1 | 474.5905 |
| Ne530-18 | 2018 | 519.20 | 162.2 | 307.2506 | 4718 | 198.4 | 330.2 | 472.6589 |
| Ne530-18 | 2036 | 523.50 | 129.8 | 274.8853 | 4735 | 194.6 | 328.8 | 471.2282 |
| Ne530-18 | 2051 | 527.10 | 111.8 | 256.9144 | 4752 | 190.8 | 326.8 | 469.1975 |
| Ne530-18 | 2067 | 531.10 | 89.9 | 235.0867 | 4769 | 187.0 | 326.9 | 469.2668 |
| Ne530-18 | 2082 | 534.70 | 70.5 | 215.6358 | 4786 | 183.2 | 325.9 | 468.2361 |
| Ne530-18 | 2098 | 538.70 | 51.5 | 196.7181 | 4803 | 179.7 | 323.3 | 465.6078 |
| Ne530-18 | 2113 | 542.70 | 30.0 | 175.2304 | 4820 | 175.9 | 322.0 | 464.2772 |
| Ne530-18 | 2129 | 546.70 | 9.6 | 154.8327 | 4837 | 172.1 | 320.6 | 462.8464 |
| Ne530-18 | 2144 | 550.70 | -5.9 | 139.4181 | 4854 | 168.6 | 319.8 | 462.0182 |
| Ne530-18 | 2160 | 554.80 | -21.3 | 124.0282 | 4871 | 164.8 | 318.1 | 460.2875 |
| Ne530-18 | 2175 | 558.80 | -34.0 | 111.3805 | 4888 | 161.1 | 317.9 | 460.0576 |
| Ne530-18 | 2191 | 562.80 | -45.1 | 100.3528 | 4905 | 157.6 | 316.8 | 458.9293 |
| Ne530-18 | 2207 | 566.20 | -55.3 | 90.1003 | 4922 | 153.9 | 315.2 | 457.2994 |
| Ne530-18 | 2222 | 570.30 | -65.2 | 80.2434 | 4939 | 150.4 | 314.4 | 456.4711 |
| Ne530-18 | 2238 | 574.00 | -78.8 | 66.6733 | 4956 | 146.9 | 314.1 | 456.1429 |
| Ne530-18 | 2253 | 578.10 | -99.7 | 45.8164 | 4973 | 143.5 | 313.0 | 455.0154 |
| Ne530-18 | 2272 | 582.50 | -123.4 | 22.1620 | 4989 | 140.0 | 312.5 | 454.4871 |
| Ne530-18 | 2289 | 586.60 | -130.6 | 14.9951 | 5006 | 136.6 | 310.9 | 452.8596 |
| Ne530-18 | 2306 | 591.10 | -135.1 | 10.5315 | 5023 | 132.9 | 309.6 | 451.5298 |
| Ne530-18 | 2323 | 595.20 | -136.4 | 9.2646 | 5040 | 129.5 | 308.3 | 450.2023 |
| Ne530-18 | 2340 | 599.40 | -137.9 | 7.7985 | 5057 | 126.0 | 307.6 | 449.4740 |
| Ne530-18 | 2357 | 604.20 | -137.3 | 8.4373 | 5074 | 122.6 | 308.2 | 450.0466 |
| Ne530-18 | 2374 | 608.70 | -138.7 | 7.0736 | 5091 | 119.2 | 307.9 | 449.7191 |
| Ne530-18 | 2391 | 612.90 | -140.7 | 5.1076 | 5107 | 115.8 | 307.5 | 449.2916 |
| Ne530-18 | 2408 | 617.40 | -140.5 | 5.3439 | 5124 | 112.4 | 306.3 | 448.0641 |
| Ne530-18 | 2426 | 621.60 | -141.7 | 4.1779 | 5141 | 109.3 | 306.9 | 448.6391 |
| Ne530-18 | 2443 | 625.90 | -145.2 | 0.7126 | 5158 | 105.9 | 305.9 | 447.6116 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-18 | 2460 | 630.40 | -142.5 | 3.4489 | 5174 | 102.5 | 305.1 | 446.7842 |
| Ne530-18 | 2477 | 635.00 | -143.0 | 2.9861 | 5191 | 99.1 | 305.7 | 447.3567 |
| Ne530-18 | 2494 | 639.60 | -144.4 | 1.6233 | 5208 | 96.0 | 304.0 | 445.6317 |
| Ne530-18 | 2511 | 643.90 | -144.9 | 1.1580 | 5225 | 92.6 | 301.9 | 443.5042 |
| Ne530-18 | 2529 | 648.20 | -141.9 | 4.1927 | 5241 | 89.5 | 303.0 | 444.5792 |
| Ne530-18 | 2546 | 652.80 | -143.8 | 2.3299 | 5258 | 86.4 | 303.4 | 444.9541 |
| Ne530-18 | 2563 | 657.10 | -147.1 | -0.9354 | 5275 | 83.1 | 301.6 | 443.1274 |
| Ne530-18 | 2580 | 661.10 | -147.3 | -1.1030 | 5292 | 80.2 | 302.0 | 443.5040 |
| Ne530-18 | 2597 | 665.40 | -145.0 | 1.2317 | 5308 | 77.2 | 303.2 | 444.6798 |
| Ne530-18 | 2614 | 669.00 | -145.1 | 1.1608 | 5325 | 74.3 | 302.5 | 443.9564 |
| Ne530-18 | 2632 | 671.60 | -144.5 | 1.7818 | 5342 | 71.5 | 300.0 | 441.4337 |
| Ne530-18 | 2649 | 672.70 | -143.9 | 2.3907 | 5358 | 68.9 | 301.0 | 442.4127 |
| Ne530-18 | 2666 | 673.00 | -143.6 | 2.6931 | 5375 | 66.1 | 300.6 | 441.9901 |
| Ne530-18 | | | | | 5391 | 63.6 | 300.7 | 442.0699 |
| Ne530-18 | | | | | 5408 | 61.0 | 299.8 | 441.1489 |
| Ne530-18 | | | | | 5425 | 58.7 | 299.8 | 441.1303 |
| Ne530-18 | | | | | 5442 | 56.2 | 299.5 | 440.8101 |
| Ne530-18 | | | | | 5458 | 53.4 | 299.0 | 440.2875 |
| Ne530-18 | | | | | 5475 | 50.6 | 298.6 | 439.8649 |
| Ne530-18 | | | | | 5491 | 48.1 | 298.2 | 439.4447 |
| Ne530-18 | | | | | 5508 | 45.5 | 298.0 | 439.2237 |
| Ne530-18 | | | | | 5524 | 43.5 | 297.7 | 438.9075 |
| Ne530-18 | | | | | 5541 | 41.5 | 297.1 | 438.2914 |
| Ne530-18 | | | | | 5557 | 39.5 | 296.8 | 437.9752 |
| Ne530-2 | 0 | 21.40 | 12.5 | 153.5390 | 2733 | 674.1 | -144.0 | 2.3020 |
| Ne530-2 | 18 | 22.40 | 12.9 | 153.9271 | 2750 | 673.4 | -153.5 | -7.2037 |
| Ne530-2 | 33 | 25.70 | 12.7 | 153.7737 | 2767 | 671.9 | -150.3 | -4.0158 |
| Ne530-2 | 49 | 29.70 | 13.3 | 154.4160 | 2784 | 670.1 | -146.6 | -0.3303 |
| Ne530-2 | 64 | 34.20 | 14.4 | 155.5324 | 2801 | 667.6 | -148.9 | -2.6505 |
| Ne530-2 | 80 | 38.70 | 14.9 | 156.0887 | 2818 | 665.1 | -147.5 | -1.2707 |
| Ne530-2 | 95 | 43.00 | 15.9 | 157.1035 | 2835 | 661.8 | -154.7 | -8.4974 |
| Ne530-2 | 110 | 47.30 | 16.2 | 157.4782 | 2852 | 658.9 | -151.0 | -4.8208 |
| Ne530-2 | 126 | 51.60 | 17.0 | 158.2830 | 2869 | 655.3 | -150.5 | -4.3499 |
| Ne530-2 | 142 | 55.90 | 17.9 | 159.2277 | 2886 | 652.1 | -146.8 | -0.6758 |
| Ne530-2 | 157 | 59.80 | 18.5 | 159.8492 | 2904 | 648.5 | -145.5 | 0.5952 |
| Ne530-2 | 172 | 63.60 | 19.0 | 160.3399 | 2921 | 644.6 | -155.4 | -9.3363 |
| Ne530-2 | 188 | 67.70 | 20.0 | 161.3830 | 2938 | 640.7 | -150.7 | -4.6678 |
| Ne530-2 | 203 | 71.50 | 20.2 | 161.6337 | 2955 | 636.8 | -148.4 | -2.3994 |
| Ne530-2 | 219 | 75.40 | 20.6 | 162.1052 | 2972 | 632.6 | -148.0 | -2.0333 |
| Ne530-2 | 234 | 79.00 | 21.2 | 162.7243 | 2989 | 628.3 | -148.2 | -2.2680 |
| Ne530-2 | 249 | 82.60 | 21.8 | 163.3334 | 3006 | 624.5 | -146.5 | -0.5987 |
| Ne530-2 | 265 | 85.90 | 22.3 | 163.8801 | 3023 | 620.2 | -148.0 | -2.1335 |
| Ne530-2 | 280 | 89.30 | 23.2 | 164.7775 | 3040 | 616.0 | -143.0 | 2.8326 |
| Ne530-2 | 296 | 92.60 | 23.3 | 164.9042 | 3057 | 611.9 | -142.4 | 3.3995 |
| Ne530-2 | 311 | 95.70 | 24.2 | 165.8292 | 3074 | 608.0 | -146.7 | -0.9320 |
| Ne530-2 | 327 | 99.40 | 24.4 | 166.0591 | 3092 | 603.9 | -144.2 | 1.5349 |
| Ne530-2 | 342 | 102.50 | 24.6 | 166.2842 | 3109 | 600.1 | -143.2 | 2.5042 |
| Ne530-2 | 357 | 105.90 | 25.3 | 167.0116 | 3126 | 595.9 | -142.9 | 2.7702 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-2 | 373 | 109.30 | 25.8 | 167.5291 | 3143 | 592.1 | -141.1 | 4.5395 |
| Ne530-2 | 388 | 112.70 | 26.4 | 168.1666 | 3160 | 588.0 | -140.5 | 5.1064 |
| Ne530-2 | 404 | 116.30 | 26.3 | 168.1357 | 3177 | 583.6 | -135.5 | 10.0709 |
| Ne530-2 | 419 | 120.00 | 27.2 | 168.9755 | 3194 | 579.5 | -135.0 | 10.5377 |
| Ne530-2 | 435 | 123.40 | 28.0 | 169.8230 | 3211 | 575.4 | -134.8 | 10.7046 |
| Ne530-2 | 450 | 126.60 | 28.0 | 169.8789 | 3228 | 571.3 | -133.7 | 11.7715 |
| Ne530-2 | 465 | 130.00 | 28.6 | 170.5163 | 3245 | 567.6 | -130.2 | 15.2416 |
| Ne530-2 | 481 | 133.40 | 29.6 | 171.5138 | 3262 | 563.5 | -130.7 | 14.7085 |
| Ne530-2 | 496 | 136.90 | 29.5 | 171.4621 | 3279 | 559.1 | -127.7 | 17.6729 |
| Ne530-2 | 512 | 140.30 | 30.0 | 172.0096 | 3296 | 555.1 | -123.9 | 21.4406 |
| Ne530-2 | 527 | 143.80 | 31.3 | 173.3078 | 3313 | 551.1 | -118.1 | 27.2083 |
| Ne530-2 | 543 | 146.90 | 31.8 | 173.8529 | 3329 | 547.4 | -115.2 | 30.0784 |
| Ne530-2 | 558 | 150.70 | 32.0 | 174.0636 | 3344 | 543.7 | -110.5 | 34.7485 |
| Ne530-2 | 573 | 154.10 | 32.9 | 175.0110 | 3360 | 540.1 | -105.2 | 40.0194 |
| Ne530-2 | 589 | 157.60 | 34.1 | 176.1793 | 3375 | 536.7 | -100.3 | 44.8920 |
| Ne530-2 | 604 | 161.10 | 34.3 | 176.4776 | 3391 | 532.8 | -95.0 | 50.1505 |
| Ne530-2 | 620 | 164.30 | 35.1 | 177.2534 | 3406 | 529.1 | -89.2 | 55.9106 |
| Ne530-2 | 635 | 167.80 | 35.8 | 177.9817 | 3421 | 525.2 | -83.2 | 61.8691 |
| Ne530-2 | 650 | 171.30 | 36.0 | 178.2600 | 3437 | 521.2 | -77.6 | 67.4267 |
| Ne530-2 | 666 | 174.80 | 36.8 | 179.0683 | 3453 | 517.3 | -71.8 | 73.2152 |
| Ne530-2 | 681 | 178.30 | 37.0 | 179.3065 | 3468 | 513.7 | -67.3 | 77.7062 |
| Ne530-2 | 696 | 182.10 | 38.3 | 180.5972 | 3483 | 510.1 | -63.2 | 81.7671 |
| Ne530-2 | 712 | 185.90 | 38.7 | 181.0979 | 3499 | 506.5 | -58.7 | 86.2380 |
| Ne530-2 | 727 | 189.40 | 39.3 | 181.7062 | 3514 | 502.9 | -55.8 | 89.1589 |
| Ne530-2 | 743 | 193.20 | 40.4 | 182.8069 | 3530 | 499.4 | -54.0 | 90.9206 |
| Ne530-2 | 758 | 196.80 | 41.1 | 183.5160 | 3545 | 495.5 | -51.7 | 93.1691 |
| Ne530-2 | 773 | 200.60 | 42.6 | 185.1167 | 3561 | 491.9 | -50.2 | 94.6700 |
| Ne530-2 | 789 | 204.40 | 42.8 | 185.2874 | 3576 | 488.0 | -49.2 | 95.5885 |
| Ne530-2 | 804 | 208.00 | 43.0 | 185.4865 | 3591 | 484.5 | -48.5 | 96.2703 |
| Ne530-2 | 819 | 211.60 | 44.2 | 186.7556 | 3607 | 480.7 | -47.7 | 97.0496 |
| Ne530-2 | 835 | 215.40 | 45.2 | 187.7563 | 3622 | 477.1 | -47.4 | 97.2905 |
| Ne530-2 | 850 | 219.00 | 45.6 | 188.1953 | 3637 | 473.3 | -47.2 | 97.4698 |
| Ne530-2 | 866 | 222.90 | 46.5 | 189.1768 | 3653 | 469.8 | -46.8 | 97.8815 |
| Ne530-2 | 881 | 226.50 | 46.8 | 189.4759 | 3668 | 466.3 | -46.8 | 97.8732 |
| Ne530-2 | 897 | 230.10 | 48.0 | 190.6650 | 3684 | 462.5 | -46.2 | 98.3825 |
| Ne530-2 | 912 | 234.00 | 48.3 | 191.0365 | 3699 | 458.7 | -46.1 | 98.4918 |
| Ne530-2 | 927 | 237.60 | 49.0 | 191.7856 | 3714 | 454.9 | -46.4 | 98.1311 |
| Ne530-2 | 943 | 241.20 | 49.9 | 192.6547 | 3730 | 451.1 | -46.0 | 98.5404 |
| Ne530-2 | 958 | 244.90 | 50.1 | 192.9646 | 3745 | 447.4 | -46.4 | 98.1005 |
| Ne530-2 | 974 | 248.50 | 51.1 | 193.9137 | 3760 | 443.6 | -46.6 | 97.8698 |
| Ne530-2 | 989 | 252.50 | 51.5 | 194.3560 | 3776 | 439.8 | -47.0 | 97.4391 |
| Ne530-2 | 1004 | 256.10 | 52.0 | 194.9451 | 3791 | 436.1 | -47.1 | 97.2692 |
| Ne530-2 | 1020 | 259.80 | 52.3 | 195.2150 | 3807 | 432.4 | -47.2 | 97.1194 |
| Ne530-2 | 1035 | 263.70 | 53.1 | 196.0865 | 3822 | 428.9 | -47.5 | 96.8011 |
| Ne530-2 | 1051 | 267.70 | 53.3 | 196.3388 | 3837 | 425.2 | -47.6 | 96.7012 |
| Ne530-2 | 1066 | 271.70 | 54.2 | 197.2511 | 3853 | 421.5 | -47.7 | 96.5613 |
| Ne530-2 | 1081 | 275.40 | 54.3 | 197.3810 | 3868 | 418.1 | -48.1 | 96.1838 |
| Ne530-2 | 1097 | 279.40 | 54.0 | 197.0833 | 3883 | 414.1 | -48.9 | 95.3515 |
| Ne530-2 | 1112 | 283.10 | 54.1 | 197.2832 | 3899 | 410.7 | -49.5 | 94.6941 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-2 | 1128 | 286.80 | 54.3 | 197.4931 | 3914 | 406.7 | -49.9 | 94.2317 |
| Ne530-2 | 1143 | 290.50 | 54.3 | 197.4530 | 3929 | 403.3 | -49.4 | 94.7443 |
| Ne530-2 | 1158 | 294.30 | 54.4 | 197.6537 | 3945 | 399.4 | -50.1 | 94.0128 |
| Ne530-2 | 1174 | 298.00 | 54.3 | 197.5836 | 3960 | 395.7 | -50.2 | 93.8729 |
| Ne530-2 | 1189 | 301.70 | 54.0 | 197.2635 | 3976 | 392.1 | -50.7 | 93.3238 |
| Ne530-2 | 1204 | 305.50 | 53.7 | 197.0642 | 3991 | 388.4 | -50.8 | 93.2239 |
| Ne530-2 | 1219 | 309.00 | 54.3 | 197.6024 | 4006 | 384.5 | -51.9 | 92.0824 |
| Ne530-2 | 1235 | 312.70 | 53.9 | 197.2823 | 4022 | 380.9 | -51.6 | 92.3133 |
| Ne530-2 | 1250 | 316.20 | 53.8 | 197.1806 | 4037 | 376.9 | -52.2 | 91.7010 |
| Ne530-2 | 1265 | 320.00 | 53.4 | 196.8813 | 4052 | 373.3 | -52.4 | 91.4419 |
| Ne530-2 | 1281 | 323.80 | 53.1 | 196.5520 | 4068 | 369.4 | -52.4 | 91.4304 |
| Ne530-2 | 1296 | 327.60 | 53.4 | 196.8927 | 4083 | 365.8 | -53.0 | 90.8213 |
| Ne530-2 | 1311 | 331.40 | 52.7 | 196.2134 | 4099 | 362.2 | -53.0 | 90.7822 |
| Ne530-2 | 1327 | 335.30 | 52.4 | 196.0049 | 4114 | 358.7 | -53.6 | 90.1640 |
| Ne530-2 | 1342 | 339.10 | 52.3 | 195.8556 | 4129 | 355.1 | -53.9 | 89.8649 |
| Ne530-2 | 1357 | 342.90 | 52.0 | 195.6563 | 4145 | 351.5 | -53.7 | 89.9758 |
| Ne530-2 | 1373 | 347.10 | 50.8 | 194.4502 | 4160 | 348.0 | -54.3 | 89.3775 |
| Ne530-2 | 1388 | 350.60 | 50.3 | 193.9685 | 4175 | 344.4 | -54.2 | 89.4284 |
| Ne530-2 | 1403 | 354.50 | 49.9 | 193.6300 | 4191 | 340.9 | -54.7 | 88.9501 |
| Ne530-2 | 1418 | 358.10 | 49.4 | 193.1391 | 4206 | 337.3 | -55.3 | 88.3311 |
| Ne530-2 | 1433 | 361.90 | 48.7 | 192.4398 | 4222 | 333.5 | -55.4 | 88.2004 |
| Ne530-2 | 1448 | 365.50 | 47.7 | 191.4889 | 4237 | 330.0 | -55.6 | 87.9721 |
| Ne530-2 | 1464 | 369.40 | 46.7 | 190.5804 | 4252 | 326.5 | -56.1 | 87.4338 |
| Ne530-2 | 1479 | 373.30 | 46.6 | 190.4719 | 4268 | 322.9 | -56.2 | 87.3047 |
| Ne530-2 | 1494 | 377.20 | 46.0 | 189.8734 | 4283 | 319.4 | -56.2 | 87.2565 |
| Ne530-2 | 1509 | 381.20 | 44.5 | 188.4457 | 4298 | 315.9 | -56.3 | 87.0682 |
| Ne530-2 | 1524 | 385.10 | 43.9 | 187.8772 | 4314 | 312.5 | -56.4 | 87.0207 |
| Ne530-2 | 1540 | 388.70 | 42.5 | 186.4863 | 4329 | 309.0 | -57.0 | 86.3924 |
| Ne530-2 | 1555 | 392.40 | 41.6 | 185.6562 | 4344 | 305.2 | -57.6 | 85.6917 |
| Ne530-2 | 1570 | 396.30 | 40.5 | 184.5577 | 4360 | 301.7 | -57.3 | 85.9635 |
| Ne530-2 | 1585 | 400.30 | 39.1 | 183.2300 | 4375 | 298.0 | -57.7 | 85.5336 |
| Ne530-2 | 1600 | 404.30 | 37.7 | 181.8623 | 4390 | 294.3 | -57.5 | 85.7637 |
| Ne530-2 | 1615 | 408.30 | 36.9 | 181.0746 | 4406 | 290.5 | -57.9 | 85.2630 |
| Ne530-2 | 1630 | 411.90 | 34.8 | 178.9837 | 4421 | 286.8 | -58.6 | 84.5731 |
| Ne530-2 | 1645 | 415.90 | 32.7 | 176.9061 | 4437 | 283.4 | -58.4 | 84.7256 |
| Ne530-2 | 1661 | 419.30 | 31.9 | 176.1035 | 4452 | 279.9 | -58.7 | 84.4073 |
| Ne530-2 | 1676 | 423.00 | 29.4 | 173.6534 | 4467 | 276.5 | -58.7 | 84.3799 |
| Ne530-2 | 1691 | 426.80 | 27.8 | 172.1141 | 4482 | 272.8 | -58.6 | 84.4300 |
| Ne530-2 | 1706 | 430.80 | 25.2 | 169.4964 | 4498 | 269.4 | -59.0 | 84.0125 |
| Ne530-2 | 1721 | 434.50 | 22.9 | 167.2963 | 4513 | 266.0 | -59.2 | 83.7951 |
| Ne530-2 | 1736 | 438.30 | 20.2 | 164.6070 | 4528 | 262.6 | -59.4 | 83.5776 |
| Ne530-2 | 1751 | 442.00 | 18.2 | 162.6169 | 4543 | 259.2 | -59.4 | 83.5101 |
| Ne530-2 | 1766 | 445.50 | 16.3 | 160.7552 | 4558 | 255.6 | -59.4 | 83.4810 |
| Ne530-2 | 1781 | 449.20 | 15.0 | 159.4551 | 4574 | 252.2 | -60.2 | 82.7436 |
| Ne530-2 | 1796 | 452.70 | 11.3 | 155.8134 | 4589 | 248.5 | -59.9 | 83.0037 |
| Ne530-2 | 1811 | 456.50 | 8.4 | 152.9180 | 4604 | 245.2 | -60.5 | 82.3770 |
| Ne530-2 | 1827 | 460.00 | 6.2 | 150.7973 | 4619 | 241.8 | -60.7 | 82.1495 |
| Ne530-2 | 1842 | 463.80 | 3.4 | 148.0230 | 4634 | 238.2 | -60.6 | 82.1805 |
| Ne530-2 | 1857 | 467.30 | 1.0 | 145.6593 | 4650 | 234.6 | -61.0 | 81.8014 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-2 | 1872 | 471.10 | -3.1 | 141.5870 | 4665 | 230.9 | -60.8 | 81.9015 |
| Ne530-2 | 1887 | 474.90 | -5.6 | 139.0997 | 4680 | 227.6 | -61.3 | 81.3648 |
| Ne530-2 | 1902 | 478.70 | -9.3 | 135.4104 | 4695 | 224.3 | -61.3 | 81.3582 |
| Ne530-2 | 1918 | 482.60 | -12.9 | 131.8949 | 4710 | 220.7 | -61.7 | 80.9691 |
| Ne530-2 | 1933 | 486.40 | -16.3 | 128.4856 | 4725 | 217.4 | -61.5 | 81.1224 |
| Ne530-2 | 1948 | 490.00 | -20.1 | 124.7547 | 4741 | 213.8 | -61.8 | 80.7533 |
| Ne530-2 | 1963 | 493.90 | -23.7 | 121.1762 | 4756 | 210.5 | -61.8 | 80.7267 |
| Ne530-2 | 1978 | 497.70 | -28.3 | 116.5969 | 4771 | 206.9 | -62.5 | 80.0476 |
| Ne530-2 | 1993 | 501.90 | -32.8 | 112.1408 | 4786 | 203.6 | -62.2 | 80.3109 |
| Ne530-2 | 2009 | 506.20 | -37.6 | 107.3056 | 4801 | 200.3 | -62.0 | 80.5043 |
| Ne530-2 | 2024 | 510.10 | -43.2 | 101.7771 | 4816 | 197.1 | -62.8 | 79.6684 |
| Ne530-2 | 2040 | 514.00 | -49.0 | 96.0286 | 4832 | 193.8 | -62.3 | 80.1718 |
| Ne530-2 | 2055 | 517.90 | -54.9 | 90.1801 | 4847 | 190.5 | -62.9 | 79.5051 |
| Ne530-2 | 2070 | 521.90 | -60.9 | 84.2024 | 4862 | 187.3 | -62.5 | 79.9193 |
| Ne530-2 | 2085 | 525.80 | -65.6 | 79.5339 | 4877 | 184.0 | -62.5 | 79.8026 |
| Ne530-2 | 2101 | 529.80 | -72.9 | 72.2162 | 4892 | 180.8 | -63.5 | 78.8467 |
| Ne530-2 | 2116 | 533.80 | -76.7 | 68.4285 | 4907 | 177.2 | -62.8 | 79.4777 |
| Ne530-2 | 2131 | 537.70 | -82.6 | 62.6101 | 4922 | 174.0 | -63.4 | 78.9018 |
| Ne530-2 | 2146 | 541.10 | -86.3 | 58.9475 | 4937 | 171.0 | -63.4 | 78.8576 |
| Ne530-2 | 2162 | 544.70 | -91.6 | 53.6466 | 4952 | 167.8 | -63.4 | 78.8617 |
| Ne530-2 | 2177 | 548.70 | -96.6 | 48.7189 | 4967 | 164.6 | -63.5 | 78.6759 |
| Ne530-2 | 2192 | 552.40 | -100.9 | 44.4188 | 4982 | 161.4 | -63.6 | 78.5800 |
| Ne530-2 | 2208 | 556.40 | -104.8 | 40.5511 | 4997 | 158.1 | -64.0 | 78.1334 |
| Ne530-2 | 2223 | 560.10 | -108.1 | 37.2810 | 5012 | 154.9 | -63.8 | 78.3575 |
| Ne530-2 | 2238 | 563.80 | -112.7 | 32.7109 | 5027 | 151.7 | -64.0 | 78.0416 |
| Ne530-2 | 2256 | 568.20 | -120.5 | 24.9464 | 5042 | 148.5 | -63.8 | 78.2758 |
| Ne530-2 | 2273 | 572.30 | -123.4 | 22.0796 | 5057 | 145.6 | -64.1 | 77.9124 |
| Ne530-2 | 2290 | 576.70 | -125.3 | 20.2151 | 5072 | 142.4 | -64.3 | 77.7365 |
| Ne530-2 | 2307 | 580.80 | -130.2 | 15.3482 | 5087 | 139.5 | -64.3 | 77.6531 |
| Ne530-2 | 2324 | 584.90 | -132.9 | 12.6814 | 5102 | 136.3 | -64.4 | 77.5272 |
| Ne530-2 | 2341 | 589.40 | -136.5 | 9.1177 | 5117 | 133.2 | -64.2 | 77.7522 |
| Ne530-2 | 2358 | 593.80 | -142.2 | 3.4533 | 5132 | 130.0 | -64.8 | 77.1463 |
| Ne530-2 | 2375 | 598.30 | -143.5 | 2.1896 | 5147 | 127.1 | -64.4 | 77.4829 |
| Ne530-2 | 2392 | 602.50 | -143.0 | 2.7235 | 5162 | 123.9 | -64.3 | 77.5171 |
| Ne530-2 | 2408 | 607.00 | -144.5 | 1.2599 | 5178 | 120.8 | -64.3 | 77.4920 |
| Ne530-2 | 2425 | 611.50 | -141.5 | 4.2962 | 5193 | 117.9 | -64.8 | 77.0586 |
| Ne530-2 | 2442 | 616.00 | -147.8 | -1.9674 | 5208 | 114.7 | -64.3 | 77.4827 |
| Ne530-2 | 2460 | 620.20 | -146.8 | -0.9335 | 5223 | 111.6 | -64.7 | 77.0577 |
| Ne530-2 | 2476 | 624.80 | -144.8 | 1.1037 | 5238 | 108.7 | -64.8 | 76.9243 |
| Ne530-2 | 2493 | 629.40 | -148.6 | -2.6591 | 5253 | 105.6 | -64.6 | 77.1592 |
| Ne530-2 | 2510 | 634.00 | -148.4 | -2.4220 | 5269 | 102.5 | -64.9 | 76.8242 |
| Ne530-2 | 2528 | 637.90 | -147.9 | -1.8905 | 5284 | 99.4 | -64.7 | 76.9991 |
| Ne530-2 | 2545 | 642.10 | -147.5 | -1.4565 | 5299 | 96.5 | -64.7 | 76.9057 |
| Ne530-2 | 2562 | 646.40 | -148.9 | -2.8218 | 5315 | 93.4 | -64.6 | 76.9807 |
| Ne530-2 | 2579 | 650.30 | -150.5 | -4.3903 | 5330 | 90.6 | -64.6 | 76.9680 |
| Ne530-2 | 2596 | 654.60 | -150.9 | -4.7555 | 5345 | 87.7 | -64.7 | 76.8646 |
| Ne530-2 | 2613 | 658.90 | -148.9 | -2.7208 | 5360 | 84.6 | -65.2 | 76.3596 |
| Ne530-2 | 2630 | 662.90 | -153.2 | -6.9885 | 5376 | 81.8 | -64.9 | 76.6269 |
| Ne530-2 | 2647 | 666.90 | -148.6 | -2.3562 | 5391 | 79.2 | -65.1 | 76.4059 |

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|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-2 | 2664 | 670.10 | -152.1 | -5.8303 | 5406 | 76.4 | -64.9 | 76.6033 |
| Ne530-2 | 2681 | 672.70 | -147.2 | -0.9093 | 5421 | 73.8 | -65.0 | 76.4123 |
| Ne530-2 | 2699 | 674.10 | -149.4 | -3.0980 | 5436 | 71.3 | -65.1 | 76.3021 |
| Ne530-2 | 2715 | 674.80 | -152.2 | -5.8924 | 5452 | 68.7 | -65.0 | 76.4611 |
| Ne530-2 | | | | | 5467 | 66.1 | -65.1 | 76.2501 |
| Ne530-2 | | | | | 5482 | 63.6 | -65.3 | 76.0799 |
| Ne530-2 | | | | | 5498 | 61.3 | -65.2 | 76.1513 |
| Ne530-2 | | | | | 5513 | 59.0 | -65.4 | 75.9728 |
| Ne530-2 | | | | | 5529 | 56.4 | -65.3 | 76.0317 |
| Ne530-2 | | | | | 5544 | 53.9 | -65.2 | 76.0715 |
| Ne530-3 | 0 | 21.90 | 92.6 | 233.6230 | 2754 | 671.9 | -151.2 | -4.9158 |
| Ne530-3 | 17 | 22.60 | 92.5 | 233.5587 | 2771 | 670.9 | -150.1 | -3.8239 |
| Ne530-3 | 32 | 25.40 | 94.0 | 235.0113 | 2788 | 669.4 | -149.9 | -3.6360 |
| Ne530-3 | 48 | 29.40 | 94.5 | 235.5436 | 2805 | 667.6 | -149.3 | -3.0505 |
| Ne530-3 | 63 | 33.70 | 95.4 | 236.5284 | 2822 | 665.1 | -149.7 | -3.4707 |
| Ne530-3 | 79 | 38.20 | 95.8 | 236.9147 | 2839 | 662.5 | -150.7 | -4.4917 |
| Ne530-3 | 94 | 42.50 | 97.0 | 238.1694 | 2856 | 659.3 | -149.7 | -3.5176 |
| Ne530-3 | 110 | 46.80 | 97.4 | 238.6142 | 2873 | 656.4 | -150.6 | -4.4410 |
| Ne530-3 | 125 | 50.90 | 98.0 | 239.2773 | 2890 | 652.8 | -150.0 | -3.8701 |
| Ne530-3 | 141 | 55.20 | 98.2 | 239.5220 | 2907 | 649.3 | -149.2 | -3.0984 |
| Ne530-3 | 156 | 59.00 | 98.8 | 240.1028 | 2924 | 645.7 | -149.3 | -3.2275 |
| Ne530-3 | 172 | 63.10 | 99.2 | 240.5759 | 2941 | 642.1 | -149.4 | -3.3565 |
| Ne530-3 | 187 | 66.90 | 99.4 | 240.7666 | 2958 | 638.2 | -148.0 | -1.9880 |
| Ne530-3 | 203 | 70.70 | 99.9 | 241.3573 | 2975 | 634.7 | -150.2 | -4.2163 |
| Ne530-3 | 218 | 74.60 | 100.3 | 241.7588 | 2992 | 630.8 | -150.0 | -4.0478 |
| Ne530-3 | 234 | 78.20 | 100.5 | 241.9879 | 3009 | 626.9 | -149.7 | -3.7793 |
| Ne530-3 | 249 | 81.80 | 101.2 | 242.7169 | 3026 | 622.7 | -147.0 | -1.1133 |
| Ne530-3 | 265 | 85.10 | 101.2 | 242.7436 | 3043 | 618.5 | -146.9 | -1.0472 |
| Ne530-3 | 280 | 88.50 | 101.9 | 243.4711 | 3060 | 614.3 | -144.9 | 0.9189 |
| Ne530-3 | 296 | 91.60 | 102.4 | 243.9961 | 3077 | 610.1 | -144.7 | 1.0849 |
| Ne530-3 | 311 | 95.00 | 102.8 | 244.4236 | 3095 | 606.3 | -141.8 | 3.9542 |
| Ne530-3 | 327 | 98.10 | 102.9 | 244.5486 | 3112 | 602.1 | -143.5 | 2.2203 |
| Ne530-3 | 342 | 101.40 | 103.4 | 245.0753 | 3129 | 598.0 | -143.2 | 2.4872 |
| Ne530-3 | 358 | 104.60 | 103.6 | 245.3011 | 3146 | 593.8 | -139.9 | 5.7533 |
| Ne530-3 | 373 | 108.00 | 104.1 | 245.8286 | 3163 | 589.7 | -139.9 | 5.7201 |
| Ne530-3 | 389 | 111.30 | 104.9 | 246.6553 | 3180 | 585.6 | -134.0 | 11.5870 |
| Ne530-3 | 404 | 114.70 | 105.2 | 246.9827 | 3197 | 581.8 | -129.2 | 16.3563 |
| Ne530-3 | 420 | 118.40 | 105.9 | 247.7126 | 3214 | 577.7 | -124.6 | 20.9232 |
| Ne530-3 | 435 | 121.80 | 107.0 | 248.8401 | 3231 | 573.7 | -121.8 | 23.6909 |
| Ne530-3 | 451 | 125.20 | 107.5 | 249.3676 | 3248 | 569.9 | -122.2 | 23.2602 |
| Ne530-3 | 466 | 128.70 | 108.9 | 250.7958 | 3266 | 565.9 | -116.1 | 29.3279 |
| Ne530-3 | 482 | 132.10 | 109.2 | 251.1233 | 3282 | 562.2 | -115.2 | 30.1980 |
| Ne530-3 | 497 | 135.50 | 110.1 | 252.0508 | 3297 | 558.5 | -112.5 | 32.8681 |
| Ne530-3 | 512 | 139.00 | 111.0 | 252.9790 | 3313 | 555.1 | -109.0 | 36.3406 |
| Ne530-3 | 528 | 142.40 | 112.5 | 254.5065 | 3328 | 551.4 | -104.4 | 40.9107 |
| Ne530-3 | 544 | 145.90 | 113.6 | 255.6348 | 3344 | 547.7 | -98.8 | 46.4808 |
| Ne530-3 | 559 | 149.30 | 114.0 | 256.0623 | 3359 | 544.1 | -93.1 | 52.1217 |
| Ne530-3 | 574 | 153.10 | 115.2 | 257.2930 | 3375 | 540.4 | -86.9 | 58.3419 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localities, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-3 | 590 | 156.30 | 115.9 | 258.0188 | 3390 | 536.7 | -79.4 | 65.8320 |
| Ne530-3 | 605 | 159.80 | 117.0 | 259.1471 | 3406 | 533.1 | -72.2 | 72.9829 |
| Ne530-3 | 620 | 163.20 | 117.8 | 259.9745 | 3421 | 529.5 | -64.3 | 80.8438 |
| Ne530-3 | 636 | 166.70 | 118.5 | 260.7028 | 3437 | 525.8 | -56.8 | 88.3439 |
| Ne530-3 | 651 | 170.20 | 119.3 | 261.5311 | 3452 | 522.2 | -49.1 | 95.9348 |
| Ne530-3 | 667 | 173.70 | 120.2 | 262.4594 | 3468 | 518.3 | -41.2 | 103.8233 |
| Ne530-3 | 682 | 177.20 | 120.9 | 263.1877 | 3483 | 514.3 | -33.3 | 111.6810 |
| Ne530-3 | 697 | 180.80 | 121.8 | 264.1167 | 3499 | 510.4 | -26.9 | 118.0795 |
| Ne530-3 | 713 | 184.50 | 122.6 | 264.9466 | 3514 | 506.8 | -21.2 | 123.7504 |
| Ne530-3 | 728 | 188.10 | 123.6 | 265.9757 | 3530 | 503.2 | -16.9 | 128.0613 |
| Ne530-3 | 744 | 191.60 | 125.1 | 267.5040 | 3545 | 499.7 | -13.2 | 131.6931 |
| Ne530-3 | 759 | 195.40 | 125.8 | 268.2347 | 3561 | 496.1 | -10.7 | 134.1240 |
| Ne530-3 | 774 | 199.20 | 126.7 | 269.1654 | 3576 | 492.6 | -8.5 | 136.3527 |
| Ne530-3 | 790 | 203.10 | 128.1 | 270.5969 | 3592 | 488.7 | -6.2 | 138.6392 |
| Ne530-3 | 805 | 206.60 | 129.1 | 271.6252 | 3608 | 484.8 | -5.2 | 139.5837 |
| Ne530-3 | 821 | 210.20 | 129.5 | 272.0543 | 3623 | 481.3 | -3.6 | 141.1524 |
| Ne530-3 | 836 | 213.80 | 130.4 | 272.9833 | 3639 | 477.5 | -2.8 | 141.9077 |
| Ne530-3 | 852 | 217.60 | 131.6 | 274.2141 | 3654 | 473.9 | -2.9 | 141.8316 |
| Ne530-3 | 867 | 221.20 | 132.4 | 275.0431 | 3669 | 470.1 | -1.4 | 143.2199 |
| Ne530-3 | 882 | 224.80 | 133.1 | 275.7722 | 3685 | 466.6 | -1.2 | 143.4466 |
| Ne530-3 | 898 | 228.70 | 133.8 | 276.5037 | 3700 | 463.1 | -1.8 | 142.8064 |
| Ne530-3 | 913 | 232.30 | 135.0 | 277.7328 | 3716 | 459.3 | -0.9 | 143.6428 |
| Ne530-3 | 931 | 236.50 | 135.9 | 278.6667 | 3732 | 455.9 | -0.4 | 144.1563 |
| Ne530-3 | 948 | 240.40 | 136.7 | 279.4982 | 3747 | 452.1 | -1.4 | 143.0795 |
| Ne530-3 | 965 | 244.30 | 136.9 | 279.7297 | 3763 | 448.3 | -1.0 | 143.4628 |
| Ne530-3 | 982 | 248.50 | 138.9 | 281.7637 | 3778 | 444.8 | -0.9 | 143.5006 |
| Ne530-3 | 999 | 252.50 | 139.0 | 281.8960 | 3794 | 441.1 | -1.3 | 143.1186 |
| Ne530-3 | 1016 | 256.40 | 138.4 | 281.3275 | 3809 | 437.7 | -1.6 | 142.8292 |
| Ne530-3 | 1033 | 260.30 | 138.1 | 281.0590 | 3825 | 433.9 | -1.2 | 143.1595 |
| Ne530-3 | 1050 | 264.30 | 140.7 | 283.6913 | 3840 | 430.2 | -1.6 | 142.6966 |
| Ne530-3 | 1067 | 268.60 | 139.6 | 282.6260 | 3856 | 426.4 | -2.4 | 141.9349 |
| Ne530-3 | 1084 | 272.80 | 140.5 | 283.5600 | 3871 | 422.7 | -2.7 | 141.5370 |
| Ne530-3 | 1101 | 276.80 | 138.1 | 281.1923 | 3887 | 419.0 | -3.2 | 141.0711 |
| Ne530-3 | 1118 | 281.40 | 143.3 | 286.4294 | 3903 | 415.3 | -3.7 | 140.4662 |
| Ne530-3 | 1135 | 285.60 | 139.8 | 282.9634 | 3918 | 411.6 | -3.9 | 140.2523 |
| Ne530-3 | 1152 | 289.40 | 140.8 | 283.9941 | 3934 | 407.6 | -3.6 | 140.5280 |
| Ne530-3 | 1168 | 293.40 | 138.9 | 282.1264 | 3949 | 404.3 | -4.5 | 139.6483 |
| Ne530-3 | 1186 | 297.70 | 137.1 | 280.3611 | 3965 | 400.6 | -5.1 | 139.0424 |
| Ne530-3 | 1202 | 301.70 | 136.9 | 280.1935 | 3980 | 396.9 | -5.1 | 138.9406 |
| Ne530-3 | 1220 | 305.80 | 137.8 | 281.1266 | 3995 | 393.3 | -5.7 | 138.3645 |
| Ne530-3 | 1237 | 310.10 | 139.2 | 282.5613 | 4011 | 389.6 | -6.5 | 137.4706 |
| Ne530-3 | 1254 | 314.50 | 138.3 | 281.6969 | 4026 | 386.0 | -6.7 | 137.2745 |
| Ne530-3 | 1271 | 318.30 | 138.0 | 281.4276 | 4042 | 382.4 | -7.2 | 136.7944 |
| Ne530-3 | 1288 | 322.40 | 136.7 | 280.1607 | 4057 | 378.7 | -7.3 | 136.5715 |
| Ne530-3 | 1305 | 326.70 | 137.3 | 280.7954 | 4073 | 375.1 | -8.4 | 135.5254 |
| Ne530-3 | 1320 | 330.60 | 137.2 | 280.7269 | 4088 | 371.2 | -8.3 | 135.5149 |
| Ne530-3 | 1336 | 334.40 | 137.1 | 280.6577 | 4104 | 367.6 | -8.7 | 135.1479 |
| Ne530-3 | 1351 | 338.20 | 135.7 | 279.2883 | 4119 | 364.0 | -9.1 | 134.7458 |
| Ne530-3 | 1366 | 341.70 | 135.3 | 278.9166 | 4135 | 360.4 | -9.3 | 134.4297 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-3 | 1381 | 345.90 | 134.2 | 277.8505 | 4150 | 356.6 | -9.9 | 133.8140 |
| Ne530-3 | 1397 | 349.40 | 133.8 | 277.4788 | 4166 | 353.0 | -10.6 | 133.1479 |
| Ne530-3 | 1412 | 353.30 | 132.5 | 276.2103 | 4181 | 349.4 | -10.4 | 133.2388 |
| Ne530-3 | 1427 | 356.90 | 131.8 | 275.5394 | 4197 | 345.9 | -10.8 | 132.8505 |
| Ne530-3 | 1442 | 360.40 | 130.8 | 274.5677 | 4212 | 342.3 | -11.4 | 132.2615 |
| Ne530-3 | 1457 | 364.00 | 130.4 | 274.1968 | 4228 | 339.1 | -11.5 | 132.1156 |
| Ne530-3 | 1472 | 367.90 | 129.0 | 272.8282 | 4243 | 335.6 | -12.1 | 131.4373 |
| Ne530-3 | 1488 | 371.50 | 128.6 | 272.4573 | 4258 | 331.7 | -12.3 | 131.2158 |
| Ne530-3 | 1503 | 375.40 | 127.5 | 271.3889 | 4274 | 328.2 | -12.7 | 130.8175 |
| Ne530-3 | 1518 | 379.00 | 126.8 | 270.7180 | 4289 | 324.7 | -12.9 | 130.5493 |
| Ne530-3 | 1533 | 383.00 | 125.6 | 269.5503 | 4305 | 320.9 | -13.5 | 129.9286 |
| Ne530-3 | 1548 | 386.60 | 124.8 | 268.7794 | 4320 | 317.4 | -13.3 | 130.1103 |
| Ne530-3 | 1564 | 390.20 | 123.5 | 267.5084 | 4336 | 313.9 | -14.0 | 129.3720 |
| Ne530-3 | 1579 | 393.90 | 122.5 | 266.5383 | 4351 | 310.4 | -14.1 | 129.2737 |
| Ne530-3 | 1594 | 397.50 | 121.1 | 265.1674 | 4367 | 306.9 | -14.4 | 128.9155 |
| Ne530-3 | 1609 | 401.20 | 119.6 | 263.6973 | 4382 | 303.5 | -15.0 | 128.3080 |
| Ne530-3 | 1624 | 405.20 | 118.2 | 262.3296 | 4398 | 300.0 | -15.1 | 128.2097 |
| Ne530-3 | 1639 | 409.20 | 116.3 | 260.4619 | 4413 | 296.6 | -15.5 | 127.7423 |
| Ne530-3 | 1654 | 412.90 | 114.8 | 258.9918 | 4428 | 292.8 | -16.0 | 127.2716 |
| Ne530-3 | 1669 | 416.60 | 112.8 | 257.0217 | 4444 | 289.4 | -15.9 | 127.3441 |
| Ne530-3 | 1684 | 420.30 | 110.6 | 254.8516 | 4459 | 285.9 | -16.2 | 126.9758 |
| Ne530-3 | 1699 | 424.30 | 108.1 | 252.3839 | 4475 | 282.2 | -16.4 | 126.7159 |
| Ne530-3 | 1714 | 428.00 | 105.3 | 249.6138 | 4490 | 278.8 | -16.7 | 126.3784 |
| Ne530-3 | 1729 | 431.40 | 103.3 | 247.6413 | 4505 | 275.4 | -17.0 | 126.0610 |
| Ne530-3 | 1744 | 435.50 | 100.3 | 244.6744 | 4521 | 272.0 | -17.1 | 126.0035 |
| Ne530-3 | 1759 | 439.20 | 97.1 | 241.5443 | 4536 | 268.6 | -17.7 | 125.3060 |
| Ne530-3 | 1775 | 443.30 | 93.9 | 238.3374 | 4551 | 265.2 | -18.0 | 124.9786 |
| Ne530-3 | 1790 | 447.00 | 90.9 | 235.4073 | 4567 | 261.8 | -18.2 | 124.7811 |
| Ne530-3 | 1805 | 450.50 | 87.7 | 232.1756 | 4582 | 258.4 | -18.4 | 124.5136 |
| Ne530-3 | 1820 | 454.30 | 84.4 | 228.9063 | 4597 | 254.7 | -18.3 | 124.6638 |
| Ne530-3 | 1835 | 458.10 | 80.6 | 225.1970 | 4612 | 251.3 | -19.0 | 123.9163 |
| Ne530-3 | 1850 | 461.90 | 76.9 | 221.4677 | 4628 | 248.0 | -19.0 | 123.9096 |
| Ne530-3 | 1865 | 465.70 | 72.2 | 216.8184 | 4643 | 244.3 | -19.4 | 123.4597 |
| Ne530-3 | 1881 | 469.80 | 67.9 | 212.5215 | 4658 | 241.0 | -19.7 | 123.1231 |
| Ne530-3 | 1896 | 473.60 | 63.2 | 207.8622 | 4673 | 237.6 | -19.8 | 122.9556 |
| Ne530-3 | 1911 | 477.10 | 58.1 | 202.8205 | 4689 | 234.0 | -20.4 | 122.3465 |
| Ne530-3 | 1926 | 481.00 | 53.2 | 197.9820 | 4704 | 230.7 | -19.9 | 122.8599 |
| Ne530-3 | 1942 | 484.80 | 47.6 | 192.3427 | 4719 | 227.1 | -20.2 | 122.4508 |
| Ne530-3 | 1957 | 488.70 | 42.3 | 187.0942 | 4734 | 223.7 | -20.6 | 122.1033 |
| Ne530-3 | 1972 | 492.20 | 37.3 | 182.1725 | 4749 | 220.4 | -20.9 | 121.7167 |
| Ne530-3 | 1988 | 496.10 | 30.9 | 175.7140 | 4765 | 217.1 | -20.6 | 122.0300 |
| Ne530-3 | 2003 | 500.00 | 23.6 | 168.4755 | 4780 | 213.8 | -21.4 | 121.2033 |
| Ne530-3 | 2018 | 503.90 | 16.5 | 161.4370 | 4795 | 210.2 | -21.3 | 121.2742 |
| Ne530-3 | 2033 | 507.50 | 9.8 | 154.7661 | 4810 | 207.2 | -21.5 | 121.0100 |
| Ne530-3 | 2049 | 511.10 | 2.1 | 147.0732 | 4825 | 203.9 | -21.6 | 120.9334 |
| Ne530-3 | 2064 | 515.00 | -6.5 | 138.5336 | 4840 | 200.6 | -21.7 | 120.7867 |
| Ne530-3 | 2080 | 518.60 | -14.3 | 130.7857 | 4856 | 197.3 | -21.6 | 120.8200 |
| Ne530-3 | 2095 | 522.20 | -22.4 | 122.6748 | 4871 | 194.3 | -22.0 | 120.4758 |
| Ne530-3 | 2110 | 526.50 | -31.7 | 113.4296 | 4886 | 191.1 | -22.1 | 120.3100 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-3 | 2126 | 530.10 | -40.4 | 104.7486 | 4901 | 187.8 | -22.0 | 120.3333 |
| Ne530-3 | 2141 | 534.10 | -47.2 | 97.9310 | 4917 | 184.5 | -22.1 | 120.2266 |
| Ne530-3 | 2157 | 538.10 | -54.6 | 90.6533 | 4931 | 181.6 | -22.7 | 119.6232 |
| Ne530-3 | 2172 | 541.70 | -61.1 | 84.1524 | 4947 | 178.3 | -22.4 | 119.8865 |
| Ne530-3 | 2187 | 545.70 | -67.7 | 77.6147 | 4962 | 175.1 | -22.7 | 119.5707 |
| Ne530-3 | 2203 | 549.10 | -74.1 | 71.2222 | 4977 | 171.8 | -23.1 | 119.1340 |
| Ne530-3 | 2218 | 552.40 | -79.4 | 65.9588 | 4992 | 168.6 | -23.1 | 119.1082 |
| Ne530-3 | 2233 | 556.40 | -85.1 | 60.3011 | 5007 | 165.4 | -23.2 | 119.0323 |
| Ne530-3 | 2249 | 559.80 | -90.9 | 54.4486 | 5022 | 162.4 | -23.3 | 118.9181 |
| Ne530-3 | 2264 | 563.50 | -95.6 | 49.8185 | 5037 | 158.9 | -23.6 | 118.5698 |
| Ne530-3 | 2280 | 567.60 | -100.6 | 44.8416 | 5052 | 156.0 | -23.7 | 118.3764 |
| Ne530-3 | 2295 | 571.60 | -105.3 | 40.1739 | 5067 | 152.8 | -23.7 | 118.4405 |
| Ne530-3 | 2310 | 575.40 | -110.7 | 34.8046 | 5082 | 149.6 | -23.7 | 118.3847 |
| Ne530-3 | 2327 | 579.80 | -121.3 | 24.2402 | 5097 | 146.7 | -23.7 | 118.3112 |
| Ne530-3 | 2344 | 584.20 | -128.1 | 17.4757 | 5112 | 143.5 | -23.9 | 118.0954 |
| Ne530-3 | 2362 | 589.00 | -135.1 | 10.5145 | 5127 | 140.6 | -24.0 | 118.0420 |
| Ne530-3 | 2378 | 593.50 | -138.5 | 7.1508 | 5142 | 137.7 | -24.2 | 117.8185 |
| Ne530-3 | 2396 | 598.00 | -137.2 | 8.4872 | 5157 | 134.7 | -24.1 | 117.8943 |
| Ne530-3 | 2413 | 602.10 | -139.8 | 5.9203 | 5172 | 131.6 | -24.5 | 117.4693 |
| Ne530-3 | 2430 | 606.60 | -142.0 | 3.7567 | 5187 | 128.7 | -24.4 | 117.5358 |
| Ne530-3 | 2447 | 611.20 | -144.7 | 1.0938 | 5202 | 125.5 | -24.3 | 117.6000 |
| Ne530-3 | 2464 | 615.00 | -146.7 | -0.8755 | 5217 | 122.6 | -24.7 | 117.1165 |
| Ne530-3 | 2481 | 619.20 | -146.3 | -0.4415 | 5232 | 119.7 | -24.6 | 117.2331 |
| Ne530-3 | 2498 | 623.40 | -147.9 | -2.0076 | 5247 | 116.6 | -24.6 | 117.2181 |
| Ne530-3 | 2515 | 628.00 | -147.8 | -1.8705 | 5262 | 113.7 | -24.4 | 117.3546 |
| Ne530-3 | 2532 | 632.20 | -147.1 | -1.1365 | 5277 | 110.8 | -24.8 | 116.9512 |
| Ne530-3 | 2549 | 636.40 | -149.0 | -3.0026 | 5292 | 108.0 | -24.8 | 116.9186 |
| Ne530-3 | 2566 | 640.30 | -147.0 | -0.9711 | 5307 | 104.8 | -24.8 | 116.9427 |
| Ne530-3 | 2583 | 644.30 | -150.6 | -4.5388 | 5322 | 101.7 | -24.5 | 117.1577 |
| Ne530-3 | 2600 | 648.50 | -148.9 | -2.8048 | 5338 | 98.6 | -24.9 | 116.7927 |
| Ne530-3 | 2617 | 652.50 | -151.2 | -5.0725 | 5352 | 95.7 | -25.0 | 116.6492 |
| Ne530-3 | 2634 | 656.40 | -149.1 | -2.9410 | 5368 | 92.9 | -24.6 | 116.9966 |
| Ne530-3 | 2651 | 660.00 | -150.9 | -4.7119 | 5383 | 90.0 | -24.4 | 117.1632 |
| Ne530-3 | 2668 | 664.00 | -149.4 | -3.1796 | 5398 | 87.2 | -24.4 | 117.2006 |
| Ne530-3 | 2685 | 666.90 | -152.2 | -5.9562 | 5413 | 84.4 | -24.4 | 117.1580 |
| Ne530-3 | 2703 | 669.40 | -151.1 | -4.8360 | 5428 | 81.5 | -24.3 | 117.2145 |
| Ne530-3 | 2720 | 671.20 | -149.8 | -3.5215 | 5443 | 78.7 | -24.6 | 116.9419 |
| Ne530-3 | 2737 | 671.90 | -149.7 | -3.4158 | 5458 | 76.1 | -24.6 | 116.8309 |
| Ne530-3 | | | | | 5473 | 73.6 | -24.5 | 116.9307 |
| Ne530-3 | | | | | 5488 | 71.0 | -24.6 | 116.8597 |
| Ne530-3 | | | | | 5503 | 68.7 | -24.4 | 117.0211 |
| Ne530-3 | | | | | 5519 | 66.1 | -24.4 | 117.0101 |
| Ne530-3 | | | | | 5534 | 63.8 | -24.6 | 116.8215 |
| Ne530-3 | | | | | 5549 | 61.5 | -24.6 | 116.7429 |
| Ne530-3 | | | | | 5564 | 59.2 | -24.6 | 116.7044 |
| Ne530-3 | | | | | 5580 | 57.0 | -24.7 | 116.6366 |
| Ne530-3 | | | | | 5595 | 54.4 | -24.7 | 116.6456 |
| Ne530-3 | | | | | 5610 | 51.9 | -24.7 | 116.5454 |
| Ne530-3 | | | | | 5625 | 49.6 | -24.8 | 116.4568 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localities, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| Ne530-3 | | | | | 5640 | 47.1 | -24.8 | 116.4666 |
| Ne530-3 | | | | | 5655 | 45.0 | -24.8 | 116.3896 |
| Ne530-3 | | | | | 5671 | 43.0 | -24.9 | 116.3135 |
| Ne530-3 | | | | | 5686 | 41.0 | -25.0 | 116.2073 |
| Ne530-3 | | | | | 5701 | 39.2 | -24.9 | 116.2828 |
| NE530-7 | 0 | 27.90 | 99.1 | 240.1815 | 2681 | 672.3 | -147.4 | -1.1125 |
| NE530-7 | 16 | 28.70 | 99.7 | 240.7679 | 2698 | 670.9 | -149.8 | -3.5239 |
| NE530-7 | 32 | 30.90 | 100.5 | 241.6057 | 2715 | 668.7 | -150.1 | -3.8416 |
| NE530-7 | 47 | 34.40 | 101.2 | 242.3340 | 2732 | 666.5 | -149.1 | -2.8594 |
| NE530-7 | 63 | 38.00 | 101.5 | 242.6631 | 2749 | 664.0 | -145.4 | 0.8204 |
| NE530-7 | 78 | 42.30 | 102.2 | 243.3978 | 2766 | 660.7 | -151.2 | -5.0063 |
| NE530-7 | 93 | 46.30 | 103.5 | 244.7301 | 2784 | 657.9 | -150.6 | -4.4289 |
| NE530-7 | 109 | 50.40 | 104.3 | 245.5633 | 2801 | 654.3 | -150.2 | -4.0580 |
| NE530-7 | 124 | 54.20 | 105.4 | 246.6940 | 2818 | 650.7 | -146.9 | -0.7870 |
| NE530-7 | 139 | 58.20 | 106.3 | 247.6263 | 2835 | 646.8 | -149.9 | -3.8186 |
| NE530-7 | 155 | 62.00 | 106.7 | 248.0570 | 2852 | 643.2 | -151.1 | -5.0477 |
| NE530-7 | 170 | 65.90 | 107.8 | 249.1885 | 2869 | 639.3 | -148.1 | -2.0792 |
| NE530-7 | 185 | 69.70 | 108.4 | 249.8192 | 2886 | 634.7 | -149.5 | -3.5163 |
| NE530-7 | 201 | 73.30 | 109.2 | 250.6483 | 2903 | 630.8 | -148.4 | -2.4478 |
| NE530-7 | 216 | 76.90 | 110.1 | 251.5774 | 2921 | 626.2 | -146.7 | -0.7850 |
| NE530-7 | 231 | 80.50 | 110.7 | 252.2064 | 2938 | 622.0 | -143.7 | 2.1811 |
| NE530-7 | 247 | 84.10 | 111.6 | 253.1355 | 2955 | 617.8 | -143.1 | 2.7471 |
| NE530-7 | 262 | 87.50 | 112.5 | 254.0630 | 2972 | 613.6 | -146.7 | -0.8868 |
| NE530-7 | 277 | 90.80 | 113.4 | 254.9897 | 2989 | 609.4 | -144.8 | 0.9793 |
| NE530-7 | 293 | 93.90 | 113.6 | 255.2147 | 3006 | 604.9 | -143.3 | 2.4429 |
| NE530-7 | 308 | 97.30 | 114.4 | 256.0421 | 3023 | 601.1 | -138.8 | 6.9122 |
| NE530-7 | 324 | 100.40 | 114.6 | 256.2672 | 3040 | 596.9 | -140.4 | 5.2783 |
| NE530-7 | 339 | 103.80 | 115.3 | 256.9947 | 3058 | 592.8 | -140.5 | 5.1452 |
| NE530-7 | 354 | 106.90 | 116.2 | 257.9197 | 3075 | 589.0 | -137.2 | 8.4145 |
| NE530-7 | 370 | 110.30 | 116.5 | 258.2472 | 3092 | 584.9 | -130.9 | 14.6814 |
| NE530-7 | 385 | 113.40 | 117.7 | 259.4722 | 3109 | 580.8 | -123.9 | 21.6482 |
| NE530-7 | 400 | 116.60 | 117.9 | 259.6981 | 3126 | 576.7 | -121.3 | 24.2151 |
| NE530-7 | 416 | 120.00 | 118.8 | 260.6255 | 3144 | 572.6 | -122.9 | 22.5820 |
| NE530-7 | 431 | 123.40 | 119.6 | 261.4530 | 3160 | 569.3 | -117.3 | 28.1553 |
| NE530-7 | 446 | 126.80 | 120.5 | 262.3805 | 3175 | 565.5 | -115.7 | 29.7246 |
| NE530-7 | 461 | 130.30 | 121.1 | 263.0088 | 3191 | 561.5 | -113.6 | 31.7923 |
| NE530-7 | 477 | 133.70 | 122.0 | 263.9362 | 3206 | 557.8 | -109.6 | 35.7624 |
| NE530-7 | 492 | 137.10 | 122.5 | 264.4637 | 3222 | 554.1 | -105.7 | 39.6325 |
| NE530-7 | 508 | 140.60 | 123.8 | 265.7920 | 3237 | 550.1 | -98.6 | 46.7402 |
| NE530-7 | 523 | 143.80 | 124.7 | 266.7178 | 3253 | 546.4 | -91.5 | 53.7603 |
| NE530-7 | 538 | 147.20 | 125.9 | 267.9453 | 3269 | 542.7 | -85.1 | 60.1204 |
| NE530-7 | 553 | 150.70 | 127.4 | 269.4736 | 3284 | 538.7 | -77.1 | 68.0881 |
| NE530-7 | 569 | 154.10 | 128.5 | 270.6010 | 3300 | 535.1 | -69.4 | 75.8190 |
| NE530-7 | 584 | 157.60 | 128.7 | 270.8293 | 3315 | 531.1 | -60.6 | 84.5167 |
| NE530-7 | 600 | 161.10 | 129.8 | 271.9576 | 3331 | 527.1 | -52.4 | 92.6844 |
| NE530-7 | 615 | 164.60 | 131.3 | 273.4858 | 3346 | 523.2 | -43.3 | 101.7829 |
| NE530-7 | 630 | 168.30 | 132.4 | 274.6157 | 3362 | 519.2 | -35.3 | 109.7506 |
| NE530-7 | 646 | 171.80 | 133.4 | 275.6440 | 3377 | 516.0 | -28.1 | 116.9747 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| NE530-7 | 661 | 175.30 | 134.0 | 276.2723 | 3393 | 511.7 | -20.6 | 124.4000 |
| NE530-7 | 678 | 179.40 | 134.2 | 276.5054 | 3409 | 508.1 | -15.2 | 129.8109 |
| NE530-7 | 693 | 183.20 | 136.7 | 279.0361 | 3424 | 504.2 | -9.6 | 135.2864 |
| NE530-7 | 711 | 187.30 | 137.5 | 279.8693 | 3440 | 500.3 | -5.4 | 139.4679 |
| NE530-7 | 728 | 191.30 | 139.5 | 281.9016 | 3455 | 496.4 | -2.4 | 142.4514 |
| NE530-7 | 745 | 195.70 | 137.9 | 280.3371 | 3471 | 492.6 | -1.3 | 143.5857 |
| NE530-7 | 761 | 199.80 | 142.9 | 285.3702 | 3486 | 489.0 | 1.0 | 145.8246 |
| NE530-7 | 778 | 204.20 | 145.1 | 287.6058 | 3502 | 485.5 | 2.1 | 146.8433 |
| NE530-7 | 795 | 208.30 | 144.2 | 286.7389 | 3517 | 481.9 | 2.9 | 147.6563 |
| NE530-7 | 812 | 212.40 | 146.3 | 288.8720 | 3533 | 478.1 | 4.2 | 148.8846 |
| NE530-7 | 829 | 216.30 | 145.0 | 287.6035 | 3549 | 474.3 | 4.5 | 149.1629 |
| NE530-7 | 846 | 220.70 | 147.3 | 289.9391 | 3564 | 470.4 | 5.3 | 149.9393 |
| NE530-7 | 863 | 224.80 | 147.9 | 290.5722 | 3580 | 466.6 | 5.6 | 150.1826 |
| NE530-7 | 880 | 228.70 | 149.0 | 291.7037 | 3595 | 462.8 | 6.6 | 151.1469 |
| NE530-7 | 896 | 232.90 | 150.8 | 293.5377 | 3611 | 459.0 | 6.9 | 151.4172 |
| NE530-7 | 913 | 236.80 | 151.7 | 294.4691 | 3626 | 454.9 | 6.7 | 151.2721 |
| NE530-7 | 930 | 241.00 | 152.9 | 295.7031 | 3642 | 451.1 | 6.4 | 150.9424 |
| NE530-7 | 947 | 244.90 | 153.9 | 296.7346 | 3657 | 447.7 | 6.4 | 150.8800 |
| NE530-7 | 964 | 249.10 | 156.1 | 298.9685 | 3673 | 443.6 | 5.8 | 150.2618 |
| NE530-7 | 981 | 253.30 | 156.1 | 299.0024 | 3688 | 439.8 | 5.4 | 149.7871 |
| NE530-7 | 998 | 257.50 | 155.0 | 297.9364 | 3704 | 436.1 | 5.1 | 149.5272 |
| NE530-7 | 1014 | 261.50 | 158.1 | 301.0687 | 3719 | 432.4 | 5.4 | 149.7863 |
| NE530-7 | 1031 | 265.70 | 157.5 | 300.5026 | 3735 | 428.6 | 4.0 | 148.3416 |
| NE530-7 | 1048 | 270.00 | 160.0 | 303.0374 | 3750 | 424.9 | 4.2 | 148.5148 |
| NE530-7 | 1065 | 274.20 | 160.0 | 303.0713 | 3766 | 421.2 | 4.0 | 148.2999 |
| NE530-7 | 1082 | 278.20 | 160.5 | 303.6036 | 3781 | 417.2 | 2.9 | 147.1326 |
| NE530-7 | 1099 | 282.80 | 158.9 | 302.0408 | 3797 | 413.2 | 2.7 | 146.8672 |
| NE530-7 | 1115 | 287.10 | 159.2 | 302.3755 | 3812 | 409.5 | 2.2 | 146.3584 |
| NE530-7 | 1132 | 291.40 | 162.0 | 305.2103 | 3828 | 405.5 | 1.0 | 145.1380 |
| NE530-7 | 1149 | 295.40 | 161.5 | 304.7426 | 3843 | 401.5 | 1.3 | 145.4107 |
| NE530-7 | 1166 | 299.70 | 162.7 | 305.9773 | 3859 | 397.9 | 0.6 | 144.6263 |
| NE530-7 | 1183 | 304.10 | 158.9 | 302.2128 | 3874 | 394.2 | 0.0 | 144.0038 |
| NE530-7 | 1200 | 308.40 | 160.4 | 303.7476 | 3890 | 390.5 | -0.1 | 143.9091 |
| NE530-7 | 1217 | 312.50 | 160.5 | 303.8807 | 3905 | 386.6 | -1.0 | 143.0065 |
| NE530-7 | 1233 | 316.80 | 161.5 | 304.9155 | 3921 | 383.0 | -1.8 | 142.1862 |
| NE530-7 | 1250 | 320.90 | 159.7 | 303.1486 | 3936 | 379.0 | -1.5 | 142.4309 |
| NE530-7 | 1267 | 325.30 | 159.9 | 303.3841 | 3952 | 375.4 | -2.0 | 141.9029 |
| NE530-7 | 1284 | 329.40 | 158.2 | 301.7172 | 3967 | 371.8 | -3.1 | 140.8078 |
| NE530-7 | 1300 | 333.50 | 157.6 | 301.1504 | 3982 | 367.9 | -3.4 | 140.3973 |
| NE530-7 | 1317 | 337.90 | 159.3 | 302.8859 | 3998 | 364.0 | -3.5 | 140.2988 |
| NE530-7 | 1334 | 342.00 | 157.8 | 301.4190 | 4013 | 360.4 | -3.8 | 140.0167 |
| NE530-7 | 1351 | 346.20 | 152.1 | 295.7530 | 4029 | 356.9 | -4.2 | 139.5324 |
| NE530-7 | 1367 | 350.60 | 156.2 | 299.8885 | 4044 | 353.3 | -5.0 | 138.7133 |
| NE530-7 | 1384 | 355.10 | 151.3 | 295.0248 | 4060 | 349.7 | -5.1 | 138.5402 |
| NE530-7 | 1401 | 359.30 | 151.9 | 295.6588 | 4075 | 346.2 | -5.3 | 138.3860 |
| NE530-7 | 1417 | 363.70 | 151.0 | 294.7943 | 4090 | 342.6 | -5.3 | 138.3569 |
| NE530-7 | 1434 | 367.90 | 152.3 | 296.1283 | 4106 | 339.1 | -6.4 | 137.1866 |
| NE530-7 | 1451 | 372.10 | 147.4 | 291.2622 | 4121 | 335.3 | -7.0 | 136.5969 |
| NE530-7 | 1467 | 376.30 | 148.4 | 292.2961 | 4137 | 331.7 | -6.5 | 137.0228 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localities, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| NE530-7 | 1484 | 380.60 | 146.4 | 290.3309 | 4152 | 327.9 | -7.4 | 136.0921 |
| NE530-7 | 1500 | 384.80 | 144.4 | 288.3648 | 4168 | 324.1 | -7.5 | 135.9844 |
| NE530-7 | 1517 | 388.70 | 145.5 | 289.4963 | 4183 | 320.3 | -7.9 | 135.5057 |
| NE530-7 | 1533 | 393.00 | 141.7 | 285.7310 | 4198 | 316.8 | -8.8 | 134.5695 |
| NE530-7 | 1550 | 396.90 | 141.1 | 285.1625 | 4214 | 313.3 | -8.5 | 134.8692 |
| NE530-7 | 1567 | 401.50 | 137.4 | 281.4997 | 4229 | 309.8 | -8.7 | 134.6329 |
| NE530-7 | 1584 | 405.80 | 135.8 | 279.9344 | 4244 | 306.1 | -9.2 | 134.1030 |
| NE530-7 | 1599 | 409.80 | 135.7 | 279.8668 | 4260 | 302.3 | -9.7 | 133.5623 |
| NE530-7 | 1614 | 413.80 | 133.7 | 277.8991 | 4275 | 298.9 | -10.0 | 133.2748 |
| NE530-7 | 1629 | 418.10 | 130.5 | 274.7338 | 4291 | 295.1 | -10.5 | 132.7101 |
| NE530-7 | 1644 | 421.80 | 128.6 | 272.8637 | 4306 | 291.4 | -10.7 | 132.5202 |
| NE530-7 | 1659 | 425.80 | 126.0 | 270.2960 | 4321 | 287.6 | -11.1 | 132.1295 |
| NE530-7 | 1675 | 429.60 | 122.9 | 267.2267 | 4337 | 283.9 | -11.1 | 132.0697 |
| NE530-7 | 1690 | 433.60 | 120.5 | 264.8590 | 4352 | 280.5 | -11.5 | 131.6522 |
| NE530-7 | 1705 | 438.00 | 117.0 | 261.3946 | 4367 | 277.1 | -11.7 | 131.3947 |
| NE530-7 | 1720 | 441.70 | 113.5 | 257.9245 | 4383 | 273.7 | -12.4 | 130.7172 |
| NE530-7 | 1735 | 445.80 | 110.4 | 254.8576 | 4398 | 270.0 | -12.5 | 130.4974 |
| NE530-7 | 1750 | 449.90 | 106.1 | 250.5907 | 4413 | 266.9 | -12.8 | 130.2423 |
| NE530-7 | 1765 | 453.60 | 102.2 | 246.7206 | 4429 | 264.0 | -12.6 | 130.3689 |
| NE530-7 | 1781 | 457.80 | 98.3 | 242.8645 | 4444 | 260.9 | -13.3 | 129.7138 |
| NE530-7 | 1796 | 461.90 | 94.3 | 238.8977 | 4459 | 257.8 | -13.3 | 129.6688 |
| NE530-7 | 1811 | 465.70 | 89.8 | 234.4584 | 4475 | 254.4 | -13.6 | 129.3113 |
| NE530-7 | 1827 | 469.80 | 85.6 | 230.2415 | 4490 | 251.1 | -13.7 | 129.1947 |
| NE530-7 | 1842 | 473.60 | 80.3 | 224.9622 | 4506 | 247.7 | -13.9 | 128.9172 |
| NE530-7 | 1857 | 477.50 | 75.0 | 219.6737 | 4521 | 244.3 | -14.2 | 128.6497 |
| NE530-7 | 1872 | 481.30 | 70.4 | 215.0944 | 4536 | 241.0 | -14.3 | 128.5331 |
| NE530-7 | 1888 | 485.20 | 64.8 | 209.6159 | 4551 | 237.6 | -14.5 | 128.2556 |
| NE530-7 | 1903 | 489.00 | 59.4 | 204.2066 | 4567 | 234.3 | -14.7 | 128.0589 |
| NE530-7 | 1918 | 492.90 | 52.8 | 197.6681 | 4582 | 230.9 | -14.9 | 127.8315 |
| NE530-7 | 1934 | 497.10 | 45.8 | 190.7020 | 4597 | 227.6 | -15.3 | 127.4248 |
| NE530-7 | 1949 | 501.00 | 38.5 | 183.3636 | 4613 | 224.0 | -15.5 | 127.2157 |
| NE530-7 | 1964 | 504.90 | 31.0 | 175.9651 | 4628 | 220.7 | -15.6 | 127.0591 |
| NE530-7 | 1980 | 509.10 | 23.1 | 168.0890 | 4643 | 217.1 | -15.5 | 127.1200 |
| NE530-7 | 1995 | 513.00 | 14.5 | 159.5005 | 4659 | 213.8 | -15.8 | 126.7933 |
| NE530-7 | 2010 | 517.00 | 6.1 | 151.0888 | 4674 | 210.5 | -16.1 | 126.4667 |
| NE530-7 | 2026 | 520.90 | -3.2 | 141.8293 | 4689 | 207.2 | -16.2 | 126.3800 |
| NE530-7 | 2041 | 524.80 | -13.2 | 131.8858 | 4704 | 203.9 | -16.6 | 125.8634 |
| NE530-7 | 2056 | 528.80 | -22.7 | 122.4681 | 4719 | 200.6 | -16.0 | 126.4867 |
| NE530-7 | 2072 | 532.80 | -31.3 | 113.8805 | 4735 | 197.1 | -16.6 | 125.8884 |
| NE530-7 | 2087 | 536.40 | -38.9 | 106.2695 | 4750 | 193.8 | -15.6 | 126.7918 |
| NE530-7 | 2102 | 540.10 | -46.3 | 98.9194 | 4765 | 190.2 | -16.6 | 125.8227 |
| NE530-7 | 2118 | 544.10 | -53.6 | 91.6517 | 4781 | 187.0 | -17.3 | 125.0968 |
| NE530-7 | 2133 | 547.70 | -61.2 | 84.0608 | 4796 | 183.7 | -17.5 | 124.8002 |
| NE530-7 | 2149 | 551.40 | -66.7 | 78.6007 | 4811 | 180.5 | -17.8 | 124.4743 |
| NE530-7 | 2164 | 555.10 | -74.0 | 71.3506 | 4826 | 177.0 | -18.0 | 124.3260 |
| NE530-7 | 2179 | 559.10 | -79.6 | 65.7929 | 4841 | 174.0 | -18.0 | 124.2618 |
| NE530-7 | 2195 | 562.80 | -86.0 | 59.4128 | 4856 | 170.8 | -18.1 | 124.1059 |
| NE530-7 | 2210 | 566.20 | -91.2 | 54.1903 | 4871 | 167.3 | -18.5 | 123.7377 |
| NE530-7 | 2226 | 570.30 | -96.8 | 48.6634 | 4886 | 163.8 | -18.1 | 124.0394 |

Table 2. Magnetic Susceptibility vs. Temperature for samples from the McCook Localites, Red Willow County, Nebraska

| Sample No. | Heating Time | Heating Temperature (°C) | Heating Susceptibility (raw) | Heating Susceptibility (corrected) | Cooling Time | Cooling Temperature (°C) | Heating Susceptibility (raw) | Cooling Susceptibility (corrected) |
|------------|--------------|--------------------------|------------------------------|------------------------------------|--------------|--------------------------|------------------------------|------------------------------------|
| NE530-7 | 2241 | 574.00 | -101.0 | 44.4933 | 4901 | 160.6 | -18.7 | 123.4836 |
| NE530-7 | 2256 | 577.40 | -105.7 | 39.8208 | 4916 | 157.3 | -18.9 | 123.2469 |
| NE530-7 | 2272 | 581.50 | -111.7 | 33.8539 | 4932 | 154.1 | -18.7 | 123.4410 |
| NE530-7 | 2289 | 585.60 | -123.0 | 22.5870 | 4947 | 150.9 | -18.8 | 123.2652 |
| NE530-7 | 2306 | 590.40 | -128.7 | 16.9258 | 4962 | 147.7 | -18.9 | 123.1293 |
| NE530-7 | 2323 | 594.90 | -134.8 | 10.8621 | 4977 | 144.5 | -19.1 | 122.8835 |
| NE530-7 | 2340 | 599.00 | -135.6 | 10.0953 | 4992 | 141.4 | -19.2 | 122.8284 |
| NE530-7 | 2357 | 603.50 | -138.4 | 7.3316 | 5007 | 137.9 | -19.1 | 122.9002 |
| NE530-7 | 2374 | 608.00 | -141.9 | 3.8680 | 5022 | 134.7 | -19.2 | 122.7143 |
| NE530-7 | 2391 | 612.90 | -136.4 | 9.4076 | 5037 | 131.6 | -19.2 | 122.6893 |
| NE530-7 | 2408 | 617.40 | -142.3 | 3.5439 | 5052 | 128.4 | -19.4 | 122.4734 |
| NE530-7 | 2425 | 622.00 | -145.8 | 8.1085 | 5067 | 125.2 | -19.6 | 122.2476 |
| NE530-7 | 2442 | 626.60 | -144.4 | 1.5183 | 5082 | 122.1 | -19.5 | 122.3225 |
| NE530-7 | 2459 | 631.10 | -143.9 | 2.0546 | 5097 | 118.9 | -19.3 | 122.5067 |
| NE530-7 | 2476 | 636.10 | -149.4 | -3.4050 | 5112 | 115.8 | -19.2 | 122.5916 |
| NE530-7 | 2493 | 640.70 | -148.9 | -2.8678 | 5127 | 112.7 | -19.4 | 122.3666 |
| NE530-7 | 2510 | 645.30 | -147.3 | -1.2307 | 5142 | 109.5 | -19.4 | 122.3507 |
| NE530-7 | 2527 | 649.60 | -147.8 | -1.6960 | 5157 | 106.1 | -19.5 | 122.2433 |
| NE530-7 | 2544 | 653.90 | -148.2 | -2.0612 | 5172 | 103.0 | -19.3 | 122.4182 |
| NE530-7 | 2561 | 658.20 | -151.6 | -5.4265 | 5187 | 99.9 | -19.5 | 122.1732 |
| NE530-7 | 2578 | 661.80 | -151.1 | -4.8974 | 5203 | 96.8 | -19.6 | 121.9981 |
| NE530-7 | 2595 | 665.40 | -148.8 | -2.5683 | 5218 | 93.9 | -19.8 | 121.8347 |
| NE530-7 | 2613 | 668.70 | -153.5 | -7.2416 | 5233 | 90.8 | -20.0 | 121.6096 |
| NE530-7 | 2630 | 670.90 | -150.9 | -4.6239 | 5248 | 87.7 | -20.2 | 121.3846 |
| NE530-7 | 2647 | 672.30 | -151.0 | -4.7126 | 5263 | 84.9 | -19.9 | 121.6420 |
| NE530-7 | 2664 | 672.70 | -149.0 | -2.7093 | 5278 | 82.0 | -19.7 | 121.8386 |
| NE530-7 | | | | | 5293 | 79.2 | -19.8 | 121.6659 |
| NE530-7 | | | | | 5309 | 76.4 | -19.7 | 121.7633 |
| NE530-7 | | | | | 5324 | 73.8 | -19.7 | 121.8023 |
| NE530-7 | | | | | 5339 | 71.3 | -20.0 | 121.4421 |
| NE530-7 | | | | | 5354 | 68.4 | -19.7 | 121.6887 |
| NE530-7 | | | | | 5370 | 65.9 | -20.0 | 121.3985 |
| NE530-7 | | | | | 5385 | 63.3 | -20.1 | 121.3075 |
| NE530-7 | | | | | 5400 | 60.8 | -20.0 | 121.3773 |
| NE530-7 | | | | | 5415 | 58.5 | -20.0 | 121.3087 |
| NE530-7 | | | | | 5431 | 55.9 | -20.1 | 121.2577 |
| NE530-7 | | | | | 5446 | 53.1 | -20.0 | 121.2851 |
| NE530-7 | | | | | 5462 | 50.4 | -20.0 | 121.2333 |
| NE530-7 | | | | | 5477 | 47.8 | -20.0 | 121.2123 |
| NE530-7 | | | | | 5492 | 45.3 | -20.1 | 121.1521 |
| NE530-7 | | | | | 5508 | 43.0 | -20.1 | 121.0635 |
| NE530-7 | | | | | 5523 | 41.0 | -20.2 | 121.0373 |
| NE530-7 | | | | | 5538 | 39.0 | -20.2 | 120.9612 |