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THERMODYNAMIC AND TRANSPORT PROPERTIES OF GASEOUS CARBON DIOXIDE

By
L. H. Chen

August 10, 1959

**Electric Boat Division
General Dynamics Corporation
Groton, Connecticut**

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GENERAL DYNAMICS
C O R P O R A T I O N

ELECTRIC BOAT DIVISION

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correlation and calculation of transport properties were made by Professor F. G. Keyes of the Massachusetts Institute of Technology. They are acknowledged elsewhere in the report.

I

INTRODUCTION

The purpose of this report is to present, under one cover, the thermodynamic and transport properties of gaseous carbon dioxide. These properties have been computed from the most recent data, and are presented here for ready reference. This information was urgently needed in connection with the application of carbon dioxide as a possible working medium for the closed-cycle gas turbine nuclear powerplant.

The most extensive work to date on the compilation of the thermodynamic data of carbon dioxide, together with a large scale temperature-entropy diagram in the range of interest to power cycle applications, is that of Sweigert, Weber, and Allen (Ref. 1). However, more recent data have indicated considerable discrepancies, particularly in the region of high pressure and low temperature. Therefore, it has become necessary to investigate these discrepancies in order to obtain a more reliable and consistent source. As for the transport properties, dependable values of viscosity and heat conductivity available in the published literature cover an entirely inadequate range. In particular, experimental data in the high temperature and high pressure range are lacking. However, most recent data and the method of density correlation for the pressure effect are available through the courtesy of Professor F.G. Keyes and his co-workers at M.I.T (Ref. 2 and 3). An extensive check with other available data has been made, and the

results in this report are believed to be the most reliable and accurate as of this writing.

The computations in this report were performed by an IBM high speed digital computer. The results are presented in graphical form with pressure and temperature as independent variables, which are convenient for engineering calculations. A total of thirteen charts were constructed, namely:

- 1) Temperature-Entropy Diagram
- 2) Enthalpy-Entropy Diagram
- 3) Compressibility Factor
- 4) Specific Heat at Constant Pressure
- 5) Specific Heat at Constant Volume
- 6) Specific Heat Ratio
- 7) Velocity of Sound
- 8) Absolute Viscosity
- 9) Heat Conductivity
- 10) Prandtl Number
- 11) Enthalpy-Entropy Diagram with Constant Compressibility Lines
- 12) Enthalpy-Entropy Diagram in the Saturated Region
- 13) Temperature-Entropy Diagram in the Saturated Region

These charts, with the exceptions of (12) and (13), cover a range of temperatures from 0 F to 1500 F and of pressures up to 4000 psia.

The lower limit of specific volumes is down to $0.05 \text{ ft}^3/\text{lb}$. This range practically encompasses all possible conditions of interest in power cycle operations. The forms of these charts are shown in reduced scale graphs, which are included at the end of this report for

illustration purposes (Fig. 10-22). They indicate a few of the lines actually drawn on the full scale charts and are not recommended for use in design calculations. Full scale charts are available upon request. *see 315 in back of master. Jon*

Charts (12) and (13) cover a range of temperatures from 400 F down to -50 F. The portion of the charts from 400 F to the saturation curve is a duplication of charts (1) and (2) and is included for convenience in application. The saturation region is of possible interest in compressor design, since operating conditions of the compressor in a CO₂ gas turbine plant could be close to the saturation region.

Tabulated values of specific volume, enthalpy, and entropy are included at the end of this report, Table 4. These values were printed directly from an IBM digital computer in intervals which permit an accuracy within 1% for linear interpolations.

II

SYMBOLS AND UNITS

Unless indicated otherwise in the text, the standard symbols and units used in this report are as follows.

p	pressure (psia)
t	temperature ($^{\circ}\text{F}$)
T	absolute temperature ($^{\circ}\text{R}$)
v	specific volume (ft^3/lb)
s	specific entropy ($\text{Btu}/\text{lb } ^{\circ}\text{R}$)
u	internal energy function (Btu/lb)
h	enthalpy (Btu/lb)
z	compressibility factor
C _p	constant-pressure specific heat ($\text{Btu}/\text{lb } ^{\circ}\text{F}$)
C _v	constant-volume specific heat ($\text{Btu}/\text{lb } ^{\circ}\text{F}$)
C _{v∞}	constant-volume specific heat at zero pressure or infinite volume ($\text{Btu}/\text{lb } ^{\circ}\text{F}$)
γ	ratio of C _p to C _v
M	molecular weight = 44.011
g	gravitational acceleration = $32.17 \text{ ft}/\text{sec}^2$
ρ	density (lb/ft^3)
V _s	velocity of sound (fps)
K	heat conductivity ($\text{Btu}/\text{hr } ^{\circ}\text{F ft}$)
μ	absolute viscosity ($\text{lb}/\text{hr ft}$)
Pr	Prandtl number $\left(\frac{C_p \mu}{K} \right)$

III

SURVEY OF EXISTING DATA

A. Pressure - Volume - Temperature Relations

In principle, all the thermodynamic functions of a fluid can be evaluated from pressure, volume and temperature relations (p-v-t data), and some supplementary data. These supplementary data may be the variation of C_p with temperature along any one line of constant pressure; the variation of C_v with temperature along any one line of constant volume; or any measurements that give values of u , h , s , or any of their derivatives, such as the Joule-Thomson coefficients. The development of spectroscopic methods of determining the specific heats at zero pressure has reduced the degree of uncertainty of this source of supplementary data for CO_2 to such an extent that there is now little room for disagreement. Therefore, the degree of uncertainty in the calculation of thermodynamic functions of CO_2 depends mainly upon the state of knowledge of p-v-t relations or compressibility data.

Prior to 1935, the work of Michels and his co-workers in the Van der Waals Laboratory (Ref. 4 and 5) yielded the most accurate data, ranging from 32 F to 302 F and from about 300 psia up to 44,000 psia. A special technique was devised for measuring the isotherms near the critical region, and the accuracy of the data is of a high order. In 1950 MacCormack and Schneider (Ref. 6) reported accurate pv data up to 1112 F and 735 psia. Kennedy of Harvard obtained the most recent and extensive data (Ref. 7 and 8). These cover the range from 212 F

to 1832 F and 735 psia to 20,600 psia. Kennedy's data agree well with Michels', MacCormack's, and Schneider's. It is therefore obvious that a combination of these data covers a sufficient temperature range for power cycle applications. The pressure range is indeed more than adequate.

Various equations of state and methods of data-fitting have been employed to correlate the experimental data. Plank and Kuprianoff (Ref. 9), and Sweigert, Weber, and Allen (Ref. 1) used a simple two-constant equation of state to calculate the thermodynamic properties in the superheated vapor region. The work of Plank and Kuprianoff was the most extensive, in the period of 1929 to 1948, on the compilation of thermodynamic data of CO_2 together with a temperature-entropy diagram. Their diagram, however, was prepared primarily for use in the refrigeration industry, and its temperature and pressure range for superheated vapor does not go beyond 300 F and 1700 psia. The work of Sweigert et al. was based on available experimental data prior to 1948 within the range up to 500 F and 3000 psia. It includes the accurate data of Michels and his co-workers. Sweigert's computed enthalpy values agree well with more recent data in the low pressure region. However, considerable discrepancies have been found in the high pressure and low temperature region. The Sweigert values are believed to be in error, probably because his two-constant equation of state is inadequate to cover a range in which the specific volume of the fluid is down to the neighborhood of 0.3 to 0.1 ft^3/lb . For closed-cycle gas turbine applications, Sweigert's temperature-entropy diagram is inadequate for compressor performance calculations.

Among the more important and most recent reports on the correlation and compilation of thermodynamic data are those of Hilsenrath et al. of the National Bureau of Standards (Ref. 10), Newitt et al. of the British Imperial College (Ref. 11), and Price of the Naval Ordnance Laboratory (Ref. 12). Hilsenrath et al. have correlated experimental data up to 1950, namely MacCormack's and Schneider's. The range covered was up to 2440 F and 1470 psia. Newitt's data, although published in 1956, was essentially based on Michels' data (1935) in the superheated vapor region. A temperature-entropy diagram was constructed which includes the liquid and solid phases. The temperature range is only up to 302 F. Serious discrepancies of as much as 20% have been found in the enthalpy values of Hilsenrath and of Newitt, in the high pressure range (1470 psia, which is the maximum range covered by Hilsenrath). Since Michels' data have been used either directly or indirectly by both authors, it is obvious that the sources of discrepancy are the computation methods rather than the basic experimental data used.

Price's work has included the most recent p-v-t data measured by Kennedy. The data were smoothed by a graphical method in which the compressibility factor was plotted against density to form a mesh of isobars and isotherms. Based on these smoothed data, numerical differentiation and integration were used for the computations of all the thermodynamic functions. Price made no attempt to find an equation of state to fit the smoothed data. The numerical method is justified in view of the fact that no single equation of state could possibly represent Kennedy's data, which cover a wide pressure range, such as from 735 psia to 20,600 psia.

However, in closed-cycle gas turbine applications, it is adequate to limit the range of temperatures from 0 F to 1500 F and pressure up to 4000 psia with specific volume down to $0.05 \text{ ft}^3/\text{lb}$. Within this range it is found that the Beattie-Bridgeman equation (Ref. 13), published in 1927, is well confirmed by the most recent data. Michels (Ref. 14) compared the Beattie-Bridgeman equation with his experimental p - v data and found that the equation fits the experiments within an accuracy of 0.7% up to 112 Amagat density (about $0.0718 \text{ ft}^3/\text{lb}$ in specific volume). Figure 1 compares Michels' and Kennedy's smoothed data with the Beattie-Bridgeman equation at a few isobars. Within the range of primary interest in power cycle applications, the Beattie-Bridgeman equation together with the spectroscopic data of C_p at low pressure will provide a most accurate and consistent source of data from which the computation of all the thermodynamic functions of CO_2 may be performed.

In a recent paper, Davy and Bell (Ref. 15) have evaluated a total of ten equations of state, including the Beattie-Bridgeman equation, for the representation of CO_2 data (Ref. 4, 5, 6) at four isotherms. They have found that the Su-Chang equation of state (Ref. 16) gives in general a best fit of the available data for pressures up to a reduced pressure of 10, including the region close to the liquid boundary. However, for the range of interest of our work (specific volumes greater than $.05 \text{ ft}^3/\text{lb}$ and reduced pressures less than 4), it may be seen from Davy's comparison that both the Su-Chang and the Beattie-Bridgeman equations give essentially identical results. It would be

interesting for any future work to compute the thermodynamic properties of carbon dioxide from the Su-Chang equation of state for its wider range of validity.

B. Specific Heats

The specific heats of CO_2 at constant pressure and constant volume have been the subjects of numerous investigations. Leduc (Ref. 17) made a critical survey of the available data prior to 1929. Quinn and Jones (Ref. 18) discussed these data and later work published through 1935. Hilsenrath (Ref. 10) and Newitt (Ref. 11) made brief surveys of the more recent data.

The specific heat of CO_2 at low pressures rests on an assured basis. Experimental data measured by the calorimeter method and by the velocity-of-sound method agree well with the spectroscopic data, which are determined by the application of quantum theory. On the other hand, only fragmentary data on experimental specific heats are available for CO_2 at pressures above 1 atmosphere.

An extensive comparison of C_p values available in the more recent literature was made in our work. Some pertinent results are included in this report (Fig. 2-7). Among the more important work taken for comparison is that of Ellenwood et al. (Ref. 19), Hilsenrath et al. (Ref. 10), Newitt et al. (Ref. 11), and Price (Ref. 12). Ellenwood's work was based on the Beattie-Bridgeman equation of state together with the spectroscopic data of C_p at zero pressure. Newitt's values were obtained by a strictly numerical method in accordance with the difference equation

$$C_p = \left(\frac{\Delta H}{\Delta T} \right)_p$$

The enthalpy differences along the isobars were divided by 10 C temperature intervals to give the C_p values at the mean temperature of the intervals. It is obvious that these numerical procedures could lead to serious errors in the area close to the saturation curve. As is well known, the greatest dependence of C_p on temperature is in this region. A small change in temperature will cause a very rapid change of C_p as the value of C_p becomes infinite at the critical point. The comparison of C_p data indicates that all data agree well except those of Newitt. Significantly, at high pressures (for example, 200 atm in Fig. 7) Ellenwood's values agree with Price's most recent data on extrapolation to lower temperatures. This indicates that a combination of Ellenwood's and Price's data will provide a set of consistent C_p values to cover a wide range of temperature and pressure conditions, namely 0 F to 4000 F and 0 psia to 20,600 psia. For the purpose of our work, the use of the Beattie-Bridgeman equation of state within its range of validity is sufficient to obtain the desired C_p values. Therefore, the computation of C_p here is essentially a duplication of Ellenwood's effort. Since the C_p values are needed to compute the velocity of sound as well as the Prandtl number, little extra effort is required to punch out its values from the IBM machine and to present them in a more accurate and complete graphical form than that given in page 13 of Ellenwood's paper (Ref. 19).

C. The Joule-Thomson Expansion

The Joule-Thomson coefficient of CO_2 was measured by several investigators prior to 1923. More recent measurements were made at the University of Wisconsin by Roebuck and his co-workers (Ref. 20) in their standard apparatus for measuring the integral Joule-Thomson effect. The Wisconsin measurements essentially supersede all the earlier ones since they are more precise and cover a large range (-58 F to 572 F and 14.7 psia to 2940 psia).

The experimental Joule-Thomson data are useful as an independent check of the computed thermodynamic functions. Roebuck's data were used in our report for checking purposes. The results will be discussed later.

D. Viscosity

Most of the published data on the viscosity and heat conductivity of CO_2 are limited to low pressures. In a paper by Hawkins (Ref. 21), some 133 references prior to 1948 were examined for twelve gases; only one reference was given for viscosity and one for heat conductivity of CO_2 . The most extensive work published to date on the compilation of viscosity data of CO_2 is Nuttall's (Ref. 22). The values of viscosity are tabulated for pressures of 1, 10, 40, 70, and 100 atmospheres with temperatures up to 2600 F. Nuttall's viscosity values at 1 atm pressure were based mainly on the theoretical work of Hirschfelder et al. (Ref. 23 and 24). The values at higher pressures were computed from an empirical equation based on the experimental data of Phillips (Ref. 25); Stakelbeck (Ref. 26); and Comings, Mayland, and Egly (Ref. 27).

Theoretical calculations of the viscosity of gases from kinetic theory have so far met with only limited success. The calculation of viscosity must make use of a molecular model for the gas, increased refinements being possible. Maxwell's classical theory is based on the simplest assumption of infinitely small, perfectly elastic molecules with zero fields of force. It predicts that the absolute viscosity of a gas is independent of pressure and that it increases in proportion to the square root of the absolute temperature. In 1948 Hirschfelder et al. published the tables of collision integrals based on the refined kinetic theory of Chapman and Cowling (Ref. 28), which permits accurate calculation of viscosity for nonpolar smooth spherical molecules. Bromley and Wilke (Ref. 29) have presented Hirschfelder's results in a convenient form for practical use. However, it may be noted that Hirschfelder's work is limited to the calculation of transport properties at low pressure only. In the case of carbon dioxide, the main difficulty lies in the complexity of the molecule, which has a permanent quadrupole and is not spherical. The fact that the viscosity of carbon dioxide fails to obey the Lennard-Jones 12:6 potential is noted, among others, by Whalley and Schneider (Ref. 30).

Experimental data on the effect of pressure upon viscosity of CO₂, available in the published literature, cover an entirely inadequate range for closed-cycle gas turbine applications. The results of Phillips, Stakelbeck, Comings et al., and many others prior to 1950 were limited to low temperature conditions (up to about 300 F). In 1952, Kiyama and Makita (Ref. 31) reported measurements covering a

temperature range from 122 F to 572 F with pressure up to about 1400 psia. In the past decade, Keyes of M.I.T. has been active in correlating experimental data on the transport properties of 13 gases including CO₂. Keyes has published his results in a series of ASME papers. His latest published results may be found in a technical report of Project Squid (Ref. 2). The method of using density instead of pressure for correlating pressure effect was made available through private communication with Professor Keyes. The correlation and computation of viscosity in our report was based on Keyes' method.

E. Heat Conductivity

The scarcity of heat conductivity data of CO₂ is more serious than the lack of data for viscosity. Experimental data at high pressures are practically non-existent. Even for the data at 1 atm pressure, there is serious disagreement among the various investigators, and discrepancies in the order of 10 to 20% are not uncommon. However, this is not at all surprising in view of the experimental difficulties in eliminating heat transmission by convection and radiation. Nuttall (Ref. 32, 10) has compiled heat conductivity data of CO₂ at 1 atm pressure for the temperature range from -136 F to 620 F. A total of 13 references were listed in Nuttall's report. Among the more recent ones are Archer's (Ref. 33); Sherratt's and Griffiths' (Ref. 34); and Johnston's and Grilly's (Ref. 35).

At temperatures between 400 F to 600 F, Archer's data disagree with Nuttall's tabulated values by as much as 11.8%.

Because of the lack of experimental data on the effect of pressure on heat conductivity, Gamson (Ref. 36) has employed a semi-theoretical approach to obtain a generalized correlation for heat conductivities of all gases. His results are presented in the familiar graphical form in terms of reduced quantities. Gamson's generalized attempt on heat conductivity is similar to Uyehara's and Watson's (Ref. 37) on viscosity. Gamson's method of correlation was essentially based on the considerations of Enskog's theoretical equations (Ref. 38), some experimental viscosity data, and the work of Uyehara and Watson. Gamson has estimated an accuracy of 15% for his results.

The computation of heat conductivity for CO_2 in our work was based on Keyes' equations. Discussion of Keyes' equations and comparison with some Russian data are given in Section VI.

F. Velocity of Sound

Measurements of the velocity of sound in CO_2 have been made by several investigators. The early work, prior to 1924, has been reviewed by Partington and Shilling (Ref. 39). King and Partington (Ref. 40), and Sherratt and Griffiths (Ref. 41) made measurements at 1 atm with temperature up to 1832 F. Sherratt's and Griffiths' data were obtained at three frequencies (7911.2, 13828, and 19365 cycles/sec). In the case of CO_2 , it is well known that the velocity of sound is not independent of frequency. Sherratt and Griffiths made a correlation to reduce the observed velocities to correspond to zero frequency on the basis of a theory proposed by Kneser (Ref. 42). Kneser explained the variation of sound velocity with frequency in terms of the

time lag in the transfer of energy between the vibrational and the other energy states of a molecule. However, between the two extreme frequency values used by Sherratt and Griffiths, the variation of sound velocity is less than 1%, which is negligibly small from the standpoint of engineering application. The main purpose of Sherratt's and Griffiths' work was to obtain experimental data on sound velocity in CO_2 so that the specific heats could be evaluated using the Beattie-Bridgeman equation of state. The specific heats thus obtained by Sherratt and Griffiths are in excellent agreement with those deduced from the spectroscopic data.

The effect of pressure on the velocity of sound in CO_2 was investigated by Hubbard and Hodge (Ref. 43). They measured the sound velocity at 80.6 F with pressure up to about 880 psia. Anderson and Delsasso (Ref. 44), and Richardson (Ref. 45) have obtained experimental data in the region near the critical point (87.8 F and 1070 psia). Above the critical temperature it was found that, as the pressure increases, the velocity decreases steadily, goes through a sharp minimum, and rises abruptly. Below the critical temperature a discontinuity in velocity was observed between liquid and vapor.

In theory, the velocity of sound at low frequencies may be computed from the equation of state. Hilsenrath et al. (Ref. 10) have compiled a tabulation of velocity values up to 2240 F and 1470 psia. In our work the Beattie-Bridgeman equation was used for computation. It was found that the computed results indicated the correct trend, but failed to agree in values with the experimental data of Anderson and

Delsasso, and Richardson in the region near the critical point. In this region the experimental data were therefore used instead of the computed values from the equation of state. A more detailed discussion is given in Section V. It may be noted that the tabulated values of Hilsenrath et al. fail to represent even the correct trend as indicated by experimental evidences.

IV

CALCULATION OF THERMODYNAMIC FUNCTIONS AND CONSTRUCTION OF THE DIAGRAMS

A. The Beattie-Bridgeman Equation of State

The Beattie-Bridgeman equation is given in the following form.

$$P = \frac{RT(1-\epsilon)}{V^2} (V + B) - \frac{A}{V^2} \text{-----}(1)$$

where: $A = A_0 (1 - \frac{a}{V})$

$$B = B_0 (1 - \frac{b}{V})$$

$$\epsilon = \frac{c}{VT^3}$$

P = absolute pressure lb/ft²

T = absolute temperature °Rankine

V = molal volume ft³/lb-mole

$R = 1544 \text{ ft-lb/ (lb-mole) (°R)}$

For carbon dioxide, the five characteristic constants consistent with the units given above are:

$$A_0 = 2.71 \times 10^6$$

$$a = 1.140$$

$$B_0 = 1.676 \text{-----}(1a)$$

$$b = 1.158$$

$$c = 6.16 \times 10^7$$

Note that the Beattie-Bridgeman equation cannot be solved explicitly for v as a function of p and T . It is therefore necessary to choose v and T as independent variables in the evaluation and computation of

thermodynamic properties. Cross-plottings are required in order to present the results, using p and T as independent variables which are convenient for engineering applications. The tabulated values of thermodynamic properties given in Table 4 of this report were obtained by Newton-Raphson's method of iteration.

The iteration process was performed with an IBM 704 digital computer, thus arriving at a correct value of V corresponding to a predetermined set of p and T values. The accuracy of the process was carried out to 0.01%.

B. Computation of Entropy, Internal Energy Function, Enthalpy, and Compressibility Factor

One of the basic relations of thermodynamics, giving the change of entropy with V and T as independent variables, is

$$Tds = C_v dT + T \left(-\frac{\partial p}{\partial T} \right)_v dv \quad \text{-----}(2)$$

Integrating eq. (2) gives the difference in entropy between two states,

$$\Delta S = \left[\int_{v_1}^{v_2} \left(\frac{\partial p}{\partial T} \right)_v dv \right]_T + \left[\int_{T_1}^{T_2} \frac{C_v}{T} dT \right]_v \quad \text{-----}(3)$$

The integrand in the first term on the right-hand side of eq.(3) may be evaluated from the Beattie-Bridgeman equation (eq. 1).

$$\left(\frac{\partial p}{\partial T} \right)_v = \frac{R}{v} + \frac{RB_0}{v^2} - \frac{RB_0b}{v^3} + \frac{2cR}{v^2T^3} + \frac{2cRB_0}{v^3T^3} - \frac{2cRB_0b}{v^4T^3} \quad \text{-----}(4)$$

The values of C_v at infinite volume or zero pressure, $C_{v\infty}$, may be found in reference 19. They were based on the spectroscopic data obtained by Johnston and his co-workers at Ohio State University. Figure 8 shows the variation of $C_{v\infty}$ with temperature. A check of these

values with the values computed from the equation given by Sweigert (Ref. 1) for C_{p0} through the perfect gas relation shows excellent agreement. Sweigert's equation was therefore adopted for evaluating the second term on the right-hand side of eq. (3).

Conforming to the commonly used engineering units as listed in Section II, the expression for entropy values as evaluated from eq. (3) and programmed in the digital computer was

$$s = .04486 \left\{ \ln(44v) - \frac{B_0}{44v} \left(1 - \frac{b}{88v} \right) - \frac{2c}{(44v)^2} T^3 \left[1 + \frac{B_0}{88v} - \frac{B_{ob}}{3(44v)^2} \right] \right\} \\ + \frac{1}{44} \left(14.2161 \ln T + \frac{6.53 \times 10^3}{T} - \frac{0.705 \times 10^6}{T^2} \right) + s'' \text{-----} (5)$$

where s'' is a constant of integration and is arbitrarily chosen as -1.099082, so that the entropy value at 10 psia and 1600 F is the same as Sweigert's (Ref. 1). The values of B_0 , b and c are the same as in eq. (1a).

From the first and second laws of thermodynamics we may write

$$du = Tds - pdv \text{-----} (6)$$

Substituting in eq. (2)

$$du = C_v dT + T \left(\frac{\partial P}{\partial T} \right)_v dv - pdv \\ = C_v dT + \left[T \left(\frac{\partial p}{\partial T} \right)_v - p \right] dv \\ = C_v dT - \left[\frac{\partial(p\tau)}{\partial \tau} \right]_v \text{-----} (7)$$

in which $\tau = \frac{1}{T}$

Integrating eq. (7) gives the difference in internal energy function between two states

$$\Delta u = \left[- \int_{v_i}^{v_f} \left(\frac{\partial p \tau}{\partial T} \right)_v dv \right]_T + \left[\int_{T_i}^{T_f} C_v dT \right]_v \quad \text{-----}(8)$$

The Beattie-Bridgeman equation may be rewritten in the following form:

$$p = \frac{R \left(1 - \frac{c \tau^3}{v} \right)}{\tau v^2} (v + B) - \frac{A}{v^2} \quad \text{-----}(9)$$

From eq. (9), we have:

$$- \left[\frac{\partial (p \tau)}{\partial T} \right]_v = \frac{3Rc\tau^2}{v^2} + \frac{3RcB_0\tau^2}{v^3} - \frac{3RcB_0b\tau^2}{v^4} + \frac{A_0}{v^2} - \frac{A_0a}{v^3} \quad \text{-----}(10)$$

Substituting eq. (10) in eq. (8) and making use of $C_{v\infty}$ from spectroscopic data, we have

$$u = \frac{1}{778 \times 44} \left\{ \frac{A_0}{44v} \left(\frac{a}{88v} - 1 \right) - \frac{3(1544)c}{44vT^2} \left[1 + \frac{B_0}{88v} - \frac{B_0b}{3(44v)^2} \right] \right\} \\ + \frac{1}{44} \left(14.2161 T - 6.53 \times 10^3 \ln T - \frac{1.41 \times 10^6}{T} \right) + u'' \quad \text{-----}(11)$$

where: u = internal energy (Btu/lb)

v = specific volume (ft³/lb)

T = absolute temperature (°R)

A_0 , a , B_0 , b and c as given in eq. (1a)

$u'' = 1108.42726$ is arbitrarily chosen to agree with Sweigert (Ref.1) at 10 psia and 1600 F.

The enthalpy may be computed according to its definition:

$$h = u + pv \quad \text{-----}(12)$$

in which: $h = \text{Btu/lb}$

$u = \text{Btu/lb}$ from eq. (11)

$p = \text{psia}$

$v = \text{ft}^3/\text{lb}$

Similarly, the compressibility factor is readily obtained from its definition:

$$Z = \frac{pv}{RT}$$

or

$$\text{-----}(13)$$

$$Z = 4.126 \frac{pv}{T}$$

in which: $p = \text{psia}$

$v = \text{ft}^3/\text{lb}$

$T = ^\circ\text{R}$

C. Construction of the Diagrams

In the computation of thermodynamic functions, a total of about 7200 combined values of T and v were used as input data. The temperature was in 20 degree intervals from 0 F to 1600 F. About 80 volumes in convenient intervals were used in the range from .05 to 50 ft^3/lb . The constant-volume lines on the T - s diagrams and the constant-temperature lines on the h - s diagram were plotted directly from the computed data. In determining the constant-pressure and the constant-enthalpy lines, cross-plottings on large scale graphs were necessary in order to keep the accuracy within that of chart reading. Because of the large amount of computed data available, no interpolation or

extrapolation was needed to complete the entire range of the diagrams.

D. Independent Checks by Joule-Thomson Data and Michels' Isotherm

Two sources of reliable experimental data are available as independent checks of the accuracy of the completed diagrams. The Joule-Thomson expansion data measured by Roebuck and his co-workers (Ref. 20) were used to check the constant-enthalpy lines in the T-s diagram. Michels' isotherm data (Ref. 4) provided a check of the p-v-t relations.

Neither set of data covers the entire range of the diagrams. However, they both provide a useful check in the most critical region, namely, the low temperature and high pressure region in the vicinity of the saturation curve. The checks were made on the large scale diagrams and confirmed the accuracy of the diagrams within 2%. Figure 9 shows some of the experimental data plotted on a reduced scale T-s diagram for illustration purposes.

Figure 9 also shows a constant-volume line of $0.0718 \text{ ft}^3/\text{lb}$, which corresponds to an Amagat density of 112. In reference 14 Michels has reported that the Beattie-Bridgeman equation fitted his experiments up to this density with an accuracy of 0.7%.

V

CALCULATION OF CONSTANT-VOLUME SPECIFIC HEAT, CONSTANT-PRESSURE SPECIFIC HEAT, SPECIFIC HEAT RATIO, AND THE VELOCITY OF SOUND

A. The Basic Equations

In the computation of specific heats and their ratios, two basic relations from thermodynamic theory were used, namely,

$$\left(\frac{\partial C_v}{\partial T} \right)_v = T \left(\frac{\partial^2 p}{\partial T^2} \right)_v \text{-----(14)}$$

and $C_p - C_v = T \left(\frac{\partial p}{\partial T} \right)_v \left(\frac{\partial v}{\partial T} \right)_p \text{-----(15)}$

Detailed derivations of these two relations may be found in reference 19 or in other texts on thermodynamics. With the equation of state available, the values of C_v and C_p may be evaluated from these relations. Thus, by differentiation of the Beattie-Bridgeman equation twice with respect to temperature at constant volume, we have:

$$\left(\frac{\partial^2 p}{\partial T^2} \right)_v = - \frac{6Rc}{v^2 T^4} - \frac{6RcB_0}{v^3 T^4} + \frac{6B_0 b R c}{v^4 T^4} \text{-----(16)}$$

It follows from eq. (14):

$$\Delta C_v = \left[\int_T \left(\frac{\partial^2 p}{\partial T^2} \right)_v dv \right] \text{-----(17)}$$

T = const.

The integration in eq. (17) can be carried out by the substitution of eq. (16) in the integrand. Consequently, the constant volume specific heat at a finite volume v can be written as:

$$C_v = \frac{6Rc}{T^3} \left(\frac{1}{v} + \frac{B_o}{2v^2} - \frac{B_o b}{3v^3} \right) + (C_v)_\infty \text{ -----(18)}$$

or, in consistent units we have:

$$C_v = \frac{6Rc}{44 \times 778 T^3} \left(\frac{1}{44v} + \frac{B_o}{2(44v)^2} - \frac{B_o b}{3(44v)^3} \right) + (C_v)_\infty \text{ ---(19)}$$

where: C_v and $(C_v)_\infty = \text{Btu/lb } ^\circ\text{F}$

$T = ^\circ\text{R}$

$v = \text{ft}^3/\text{lb}$

$R = 1544$

B_o, b and c as given in eq. (1a)

With C_v known, the expression for C_p may be obtained from eq. (15), which expresses the difference between the specific heats. If the Beattie-Bridgeman equation is written in the form

$$pv^2 = RT (1-\epsilon) (v + B) - A$$

and differentiated with respect to T at constant pressure, the result is

$$\left(\frac{\partial v}{\partial T} \right)_p = \frac{\left(\frac{2Rc}{vT^3} + R \right) \left(v + B_o - \frac{B_o b}{v} \right)}{2pv - \left(\frac{Rc}{T^2 v^2} \right) \left(v + B_o - \frac{B_o b}{v} \right) - RT \left(1 - \frac{c}{vT^3} \right) \left(1 + \frac{B_o b}{v^2} \right) + \frac{aA_o}{v^2}} \text{ -----(19)}$$

Similarly, by differentiation of eq. (1) with respect to T at constant volume we obtain

$$\left(\frac{\partial p}{\partial T}\right)_v = \frac{R(v+B)}{v^2} \left[1 + \frac{2c}{vT^3}\right] \text{-----(20)}$$

Substituting eq. (19) and (20) in eq. (15), the expression for the difference between the specific heats in consistent units becomes:

$$C_p - C_v = \left(\frac{T}{44 \times 778}\right) \frac{\left[\left(\frac{2Rc}{44vT^3} + R\right) \left(44v + B_0 - \frac{B_0b}{44v}\right)\right]^2}{288 p (44v)^3 - \frac{Rc}{T^2} \left(44v + B_0 - \frac{B_0b}{44v}\right) - RT \left(1 - \frac{c}{44vT^3}\right) \left[(44v)^2 + B_0b\right] + aA_0} \text{-----(21)}$$

where: C_p and $C_v = \text{Btu/lb } ^\circ\text{F}$

$T = ^\circ\text{R}$

$p = \text{psia}$

$v = \text{ft}^3/\text{lb}$

$R = 1544$

A_0, a, B_0, b and c as given in eq. (1a)

Note that the term p appears in the right hand side of eq. (21). For each given (T, v) input, the term p shall be computed from the equation of state.

The ratio of specific heats, γ , is readily obtained from its definition:

$$\gamma = C_p/C_v \text{-----(22)}$$

The velocity of sound with no absorptions (low frequencies) is given by the expression:

$$v_s^2 = g \left(\frac{\partial p}{\partial \rho}\right)_s = -gv^2 \left(\frac{\partial p}{\partial v}\right)_s \text{-----(23)}$$

By using the usual equations relating the partial derivatives of thermodynamic functions, eq. (23) may be changed to the form:

$$v_s^2 = g \gamma \left(\frac{\partial p}{\partial \rho} \right)_T = -g \gamma v^2 \left(\frac{\partial p}{\partial v} \right)_T \text{-----}(24)$$

The term $\frac{\partial p}{\partial v}_T$ in eq. (24) can be evaluated from the equation of state. For the Beattie-Bridgeman equation we have:

$$v_s^2 = \frac{g \gamma}{44} \left[RT - \left(\frac{Rc}{T^2} - RTB_0 + A_0 \right) \frac{2}{44v} - \left(\frac{RcB_0}{T^2} + RTB_0b - A_0a \right) \frac{3}{(44v)^2} + \frac{4B_0bRc}{T^2(44v)^3} \right] \text{-----}(25)$$

where: v_s = velocity of sound, ft/sec

γ = specific heat ratio, from eq. (22)

g = 32.2 ft/sec²

T = °R

v = ft³/lb

R = 1544

A_0 , a , B_0 , b and c as given in eq. (1a)

In the region near the critical point, the computed velocity in accordance with eq. (25) decreases steadily along an isotherm as pressure increases, goes through a minimum, and starts to increase. This indicates the correct trend as evidenced by the experimental data of Anderson and Delsasso (Ref. 44), and Richardson (Ref. 45). However, in some instances the computed values disagree with the experimental data by as much as 30%. At first it was suspected that the discrepancies might be caused by the mathematical difficulties inherent in the basic equation (24). In the neighborhood of the critical point,

the isothermal slope approaches zero and γ approaches infinity.

Since eq. (24) involves the product of these two quantities, erroneous results could be obtained because of this mathematical indeterminacy.

An alternate form was tried for the velocity equation:

$$v_s^2 = -g v^2 \left(\frac{\partial p}{\partial v} \right)_T + \frac{g v^2 T}{C_v} \left(\frac{\partial p}{\partial T} \right)_v^2 \text{-----}(26)$$

This expression can be easily derived by using the usual relations among the partial derivatives of thermodynamic functions. It is general and exact in theory just as is eq. (24). In the neighborhood of the critical point, the first term in the right-hand side of eq. (26) approaches zero, while the second term remains finite. By using the Beattie-Bridgeman equation, eq. (26) becomes:

$$v_s^2 = \phi + \psi \text{-----}(27)$$

$$\text{where: } \phi = \frac{g}{44} \left[RT - \left(\frac{Rc}{T^2} - RTB_0 + A_0 \right) \frac{2}{44v} - \left(\frac{RcB_0}{T^2} + RTB_0b - A_0a \right) \frac{3}{(44v)^2} + \frac{4B_0bRc}{T^2(44v)^3} \right]$$

$$\psi = \frac{gTv^2}{778 C_v} \left[\frac{R \left(44v + B_0 - \frac{B_0b}{44v} \right) \left(1 + \frac{2c}{44vT^3} \right)}{(44v)^2} \right]^2$$

$$V_s = \text{ft/sec}$$

$$C_v = \text{Btu/lb } ^\circ\text{F}$$

$$T = ^\circ\text{R}$$

$$v = \text{ft}^3/\text{lb}$$

$$g = 32.2$$

$$R = 1544$$

A_0 , a , B_0 , b and c are the same as given in eq. (1a).

The computed results of eq. (27) were identical to those of eq. (25). This indicates that the suspected mathematical indeterminacy is not the cause of the difficulty. Another attempt was made to use Michels' isotherms (Ref. 14) instead of the Beattie-Bridgeman equation for evaluating the velocity. Michels' isotherms are given in the series form:

$$pv = A + (B+\beta) d + Cd^2 + Zd^3 + Dd^4 + Ed^6 + Fd^8 \text{ -----(28)}$$

in which d is the density expressed in Amagat units. The coefficients (A , B , β , etc.) are functions of temperature. The computed results of velocity were far less satisfactory than those obtained from the Beattie-Bridgeman equation when compared with the experimental data. It is interesting to note that the Michels isotherms, eq. (28), and the Beattie-Bridgeman equation are both accurate to better than 1% in representing p - v - t relations within their range of validity, but differ in yielding the velocity values by as much as 50%. The completed chart for the velocity of sound was finally obtained by extrapolating and smoothing the computed values from the Beattie-Bridgeman equation to fit the available experimental data in the region near the critical point.

B. Discussion

The accuracy of the computed values of Z , C_p , C_v , and γ in this report is of high order. The use of the Beattie-Bridgeman equation was not incidental. Extensive review and comparison of both experimental and

computed data available were made before the justification for its use was confirmed. The computed values were directly plotted on large scale charts as isotherms with pressure as a variable. One cross-plotting was required to transfer them to the final form (isobars with temperature as variable). A close examination of the final charts indicates that, in general, the errors inherent in the graphical representation of the computed values are in the order of magnitude of $\pm 2\%$.

In the case of the velocity of sound, it is estimated that the accuracy of the computed values in this report is about $\pm 3\%$. However, for the region in which the temperature is below about 350 F and pressure greater than 1000 psia, a possible error of $\pm 10\%$ must be assumed in the application of the velocity values to engineering design.

VI

CALCULATION OF ABSOLUTE VISCOSITY, HEAT CONDUCTIVITY, AND PRANDTL NUMBER

A. The Basic Equations

The equation for viscosity of CO₂ at low pressure is given by Keyes in a three-constant empirical form:

$$10^5 \eta_0 = \frac{a_0 \sqrt{T}}{1 + a\tau/10 a_1 \tau} \text{-----}(29)$$

where: η_0 = absolute viscosity at zero pressure (poise)

T = absolute temperature (°K)

τ = reciprocal of T ($1/^\circ\text{K}$)

$a_0 = 1.554$

$a = 246$

$a_1 = 3$

The effect of pressure on viscosity has been correlated by means of density and the reciprocal of absolute temperature. It may be expressed in the form:

$$\log (\Delta\eta \cdot 10^5 + 7) = .8451 + .4667 \times 10^3 \rho \tau \text{-----}(30)$$

in which: $\Delta\eta = \eta - \eta_0$

η = absolute viscosity at the desired pressure (poise)

ρ = density (gm/cc)

log = common logarithm (base 10)

The equation for heat conductivity of CO₂ at low pressure is given by Keyes in a similar form of equation:

$$10^5 \cdot \lambda_o = \frac{C_o \sqrt{T}}{1 + C\tau/10^{C_1\tau}} \text{-----}(31)$$

where: λ_o = heat conductivity at zero pressure (cal/cm-sec-°C)

$$C_o = 3.333$$

$$C = 4433$$

$$C_1 = 10$$

T, τ same as in eq. (29).

The pressure effect of heat conductivity is given by the equation:

$$\log (\Delta\lambda \cdot 10^5 + 4) = .6021 + .405 \times 10^3 \rho \tau \text{-----}(32)$$

in which: $\Delta\lambda = \lambda - \lambda_o$

λ = heat conductivity at the desired pressure (cal/cm-sec-°C)

Other symbols and their units are the same as given in eq. (30)

The Prandtl number is readily obtained from its definition:

$$P_r = \frac{C_p \mu}{K} \text{-----}(33)$$

in which: C_p = specific heat at constant pressure (Btu/lb °F) as obtained from previous calculations.

μ = absolute viscosity in lb/hr-ft

$$(\text{= } 241.9 \times \eta)$$

K = heat conductivity in Btu/hr-ft-°F

$$(\text{= } 241.9 \times \lambda)$$

B. Discussion

The range of validity of eq. (29) for viscosity at low pressure is from -103 F to 2582 F (Ref. 2). For the range of interest in our report (0 F to 1500 F), eq. (29) fits the experimental data of Vasilesco (Ref. 46) with an accuracy of $\pm 1\%$. At 1 atm, viscosity values from the full-scale chart of our work agree with Nuttall's tabulated values (Ref. 22) within 3%. It may be noted that Nuttall's values at low pressure were based on the theoretical work of Hirschfelder et al. (Ref. 23, 24).

According to Keyes (Ref. 3), the correlation for the pressure effect on viscosity, eq. (30), is valid for densities from 0 to 0.66 gm/cc (i.e., specific volumes from infinity down to .0243 ft³/lb). Keyes used equations of this type in correlating experimental viscosity data of many gaseous substances, including steam (a highly polar substance). In the case of steam Keyes was accurate within $\pm 1\%$ in his correlation of the most recent Russian data up to 1112 F and 2850 psia (Ref. 47).

However, a check of the viscosity values of CO₂, as computed from eqs. (29) and (30) with some of the experimental data reported in various sources, indicates considerable discrepancies. An extensive correlation of all the available experimental data was therefore considered necessary. The data taken for correlation are listed in Table 1.

It was found that considerable discrepancies existed among the experimental data reported by the various investigators. For example, at 68 F and in the pressure range of 800 psia, the viscosity values

measured by Phillips are about 20% lower than those of Schröder and Becker. It is interesting to note that, when correlated on the basis of density, the data obtained by the rolling-ball method (Schröder and Becker; Kiyama and Makita) are invariably on the higher side as compared with those obtained by the transpiration method (Phillips; Comings, Mayland, and Egly). This fact has also been noted by Michels et al. (Ref. 50).

The combination of eq. (29) and (30) as given in our report represents the best possible correlation of the experimental data listed in Table 1. The accuracy of the computed viscosity values here is within $\pm 1\%$ for low pressure conditions (0 to 200 psia). For pressures up to about 1000 psia, $\pm 5\%$ accuracy is estimated. For pressures above 1000 psia, $\pm 10\%$ accuracy must be assumed in engineering applications. It is known that the effect of pressure on viscosity is less significant at higher temperatures. (The most significant effect of pressure on viscosity occurs near the saturated region.) The percentage of accuracy given above was based on the correlation of the available low temperature data (maximum 572 F, Table 1). For higher temperatures, the percentage of accuracy should be better, although no experimental data are available for a quantitative evaluation. Table 2 shows some computed values of eq. (29) and (30) as compared with Michels' data (Ref. 50) at one isotherm.

Eq. (31) for the heat conductivity of CO_2 at low pressure fits the experimental data in the range from -117 F to 607 F. Keyes (Ref. 3) has found a deviation of $\pm 5\%$ when the equation is extrapolated to 1892 F. At 1 atm, heat conductivity values from the full-scale chart

of our work agree with Nuttall's tabulated values (Ref. 32) within 3% up to 620 F, which is the maximum temperature listed in Nuttall's report. Compared with the smoothed experimental data of Stolyarov et al. (Ref. 51) at 1 atm, the disagreement varies from 3 to 6% for the temperature range up to 392 F.

Eq. (32) for the effect of pressure on heat conductivity of CO_2 is valid for densities from 0 to 0.45 gm/cc (i.e., specific volumes from infinity to .0356 ft³/lb). Between temperatures of 32 F to 302 F, Keyes has estimated 5% accuracy or better for eq. (32). The accuracy of this equation is rather uncertain when extrapolated to higher temperatures because of the complete lack of experimental data for comparison. However, based on the experience with steam, an equation of the type similar to eq. (32) extrapolates well into the higher temperature region (Ref. 3, 47). It is believed that an overall accuracy of $\pm 10\%$ can be assumed for the results of our work in temperatures beyond 302 F. Table 3 gives some pertinent comparisons with Stolyarov's data. It should be noted that his data are widely scattering over his reported temperature range. This is not at all surprising in view of the experimental difficulties involved.

Other published data available for comparing the effects of pressure on heat conductivity are Gamson's (Ref. 36). His semi-theoretical work, which is supposedly applicable to all gaseous substances, has been discussed briefly in Section III, paragraph E of our report. A check of the heat conductivity values for CO_2 obtained from Gamson's data shows considerable discrepancies, which range from about 4% at low pressure and temperature (0 psia, 200 F) to as much as 34% at high

pressure and temperature (2000 psia, 1500 F). The reliability of the results obtained from a generalized treatment such as Gamson's is indeed questionable. They serve, at best, as an indication of the order of magnitude of heat conductivity values for a particular gaseous substance.

It is obvious from the above discussion that considerable experimental work remains to be done in order to reliably ascertain the thermal conductivity of carbon dioxide, particularly at high pressure and temperature conditions.

The computed values of Prandtl numbers in this work agree with those of Hilsenrath et al. (Ref. 10) within 2% for temperatures up to 620 F and 1 atm pressure, which are the maximum temperature and the only pressure condition given in Hilsenrath's report. No other published data are available for comparison.

VII

CONSTRUCTION OF THE T-s AND THE h-s DIAGRAMS IN THE SATURATED REGION

In the saturated region, the tabulated data of Sweigert as reported in the Chemical Engineers' Handbook (Ref. 52) were taken for comparison with those of Newitt et al. (Ref. 11). For the temperature range from -50 F to the critical temperature, the values of vapor pressure and the specific volumes of the saturated liquid and vapor were in good agreement. The maximum discrepancy is less than 2% at temperatures near the critical point. For lower temperatures, the agreement is within 1%. In the case of enthalpy and entropy values, the two sets of data have different reference states. When transformed to a comparable basis, the agreement was found to be within 1%, which was considered very satisfactory.

It may be noted that the work of Newitt et al. was based on the vapor pressure data of Meyer and Van Dusen (Ref. 53) and the latent heat and specific volume data of Michels et al. (Ref. 54). These data were obtained with the greatest possible care and are generally considered the most accurate available. Newitt's tabulated values were used to construct the T-s and the h-s diagrams for the saturation region. The enthalpy and entropy values have been transformed to the same reference state as that employed in the gaseous phase of this report, namely, $h_0 = 180 \text{ Btu/lb}$ and $S_0 = 1 \text{ Btu/lb} - ^\circ\text{R}$, both at 32 F saturated liquid (Ref. 1).

The constant quality lines were obtained by using the formula

$$S = S_f + xS_{fg}$$

in which

S = the entropy corresponding to a specified quality x at a temperature T_1

S_f = entropy of the saturated liquid at T_1

$S_{fg} = S_g - S_f$ = difference in entropy between the saturated vapor and the saturated liquid at T_1

VIII

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2

IX
FIGURES

FIG.1 COMPARISON OF COMPRESSIBILITY
DATA FOR CO₂

FIG.2 COMPARISON OF C_p AT 1 ATM

FIG.3 COMPARISON OF C_p AT 10 ATM

FIG. 4 COMPARISON OF C_p AT 40 ATM

FIG.5 COMPARISON OF C_p AT 100 ATM

FIG. 6 COMPARISON OF C_p AT 150 ATM

FIG. 7 COMPARISON OF C_p AT 200 ATM

FIG. 8 SPECIFIC HEAT AT CONSTANT VOLUME

 FIG. 9 TEMPERATURE-ENTROPY DIAGRAM FOR CO₂

FIG.10 TEMPERATURE-ENTROPY DIAGRAM FOR CO₂

FIG. II ENTHALPY - ENTROPY DIAGRAM FOR CO₂

FIG.12 COMPRESSIBILITY FACTOR OF CO₂

FIG. 13 SPECIFIC HEAT AT CONSTANT PRESSURE OF CO₂

FIG. 14 SPECIFIC HEAT AT CONSTANT VOLUME OF CO_2

FIG.15 SPECIFIC HEAT RATIO OF CO_2

FIG. 16 VELOCITY OF SOUND DIAGRAM OF CO₂

FIG.17 VISCOSITY DIAGRAM OF CO₂

FIG. 18 HEAT CONDUCTIVITY OF CO₂

FIG. 19 PRANDTL NUMBER OF CO₂

FIG. 20 ENTHALPY- ENTROPY DIAGRAM FOR CO₂ WITH CONSTANT COMPRESSIBILITY LINES

FIG. 21 ENTHALPY-ENTROPY DIAGRAM FOR CO₂
 IN THE SATURATED REGION

FIG. 22 TEMPERATURE-ENTROPY DIAGRAM FOR CO₂
 IN THE SATURATED REGION

X
TABLES

Table 1

Viscosity Data Taken for Correlation

<u>Data</u>	<u>Reference</u>	<u>Method of Experiment</u>	<u>Available Temperature and Pressure Range</u>
Comings, Mayland, and Egly	(27)	transpiration	104→221F, 1→2500 psia
Kiyama and Makita	(31)	rolling ball	122→572F, 1→1400 psia
Naldrett and Maass	(48)	oscillating-disc	critical region
Phillips	(25)	transpiration	68→104F, 1→1760 psia
Schröer and Becker	(49)	rolling ball	68F, 1→1470 psia
Stakelbeck	(26)	falling ball	5→104F, 1→1470 psia

Table 2

Comparison of Viscosity Data
at 75C (167F)

<u>P</u>	<u>μ_M</u>	<u>μ</u>	<u>% Deviation</u>
179	.0422	.0426	- 0.94
558	.0437	.0454	- 3.74
907	.0463	.0491	- 5.70
1571	.0579	.0626	- 7.51
2000	.0747	.0765	- 2.35
2141	.0819	.0812	+ 0.86
2400	.0950	.0893	+ 6.38

P - pressure in psia

μ_M - viscosity lb/hr - ft; Michels (Ref. 50)

μ - viscosity lb/hr - ft; This work, Equations (29) and (30)

Table 3

Comparison of Heat Conductivity Data

<u>P</u>	<u>t</u>	<u>K_s</u>	<u>K</u>	<u>% Deviation</u>
20	98.6	.01035	.01112	-6.92
30	98.6	.01062	.01189	-10.68
100	127.9	.02383	.02478	-3.83
	186.8	.01805	.01930	-6.48
	338.0	.01877	.01937	-3.10
200	330.8	.02642	.02480	+6.53
	381.2	.02320	.02424	-4.29

P - pressure in atmospheres

t - temperature in deg. F

K_s - Heat conductivity, Btu/hr. ft^{°F}; Stolyarov et al.
(Ref. 51)

K - Heat conductivity, Btu/hr. ft^{°F}; This work, Equations
(31) and (32)

Table 4

Thermodynamic Properties of Gaseous Carbon Dioxide

V	Specific volume, ft ³ /lb
H	Enthalpy, Btu/lb
S	Entropy, Btu/lb, deg. F
Temperature	Deg. F

PRESSURE
PSIA

TEMPERATURE
60 80 100 120 140 160

		0	20	40	60	80	100	120	140	160
14.696	V	7.5595	7.8965	8.2329	8.5689	8.9044	9.2396	9.5745	9.9091	10.2435
	H	297.61	301.60	305.61	309.64	313.72	317.83	321.98	326.17	330.41
	S	1.3888	1.3973	1.4054	1.4134	1.4210	1.4285	1.4358	1.4429	1.4498
16	V	6.9383	7.2482	7.5576	7.8665	8.1751	8.4832	8.7911	9.0987	9.4060
	H	297.56	301.55	305.57	309.61	313.68	317.79	321.95	326.14	330.38
	S	1.3849	1.3934	1.4016	1.4095	1.4172	1.4247	1.4319	1.4390	1.4460
20	V	5.5373	5.7871	6.0355	6.2835	6.5311	6.7784	7.0253	7.2720	7.5184
	H	297.41	301.42	305.44	309.49	313.57	317.69	321.85	326.05	330.30
	S	1.3747	1.3832	1.3914	1.3993	1.4070	1.4145	1.4218	1.4289	1.4359
24	V	4.6037	4.8123	5.0203	5.2282	5.4352	5.6418	5.8481	6.0542	6.2600
	H	297.27	301.28	305.31	309.38	313.46	317.59	321.75	325.96	330.21
	S	1.3663	1.3748	1.3830	1.3910	1.3987	1.4062	1.4135	1.4206	1.4276
28	V	3.9368	4.1164	4.2954	4.4739	4.6524	4.8300	5.0073	5.1843	5.3611
	H	297.12	301.15	305.19	309.26	313.36	317.49	321.66	325.87	330.13
	S	1.3592	1.3677	1.3760	1.3839	1.3917	1.3992	1.4065	1.4136	1.4206
32	V	3.4366	3.5944	3.7517	3.9085	4.0648	4.2211	4.3767	4.5320	4.6870
	H	296.97	301.01	305.06	309.14	313.24	317.39	321.56	325.78	330.04
	S	1.3529	1.3615	1.3698	1.3778	1.3855	1.3931	1.4004	1.4075	1.4145
36	V	3.0475	3.1885	3.3288	3.4687	3.6081	3.7471	3.8862	4.0245	4.1627
	H	296.82	300.87	304.94	309.02	313.13	317.28	321.47	325.69	329.96
	S	1.3474	1.3561	1.3643	1.3723	1.3801	1.3876	1.3950	1.4021	1.4091
40	V	2.7362	2.8637	2.9905	3.1168	3.2427	3.3682	3.4934	3.6186	3.7432
	H	296.68	300.74	304.81	308.90	313.02	317.18	321.37	325.60	329.87
	S	1.3425	1.3511	1.3594	1.3675	1.3752	1.3828	1.3901	1.3973	1.4043
44	V	2.4815	2.5979	2.7137	2.8289	2.9438	3.0582	3.1723	3.2861	3.4000
	H	296.53	300.60	304.68	308.78	312.91	317.08	321.27	325.51	329.79
	S	1.3380	1.3467	1.3550	1.3630	1.3708	1.3784	1.3857	1.3929	1.3999
48	V	2.2692	2.3764	2.4830	2.5890	2.6946	2.7999	2.9047	3.0093	3.1137
	H	296.38	300.46	304.55	308.67	312.80	316.97	321.18	325.42	329.70
	S	1.3339	1.3426	1.3509	1.3590	1.3668	1.3743	1.3817	1.3889	1.3959
52	V	2.0895	2.1890	2.2878	2.3860	2.4838	2.5813	2.6783	2.7751	2.8717
	H	296.22	300.32	304.43	308.55	312.69	316.87	321.08	325.32	329.61
	S	1.3301	1.3388	1.3471	1.3552	1.3630	1.3706	1.3780	1.3852	1.3922

PRESSURE PSIA		TEMPERATURE								
		0	20	40	60	80	100	120	140	160
56	V	1.9355	2.0283	2.1204	2.2120	2.3031	2.3939	2.4843	2.5744	2.6642
	H	296.07	300.18	304.30	308.43	312.58	316.76	320.98	325.23	329.53
	S	1.3265	1.3353	1.3436	1.3517	1.3596	1.3672	1.3746	1.3818	1.3888
60	V	1.8020	1.8890	1.9754	2.0612	2.1465	2.2315	2.3161	2.4004	2.4844
	H	295.92	300.04	304.17	308.31	312.47	316.66	320.88	325.14	329.44
	S	1.3232	1.3320	1.3404	1.3485	1.3563	1.3639	1.3714	1.3786	1.3856
70	V	1.5350	1.6105	1.6853	1.7595	1.8333	1.9066	1.9797	2.0524	2.1248
	H	295.54	299.69	303.84	308.01	312.19	316.40	320.64	324.91	329.22
	S	1.3157	1.3245	1.3330	1.3412	1.3491	1.3567	1.3641	1.3714	1.3784
80	V	1.3346	1.4015	1.4676	1.5332	1.5983	1.6630	1.7273	1.7914	1.8551
	H	295.15	299.33	303.52	307.70	311.91	316.14	320.39	324.68	329.01
	S	1.3091	1.3180	1.3266	1.3348	1.3427	1.3504	1.3578	1.3651	1.3722
90	V	1.1787	1.2388	1.2983	1.3572	1.4155	1.4735	1.5311	1.5883	1.6454
	H	294.75	298.98	303.19	307.40	311.63	315.87	320.15	324.45	328.79
	S	1.3033	1.3122	1.3208	1.3291	1.3371	1.3448	1.3523	1.3596	1.3667
100	V	1.0538	1.1087	1.1628	1.2163	1.2693	1.3218	1.3740	1.4259	1.4775
	H	294.36	298.61	302.85	307.09	311.34	315.61	319.90	324.22	328.57
	S	1.2979	1.3070	1.3156	1.3239	1.3320	1.3397	1.3472	1.3546	1.3617
110	V	0.9516	1.0021	1.0519	1.1010	1.1496	1.1978	1.2455	1.2930	1.3402
	H	293.95	298.24	302.52	306.78	311.05	315.34	319.65	323.99	328.35
	S	1.2931	1.3022	1.3109	1.3193	1.3273	1.3351	1.3427	1.3500	1.3572
120	V	0.8664	0.9133	0.9594	1.0049	1.0498	1.0943	1.1385	1.1823	1.2258
	H	293.54	297.87	302.18	306.47	310.77	315.07	319.40	323.75	328.13
	S	1.2885	1.2977	1.3065	1.3149	1.3230	1.3309	1.3384	1.3458	1.3530
130	V	0.7942	0.8381	0.8812	0.9236	0.9654	1.0068	1.0478	1.0885	1.1289
	H	293.13	297.50	301.83	306.16	310.48	314.80	319.15	323.52	327.91
	S	1.2843	1.2936	1.3025	1.3109	1.3191	1.3269	1.3345	1.3419	1.3491
140	V	0.7322	0.7736	0.8140	0.8538	0.8930	0.9318	0.9701	1.0082	1.0459
	H	292.71	297.12	301.49	305.84	310.18	314.53	318.90	323.28	327.69
	S	1.2804	1.2897	1.2986	1.3072	1.3154	1.3233	1.3309	1.3383	1.3456
150	V	0.6785	0.7176	0.7558	0.7933	0.8303	0.8667	0.9028	0.9385	0.9740
	H	292.28	296.73	301.14	305.52	309.89	314.26	318.64	323.05	327.47
	S	1.2766	1.2861	1.2951	1.3036	1.3119	1.3198	1.3275	1.3350	1.3422

PRESSURE PSIA		TEMPERATURE								
		0	20	40	60	80	100	120	140	160
160	V	0.6314	0.6686	0.7048	0.7404	0.7753	0.8098	0.8439	0.8776	0.9110
	H	291.85	296.35	300.79	305.20	309.59	313.99	318.39	322.81	327.25
	S	1.2731	1.2826	1.2917	1.3003	1.3086	1.3166	1.3243	1.3318	1.3391
170	V	0.5898	0.6253	0.6598	0.6937	0.7269	0.7596	0.7919	0.8238	0.8554
	H	291.41	295.95	300.43	304.8	0 2	31	8 13	22	327.03
	S	1.2697	1.2793	1.2884	1.2971	1.3055	1.3135	1.3213	1.3288	1.3361
180	V	0.5528	0.5867	0.6198	0.6521	0.6837	0.7149	0.7456	0.7760	0.8060
	H	290.96	295.55	300.07	304.54	308.99	313.43	317.88	322.33	326.80
	S	1.2664	1.2762	1.2854	1.2941	1.3025	1.3106	1.3184	1.3259	1.3333
190	V	0.5196	0.5523	0.5840	0.6149	0.6452	0.6749	0.7042	0.7332	0.7618
	H	290.51	295.15	299.71	304.21	308.69	313.15	317.62	322.09	326.58
	S	1.2633	1.2731	1.2824	1.2913	1.2997	1.3078	1.3156	1.3232	1.3306
200	V	0.4896	0.5212	0.5517	0.5814	0.6104	0.6389	0.6670	0.6947	0.7221
	H	290.05	294.74	299.34	303.88	308.39	312.87	317.36	321.85	326.35
	S	1.2603	1.2702	1.2796	1.2885	1.2970	1.3052	1.3130	1.3206	1.3280
220	V	0.4377	0.4674	0.4959	0.5234	0.5504	0.5767	0.6026	0.6281	0.6533
	H	289.11	293.91	298.60	303.20	307.77	312.31	316.83	321.36	325.90
	S	1.2545	1.2647	1.2743	1.2833	1.2919	1.3002	1.3081	1.3158	1.3232
240	V	0.3943	0.4224	0.4492	0.4751	0.5003	0.5248	0.5490	0.5727	0.5961
	H	288.12	293.05	297.83	302.52	307.14	311.73	316.30	320.87	325.44
	S	1.2491	1.2595	1.2693	1.2785	1.2872	1.2955	1.3035	1.3113	1.3188
260	V	0.3572	0.3841	0.4096	0.4341	0.4578	0.4809	0.5035	0.5257	0.5476
	H	287.10	292.17	297.05	301.82	306.51	311.15	315.77	320.38	324.98
	S	1.2439	1.2546	1.2646	1.2739	1.2827	1.2912	1.2993	1.3071	1.3146
280	V	0.3253	0.3512	0.3756	0.3989	0.4214	0.4432	0.4645	0.4854	0.5060
	H	286.04	291.25	296.25	301.10	305.86	310.56	315.23	319.88	324.52
	S	1.2388	1.2499	1.2601	1.2696	1.2786	1.2871	1.2953	1.3031	1.3107
300	V	0.2973	0.3225	0.3460	0.3684	0.3898	0.4105	0.4307	0.4505	0.4699
	H	284.93	290.31	295.43	300.37	305.21	309.97	314.68	319.37	324.05
	S	1.2339	1.2454	1.2558	1.2655	1.2746	1.2832	1.2915	1.2994	1.3071
320	V		0.2973	0.3201	0.3415	0.3621	0.3819	0.4011	0.4200	0.4384
	H		289.33	294.58	299.63	304.54	309.37	314.13	318.86	323.58
	S		1.2410	1.2517	1.2615	1.2708	1.2796	1.2879	1.2959	1.3037

80	PRESSURE		TEMPERATURE								
	PSIA		0	20	40	60	80	100	120	140	160
340	V			0.2748	0.2970	0.3178	0.3376	0.3566	0.3750	0.3930	0.4105
	H			288.32	293.72	298.87	303.86	308.75	313.57	318.35	323.11
	S			1.2367	1.2477	1.2577	1.2672	1.2760	1.2845	1.2926	1.3004
360	V			0.2547	0.2765	0.2967	0.3158	0.3341	0.3518	0.3690	0.3858
	H			287.26	292.82	298.09	303.17	308.13	313.01	317.83	322.63
	S			1.2324	1.2438	1.2541	1.2637	1.2727	1.2812	1.2894	1.2972
380	V			0.2365	0.2579	0.2777	0.2962	0.3139	0.3310	0.3475	0.3636
	H			286.15	291.90	297.29	302.47	307.50	312.44	317.31	322.15
	S			1.2282	1.2400	1.2505	1.2603	1.2694	1.2781	1.2863	1.2942
400	V			0.2199	0.2412	0.2605	0.2786	0.2957	0.3122	0.3281	0.3436
	H			284.99	290.94	296.48	301.75	306.86	311.86	316.78	321.66
	S			1.2241	1.2362	1.2471	1.2570	1.2663	1.2750	1.2834	1.2914
420	V				0.2258	0.2449	0.2625	0.2792	0.2952	0.3106	0.3256
	H				289.95	295.64	301.02	306.21	311.28	316.25	321.17
	S				1.2325	1.2437	1.2538	1.2632	1.2721	1.2805	1.2886
440	V				0.2118	0.2306	0.2479	0.2642	0.2797	0.2947	0.3091
	H				288.92	294.78	300.28	305.55	310.68	315.72	320.68
	S				1.2289	1.2403	1.2507	1.2603	1.2693	1.2778	1.2859
460	V				0.1989	0.2175	0.2346	0.2505	0.2656	0.2801	0.2941
	H				287.85	293.89	299.52	304.88	310.08	315.17	320.19
	S				1.2252	1.2370	1.2476	1.2574	1.2665	1.2751	1.2833
480	V				0.1869	0.2055	0.2223	0.2378	0.2526	0.2667	0.2804
	H				286.73	292.98	298.74	304.20	309.48	314.62	319.69
	S				1.2216	1.2338	1.2447	1.2546	1.2638	1.2725	1.2808
500	V				0.1757	0.1943	0.2109	0.2262	0.2406	0.2544	0.2677
	H				285.55	292.03	297.94	303.51	308.86	314.07	319.18
	S				1.2179	1.2306	1.2417	1.2518	1.2612	1.2700	1.2784
520	V				0.1651	0.1839	0.2003	0.2154	0.2296	0.2430	0.2560
	H				284.31	291.06	297.13	302.80	308.24	313.51	318.67
	S				1.2142	1.2274	1.2388	1.2491	1.2586	1.2676	1.2760
540	V				0.1552	0.1741	0.1905	0.2054	0.2193	0.2325	0.2451
	H				282.99	290.05	296.29	302.09	307.61	312.94	318.16
	S				1.2104	1.2242	1.2359	1.2465	1.2561	1.2652	1.2737

PRESSURE
PSIA

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TEMPERATURE
60 80 100 120 140 160

560	V		0.1458	0.1650	0.1814	0.1961	0.2098	0.2227	0.2350
	H		281.58	289.00	295.44	301.36	306.97	312.37	317.64
	S		1.2064	1.2210	1.2331	1.2438	1.2537	1.2628	1.2714
580	V			0.1564	0.1728	0.1874	0.2009	0.2135	0.2256
	H			287.91	294.56	300.61	306.32	311.79	317.12
	S			1.2177	1.2303	1.2413	1.2512	1.2605	1.2692
600	V			0.1483	0.1647	0.1792	0.1925	0.2050	0.2169
	H			286.76	293.65	299.85	305.66	311.21	316.59
	S			1.2145	1.2274	1.2387	1.2489	1.2583	1.2671
620	V			0.1406	0.1572	0.1716	0.1847	0.1970	0.2086
	H			285.56	292.72	299.08	304.99	310.62	316.06
	S			1.2112	1.2246	1.2362	1.2465	1.2560	1.2650
640	V			0.1332	0.1500	0.1644	0.1774	0.1895	0.2009
	H			284.30	291.76	298.29	304.31	310.02	315.53
	S			1.2078	1.2218	1.2337	1.2442	1.2539	1.2629
660	V			0.1262	0.1432	0.1576	0.1705	0.1824	0.1937
	H			282.96	290.77	297.48	303.62	309.42	314.99
	S			1.2043	1.2190	1.2312	1.2419	1.2517	1.2608
680	V			0.1194	0.1367	0.1511	0.1640	0.1758	0.1869
	H			281.54	289.74	296.65	302.92	308.80	314.44
	S			1.2007	1.2161	1.2287	1.2397	1.2496	1.2588
700	V			0.1128	0.1306	0.1451	0.1578	0.1695	0.1804
	H			280.01	288.67	295.80	302.21	308.18	313.89
	S			1.1969	1.2133	1.2262	1.2374	1.2475	1.2569
720	V			0.1063	0.1247	0.1393	0.1520	0.1635	0.1743
	H			278.35	287.57	294.94	301.48	307.56	313.34
	S			1.1930	1.2103	1.2237	1.2352	1.2455	1.2549
740	V			0.1000	0.1191	0.1338	0.1464	0.1579	0.1685
	H			276.53	286.42	294.05	300.75	306.92	312.78
	S			1.1888	1.2074	1.2212	1.2330	1.2434	1.2530
760	V				0.1137	0.1285	0.1412	0.1525	0.1631
	H				285.21	293.14	300.00	306.28	312.21
	S				1.2044	1.2188	1.2308	1.2414	1.2511

82	PRESSURE		TEMPERATURE								
	PSIA		0	20	40	60	80	100	120	140	160
780	V					0.1085	0.1235	0.1361	0.1474	0.1579	
	H					283.95	292.20	299.23	305.63	311.64	
	S					1.2013	1.2163	1.2286	1.2394	1.2492	
800	V					0.1034	0.1187	0.1314	0.1426	0.1529	
	H					282.63	291.24	298.46	304.97	311.07	
	S					1.1981	1.2138	1.2264	1.2374	1.2474	
820	V					0.0986	0.1141	0.1268	0.1380	0.1482	
	H					281.23	290.25	297.67	304.31	310.49	
	S					1.1949	1.2112	1.2242	1.2355	1.2456	
840	V					0.0938	0.1097	0.1224	0.1336	0.1437	
	H					279.75	289.23	296.86	303.63	309.90	
	S					1.1915	1.2087	1.2221	1.2335	1.2438	
860	V					0.0892	0.1055	0.1183	0.1294	0.1395	
	H					278.17	288.18	296.04	302.95	309.31	
	S					1.1880	1.2061	1.2199	1.2316	1.2420	
880	V					0.0846	0.1014	0.1143	0.1254	0.1354	
	H					276.49	287.10	295.21	302.25	308.71	
	S					1.1843	1.2035	1.2177	1.2296	1.2402	
900	V					0.0802	0.0974	0.1104	0.1215	0.1315	
	H					274.69	285.98	294.35	301.55	308.11	
	S					1.1804	1.2009	1.2155	1.2277	1.2384	
920	V					0.0758	0.0936	0.1068	0.1178	0.1277	
	H					272.75	284.82	293.48	300.84	307.50	
	S					1.1763	1.1982	1.2134	1.2258	1.2367	
940	V					0.0715	0.0900	0.1032	0.1143	0.1241	
	H					270.66	283.63	292.60	300.12	306.88	
	S					1.1719	1.1955	1.2112	1.2239	1.2350	
960	V					0.0673	0.0864	0.0998	0.1109	0.1207	
	H					268.46	282.39	291.69	299.39	306.26	
	S					1.1674	1.1927	1.2090	1.2220	1.2332	
980	V						0.0830	0.0965	0.1076	0.1174	
	H						281.11	290.77	298.64	305.64	
	S						1.1898	1.2068	1.2201	1.2315	

PRESSURE
PSIA

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TEMPERATURE
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1000	V				0.0797	0.0934	0.1045	0.1142
	H				279.79	289.83	297.89	305.00
	S				1.1870	1.2045	1.2182	1.2298
1020	V				0.0765	0.0903	0.1014	0.1111
	H				278.43	288.87	297.13	304.37
	S				1.1840	1.2023	1.2163	1.2281
1040	V				0.0724	0.0874	0.0985	0.1082
	H				277.02	287.89	296.36	303.72
	S				1.1810	1.2001	1.2144	1.2264
1060	V				0.0704	0.0845	0.0957	0.1053
	H				275.58	286.89	295.58	303.07
	S				1.1780	1.1978	1.2125	1.2248
1080	V				0.0675	0.0818	0.0930	0.1026
	H				274.11	285.88	294.79	302.42
	S				1.1749	1.1955	1.2106	1.2231
1100	V				0.0648	0.0792	0.0904	0.1000
	H				272.62	284.84	293.99	301.76
	S				1.1719	1.1933	1.2087	1.2214
1120	V				0.0623	0.0766	0.0879	0.0975
	H				271.13	283.80	293.18	301.09
	S				1.1688	1.1910	1.2068	1.2198
1140	V				0.0598	0.0742	0.0855	0.0950
	H				269.65	282.73	292.37	300.42
	S				1.1658	1.1887	1.2050	1.2181
1160	V				0.0576	0.0718	0.0831	0.0926
	H				268.21	281.66	291.54	299.74
	S				1.1628	1.1864	1.2031	1.2165
1180	V				0.0556	0.0696	0.0808	0.0904
	H				266.82	280.57	290.71	299.06
	S				1.1600	1.1840	1.2012	1.2148
1200	V				0.0537	0.0674	0.0787	0.0882
	H				265.49	279.49	289.87	298.38
	S				1.1572	1.1817	1.1993	1.2132

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PRESSURE
PSIA

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TEMPERATURE

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	V				0.0520	0.0653	0.0766	0.0860
1220	H				264.23	278.40	289.03	297.69
	S				1.1547	1.1794	1.1974	1.2116
	V				0.0504	0.0634	0.0745	0.0840
1240	H				263.06	277.31	288.17	296.99
	S				1.1522	1.1772	1.1955	1.2100
	V					0.0615	0.0726	0.0820
1260	H					276.23	287.32	296.29
	S					1.1749	1.1937	1.2084
	V					0.0597	0.0707	0.0800
1280	H					275.17	286.46	295.59
	S					1.1727	1.1918	1.2067
	V					0.0580	0.0689	0.0782
1300	H					274.13	285.60	294.89
	S					1.1706	1.1900	1.2051
	V					0.0564	0.0671	0.0764
1320	H					273.11	284.75	294.18
	S					1.1684	1.1881	1.2036
	V					0.0550	0.0655	0.0747
1340	H					272.12	283.89	293.47
	S					1.1664	1.1863	1.2020
	V					0.0536	0.0639	0.0730
1360	H					271.17	283.04	292.77
	S					1.1644	1.1845	1.2004
	V					0.0523	0.0623	0.0714
1380	H					270.25	282.20	292.06
	S					1.1625	1.1827	1.1988
	V					0.0511	0.0609	0.0698
1400	H					269.37	281.37	291.36
	S					1.1607	1.1809	1.1973
	V						0.0574	0.0661
1450	H						279.34	289.60
	S						1.1767	1.1935

PRESSURE
PSIA

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TEMPERATURE

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1500	V H S							0.0544 277.41 1.1726	0.0628 287.87 1.1897
1550	V H S							0.0518 275.60 1.1688	0.0597 286.18 1.1861
1600	V H S								0.0569 284.54 1.1826
1650	V H S								0.0544 282.98 1.1793
1700	V H S								0.0521 281.50 1.1761
1750	V H S								0.0501 280.11 1.1731
1800	V H S								
1850	V H S								
1900	V H S								
1950	V H S								
2000	V H S								

PRESSURE PSIA		TEMPERATURE								
		180	200	220	240	260	280	300	320	340
14.696	V	10.5777	10.9117	11.2455	11.5792	11.9127	12.2462	12.5795	12.9127	13.2458
	H	334.69	339.02	343.40	347.82	352.28	356.79	361.35	365.95	370.59
	S	1.4566	1.4633	1.4698	1.4762	1.4825	1.4887	1.4947	1.5007	1.5066
16	V	9.7132	10.0201	10.3269	10.6336	10.9401	11.2465	11.5528	11.8590	12.1651
	H	334.67	339.00	343.37	347.79	352.26	356.77	361.33	365.93	370.57
	S	1.4528	1.4594	1.4660	1.4724	1.4787	1.4848	1.4909	1.4969	1.5028
20	V	7.7646	8.0107	8.2566	8.5023	8.7479	8.9934	9.2387	9.4840	9.7292
	H	334.59	338.92	343.30	347.73	352.20	356.71	361.27	365.87	370.52
	S	1.4427	1.4493	1.4559	1.4623	1.4686	1.4748	1.4808	1.4868	1.4927
24	V	6.4656	6.6710	6.8763	7.0814	7.2864	7.4913	7.6960	7.9007	8.1052
	H	334.50	338.84	343.23	347.66	352.13	356.65	361.21	365.82	370.46
	S	1.4344	1.4411	1.4476	1.4540	1.4603	1.4665	1.4726	1.4786	1.4845
28	V	5.5377	5.7142	5.8904	6.0665	6.2425	6.4183	6.5941	6.7697	6.9453
	H	334.42	338.77	343.16	347.59	352.07	356.59	361.15	365.76	370.41
	S	1.4274	1.4341	1.4406	1.4471	1.4534	1.4595	1.4656	1.4716	1.4775
32	V	4.8418	4.9965	5.1510	5.3053	5.4596	5.6136	5.7676	5.9215	6.0753
	H	334.34	338.69	343.08	347.52	352.00	356.52	361.09	365.70	370.36
	S	1.4213	1.4280	1.4346	1.4410	1.4473	1.4535	1.4596	1.4656	1.4714
36	V	4.3006	4.4383	4.5759	4.7133	4.8506	4.9878	5.1248	5.2618	5.3987
	H	334.26	338.62	343.01	347.45	351.93	356.46	361.03	365.65	370.30
	S	1.4160	1.4226	1.4292	1.4356	1.4419	1.4481	1.4542	1.4602	1.4661
40	V	3.8676	3.9918	4.1158	4.2397	4.3634	4.4871	4.6106	4.7340	4.8574
	H	334.18	338.54	342.94	347.38	351.87	356.40	360.97	365.59	370.25
	S	1.4111	1.4178	1.4244	1.4308	1.4371	1.4434	1.4494	1.4554	1.4613
44	V	3.5133	3.6264	3.7394	3.8522	3.9649	4.0774	4.1899	4.3022	4.4145
	H	334.10	338.46	342.87	347.31	351.80	356.34	360.92	365.53	370.20
	S	1.4068	1.4135	1.4200	1.4265	1.4328	1.4390	1.4451	1.4511	1.4570
48	V	3.2181	3.3220	3.4257	3.5293	3.6327	3.7360	3.8393	3.9424	4.0454
	H	334.02	338.39	342.79	347.25	351.74	356.28	360.86	365.48	370.14
	S	1.4028	1.4095	1.4161	1.4225	1.4288	1.4350	1.4411	1.4471	1.4530
52	V	2.9683	3.0644	3.1603	3.2560	3.3517	3.4472	3.5426	3.6379	3.7331
	H	333.94	338.31	342.72	347.18	351.67	356.21	360.80	365.42	370.09
	S	1.3991	1.4058	1.4124	1.4188	1.4252	1.4314	1.4375	1.4435	1.4494

PRESSURE
PSIA

TEMPERATURE
240 260 280 300 320 340

		180	200	220	240	260	280	300	320	340
56	V	2.7539	2.8436	2.9328	3.0218	3.1108	3.1996	3.2883	3.3769	3.4654
	H	333.86	338.23	342.65	347.11	351.61	356.15	360.74	365.37	370.03
	S	1.3957	1.4024	1.4090	1.4154	1.4218	1.4280	1.4341	1.4401	1.4460
60	V	2.5683	2.6519	2.7356	2.8189	2.9020	2.9850	3.0679	3.1507	3.2334
	H	333.78	338.15	342.58	347.04	351.54	356.09	360.68	365.31	369.98
	S	1.3925	1.3992	1.4058	1.4123	1.4186	1.4248	1.4310	1.4370	1.4429
70	V	2.1971	2.2691	2.3410	2.4129	2.4844	2.5558	2.6271	2.6983	2.7695
	H	333.57	337.96	342.39	346.87	351.38	355.93	360.53	365.17	369.85
	S	1.3853	1.3921	1.3987	1.4052	1.4115	1.4178	1.4239	1.4299	1.4358
80	V	1.9187	1.9820	2.0452	2.1082	2.1713	2.2340	2.2966	2.3591	2.4215
	H	333.37	337.77	342.21	346.69	351.22	355.78	360.38	365.03	369.71
	S	1.3791	1.3859	1.3925	1.3990	1.4054	1.4116	1.4177	1.4238	1.4297
90	V	1.7022	1.7587	1.8151	1.8714	1.9275	1.9836	2.0395	2.0952	2.1508
	H	333.16	337.58	342.03	346.52	351.05	355.62	360.23	364.89	369.58
	S	1.3736	1.3804	1.3870	1.3935	1.3999	1.4062	1.4123	1.4183	1.4243
100	V	1.5289	1.5801	1.6311	1.6819	1.7326	1.7832	1.8338	1.8841	1.9343
	H	332.96	337.38	341.84	346.34	350.88	355.46	360.09	364.74	369.44
	S	1.3686	1.3754	1.3821	1.3886	1.3950	1.4013	1.4074	1.4135	1.4194
110	V	1.3872	1.4339	1.4805	1.5269	1.5732	1.6193	1.6653	1.7114	1.7572
	H	332.75	337.19	341.66	346.17	350.72	355.31	359.93	364.60	369.31
	S	1.3641	1.3710	1.3776	1.3842	1.3906	1.3968	1.4030	1.4091	1.4150
120	V	1.2691	1.3121	1.3550	1.3977	1.4403	1.4827	1.5251	1.5673	1.6095
	H	332.55	336.99	341.48	346.00	350.55	355.15	359.79	364.46	369.17
	S	1.3600	1.3668	1.3735	1.3801	1.3865	1.3928	1.3989	1.4050	1.4110
130	V	1.1691	1.2090	1.2488	1.2884	1.3279	1.3672	1.4064	1.4455	1.4846
	H	332.34	336.80	341.29	345.82	350.39	354.99	359.64	364.32	369.04
	S	1.3562	1.3630	1.3697	1.3763	1.3827	1.3890	1.3952	1.4013	1.4073
140	V	1.0834	1.1207	1.1578	1.1947	1.2315	1.2681	1.3047	1.3411	1.3774
	H	332.13	336.60	341.11	345.65	350.22	354.84	359.49	364.17	368.90
	S	1.3526	1.3595	1.3662	1.3728	1.3792	1.3855	1.3917	1.3978	1.4038
150	V	1.0092	1.0441	1.0789	1.1135	1.1480	1.1823	1.2165	1.2506	1.2846
	H	331.92	336.41	340.92	345.47	350.06	354.68	359.34	364.03	368.76
	S	1.3493	1.3562	1.3629	1.3695	1.3759	1.3823	1.3885	1.3946	1.4006

PRESSURE PSIA		TEMPERATURE								
		180	200	220	240	260	280	300	320	340
160	V	0.9442	0.9771	1.0099	1.0425	1.0749	1.1072	1.1394	1.1714	1.2034
	H	331.71	336.21	340.74	345.30	349.89	354.52	359.19	363.89	368.63
	S	1.3461	1.3531	1.3598	1.3664	1.3729	1.3792	1.3854	1.3915	1.3975
170	V	0.8868	0.9180	0.9490	0.9798	1.0104	1.0409	1.0713	1.1016	1.1318
	H	331.51	336.01	340.55	345.12	349.73	354.36	359.04	363.75	368.49
	S	1.3432	1.3501	1.3569	1.3635	1.3700	1.3763	1.3826	1.3887	1.3947
180	V	0.8359	0.8654	0.8948	0.9240	0.9531	0.9820	1.0108	1.0395	1.0681
	H	331.30	335.82	340.37	344.95	349.56	354.21	358.89	363.60	368.36
	S	1.3404	1.3473	1.3541	1.3607	1.3672	1.3736	1.3798	1.3860	1.3920
190	V	0.7902	0.8184	0.8464	0.8742	0.9018	0.9293	0.9567	0.9839	1.0111
	H	331.08	335.62	340.18	344.77	349.39	354.05	358.74	363.46	368.22
	S	1.3377	1.3447	1.3515	1.3581	1.3646	1.3710	1.3773	1.3834	1.3894
200	V	0.7492	0.7761	0.8028	0.8293	0.8556	0.8819	0.9079	0.9339	0.9598
	H	330.87	335.42	339.99	344.59	349.23	353.89	358.59	363.32	368.08
	S	1.3352	1.3422	1.3490	1.3556	1.3622	1.3685	1.3748	1.3809	1.3870
220	V	0.6783	0.7030	0.7274	0.7517	0.7759	0.7999	0.8238	0.8476	0.8712
	H	330.45	335.02	339.62	344.24	348.89	353.57	358.29	363.03	367.81
	S	1.3304	1.3374	1.3443	1.3510	1.3575	1.3639	1.3702	1.3764	1.3824
240	V	0.6192	0.6420	0.6647	0.6871	0.7094	0.7316	0.7537	0.7756	0.7974
	H	330.02	334.62	339.24	343.88	348.56	353.26	357.99	362.75	367.54
	S	1.3260	1.3331	1.3400	1.3467	1.3533	1.3597	1.3660	1.3722	1.3783
260	V	0.5691	0.5904	0.6115	0.6325	0.6532	0.6738	0.6943	0.7147	0.7350
	H	329.59	334.22	338.86	343.53	348.22	352.94	357.68	362.46	367.27
	S	1.3219	1.3290	1.3360	1.3427	1.3493	1.3558	1.3621	1.3683	1.3744
280	V	0.5262	0.5462	0.5660	0.5856	0.6050	0.6243	0.6435	0.6625	0.6814
	H	329.16	333.81	338.48	343.17	347.88	352.62	357.38	362.17	367.00
	S	1.3181	1.3253	1.3322	1.3390	1.3456	1.3521	1.3585	1.3647	1.3708
300	V	0.4891	0.5079	0.5265	0.5450	0.5633	0.5814	0.5994	0.6172	0.6350
	H	328.73	333.41	338.10	342.81	347.54	352.30	357.08	361.89	366.72
	S	1.3145	1.3217	1.3287	1.3355	1.3422	1.3487	1.3551	1.3613	1.3674
320	V	0.4565	0.4744	0.4920	0.5094	0.5267	0.5438	0.5608	0.5777	0.5944
	H	328.29	333.00	337.72	342.45	347.21	351.98	356.78	361.60	366.45
	S	1.3111	1.3184	1.3254	1.3323	1.3389	1.3455	1.3519	1.3581	1.3643

PRESSURE PSIA		TEMPERATURE								
		180	200	220	240	260	280	300	320	340
340	V	0.4278	0.4448	0.4615	0.4781	0.4944	0.5107	0.5268	0.5427	0.5586
	H	327.85	332.59	337.33	342.09	346.87	351.66	356.47	361.31	366.18
	S	1.3079	1.3152	1.3223	1.3291	1.3359	1.3424	1.3488	1.3551	1.3613
360	V	0.4023	0.4185	0.4344	0.4502	0.4658	0.4812	0.4965	0.5117	0.5268
	H	327.40	332.18	336.95	341.73	346.52	351.34	356.17	361.02	365.90
	S	1.3048	1.3121	1.3193	1.3262	1.3329	1.3395	1.3460	1.3523	1.3584
380	V	0.3794	0.3949	0.4102	0.4252	0.4401	0.4548	0.4694	0.4839	0.4983
	H	326.96	331.76	336.56	341.37	346.18	351.01	355.86	360.74	365.63
	S	1.3019	1.3093	1.3164	1.3234	1.3301	1.3368	1.3432	1.3495	1.3557
400	V	0.3588	0.3737	0.3883	0.4028	0.4170	0.4311	0.4451	0.4589	0.4726
	H	326.51	331.34	336.17	341.00	345.84	350.69	355.56	360.45	365.36
	S	1.2991	1.3065	1.3137	1.3207	1.3275	1.3341	1.3406	1.3469	1.3532
420	V	0.3402	0.3545	0.3686	0.3825	0.3961	0.4096	0.4230	0.4363	0.4494
	H	326.06	330.92	335.78	340.63	345.50	350.37	355.25	360.16	365.08
	S	1.2963	1.3038	1.3111	1.3181	1.3249	1.3316	1.3381	1.3445	1.3507
440	V	0.3232	0.3371	0.3506	0.3640	0.3771	0.3901	0.4030	0.4157	0.4283
	H	325.60	330.50	335.39	340.27	345.15	350.04	354.95	359.87	364.81
	S	1.2937	1.3013	1.3085	1.3156	1.3225	1.3292	1.3357	1.3421	1.3483
460	V	0.3078	0.3211	0.3342	0.3471	0.3598	0.3723	0.3847	0.3969	0.4091
	H	325.15	330.08	334.99	339.90	344.81	349.72	354.64	359.58	364.53
	S	1.2912	1.2988	1.3061	1.3132	1.3201	1.3268	1.3334	1.3398	1.3461
480	V	0.2936	0.3065	0.3192	0.3316	0.3439	0.3560	0.3679	0.3797	0.3914
	H	324.69	329.65	334.60	339.53	344.46	349.39	354.33	359.29	364.26
	S	1.2887	1.2964	1.3038	1.3109	1.3178	1.3246	1.3312	1.3376	1.3439
500	V	0.2805	0.2931	0.3054	0.3174	0.3293	0.3409	0.3525	0.3639	0.3752
	H	324.22	329.22	334.20	339.16	344.11	349.06	354.03	359.00	363.98
	S	1.2864	1.2941	1.3015	1.3087	1.3156	1.3224	1.3290	1.3355	1.3418
520	V	0.2685	0.2807	0.2926	0.3043	0.3158	0.3271	0.3382	0.3493	0.3602
	H	323.76	328.79	333.80	338.79	343.76	348.74	353.72	358.71	363.71
	S	1.2841	1.2918	1.2993	1.3065	1.3135	1.3203	1.3269	1.3334	1.3397
540	V	0.2573	0.2692	0.2808	0.2921	0.3033	0.3142	0.3250	0.3357	0.3463
	H	323.29	328.36	333.40	338.41	343.41	348.41	353.41	358.41	363.43
	S	1.2818	1.2896	1.2971	1.3044	1.3114	1.3183	1.3249	1.3314	1.3378

08	PRESSURE PSIA		TEMPERATURE								
			180	200	220	240	260	280	300	320	340
560	V		0.2469	0.2585	0.2698	0.2808	0.2916	0.3023	0.3128	0.3232	0.3334
	H		322.82	327.93	333.00	338.04	343.06	348.08	353.10	358.12	363.16
	S		1.2796	1.2875	1.2951	1.3024	1.3094	1.3163	1.3230	1.3295	1.3359
580	V		0.2373	0.2485	0.2595	0.2703	0.2808	0.2912	0.3014	0.3115	0.3214
	H		322.34	327.49	332.59	337.66	342.71	347.75	352.79	357.83	362.88
	S		1.2775	1.2854	1.2930	1.3004	1.3075	1.3144	1.3211	1.3276	1.3340
600	V		0.2283	0.2393	0.2500	0.2605	0.2707	0.2808	0.2908	0.3006	0.3102
	H		321.86	327.05	332.18	337.28	342.36	347.42	352.48	357.54	362.60
	S		1.2754	1.2834	1.2911	1.2984	1.3056	1.3125	1.3192	1.3258	1.3322
620	V		0.2198	0.2306	0.2410	0.2513	0.2613	0.2711	0.2808	0.2903	0.2998
	H		321.38	326.61	331.78	336.90	342.01	347.09	352.17	357.25	362.33
	S		1.2734	1.2814	1.2891	1.2966	1.3037	1.3107	1.3175	1.3240	1.3305
640	V		0.2119	0.2224	0.2327	0.2427	0.2524	0.2620	0.2715	0.2808	0.2899
	H		320.90	326.17	331.37	336.52	341.65	346.76	351.86	356.95	362.05
	S		1.2714	1.2795	1.2872	1.2947	1.3019	1.3089	1.3157	1.3223	1.3288
660	V		0.2044	0.2148	0.2248	0.2346	0.2441	0.2535	0.2627	0.2718	0.2807
	H		320.41	325.72	330.96	336.14	341.30	346.43	351.55	356.66	361.77
	S		1.2694	1.2776	1.2854	1.2929	1.3002	1.3072	1.3140	1.3206	1.3271
680	V		0.1974	0.2076	0.2174	0.2269	0.2363	0.2455	0.2544	0.2633	0.2720
	H		319.92	325.27	330.55	335.76	340.94	346.10	351.23	356.37	361.50
	S		1.2675	1.2757	1.2836	1.2912	1.2984	1.3055	1.3123	1.3190	1.3255
700	V		0.1908	0.2008	0.2104	0.2198	0.2289	0.2379	0.2467	0.2553	0.2638
	H		319.42	324.82	330.13	335.38	340.58	345.76	350.92	356.07	361.22
	S		1.2656	1.2739	1.2818	1.2894	1.2968	1.3038	1.3107	1.3174	1.3239
720	V		0.1845	0.1944	0.2038	0.2130	0.2219	0.2307	0.2393	0.2478	0.2561
	H		318.92	324.37	329.71	334.99	340.23	345.43	350.61	355.78	360.94
	S		1.2638	1.2721	1.2801	1.2878	1.2951	1.3022	1.3091	1.3158	1.3224
740	V		0.1786	0.1883	0.1976	0.2066	0.2153	0.2239	0.2324	0.2406	0.2488
	H		318.42	323.91	329.30	334.61	339.87	345.09	350.30	355.48	360.67
	S		1.2619	1.2704	1.2784	1.2861	1.2935	1.3007	1.3076	1.3143	1.3209
760	V		0.1730	0.1825	0.1916	0.2005	0.2091	0.2175	0.2258	0.2339	0.2419
	H		317.91	323.45	328.88	334.22	339.51	344.76	349.98	355.19	360.39
	S		1.2601	1.2687	1.2767	1.2845	1.2919	1.2991	1.3061	1.3128	1.3194

PRESSURE PSIA		TEMPERATURE								
		180	200	220	240	260	280	300	320	340
780	V	0.1677	0.1770	0.1860	0.1947	0.2032	0.2114	0.2195	0.2275	0.2353
	H	317.40	322.99	328.45	333.83	339.15	344.42	349.67	354.89	360.11
	S	1.2584	1.2670	1.2751	1.2829	1.2904	1.2976	1.3046	1.3114	1.3179
800	V	0.1626	0.1718	0.1807	0.1892	0.1975	0.2057	0.2136	0.2214	0.2291
	H	316.89	322.53	328.03	333.44	338.79	344.09	349.35	354.60	359.83
	S	1.2566	1.2653	1.2735	1.2813	1.2888	1.2961	1.3031	1.3099	1.3165
820	V	0.1578	0.1669	0.1756	0.1840	0.1922	0.2002	0.2080	0.2156	0.2231
	H	316.37	322.06	327.61	333.05	338.42	343.75	349.04	354.30	359.55
	S	1.2549	1.2636	1.2719	1.2798	1.2873	1.2946	1.3017	1.3085	1.3151
840	V	0.1532	0.1622	0.1708	0.1791	0.1871	0.1949	0.2026	0.2101	0.2175
	H	315.85	321.59	327.18	332.66	338.06	343.41	348.72	354.01	359.28
	S	1.2532	1.2620	1.2703	1.2783	1.2859	1.2932	1.3003	1.3071	1.3138
860	V	0.1488	0.1577	0.1662	0.1743	0.1822	0.1899	0.1974	0.2048	0.2121
	H	315.33	321.12	326.75	332.27	337.70	343.07	348.41	353.71	359.00
	S	1.2515	1.2604	1.2688	1.2768	1.2844	1.2918	1.2989	1.3058	1.3125
880	V	0.1447	0.1534	0.1618	0.1698	0.1776	0.1852	0.1926	0.1998	0.2069
	H	314.80	320.65	326.32	331.87	337.34	342.73	348.09	353.42	358.72
	S	1.2498	1.2588	1.2673	1.2753	1.2830	1.2904	1.2975	1.3044	1.3111
900	V	0.1407	0.1493	0.1576	0.1655	0.1732	0.1806	0.1879	0.1950	0.2020
	H	314.27	320.17	325.89	331.48	336.97	342.40	347.78	353.12	358.44
	S	1.2482	1.2573	1.2658	1.2739	1.2816	1.2890	1.2962	1.3031	1.3099
920	V	0.1368	0.1454	0.1535	0.1614	0.1689	0.1762	0.1834	0.1904	0.1973
	H	313.73	319.69	325.45	331.08	336.61	342.06	347.46	352.82	358.16
	S	1.2466	1.2557	1.2643	1.2725	1.2802	1.2877	1.2949	1.3018	1.3086
940	V	0.1332	0.1416	0.1497	0.1574	0.1649	0.1721	0.1791	0.1860	0.1928
	H	313.20	319.21	325.02	330.68	336.24	341.72	347.14	352.53	357.88
	S	1.2450	1.2542	1.2629	1.2710	1.2789	1.2864	1.2936	1.3006	1.3073
960	V	0.1296	0.1380	0.1460	0.1536	0.1610	0.1681	0.1750	0.1818	0.1885
	H	312.65	318.73	324.58	330.28	335.87	341.37	346.82	352.23	357.60
	S	1.2434	1.2527	1.2614	1.2697	1.2775	1.2851	1.2923	1.2993	1.3061
980	V	0.1263	0.1346	0.1424	0.1500	0.1572	0.1643	0.1711	0.1778	0.1843
	H	312.11	318.24	324.14	329.88	335.50	341.04	346.51	351.93	357.33
	S	1.2418	1.2512	1.2600	1.2683	1.2762	1.2838	1.2911	1.2981	1.3049

92	PRESSURE PSIA		TEMPERATURE								
			180	200	220	240	260	280	300	320	340
1000	V		0.1230	0.1313	0.1390	0.1465	0.1536	0.1606	0.1673	0.1739	0.1804
	H		311.56	317.75	323.70	329.48	335.13	340.70	346.19	351.64	357.05
	S		1.2402	1.2497	1.2586	1.2669	1.2749	1.2825	1.2898	1.2969	1.3037
1020	V		0.1199	0.1281	0.1358	0.1431	0.1502	0.1570	0.1637	0.1702	0.1766
	H		311.00	317.26	323.26	329.08	334.76	340.35	345.87	351.34	356.77
	S		1.2386	1.2483	1.2572	1.2656	1.2736	1.2813	1.2886	1.2957	1.3026
1040	V		0.1169	0.1250	0.1326	0.1399	0.1469	0.1536	0.1602	0.1666	0.1729
	H		310.45	316.77	322.82	328.68	334.39	340.01	345.55	351.04	356.49
	S		1.2371	1.2468	1.2558	1.2643	1.2723	1.2800	1.2874	1.2945	1.3014
1060	V		0.1140	0.1221	0.1296	0.1368	0.1437	0.1504	0.1568	0.1632	0.1694
	H		309.89	316.27	322.37	328.27	334.02	339.67	345.23	350.74	356.21
	S		1.2356	1.2454	1.2545	1.2630	1.2711	1.2788	1.2862	1.2934	1.3003
1080	V		0.1112	0.1192	0.1267	0.1338	0.1406	0.1472	0.1536	0.1599	0.1660
	H		309.32	315.78	321.93	327.86	333.65	339.33	344.91	350.44	355.93
	S		1.2340	1.2439	1.2531	1.2617	1.2698	1.2776	1.2850	1.2922	1.2992
1100	V		0.1086	0.1165	0.1239	0.1309	0.1377	0.1442	0.1505	0.1567	0.1627
	H		308.75	315.28	321.48	327.46	333.28	338.98	344.60	350.15	355.65
	S		1.2325	1.2425	1.2518	1.2604	1.2686	1.2764	1.2839	1.2911	1.2980
1120	V		0.1060	0.1138	0.1212	0.1282	0.1348	0.1413	0.1475	0.1536	0.1595
	H		308.18	314.77	321.03	327.05	332.91	338.64	344.28	349.85	355.37
	S		1.2310	1.2411	1.2505	1.2592	1.2674	1.2752	1.2828	1.2900	1.2970
1140	V		0.1035	0.1113	0.1186	0.1255	0.1321	0.1385	0.1446	0.1506	0.1565
	H		307.61	314.27	320.58	326.64	332.53	338.29	343.96	349.55	355.09
	S		1.2295	1.2397	1.2491	1.2579	1.2662	1.2741	1.2816	1.2889	1.2959
1160	V		0.1011	0.1088	0.1161	0.1229	0.1294	0.1357	0.1418	0.1477	0.1535
	H		307.03	313.76	320.13	326.23	332.16	337.95	343.64	349.25	354.81
	S		1.2280	1.2384	1.2478	1.2567	1.2650	1.2729	1.2805	1.2878	1.2948
1180	V		0.0988	0.1065	0.1136	0.1204	0.1269	0.1331	0.1391	0.1450	0.1507
	H		306.45	313.25	319.67	325.82	331.78	337.60	343.32	348.95	354.53
	S		1.2266	1.2370	1.2466	1.2555	1.2638	1.2718	1.2794	1.2867	1.2938
1200	V		0.0965	0.1042	0.1113	0.1180	0.1244	0.1306	0.1365	0.1423	0.1480
	H		305.87	312.74	319.22	325.41	331.41	337.26	343.00	348.65	354.26
	S		1.2251	1.2356	1.2453	1.2542	1.2627	1.2707	1.2783	1.2857	1.2927

PRESSURE PSIA		180	200	220	TEMPERATURE		280	300	320	340
					240	260				
1220	V	0.0944	0.1019	0.1090	0.1157	0.1220	0.1281	0.1340	0.1397	0.1453
	H	305.28	312.23	318.76	325.00	331.03	336.91	342.68	348.36	353.98
	S	1.2236	1.2343	1.2440	1.2530	1.2615	1.2696	1.2772	1.2846	1.2917
1240	V	0.0923	0.0998	0.1068	0.1134	0.1197	0.1257	0.1316	0.1372	0.1427
	H	304.69	311.72	318.30	324.59	330.66	336.57	342.36	348.06	353.70
	S	1.2222	1.2330	1.2428	1.2519	1.2604	1.2685	1.2762	1.2836	1.2907
1260	V	0.0902	0.0977	0.1047	0.1112	0.1174	0.1234	0.1292	0.1348	0.1402
	H	304.10	311.20	317.85	324.17	330.28	336.22	342.04	347.76	353.42
	S	1.2207	1.2316	1.2415	1.2507	1.2593	1.2674	1.2751	1.2826	1.2897
1280	V	0.0883	0.0957	0.1026	0.1091	0.1153	0.1212	0.1269	0.1324	0.1378
	H	303.51	310.68	317.39	323.76	329.90	335.87	341.72	347.47	353.14
	S	1.2193	1.2303	1.2403	1.2495	1.2581	1.2663	1.2741	1.2816	1.2887
1300	V	0.0864	0.0938	0.1006	0.1071	0.1132	0.1190	0.1247	0.1302	0.1355
	H	302.91	310.17	316.93	323.35	329.52	335.53	341.40	347.17	352.86
	S	1.2179	1.2290	1.2391	1.2484	1.2570	1.2653	1.2731	1.2806	1.2877
1320	V	0.0845	0.0919	0.0987	0.1051	0.1111	0.1169	0.1225	0.1280	0.1332
	H	302.31	309.65	316.46	322.93	329.15	335.18	341.08	346.87	352.58
	S	1.2164	1.2277	1.2379	1.2472	1.2559	1.2642	1.2720	1.2796	1.2868
1340	V	0.0828	0.0901	0.0968	0.1032	0.1092	0.1149	0.1205	0.1258	0.1310
	H	301.71	309.13	316.00	322.52	328.77	334.83	340.75	346.57	352.30
	S	1.2150	1.2264	1.2366	1.2461	1.2549	1.2632	1.2710	1.2786	1.2858
1360	V	0.0810	0.0883	0.0950	0.1013	0.1072	0.1129	0.1184	0.1238	0.1289
	H	301.11	308.60	315.54	322.10	328.39	334.49	340.43	346.27	352.02
	S	1.2136	1.2251	1.2354	1.2449	1.2538	1.2621	1.2700	1.2776	1.2849
1380	V	0.0794	0.0866	0.0932	0.0995	0.1054	0.1110	0.1165	0.1217	0.1268
	H	300.51	308.08	315.08	321.68	328.01	334.14	340.11	345.97	351.75
	S	1.2122	1.2238	1.2343	1.2438	1.2527	1.2611	1.2690	1.2767	1.2839
1400	V	0.0777	0.0849	0.0915	0.0977	0.1036	0.1092	0.1146	0.1198	0.1248
	H	299.91	307.56	314.61	321.27	327.63	333.79	339.79	345.68	351.47
	S	1.2108	1.2226	1.2331	1.2427	1.2517	1.2601	1.2681	1.2757	1.2830
1450	V	0.0739	0.0810	0.0875	0.0935	0.0993	0.1048	0.1100	0.1151	0.1201
	H	298.40	306.25	313.45	320.22	326.69	332.92	338.99	344.93	350.77
	S	1.2074	1.2194	1.2302	1.2400	1.2491	1.2576	1.2657	1.2734	1.2807

94	PRESSURE PSIA		TEMPERATURE								
			180	200	220	240	260	280	300	320	340
1500	V		0.0704	0.0773	0.0837	0.0897	0.0953	0.1007	0.1058	0.1108	0.1156
	H		296.90	304.93	312.29	319.18	325.74	332.05	338.19	344.19	350.08
	S		1.2040	1.2164	1.2273	1.2373	1.2465	1.2551	1.2633	1.2711	1.2785
1550	V		0.0671	0.0739	0.0802	0.0860	0.0916	0.0968	0.1019	0.1067	0.1115
	H		295.41	303.63	311.13	318.14	324.79	331.19	337.39	343.45	349.39
	S		1.2007	1.2133	1.2245	1.2346	1.2440	1.2527	1.2610	1.2689	1.2764
1600	V		0.0641	0.0708	0.0769	0.0826	0.0881	0.0932	0.0982	0.1029	0.1076
	H		293.95	302.33	309.97	317.10	323.85	330.32	336.59	342.71	348.70
	S		1.1975	1.2104	1.2217	1.2321	1.2415	1.2504	1.2587	1.2667	1.2742
1650	V		0.0613	0.0678	0.0738	0.0795	0.0848	0.0899	0.0947	0.0994	0.1039
	H		292.51	301.04	308.82	316.06	322.90	329.46	335.80	341.97	348.01
	S		1.1944	1.2075	1.2190	1.2295	1.2391	1.2481	1.2565	1.2645	1.2722
1700	V		0.0588	0.0651	0.0710	0.0765	0.0817	0.0867	0.0915	0.0960	0.1005
	H		291.11	299.77	307.68	315.03	321.97	328.60	335.00	341.23	347.33
	S		1.1913	1.2046	1.2164	1.2270	1.2368	1.2458	1.2544	1.2624	1.2701
1750	V		0.0564	0.0626	0.0683	0.0737	0.0789	0.0837	0.0884	0.0929	0.0972
	H		289.75	298.52	306.55	314.00	321.03	327.74	334.21	340.50	346.64
	S		1.1884	1.2018	1.2138	1.2246	1.2345	1.2436	1.2522	1.2604	1.2682
1800	V		0.0543	0.0602	0.0658	0.0711	0.0762	0.0809	0.0855	0.0899	0.0942
	H		288.44	297.30	305.43	312.99	320.10	326.89	333.42	339.77	345.96
	S		1.1855	1.1991	1.2113	1.2222	1.2322	1.2415	1.2502	1.2584	1.2662
1850	V		0.0523	0.0580	0.0635	0.0687	0.0736	0.0783	0.0828	0.0871	0.0913
	H		287.19	296.11	304.33	311.98	319.18	326.04	332.64	339.04	345.28
	S		1.1828	1.1965	1.2088	1.2198	1.2299	1.2393	1.2481	1.2564	1.2643
1900	V		0.0505	0.0560	0.0613	0.0664	0.0712	0.0758	0.0802	0.0845	0.0886
	H		286.00	294.95	303.25	310.99	318.27	325.20	331.86	338.31	344.60
	S		1.1803	1.1940	1.2063	1.2175	1.2278	1.2372	1.2461	1.2545	1.2624
1950	V		0.	0.0541	0.0593	0.0642	0.0690	0.0735	0.0778	0.0820	0.0860
	H		0.	293.84	302.20	310.01	317.36	324.36	331.09	337.59	343.93
	S		0.	1.1915	1.2040	1.2153	1.2256	1.2352	1.2441	1.2526	1.2606
2000	V		0.	0.0524	0.0574	0.0622	0.0668	0.0713	0.0755	0.0796	0.0835
	H		0.	292.76	301.16	309.04	316.47	323.54	330.32	336.88	343.26
	S		0.	1.1892	1.2017	1.2131	1.2235	1.2332	1.2422	1.2507	1.2588

PRESSURE PSIA		TEMPERATURE								
		360	380	400	420	440	460	480	500	520
14.696	V	13.5789	13.9118	14.2447	14.5776	14.9104	15.2431	15.5758	15.9084	16.2410
	H	375.27	380.00	384.76	389.57	394.41	399.30	404.21	409.17	414.16
	S	1.5124	1.5181	1.5237	1.5292	1.5346	1.5400	1.5453	1.5505	1.5556
16	V	12.4711	12.7771	13.0829	13.3888	13.6945	14.0002	14.3058	14.6114	14.9170
	H	375.26	379.98	384.75	389.56	394.40	399.28	404.20	409.16	414.15
	S	1.5085	1.5142	1.5198	1.5254	1.5308	1.5362	1.5414	1.5467	1.5518
20	V	9.9743	10.2193	10.4643	10.7091	10.9540	11.1987	11.4435	11.6881	11.9328
	H	375.21	379.93	384.70	389.51	394.36	399.24	404.16	409.12	414.11
	S	1.4985	1.5042	1.5098	1.5153	1.5207	1.5261	1.5314	1.5366	1.5418
24	V	8.3097	8.5141	8.7185	8.9227	9.1269	9.3311	9.5352	9.7393	9.9433
	H	375.15	379.88	384.66	389.47	394.31	399.20	404.12	409.08	414.07
	S	1.4902	1.4959	1.5016	1.5071	1.5125	1.5179	1.5232	1.5284	1.5335
28	V	7.1208	7.2961	7.4715	7.6467	7.8219	7.9971	8.1722	8.3472	8.5222
	H	375.10	379.84	384.61	389.42	394.27	399.16	404.08	409.04	414.04
	S	1.4833	1.4890	1.4946	1.5001	1.5056	1.5109	1.5162	1.5214	1.5266
32	V	6.2290	6.3827	6.5362	6.6897	6.8432	6.9966	7.1499	7.3032	7.4564
	H	375.05	379.79	384.56	389.38	394.23	399.12	404.04	409.00	414.00
	S	1.4772	1.4829	1.4886	1.4941	1.4995	1.5049	1.5102	1.5154	1.5206
36	V	5.5355	5.6722	5.8088	5.9454	6.0819	6.2184	6.3548	6.4912	6.6275
	H	375.00	379.74	384.51	389.33	394.18	399.08	404.00	408.97	413.97
	S	1.4719	1.4776	1.4832	1.4888	1.4942	1.4996	1.5049	1.5101	1.5153
40	V	4.9806	5.1038	5.2269	5.3499	5.4729	5.5958	5.7187	5.8415	5.9643
	H	374.95	379.69	384.47	389.29	394.14	399.03	403.96	408.93	413.93
	S	1.4671	1.4728	1.4785	1.4840	1.4894	1.4948	1.5001	1.5053	1.5105
44	V	4.5266	4.6387	4.7508	4.8627	4.9746	5.0865	5.1983	5.3100	5.4217
	H	374.90	379.64	384.42	389.24	394.10	398.99	403.92	408.89	413.89
	S	1.4628	1.4685	1.4741	1.4797	1.4851	1.4905	1.4958	1.5010	1.5062
48	V	4.1483	4.2512	4.3540	4.4567	4.5594	4.6620	4.7646	4.8671	4.9696
	H	374.85	379.59	384.37	389.20	394.06	398.95	403.88	408.85	413.86
	S	1.4588	1.4646	1.4702	1.4757	1.4812	1.4866	1.4919	1.4971	1.5022
52	V	3.8282	3.9233	4.0183	4.1132	4.2081	4.3029	4.3976	4.4923	4.5870
	H	374.79	379.54	384.33	389.15	394.01	398.91	403.85	408.82	413.82
	S	1.4552	1.4609	1.4666	1.4721	1.4776	1.4829	1.4882	1.4935	1.4986

96	PRESSURE		TEMPERATURE								
	PSIA		360	380	400	420	440	460	480	500	520
56	V		3.5539	3.6422	3.7305	3.8187	3.9069	3.9950	4.0831	4.1711	4.2591
	H		374.74	379.49	384.28	389.11	393.97	398.87	403.81	408.78	413.78
	S		1.4518	1.4576	1.4632	1.4687	1.4742	1.4796	1.4849	1.4901	1.4953
60	V		3.3161	3.3986	3.4811	3.5635	3.6459	3.7282	3.8105	3.8927	3.9748
	H		374.69	379.44	384.23	389.06	393.93	398.83	403.77	408.74	413.75
	S		1.4487	1.4544	1.4600	1.4656	1.4711	1.4764	1.4817	1.4870	1.4921
70	V		2.8405	2.9114	2.9823	3.0531	3.1239	3.1946	3.2653	3.3359	3.4064
	H		374.56	379.32	384.11	388.95	393.82	398.72	403.67	408.64	413.66
	S		1.4416	1.4474	1.4530	1.4586	1.4640	1.4694	1.4747	1.4800	1.4851
80	V		2.4838	2.5460	2.6082	2.6703	2.7324	2.7944	2.8563	2.9182	2.9801
	H		374.43	379.20	384.00	388.84	393.71	398.62	403.57	408.55	413.56
	S		1.4355	1.4413	1.4469	1.4525	1.4579	1.4633	1.4686	1.4739	1.4791
90	V		2.2064	2.2619	2.3173	2.3726	2.4279	2.4831	2.5383	2.5934	2.6485
	H		374.31	379.07	383.88	388.72	393.60	398.52	403.47	408.45	413.47
	S		1.4301	1.4359	1.4415	1.4471	1.4526	1.4580	1.4633	1.4685	1.4737
100	V		1.9844	2.0345	2.0845	2.1344	2.1843	2.2341	2.2839	2.3336	2.3833
	H		374.18	378.95	383.76	388.61	393.50	398.42	403.37	408.36	413.38
	S		1.4253	1.4310	1.4367	1.4422	1.4477	1.4531	1.4585	1.4637	1.4689
110	V		1.8029	1.8485	1.8940	1.9395	1.9850	2.0304	2.0757	2.1210	2.1662
	H		374.05	378.83	383.64	388.50	393.39	398.31	403.27	408.27	413.29
	S		1.4209	1.4266	1.4323	1.4379	1.4433	1.4488	1.4541	1.4593	1.4645
120	V		1.6515	1.6935	1.7353	1.7771	1.8189	1.8606	1.9022	1.9438	1.9854
	H		373.92	378.70	383.53	388.39	393.28	398.21	403.17	408.17	413.20
	S		1.4168	1.4226	1.4283	1.4338	1.4393	1.4448	1.4501	1.4553	1.4605
130	V		1.5235	1.5623	1.6011	1.6397	1.6784	1.7169	1.7554	1.7939	1.8323
	H		373.79	378.58	383.41	388.27	393.17	398.11	403.07	408.08	413.11
	S		1.4131	1.4189	1.4246	1.4301	1.4356	1.4411	1.4464	1.4517	1.4569
140	V		1.4138	1.4499	1.4860	1.5220	1.5579	1.5938	1.6296	1.6654	1.7012
	H		373.66	378.46	383.29	388.16	393.06	398.00	402.98	407.98	413.02
	S		1.4097	1.4154	1.4211	1.4267	1.4322	1.4376	1.4430	1.4483	1.4534
150	V		1.3187	1.3525	1.3862	1.4199	1.4535	1.4871	1.5206	1.5540	1.5875
	H		373.53	378.34	383.17	388.05	392.96	397.90	402.88	407.89	412.93
	S		1.4064	1.4122	1.4179	1.4235	1.4290	1.4345	1.4398	1.4451	1.4503

PRESSURE
PSIA

TEMPERATURE

		360	380	400	420	440	460	480	500	520
160	V	1.2353	1.2672	1.2989	1.3306	1.3622	1.3937	1.4252	1.4566	1.4880
	H	373.40	378.21	383.06	387.94	392.85	397.80	402.78	407.79	412.84
	S	1.4034	1.4092	1.4149	1.4205	1.4260	1.4315	1.4368	1.4421	1.4473
170	V	1.1619	1.1920	1.2219	1.2518	1.2816	1.3113	1.3410	1.3706	1.4002
	H	373.27	378.09	382.94	387.82	392.74	397.69	402.68	407.70	412.75
	S	1.4006	1.4064	1.4121	1.4177	1.4232	1.4286	1.4340	1.4393	1.4445
180	V	1.0966	1.1250	1.1534	1.1817	1.2099	1.2381	1.2661	1.2942	1.3222
	H	373.14	377.96	382.82	387.71	392.63	397.59	402.58	407.60	412.66
	S	1.3979	1.4037	1.4094	1.4150	1.4205	1.4260	1.4313	1.4366	1.4418
190	V	1.0382	1.0652	1.0922	1.1190	1.1458	1.1725	1.1992	1.2258	1.2524
	H	373.01	377.84	382.71	387.60	392.53	397.49	402.48	407.51	412.57
	S	1.3953	1.4011	1.4069	1.4125	1.4180	1.4235	1.4288	1.4341	1.4393
200	V	0.9856	1.0113	1.0371	1.0626	1.0881	1.1135	1.1389	1.1643	1.1896
	H	372.88	377.72	382.59	387.49	392.42	397.39	402.38	407.41	412.48
	S	1.3929	1.3987	1.4044	1.4101	1.4156	1.4211	1.4264	1.4317	1.4369
220	V	0.8948	0.9183	0.9417	0.9652	0.9885	1.0117	1.0349	1.0580	1.0811
	H	372.62	377.47	382.35	387.26	392.21	397.18	402.19	407.23	412.30
	S	1.3884	1.3942	1.3999	1.4056	1.4111	1.4166	1.4220	1.4273	1.4325
240	V	0.8192	0.8408	0.8624	0.8839	0.9054	0.9268	0.9481	0.9694	0.9906
	H	372.37	377.22	382.11	387.03	391.99	396.98	401.99	407.04	412.11
	S	1.3842	1.3901	1.3958	1.4015	1.4070	1.4125	1.4179	1.4232	1.4284
260	V	0.7551	0.7752	0.7952	0.8152	0.8352	0.8550	0.8747	0.8944	0.9141
	H	372.11	376.98	381.88	386.81	391.78	396.77	401.79	406.85	411.93
	S	1.3804	1.3862	1.3920	1.3977	1.4032	1.4087	1.4141	1.4194	1.4247
280	V	0.7003	0.7190	0.7377	0.7563	0.7749	0.7934	0.8118	0.8302	0.8485
	H	371.85	376.73	381.64	386.58	391.56	396.56	401.60	406.66	411.75
	S	1.3768	1.3827	1.3884	1.3941	1.3997	1.4052	1.4106	1.4159	1.4212
300	V	0.6527	0.6703	0.6878	0.7053	0.7227	0.7400	0.7573	0.7745	0.7917
	H	371.59	376.48	381.41	386.36	391.34	396.36	401.40	406.47	411.57
	S	1.3734	1.3793	1.3851	1.3908	1.3964	1.4019	1.4073	1.4127	1.4179
320	V	0.6111	0.6277	0.6442	0.6606	0.6770	0.6933	0.7096	0.7258	0.7419
	H	371.33	376.23	381.17	386.13	391.13	396.15	401.21	406.29	411.39
	S	1.3703	1.3762	1.3820	1.3877	1.3933	1.3988	1.4042	1.4096	1.4149

PRESSURE
PSIA

TEMPERATURE

		360	380	400	420	440	460	480	500	520
340	V	0.5744	0.5901	0.6057	0.6212	0.6367	0.6521	0.6675	0.6828	0.6981
	H	371.07	375.99	380.93	385.91	390.91	395.95	401.01	406.10	411.21
	S	1.3673	1.3732	1.3790	1.3848	1.3904	1.3959	1.4013	1.4067	1.4120
360	V	0.5417	0.5566	0.5714	0.5862	0.6009	0.6155	0.6301	0.6446	0.6590
	H	370.81	375.74	380.70	385.68	390.70	395.74	400.81	405.91	411.03
	S	1.3645	1.3704	1.3762	1.3820	1.3876	1.3931	1.3986	1.4040	1.4092
380	V	0.5125	0.5267	0.5408	0.5548	0.5688	0.5827	0.5966	0.6104	0.6241
	H	370.55	375.49	380.46	385.46	390.48	395.54	400.62	405.72	410.86
	S	1.3618	1.3678	1.3736	1.3793	1.3850	1.3905	1.3960	1.4014	1.4066
400	V	0.4863	0.4998	0.5132	0.5266	0.5400	0.5532	0.5664	0.5796	0.5927
	H	370.29	375.24	380.23	385.23	390.27	395.33	400.42	405.54	410.68
	S	1.3592	1.3652	1.3711	1.3768	1.3825	1.3880	1.3935	1.3989	1.4042
420	V	0.4625	0.4754	0.4883	0.5011	0.5139	0.5265	0.5392	0.5518	0.5643
	H	370.03	375.00	379.99	385.01	390.05	395.13	400.22	405.35	410.50
	S	1.3568	1.3628	1.3686	1.3744	1.3801	1.3856	1.3911	1.3965	1.4018
440	V	0.4409	0.4533	0.4656	0.4779	0.4901	0.5023	0.5144	0.5265	0.5385
	H	369.77	374.75	379.76	384.79	389.84	394.92	400.03	405.16	410.32
	S	1.3545	1.3604	1.3663	1.3721	1.3778	1.3834	1.3889	1.3943	1.3996
460	V	0.4211	0.4331	0.4449	0.4567	0.4685	0.4801	0.4918	0.5034	0.5149
	H	369.51	374.50	379.52	384.56	389.63	394.72	399.83	404.98	410.14
	S	1.3522	1.3582	1.3641	1.3699	1.3756	1.3812	1.3867	1.3921	1.3974
480	V	0.4030	0.4145	0.4260	0.4373	0.4486	0.4598	0.4710	0.4821	0.4933
	H	369.25	374.25	379.28	384.34	389.41	394.51	399.64	404.78	409.96
	S	1.3500	1.3561	1.3620	1.3678	1.3735	1.3791	1.3846	1.3900	1.3953
500	V	0.3864	0.3975	0.4085	0.4195	0.4303	0.4412	0.4519	0.4627	0.4734
	H	368.98	374.01	379.05	384.11	389.20	394.31	399.44	404.60	409.78
	S	1.3479	1.3540	1.3599	1.3657	1.3714	1.3771	1.3826	1.3880	1.3933
520	V	0.3710	0.3817	0.3924	0.4030	0.4135	0.4239	0.4343	0.4447	0.4550
	H	368.72	373.76	378.81	383.89	388.98	394.10	399.24	404.41	409.60
	S	1.3459	1.3520	1.3579	1.3638	1.3695	1.3751	1.3806	1.3861	1.3914
540	V	0.3568	0.3672	0.3775	0.3877	0.3979	0.4080	0.4180	0.4280	0.4380
	H	368.46	373.51	378.58	383.66	388.77	393.90	399.05	404.22	409.43
	S	1.3440	1.3501	1.3560	1.3618	1.3676	1.3732	1.3787	1.3842	1.3896

PRESSURE
PSIA

TEMPERATURE
420 440 460 480 500 520

		360	380	400	420	440	460	480	500	520
560	V	0.3436	0.3536	0.3636	0.3735	0.3834	0.3931	0.4029	0.4125	0.4222
	H	368.20	373.26	378.34	383.44	388.56	393.69	398.86	404.04	409.25
	S	1.3421	1.3482	1.3541	1.3600	1.3657	1.3714	1.3769	1.3824	1.3878
580	V	0.3313	0.3411	0.3507	0.3603	0.3699	0.3793	0.3888	0.3981	0.4075
	H	367.94	373.01	378.10	383.21	388.34	393.49	398.66	403.85	409.07
	S	1.3403	1.3464	1.3523	1.3582	1.3640	1.3696	1.3752	1.3806	1.3860
600	V	0.3198	0.3293	0.3387	0.3480	0.3573	0.3665	0.3756	0.3847	0.3937
	H	367.68	372.77	377.87	382.99	388.13	393.29	398.47	403.67	408.89
	S	1.3385	1.3446	1.3506	1.3565	1.3622	1.3679	1.3735	1.3789	1.3843
620	V	0.3091	0.3183	0.3274	0.3365	0.3455	0.3544	0.3633	0.3721	0.3809
	H	367.42	372.52	377.63	382.77	387.91	393.08	398.27	403.48	408.71
	S	1.3367	1.3429	1.3489	1.3548	1.3606	1.3662	1.3718	1.3773	1.3827
640	V	0.2990	0.3080	0.3169	0.3257	0.3344	0.3431	0.3518	0.3603	0.3689
	H	367.16	372.27	377.40	382.54	387.70	392.88	398.08	403.29	408.53
	S	1.3351	1.3412	1.3472	1.3532	1.3589	1.3646	1.3702	1.3757	1.3811
660	V	0.2896	0.2983	0.3070	0.3155	0.3241	0.3325	0.3409	0.3493	0.3576
	H	366.89	372.02	377.16	382.32	387.49	392.68	397.88	403.11	408.36
	S	1.3334	1.3396	1.3456	1.3516	1.3574	1.3631	1.3687	1.3742	1.3796
680	V	0.2807	0.2892	0.2976	0.3060	0.3143	0.3225	0.3307	0.3388	0.3469
	H	366.63	371.77	376.93	382.09	387.27	392.47	397.69	402.92	408.18
	S	1.3318	1.3380	1.3441	1.3500	1.3558	1.3615	1.3671	1.3726	1.3781
700	V	0.2723	0.2806	0.2888	0.2970	0.3051	0.3131	0.3211	0.3290	0.3369
	H	366.37	371.53	376.69	381.87	387.06	392.27	397.50	402.74	408.00
	S	1.3303	1.3365	1.3425	1.3485	1.3543	1.3600	1.3657	1.3712	1.3766
720	V	0.2643	0.2725	0.2805	0.2885	0.2964	0.3042	0.3120	0.3197	0.3274
	H	366.11	371.28	376.46	381.65	386.85	392.07	397.30	402.55	407.82
	S	1.3287	1.3350	1.3411	1.3470	1.3529	1.3586	1.3642	1.3697	1.3752
740	V	0.2568	0.2648	0.2727	0.2804	0.2882	0.2958	0.3034	0.3110	0.3185
	H	365.85	371.03	376.22	381.42	386.64	391.86	397.11	402.37	407.65
	S	1.3273	1.3335	1.3396	1.3456	1.3514	1.3572	1.3628	1.3683	1.3738
760	V	0.2497	0.2575	0.2652	0.2728	0.2804	0.2878	0.2953	0.3026	0.3100
	H	365.58	370.78	375.99	381.20	386.42	391.66	396.91	402.18	407.47
	S	1.3258	1.3321	1.3382	1.3442	1.3500	1.3558	1.3614	1.3670	1.3724

100

PRESSURE
PSIA

360

380

400

TEMPERATURE

420

440

460

480

500

520

780	V	0.2430	0.2506	0.2581	0.2656	0.2730	0.2803	0.2875	0.2947	0.3019
	H	365.32	370.53	375.75	380.97	386.21	391.46	396.72	402.00	407.30
	S	1.3244	1.3306	1.3368	1.3428	1.3487	1.3544	1.3601	1.3656	1.3711
800	V	0.2366	0.2441	0.2514	0.2587	0.2659	0.2731	0.2802	0.2873	0.2943
	H	365.06	370.28	375.51	380.75	386.00	391.26	396.53	401.82	407.12
	S	1.3230	1.3293	1.3354	1.3414	1.3473	1.3531	1.3588	1.3643	1.3698
820	V	0.2305	0.2378	0.2451	0.2522	0.2593	0.2663	0.2732	0.2801	0.2870
	H	364.80	370.04	375.28	380.53	385.79	391.05	396.34	401.63	406.94
	S	1.3215	1.3279	1.3341	1.3401	1.3460	1.3518	1.3575	1.3630	1.3685
840	V	0.2247	0.2319	0.2390	0.2460	0.2529	0.2598	0.2666	0.2733	0.2800
	H	364.53	369.79	375.04	380.30	385.57	390.85	396.14	401.45	406.77
	S	1.3203	1.3266	1.3328	1.3388	1.3447	1.3505	1.3562	1.3618	1.3673
860	V	0.2192	0.2262	0.2332	0.2400	0.2468	0.2536	0.2602	0.2669	0.2734
	H	364.27	369.54	374.81	380.08	385.36	390.65	395.95	401.26	406.59
	S	1.3190	1.3253	1.3315	1.3375	1.3435	1.3493	1.3550	1.3606	1.3660
880	V	0.2139	0.2208	0.2276	0.2344	0.2410	0.2476	0.2542	0.2607	0.2671
	H	364.01	369.29	374.57	379.86	385.15	390.45	395.76	401.08	406.42
	S	1.3177	1.3240	1.3302	1.3363	1.3422	1.3481	1.3538	1.3594	1.3649
900	V	0.2089	0.2157	0.2224	0.2290	0.2355	0.2420	0.2484	0.2548	0.2611
	H	363.75	369.04	374.34	379.64	384.94	390.25	395.57	400.90	406.24
	S	1.3164	1.3228	1.3290	1.3351	1.3410	1.3469	1.3526	1.3582	1.3637
920	V	0.2041	0.2107	0.2173	0.2238	0.2302	0.2366	0.2429	0.2491	0.2553
	H	363.48	368.80	374.10	379.41	384.73	390.04	395.37	400.71	406.07
	S	1.3152	1.3215	1.3278	1.3339	1.3398	1.3457	1.3514	1.3570	1.3625
940	V	0.1995	0.2060	0.2125	0.2188	0.2251	0.2314	0.2376	0.2437	0.2498
	H	363.22	368.55	373.87	379.19	384.51	389.84	395.18	400.53	405.89
	S	1.3139	1.3203	1.3266	1.3327	1.3387	1.3445	1.3503	1.3559	1.3614
960	V	0.1950	0.2015	0.2078	0.2141	0.2203	0.2264	0.2325	0.2385	0.2445
	H	362.96	368.30	373.64	378.97	384.30	389.64	394.99	400.35	405.72
	S	1.3127	1.3191	1.3254	1.3315	1.3375	1.3434	1.3491	1.3548	1.3603
980	V	0.1908	0.1971	0.2034	0.2095	0.2156	0.2217	0.2276	0.2336	0.2394
	H	362.70	368.05	373.40	378.75	384.09	389.44	394.80	400.17	405.54
	S	1.3115	1.3180	1.3243	1.3304	1.3364	1.3423	1.3480	1.3537	1.3592

PRESSURE PSIA		TEMPERATURE								
		360	380	400	420	440	460	480	500	520
1000	V	0.1867	0.1930	0.1991	0.2052	0.2112	0.2171	0.2230	0.2288	0.2346
	H	362.43	367.80	373.17	378.52	383.88	389.24	394.61	399.98	405.37
	S	1.3104	1.3168	1.3231	1.3293	1.3353	1.3412	1.3469	1.3526	1.3581
1020	V	0.1828	0.1889	0.1950	0.2010	0.2069	0.2127	0.2185	0.2242	0.2299
	H	362.17	367.56	372.93	378.30	383.67	389.04	394.42	399.80	405.19
	S	1.3092	1.3157	1.3220	1.3282	1.3342	1.3401	1.3459	1.3515	1.3571
1040	V	0.1790	0.1851	0.1911	0.1969	0.2027	0.2085	0.2142	0.2198	0.2254
	H	361.91	367.31	372.70	378.08	383.46	388.84	394.23	399.62	405.02
	S	1.3081	1.3146	1.3209	1.3271	1.3331	1.3390	1.3448	1.3505	1.3561
1060	V	0.1754	0.1814	0.1873	0.1930	0.1988	0.2044	0.2100	0.2156	0.2210
	H	361.65	367.06	372.46	377.86	383.25	388.64	394.03	399.44	404.85
	S	1.3070	1.3135	1.3198	1.3260	1.3321	1.3380	1.3438	1.3495	1.3551
1080	V	0.1719	0.1778	0.1836	0.1893	0.1949	0.2005	0.2060	0.2115	0.2169
	H	361.38	366.81	372.23	377.64	383.04	388.44	393.84	399.25	404.67
	S	1.3059	1.3124	1.3188	1.3250	1.3310	1.3370	1.3428	1.3485	1.3541
1100	V	0.1686	0.1744	0.1801	0.1857	0.1913	0.1967	0.2022	0.2075	0.2129
	H	361.12	366.57	372.00	377.41	382.83	388.24	393.65	399.07	404.50
	S	1.3048	1.3113	1.3177	1.3239	1.3300	1.3360	1.3418	1.3475	1.3531
1120	V	0.1653	0.1711	0.1767	0.1822	0.1877	0.1931	0.1984	0.2037	0.2090
	H	360.86	366.32	371.76	377.19	382.62	388.04	393.46	398.89	404.33
	S	1.3037	1.3103	1.3167	1.3229	1.3290	1.3350	1.3408	1.3465	1.3521
1140	V	0.1622	0.1679	0.1734	0.1789	0.1843	0.1896	0.1949	0.2001	0.2052
	H	360.60	366.07	371.53	376.97	382.41	387.84	393.27	398.71	404.15
	S	1.3027	1.3093	1.3157	1.3219	1.3280	1.3340	1.3398	1.3455	1.3511
1160	V	0.1592	0.1648	0.1702	0.1756	0.1810	0.1862	0.1914	0.1965	0.2016
	H	360.33	365.83	371.29	376.75	382.20	387.64	393.08	398.53	403.98
	S	1.3016	1.3082	1.3147	1.3209	1.3270	1.3330	1.3389	1.3446	1.3502
1180	V	0.1563	0.1618	0.1672	0.1725	0.1778	0.1829	0.1881	0.1931	0.1981
	H	360.07	365.58	371.06	376.53	381.99	387.44	392.89	398.35	403.81
	S	1.3006	1.3072	1.3137	1.3200	1.3261	1.3321	1.3379	1.3437	1.3493
1200	V	0.1535	0.1589	0.1642	0.1695	0.1747	0.1798	0.1848	0.1898	0.1948
	H	359.81	365.33	370.83	376.31	381.78	387.24	392.70	398.17	403.64
	S	1.2996	1.3062	1.3127	1.3190	1.3251	1.3311	1.3370	1.3427	1.3484

PRESSURE PSIA		TEMPERATURE								
		360	380	400	420	440	460	480	500	520
1220	V	0.1508	0.1561	0.1614	0.1666	0.1717	0.1767	0.1817	0.1866	0.1915
	H	359.55	365.08	370.60	376.09	381.57	387.04	392.52	397.99	403.46
	S	1.2986	1.3053	1.3117	1.3180	1.3242	1.3302	1.3361	1.3418	1.3475
1240	V	0.1481	0.1534	0.1586	0.1637	0.1688	0.1737	0.1787	0.1835	0.1883
	H	359.29	364.84	370.36	375.87	381.36	386.84	392.33	397.81	403.29
	S	1.2976	1.3043	1.3108	1.3171	1.3233	1.3293	1.3352	1.3409	1.3466
1260	V	0.1456	0.1508	0.1559	0.1610	0.1660	0.1709	0.1757	0.1805	0.1853
	H	359.02	364.59	370.13	375.65	381.15	386.65	392.14	397.63	403.12
	S	1.2966	1.3033	1.3098	1.3162	1.3223	1.3284	1.3343	1.3400	1.3457
1280	V	0.1431	0.1483	0.1534	0.1583	0.1633	0.1681	0.1729	0.1776	0.1823
	H	358.76	364.35	369.90	375.43	380.94	386.45	391.95	397.45	402.95
	S	1.2957	1.3024	1.3089	1.3152	1.3214	1.3275	1.3334	1.3392	1.3448
1300	V	0.1407	0.1458	0.1508	0.1558	0.1606	0.1654	0.1701	0.1748	0.1795
	H	358.50	364.10	369.66	375.21	380.73	386.25	391.76	397.27	402.78
	S	1.2947	1.3014	1.3080	1.3143	1.3205	1.3266	1.3325	1.3383	1.3440
1320	V	0.1384	0.1434	0.1484	0.1533	0.1581	0.1628	0.1675	0.1721	0.1767
	H	358.24	363.85	369.43	374.99	380.53	386.05	391.57	397.09	402.61
	S	1.2938	1.3005	1.3071	1.3134	1.3197	1.3257	1.3317	1.3375	1.3431
1340	V	0.1361	0.1411	0.1460	0.1509	0.1556	0.1603	0.1649	0.1695	0.1740
	H	357.98	363.61	369.20	374.77	380.32	385.85	391.38	396.91	402.44
	S	1.2928	1.2996	1.3062	1.3126	1.3188	1.3249	1.3308	1.3366	1.3423
1360	V	0.1340	0.1389	0.1437	0.1485	0.1532	0.1578	0.1624	0.1669	0.1714
	H	357.72	363.36	368.97	374.55	380.11	385.66	391.20	396.73	402.27
	S	1.2919	1.2987	1.3053	1.3117	1.3179	1.3240	1.3300	1.3358	1.3415
1380	V	0.1318	0.1367	0.1415	0.1462	0.1509	0.1554	0.1599	0.1644	0.1688
	H	357.46	363.12	368.74	374.33	379.90	385.46	391.01	396.55	402.10
	S	1.2910	1.2978	1.3044	1.3108	1.3171	1.3232	1.3291	1.3350	1.3407
1400	V	0.1298	0.1346	0.1394	0.1440	0.1486	0.1531	0.1576	0.1620	0.1663
	H	357.20	362.87	368.51	374.11	379.70	385.26	390.82	396.37	401.93
	S	1.2901	1.2969	1.3035	1.3100	1.3162	1.3223	1.3283	1.3342	1.3399
1450	V	0.1249	0.1296	0.1342	0.1388	0.1432	0.1476	0.1519	0.1562	0.1605
	H	356.54	362.26	367.93	373.57	379.18	384.77	390.35	395.93	401.50
	S	1.2879	1.2947	1.3014	1.3079	1.3142	1.3203	1.3263	1.3322	1.3379

PRESSURE PSIA		TEMPERATURE								
		360	380	400	420	440	460	480	500	520
1500	V	0.1203	0.1249	0.1294	0.1338	0.1382	0.1425	0.1467	0.1508	0.1550
	H	355.89	361.65	367.35	372.02	378.66	384.28	389.89	395.49	401.08
	S	1.2857	1.2926	1.2993	1.3058	1.3122	1.3183	1.3244	1.3302	1.3360
1550	V	0.1161	0.1205	0.1249	0.1292	0.1335	0.1377	0.1418	0.1458	0.1498
	H	355.25	361.04	366.78	372.48	378.15	383.79	389.42	395.04	400.66
	S	1.2836	1.2906	1.2973	1.3038	1.3102	1.3164	1.3224	1.3284	1.3341
1600	V	0.1121	0.1164	0.1207	0.1249	0.1291	0.1331	0.1372	0.1411	0.1450
	H	354.60	360.43	365.20	371.94	377.63	383.31	388.96	394.60	400.24
	S	1.2815	1.2885	1.2953	1.3019	1.3083	1.3145	1.3206	1.3265	1.3323
1650	V	0.1083	0.1126	0.1168	0.1209	0.1249	0.1289	0.1328	0.1367	0.1405
	H	353.95	359.82	365.63	371.40	377.12	382.82	388.50	394.16	399.82
	S	1.2795	1.2866	1.2934	1.3000	1.3064	1.3127	1.3188	1.3247	1.3306
1700	V	0.1048	0.1090	0.1131	0.1171	0.1210	0.1249	0.1287	0.1325	0.1362
	H	353.31	359.22	365.06	370.86	376.61	382.34	388.04	393.73	399.40
	S	1.2775	1.2846	1.2915	1.2982	1.3046	1.3109	1.3170	1.3230	1.3288
1750	V	0.1015	0.1056	0.1096	0.1135	0.1174	0.1212	0.1249	0.1286	0.1322
	H	352.67	358.62	364.50	370.32	376.11	381.86	387.58	393.29	398.98
	S	1.2756	1.2827	1.2896	1.2963	1.3028	1.3091	1.3153	1.3213	1.3272
1800	V	0.0983	0.1023	0.1063	0.1101	0.1139	0.1176	0.1213	0.1249	0.1284
	H	352.04	358.02	363.93	369.79	375.60	381.38	387.13	392.86	398.57
	S	1.2737	1.2809	1.2878	1.2946	1.3011	1.3074	1.3136	1.3196	1.3255
1850	V	0.0954	0.0993	0.1032	0.1069	0.1106	0.1143	0.1178	0.1214	0.1249
	H	351.40	357.42	363.37	369.26	375.10	380.90	386.67	392.42	398.16
	S	1.2718	1.2791	1.2861	1.2928	1.2994	1.3057	1.3119	1.3180	1.3239
1900	V	0.0926	0.0964	0.1002	0.1039	0.1075	0.1111	0.1146	0.1181	0.1215
	H	350.77	356.82	362.81	368.73	374.59	380.42	386.22	391.99	397.74
	S	1.2700	1.2773	1.2843	1.2911	1.2977	1.3041	1.3103	1.3164	1.3223
1950	V	0.0899	0.0937	0.0974	0.1010	0.1046	0.1081	0.1115	0.1149	0.1182
	H	350.14	356.23	362.25	368.20	374.09	379.95	385.77	391.56	397.33
	S	1.2682	1.2756	1.2826	1.2895	1.2961	1.3025	1.3087	1.3148	1.3208
2000	V	0.0874	0.0911	0.0947	0.0983	0.1018	0.1052	0.1086	0.1119	0.1152
	H	349.51	355.65	361.69	367.67	373.60	379.47	385.32	391.13	396.93
	S	1.2665	1.2739	1.2810	1.2878	1.2945	1.3009	1.3072	1.3133	1.3193

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
14.696	V	16.5735	16.9060	17.2385	17.5709	17.9033	18.2357	18.5680	18.9003	19.2326
	H	419.18	424.24	429.33	434.45	439.61	444.79	450.00	455.25	460.52
	S	1.5607	1.5657	1.5706	1.5755	1.5803	1.5851	1.5898	1.5944	1.5990
16	V	15.2225	15.5280	15.8334	16.1388	16.4442	16.7495	17.0548	17.3601	17.6654
	H	419.17	424.23	429.32	434.44	439.60	444.78	450.00	455.24	460.51
	S	1.5569	1.5619	1.5668	1.5717	1.5765	1.5813	1.5860	1.5906	1.5952
20	V	12.1774	12.4219	12.6664	12.9109	13.1553	13.3998	13.6441	13.8885	14.1328
	H	419.14	424.20	429.29	434.41	439.57	444.75	449.97	455.21	460.48
	S	1.5468	1.5518	1.5568	1.5617	1.5665	1.5712	1.5759	1.5806	1.5851
24	V	10.1473	10.3512	10.5551	10.7590	10.9628	11.1666	11.3704	11.5741	11.7778
	H	419.10	424.16	429.26	434.38	439.54	444.72	449.94	455.19	460.46
	S	1.5386	1.5436	1.5486	1.5534	1.5583	1.5630	1.5677	1.5724	1.5769
28	V	8.6972	8.8721	9.0470	9.2219	9.3967	9.5715	9.7462	9.9210	10.0957
	H	419.07	424.13	429.22	434.35	439.51	444.70	449.91	455.16	460.43
	S	1.5317	1.5367	1.5416	1.5465	1.5513	1.5561	1.5608	1.5654	1.5700
32	V	7.6096	7.7628	7.9159	8.0690	8.2221	8.3751	8.5281	8.6811	8.8341
	H	419.03	424.10	429.19	434.32	439.48	444.67	449.89	455.13	460.41
	S	1.5256	1.5307	1.5356	1.5405	1.5453	1.5501	1.5548	1.5594	1.5640
36	V	6.7638	6.9000	7.0362	7.1724	7.3085	7.4446	7.5807	7.7168	7.8528
	H	419.00	424.06	429.16	434.29	439.45	444.64	449.86	455.11	460.38
	S	1.5203	1.5253	1.5303	1.5352	1.5400	1.5447	1.5494	1.5541	1.5587
40	V	6.0871	6.2098	6.3324	6.4551	6.5777	6.7002	6.8228	6.9453	7.0678
	H	418.96	424.03	429.13	434.26	439.42	444.61	449.83	455.08	460.36
	S	1.5156	1.5206	1.5255	1.5304	1.5352	1.5400	1.5447	1.5493	1.5539
44	V	5.5334	5.6450	5.7566	5.8682	5.9797	6.0912	6.2027	6.3141	6.4255
	H	418.93	424.00	429.10	434.23	439.39	444.58	449.80	455.05	460.33
	S	1.5113	1.5163	1.5212	1.5261	1.5309	1.5357	1.5404	1.5450	1.5496
48	V	5.0720	5.1744	5.2768	5.3791	5.4814	5.5837	5.6859	5.7881	5.8903
	H	418.89	423.96	429.06	434.20	439.36	444.55	449.78	455.03	460.31
	S	1.5073	1.5123	1.5173	1.5222	1.5270	1.5318	1.5365	1.5411	1.5457
52	V	4.6816	4.7762	4.8708	4.9653	5.0598	5.1542	5.2486	5.3430	5.4374
	H	418.86	423.93	429.03	434.17	439.33	444.52	449.75	455.00	460.28
	S	1.5037	1.5087	1.5137	1.5186	1.5234	1.5281	1.5329	1.5375	1.5421

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
56	V	4.3470	4.4349	4.5227	4.6106	4.6983	4.7861	4.8738	4.9615	5.0492
	H	418.82	423.89	429.00	434.13	439.30	444.50	449.72	454.97	460.26
	S	1.5003	1.5054	1.5103	1.5152	1.5200	1.5248	1.5295	1.5341	1.5387
60	V	4.0570	4.1391	4.2211	4.3031	4.3851	4.4671	4.5490	4.6309	4.7128
	H	418.79	423.86	428.97	434.10	439.27	444.47	449.69	454.95	460.23
	S	1.4972	1.5022	1.5072	1.5121	1.5169	1.5217	1.5264	1.5310	1.5356
70	V	3.4769	3.5474	3.6179	3.6883	3.7587	3.8290	3.8993	3.9696	4.0399
	H	418.70	423.78	428.89	434.03	439.20	444.40	449.63	454.88	460.17
	S	1.4902	1.4952	1.5002	1.5051	1.5099	1.5147	1.5194	1.5241	1.5286
80	V	3.0419	3.1037	3.1654	3.2272	3.2888	3.3505	3.4121	3.4737	3.5353
	H	418.61	423.69	428.81	433.95	439.12	444.33	449.56	454.82	460.10
	S	1.4842	1.4892	1.4941	1.4990	1.5039	1.5086	1.5133	1.5180	1.5226
90	V	2.7036	2.7586	2.8136	2.8685	2.9234	2.9783	3.0331	3.0880	3.1428
	H	418.53	423.61	428.73	433.87	439.05	444.25	449.49	454.75	460.04
	S	1.4788	1.4838	1.4888	1.4937	1.4985	1.5033	1.5080	1.5127	1.5173
100	V	2.4329	2.4825	2.5320	2.5816	2.6311	2.6805	2.7300	2.7794	2.8288
	H	418.44	423.53	428.64	433.79	438.97	444.18	449.42	454.69	459.98
	S	1.4740	1.4790	1.4840	1.4889	1.4937	1.4985	1.5032	1.5079	1.5125
110	V	2.2114	2.2566	2.3017	2.3468	2.3919	2.4369	2.4819	2.5269	2.5718
	H	418.35	423.44	428.56	433.72	438.90	444.11	449.35	454.62	459.92
	S	1.4696	1.4747	1.4796	1.4845	1.4894	1.4942	1.4989	1.5035	1.5081
120	V	2.0269	2.0683	2.1098	2.1512	2.1925	2.2339	2.2752	2.3165	2.3577
	H	418.26	423.36	428.48	433.64	438.83	444.04	449.28	454.55	459.85
	S	1.4656	1.4707	1.4757	1.4806	1.4854	1.4902	1.4949	1.4996	1.5042
130	V	1.8707	1.9091	1.9474	1.9856	2.0239	2.0621	2.1003	2.1384	2.1766
	H	418.18	423.28	428.40	433.56	438.75	443.97	449.22	454.49	459.79
	S	1.4620	1.4670	1.4720	1.4769	1.4817	1.4865	1.4913	1.4959	1.5005
140	V	1.7369	1.7725	1.8082	1.8438	1.8793	1.9149	1.9504	1.9858	2.0213
	H	418.09	423.19	428.32	433.49	438.68	443.90	449.15	454.42	459.73
	S	1.4586	1.4636	1.4686	1.4735	1.4784	1.4831	1.4879	1.4925	1.4971
150	V	1.6208	1.6542	1.6875	1.7208	1.7540	1.7872	1.8204	1.8536	1.8867
	H	418.00	423.11	428.24	433.41	438.60	443.83	449.08	454.36	459.66
	S	1.4554	1.4604	1.4654	1.4703	1.4752	1.4800	1.4847	1.4894	1.4940

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
160	V	1.5193	1.5507	1.5819	1.6132	1.6444	1.6756	1.7067	1.7379	1.7690
	H	417.92	423.02	428.16	433.33	438.53	443.76	449.01	454.29	459.60
	S	1.4524	1.4575	1.4625	1.4674	1.4722	1.4770	1.4818	1.4864	1.4910
170	V	1.4298	1.4593	1.4888	1.5182	1.5477	1.5771	1.6064	1.6358	1.6651
	H	417.83	422.94	428.08	433.26	438.46	443.69	448.94	454.23	459.54
	S	1.4496	1.4547	1.4597	1.4646	1.4694	1.4742	1.4790	1.4836	1.4883
180	V	1.3502	1.3781	1.4060	1.4338	1.4617	1.4895	1.5172	1.5450	1.5727
	H	417.74	422.86	428.00	433.18	438.38	443.62	448.88	454.16	459.48
	S	1.4470	1.4520	1.4570	1.4619	1.4668	1.4716	1.4763	1.4810	1.4856
190	V	1.2789	1.3054	1.3319	1.3583	1.3847	1.4111	1.4375	1.4638	1.4901
	H	417.66	422.77	427.92	433.10	438.31	443.54	448.81	454.10	459.41
	S	1.4445	1.4495	1.4545	1.4595	1.4643	1.4691	1.4739	1.4785	1.4832
200	V	1.2148	1.2400	1.2652	1.2904	1.3155	1.3406	1.3657	1.3907	1.4157
	H	417.57	422.69	427.84	433.03	438.24	443.47	448.74	454.03	459.35
	S	1.4421	1.4471	1.4521	1.4571	1.4619	1.4667	1.4715	1.4762	1.4808
220	V	1.1041	1.1271	1.1501	1.1730	1.1959	1.2188	1.2416	1.2644	1.2872
	H	417.40	422.53	427.68	432.87	438.09	443.33	448.60	453.90	459.23
	S	1.4376	1.4427	1.4477	1.4527	1.4575	1.4623	1.4671	1.4718	1.4764
240	V	1.0118	1.0330	1.0541	1.0752	1.0962	1.1173	1.1383	1.1592	1.1802
	H	417.22	422.36	427.53	432.72	437.94	443.19	448.47	453.77	459.10
	S	1.4336	1.4387	1.4437	1.4486	1.4535	1.4583	1.4631	1.4678	1.4724
260	V	0.9337	0.9533	0.9729	0.9924	1.0119	1.0314	1.0508	1.0702	1.0896
	H	417.05	422.19	427.37	432.57	437.80	443.05	448.33	453.64	458.98
	S	1.4298	1.4349	1.4399	1.4449	1.4498	1.4546	1.4593	1.4640	1.4687
280	V	0.8668	0.8851	0.9033	0.9215	0.9396	0.9577	0.9758	0.9939	1.0119
	H	416.88	422.03	427.21	432.41	437.65	442.91	448.20	453.51	458.85
	S	1.4263	1.4314	1.4365	1.4414	1.4463	1.4511	1.4559	1.4606	1.4652
300	V	0.8088	0.8259	0.8429	0.8600	0.8770	0.8939	0.9109	0.9278	0.9446
	H	416.70	421.86	427.05	432.26	437.50	442.77	448.06	453.38	458.73
	S	1.4231	1.4282	1.4332	1.4382	1.4431	1.4479	1.4527	1.4574	1.4620
320	V	0.7580	0.7741	0.7902	0.8062	0.8221	0.8381	0.8540	0.8699	0.8858
	H	416.53	421.70	426.89	432.11	437.36	442.63	447.93	453.25	458.60
	S	1.4200	1.4251	1.4302	1.4352	1.4401	1.4449	1.4497	1.4544	1.4590

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
340	V	0.7133	0.7284	0.7436	0.7587	0.7738	0.7888	0.8038	0.8188	0.8338
	H	416.36	421.53	426.73	431.96	437.21	442.49	447.79	453.12	458.48
	S	1.4172	1.4223	1.4273	1.4323	1.4372	1.4420	1.4468	1.4515	1.4562
360	V	0.6735	0.6878	0.7022	0.7165	0.7308	0.7450	0.7592	0.7734	0.7876
	H	416.19	421.37	426.57	431.81	437.06	442.35	447.66	453.00	458.35
	S	1.4144	1.4196	1.4246	1.4296	1.4345	1.4393	1.4441	1.4488	1.4535
380	V	0.6378	0.6515	0.6651	0.6787	0.6923	0.7058	0.7193	0.7328	0.7463
	H	416.01	421.20	426.41	431.65	436.92	442.21	447.53	452.87	458.23
	S	1.4118	1.4170	1.4220	1.4270	1.4319	1.4368	1.4416	1.4463	1.4510
400	V	0.6058	0.6188	0.6318	0.6447	0.6577	0.6706	0.6834	0.6963	0.7091
	H	415.84	421.04	426.26	431.50	436.77	442.07	447.39	452.74	458.11
	S	1.4094	1.4145	1.4196	1.4246	1.4295	1.4344	1.4392	1.4439	1.4485
420	V	0.5768	0.5892	0.6016	0.6140	0.6263	0.6387	0.6509	0.6632	0.6754
	H	415.67	420.87	426.10	431.35	436.63	441.93	447.26	452.61	457.98
	S	1.4070	1.4122	1.4173	1.4223	1.4272	1.4320	1.4368	1.4416	1.4462
440	V	0.5504	0.5623	0.5742	0.5860	0.5979	0.6096	0.6214	0.6331	0.6448
	H	415.50	420.71	425.94	431.20	436.48	441.79	447.12	452.48	457.86
	S	1.4048	1.4099	1.4150	1.4200	1.4250	1.4298	1.4346	1.4394	1.4440
460	V	0.5263	0.5378	0.5492	0.5605	0.5719	0.5832	0.5944	0.6057	0.6169
	H	415.33	420.54	425.78	431.05	436.34	441.65	446.99	452.35	457.74
	S	1.4026	1.4078	1.4129	1.4179	1.4228	1.4277	1.4325	1.4373	1.4419
480	V	0.5043	0.5153	0.5262	0.5371	0.5480	0.5589	0.5697	0.5805	0.5913
	H	415.16	420.38	425.63	430.90	436.19	441.51	446.86	452.22	457.62
	S	1.4006	1.4057	1.4108	1.4158	1.4208	1.4257	1.4305	1.4352	1.4399
500	V	0.4840	0.4945	0.5051	0.5156	0.5261	0.5365	0.5470	0.5574	0.5677
	H	414.99	420.22	425.47	430.75	436.05	441.38	446.72	452.10	457.49
	S	1.3986	1.4038	1.4089	1.4139	1.4188	1.4237	1.4285	1.4333	1.4380
520	V	0.4652	0.4754	0.4856	0.4957	0.5058	0.5159	0.5260	0.5360	0.5460
	H	414.82	420.05	425.31	430.60	435.90	441.24	446.59	451.97	457.37
	S	1.3967	1.4019	1.4070	1.4120	1.4169	1.4218	1.4266	1.4314	1.4361
540	V	0.4479	0.4577	0.4675	0.4773	0.4871	0.4968	0.5065	0.5162	0.5259
	H	414.65	419.89	425.16	430.45	435.76	441.10	446.46	451.84	457.25
	S	1.3948	1.4000	1.4051	1.4102	1.4151	1.4200	1.4248	1.4296	1.4343

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
560	V	0.4318	0.4413	0.4508	0.4602	0.4697	0.4791	0.4885	0.4978	0.5072
	H	414.48	419.73	425.00	430.30	435.62	440.96	446.33	451.72	457.13
	S	1.3930	1.3982	1.4033	1.4084	1.4134	1.4182	1.4231	1.4278	1.4325
580	V	0.4168	0.4260	0.4352	0.4443	0.4535	0.4626	0.4717	0.4807	0.4897
	H	414.30	419.56	424.84	430.15	435.47	440.82	446.19	451.59	457.00
	S	1.3913	1.3965	1.4016	1.4067	1.4116	1.4165	1.4214	1.4262	1.4309
600	V	0.4028	0.4117	0.4206	0.4295	0.4383	0.4472	0.4560	0.4647	0.4735
	H	414.13	419.40	424.69	430.00	435.33	440.68	446.06	451.46	456.88
	S	1.3896	1.3948	1.4000	1.4050	1.4100	1.4149	1.4197	1.4245	1.4292
620	V	0.3897	0.3983	0.4070	0.4156	0.4242	0.4328	0.4413	0.4498	0.4583
	H	413.97	419.24	424.53	429.85	435.19	440.55	445.93	451.33	456.76
	S	1.3880	1.3932	1.3983	1.4034	1.4084	1.4133	1.4182	1.4229	1.4276
640	V	0.3774	0.3858	0.3942	0.4026	0.4109	0.4192	0.4275	0.4358	0.4440
	H	413.80	419.07	424.38	429.70	435.04	440.41	445.80	451.21	456.64
	S	1.3864	1.3916	1.3968	1.4018	1.4068	1.4118	1.4166	1.4214	1.4261
660	V	0.3658	0.3740	0.3822	0.3904	0.3985	0.4065	0.4146	0.4226	0.4306
	H	413.63	418.91	424.22	429.55	434.90	440.27	445.67	451.08	456.52
	S	1.3849	1.3901	1.3953	1.4003	1.4053	1.4102	1.4151	1.4199	1.4246
680	V	0.3550	0.3630	0.3709	0.3788	0.3867	0.3946	0.4024	0.4103	0.4180
	H	413.46	418.75	424.06	429.40	434.76	440.14	445.53	450.96	456.40
	S	1.3834	1.3886	1.3938	1.3988	1.4039	1.4088	1.4136	1.4184	1.4232
700	V	0.3448	0.3525	0.3603	0.3680	0.3757	0.3833	0.3910	0.3986	0.4062
	H	413.29	418.59	423.91	429.25	434.61	440.00	445.40	450.83	456.28
	S	1.3819	1.3872	1.3923	1.3974	1.4024	1.4074	1.4122	1.4170	1.4218
720	V	0.3351	0.3427	0.3502	0.3577	0.3652	0.3727	0.3801	0.3875	0.3949
	H	413.12	418.43	423.75	429.10	434.47	439.86	445.27	450.70	456.16
	S	1.3805	1.3858	1.3909	1.3960	1.4010	1.4060	1.4108	1.4156	1.4204
740	V	0.3259	0.3333	0.3407	0.3480	0.3553	0.3626	0.3699	0.3771	0.3843
	H	412.95	418.26	423.60	428.95	434.33	439.73	445.14	450.58	456.03
	S	1.3791	1.3844	1.3896	1.3946	1.3997	1.4046	1.4095	1.4143	1.4190
760	V	0.3172	0.3245	0.3317	0.3388	0.3460	0.3531	0.3602	0.3672	0.3743
	H	412.78	418.10	423.44	428.81	434.19	439.59	445.01	450.45	455.91
	S	1.3778	1.3830	1.3882	1.3933	1.3983	1.4033	1.4082	1.4130	1.4177

PRESSURE
PSIA

TEMPERATURE

		540	560	580	600	620	640	660	680	700
780	V	0.3090	0.3161	0.3231	0.3301	0.3371	0.3440	0.3510	0.3578	0.3647
	H	412.61	417.94	423.29	428.66	434.05	439.45	444.88	450.33	455.79
	S	1.3764	1.3817	1.3869	1.3920	1.3970	1.4020	1.4069	1.4117	1.4165
800	V	0.3012	0.3081	0.3150	0.3218	0.3287	0.3354	0.3422	0.3489	0.3556
	H	412.44	417.78	423.14	428.51	433.90	439.32	444.75	450.20	455.67
	S	1.3752	1.3804	1.3856	1.3907	1.3958	1.4007	1.4056	1.4105	1.4152
820	V	0.2938	0.3006	0.3073	0.3140	0.3206	0.3273	0.3339	0.3405	0.3470
	H	412.27	417.62	422.98	428.36	433.76	439.18	444.62	450.08	455.55
	S	1.3739	1.3792	1.3844	1.3895	1.3945	1.3995	1.4044	1.4092	1.4140
840	V	0.2867	0.2933	0.2999	0.3065	0.3130	0.3195	0.3259	0.3324	0.3388
	H	412.10	417.46	422.83	428.21	433.62	439.05	444.49	449.95	455.43
	S	1.3727	1.3780	1.3832	1.3883	1.3933	1.3983	1.4032	1.4080	1.4128
860	V	0.2800	0.2865	0.2929	0.2993	0.3057	0.3120	0.3184	0.3247	0.3310
	H	411.94	417.30	422.67	428.07	433.48	438.91	444.36	449.83	455.31
	S	1.3714	1.3767	1.3820	1.3871	1.3921	1.3971	1.4020	1.4069	1.4116
880	V	0.2735	0.2799	0.2862	0.2925	0.2987	0.3050	0.3112	0.3173	0.3235
	H	411.77	417.14	422.52	427.92	433.34	438.77	444.23	449.70	455.19
	S	1.3703	1.3756	1.3808	1.3859	1.3910	1.3960	1.4009	1.4057	1.4105
900	V	0.2674	0.2736	0.2798	0.2860	0.2921	0.2982	0.3043	0.3103	0.3163
	H	411.60	416.98	422.37	427.77	433.20	438.64	444.10	449.58	455.08
	S	1.3691	1.3744	1.3796	1.3848	1.3898	1.3948	1.3998	1.4046	1.4094
920	V	0.2615	0.2676	0.2737	0.2797	0.2857	0.2917	0.2977	0.3036	0.3095
	H	411.43	416.82	422.21	427.63	433.06	438.50	443.97	449.45	454.96
	S	1.3680	1.3733	1.3785	1.3837	1.3887	1.3937	1.3986	1.4035	1.4083
940	V	0.2558	0.2619	0.2678	0.2737	0.2796	0.2855	0.2913	0.2972	0.3030
	H	411.27	416.66	422.06	427.48	432.92	438.37	443.84	449.33	454.84
	S	1.3668	1.3722	1.3774	1.3826	1.3876	1.3926	1.3976	1.4024	1.4072
960	V	0.2504	0.2564	0.2622	0.2680	0.2738	0.2796	0.2853	0.2910	0.2967
	H	411.10	416.50	421.91	427.33	432.78	438.24	443.71	449.21	454.72
	S	1.3657	1.3711	1.3763	1.3815	1.3866	1.3916	1.3965	1.4014	1.4062
980	V	0.2453	0.2510	0.2568	0.2625	0.2682	0.2739	0.2795	0.2851	0.2907
	H	410.93	416.34	421.76	427.19	432.64	438.10	443.58	449.08	454.60
	S	1.3647	1.3700	1.3753	1.3804	1.3855	1.3905	1.3955	1.4003	1.4051

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
1000	V	0.2403	0.2460	0.2516	0.2572	0.2628	0.2684	0.2739	0.2794	0.2849
	H	410.77	416.18	421.60	427.04	432.50	437.97	443.45	448.96	454.48
	S	1.3636	1.3689	1.3742	1.3794	1.3845	1.3895	1.3944	1.3993	1.4041
1020	V	0.2355	0.2411	0.2467	0.2522	0.2577	0.2631	0.2685	0.2740	0.2793
	H	410.60	416.02	421.45	426.90	432.36	437.83	443.33	448.84	454.36
	S	1.3626	1.3679	1.3732	1.3784	1.3835	1.3885	1.3934	1.3983	1.4031
1040	V	0.2309	0.2364	0.2419	0.2473	0.2527	0.2581	0.2634	0.2687	0.2740
	H	410.43	415.86	421.30	426.75	432.22	437.70	443.20	448.71	454.24
	S	1.3615	1.3669	1.3722	1.3774	1.3825	1.3875	1.3924	1.3973	1.4021
1060	V	0.2265	0.2319	0.2373	0.2426	0.2479	0.2532	0.2584	0.2637	0.2689
	H	410.27	415.70	421.15	426.60	432.08	437.56	443.07	448.59	454.13
	S	1.3605	1.3659	1.3712	1.3764	1.3815	1.3865	1.3915	1.3964	1.4012
1080	V	0.2222	0.2276	0.2329	0.2381	0.2433	0.2485	0.2537	0.2588	0.2639
	H	410.10	415.54	421.00	426.46	431.94	437.43	442.94	448.47	454.01
	S	1.3595	1.3649	1.3702	1.3754	1.3805	1.3856	1.3905	1.3954	1.4002
1100	V	0.2181	0.2234	0.2286	0.2337	0.2389	0.2440	0.2491	0.2541	0.2592
	H	409.94	415.38	420.85	426.31	431.80	437.30	442.81	448.34	453.89
	S	1.3586	1.3639	1.3692	1.3744	1.3796	1.3846	1.3896	1.3945	1.3993
1120	V	0.2142	0.2193	0.2245	0.2295	0.2346	0.2396	0.2446	0.2496	0.2546
	H	409.77	415.22	420.69	426.17	431.66	437.16	442.69	448.22	453.77
	S	1.3576	1.3630	1.3683	1.3735	1.3786	1.3837	1.3886	1.3935	1.3984
1140	V	0.2104	0.2154	0.2205	0.2255	0.2305	0.2354	0.2403	0.2452	0.2501
	H	409.61	415.07	420.54	426.02	431.52	437.03	442.56	448.10	453.66
	S	1.3567	1.3621	1.3674	1.3726	1.3777	1.3828	1.3877	1.3926	1.3975
1160	V	0.2067	0.2117	0.2167	0.2216	0.2265	0.2314	0.2362	0.2410	0.2458
	H	409.44	414.91	420.39	425.88	431.38	436.90	442.43	447.98	453.54
	S	1.3557	1.3611	1.3664	1.3717	1.3768	1.3819	1.3868	1.3917	1.3966
1180	V	0.2031	0.2080	0.2130	0.2178	0.2226	0.2274	0.2322	0.2370	0.2417
	H	409.28	414.75	420.24	425.74	431.24	436.77	442.30	447.85	453.42
	S	1.3548	1.3602	1.3655	1.3708	1.3759	1.3810	1.3860	1.3909	1.3957
1200	V	0.1997	0.2045	0.2094	0.2142	0.2189	0.2236	0.2283	0.2330	0.2377
	H	409.11	414.59	420.09	425.59	431.11	436.63	442.18	447.73	453.30
	S	1.3539	1.3593	1.3647	1.3699	1.3750	1.3801	1.3851	1.3900	1.3948

PRESSURE PSIA		TEMPERATURE								
		540	560	580	600	620	640	660	680	700
1220	V	0.1963	0.2011	0.2059	0.2106	0.2153	0.2200	0.2246	0.2292	0.2338
	H	408.95	414.44	419.94	425.45	430.97	436.50	442.05	447.61	453.19
	S	1.3530	1.3584	1.3638	1.3690	1.3742	1.3792	1.3842	1.3891	1.3940
1240	V	0.1931	0.1978	0.2026	0.2072	0.2118	0.2164	0.2210	0.2255	0.2301
	H	408.78	414.28	419.79	425.30	430.83	436.37	441.92	447.49	453.07
	S	1.3521	1.3576	1.3629	1.3682	1.3733	1.3784	1.3834	1.3883	1.3932
1260	V	0.1900	0.1947	0.1993	0.2039	0.2085	0.2130	0.2175	0.2220	0.2265
	H	408.62	414.12	419.64	425.16	430.69	436.24	441.80	447.37	452.95
	S	1.3513	1.3567	1.3621	1.3673	1.3725	1.3776	1.3826	1.3875	1.3923
1280	V	0.1870	0.1916	0.1962	0.2007	0.2052	0.2097	0.2141	0.2185	0.2229
	H	408.46	413.97	419.49	425.02	430.56	436.11	441.67	447.25	452.84
	S	1.3504	1.3558	1.3612	1.3665	1.3716	1.3767	1.3817	1.3867	1.3915
1300	V	0.1840	0.1886	0.1931	0.1976	0.2020	0.2064	0.2108	0.2152	0.2195
	H	408.29	413.81	419.34	424.87	430.42	435.97	441.54	447.13	452.72
	S	1.3496	1.3550	1.3604	1.3656	1.3708	1.3759	1.3809	1.3859	1.3907
1320	V	0.1812	0.1857	0.1902	0.1946	0.1989	0.2033	0.2076	0.2119	0.2162
	H	408.13	413.65	419.19	424.73	430.28	435.84	441.42	447.00	452.61
	S	1.3487	1.3542	1.3596	1.3648	1.3700	1.3751	1.3801	1.3851	1.3899
1340	V	0.1784	0.1829	0.1873	0.1916	0.1960	0.2003	0.2045	0.2088	0.2130
	H	407.97	413.50	419.04	424.59	430.14	435.71	441.29	446.88	452.49
	S	1.3479	1.3534	1.3587	1.3640	1.3692	1.3743	1.3793	1.3843	1.3891
1360	V	0.1758	0.1801	0.1845	0.1888	0.1931	0.1973	0.2015	0.2057	0.2099
	H	407.80	413.34	418.89	424.45	430.01	435.58	441.17	446.76	452.37
	S	1.3471	1.3526	1.3579	1.3632	1.3684	1.3735	1.3786	1.3835	1.3884
1380	V	0.1732	0.1775	0.1818	0.1860	0.1903	0.1945	0.1986	0.2028	0.2069
	H	407.64	413.19	418.74	424.30	429.87	435.45	441.04	446.64	452.26
	S	1.3463	1.3518	1.3571	1.3624	1.3676	1.3728	1.3778	1.3827	1.3876
1400	V	0.1706	0.1749	0.1792	0.1834	0.1875	0.1917	0.1958	0.1999	0.2040
	H	407.48	413.03	418.59	424.16	429.73	435.32	440.91	446.52	452.14
	S	1.3455	1.3510	1.3564	1.3617	1.3669	1.3720	1.3770	1.3820	1.3869
1450	V	0.1646	0.1688	0.1729	0.1770	0.1810	0.1851	0.1890	0.1930	0.1970
	H	407.07	412.64	418.22	423.81	429.39	434.99	440.60	446.22	451.86
	S	1.3435	1.3490	1.3545	1.3598	1.3650	1.3701	1.3752	1.3801	1.3850

PRESSURE
PSIA

TEMPERATURE

		540	560	580	600	620	640	660	680	700
1500	V	0.1590	0.1631	0.1671	0.1710	0.1750	0.1789	0.1828	0.1866	0.1904
	H	406.67	412.26	417.85	423.45	429.06	434.67	440.29	445.92	451.57
	S	1.3416	1.3472	1.3526	1.3579	1.3632	1.3683	1.3734	1.3783	1.3832
1550	V	0.1538	0.1577	0.1616	0.1655	0.1693	0.1731	0.1769	0.1806	0.1843
	H	406.27	411.87	417.48	423.10	428.72	434.34	439.98	445.63	451.28
	S	1.3398	1.3453	1.3508	1.3561	1.3614	1.3665	1.3716	1.3766	1.3815
1600	V	0.1489	0.1527	0.1565	0.1603	0.1640	0.1677	0.1713	0.1750	0.1786
	H	405.86	411.49	417.12	422.75	428.38	434.02	439.67	445.33	451.00
	S	1.3380	1.3436	1.3490	1.3544	1.3596	1.3648	1.3699	1.3749	1.3798
1650	V	0.1443	0.1480	0.1517	0.1554	0.1590	0.1626	0.1662	0.1697	0.1733
	H	405.46	411.11	416.75	422.40	428.05	433.70	439.36	445.03	450.71
	S	1.3363	1.3418	1.3473	1.3527	1.3580	1.3631	1.3682	1.3733	1.3782
1700	V	0.1399	0.1436	0.1472	0.1507	0.1543	0.1578	0.1613	0.1647	0.1682
	H	405.07	410.73	416.39	422.05	427.71	433.38	439.05	444.74	450.43
	S	1.3346	1.3402	1.3456	1.3510	1.3563	1.3615	1.3666	1.3716	1.3766
1750	V	0.1358	0.1394	0.1429	0.1464	0.1498	0.1533	0.1567	0.1601	0.1634
	H	404.67	410.35	416.02	421.70	427.38	433.06	438.75	444.44	450.15
	S	1.3329	1.3385	1.3440	1.3494	1.3547	1.3599	1.3650	1.3701	1.3750
1800	V	0.1320	0.1354	0.1389	0.1423	0.1457	0.1490	0.1523	0.1556	0.1589
	H	404.27	409.97	415.66	421.36	427.05	432.74	438.44	444.15	449.87
	S	1.3313	1.3369	1.3424	1.3478	1.3531	1.3584	1.3635	1.3685	1.3735
1850	V	0.1283	0.1317	0.1351	0.1384	0.1417	0.1450	0.1482	0.1514	0.1546
	H	403.88	409.59	415.30	421.01	426.72	432.42	438.14	443.86	449.58
	S	1.3297	1.3353	1.3409	1.3463	1.3516	1.3569	1.3620	1.3671	1.3720
1900	V	0.1248	0.1282	0.1314	0.1347	0.1379	0.1411	0.1443	0.1475	0.1506
	H	403.49	409.22	414.94	420.66	426.39	432.11	437.83	443.57	449.30
	S	1.3281	1.3338	1.3393	1.3448	1.3501	1.3554	1.3605	1.3656	1.3706
1950	V	0.1215	0.1248	0.1280	0.1312	0.1344	0.1375	0.1406	0.1437	0.1468
	H	403.09	408.84	414.58	420.32	426.06	431.79	437.53	443.28	449.03
	S	1.3266	1.3323	1.3378	1.3433	1.3487	1.3539	1.3591	1.3642	1.3692
2000	V	0.1184	0.1216	0.1248	0.1279	0.1310	0.1340	0.1371	0.1401	0.1431
	H	402.70	408.47	414.23	419.98	425.73	431.48	437.23	442.99	448.75
	S	1.3251	1.3308	1.3364	1.3419	1.3472	1.3525	1.3577	1.3628	1.3678

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
14.696	V	19.5649	19.8971	20.2293	20.5615	20.8937	21.2259	21.5580	21.8901	22.2223
	H	465.82	471.14	476.49	481.87	487.27	492.70	498.15	503.62	509.12
	S	1.6035	1.6080	1.6124	1.6168	1.6211	1.6254	1.6296	1.6338	1.6379
16	V	17.9706	18.2758	18.5810	18.8862	19.1913	19.4965	19.8016	20.1067	20.4118
	H	465.81	471.13	476.48	481.86	487.26	492.69	498.14	503.62	509.11
	S	1.5997	1.6042	1.6086	1.6130	1.6173	1.6215	1.6258	1.6299	1.6341
20	V	14.3772	14.6215	14.8657	15.1100	15.3542	15.5984	15.8426	16.0868	16.3310
	H	465.78	471.11	476.46	481.84	487.24	492.67	498.12	503.60	509.09
	S	1.5897	1.5941	1.5986	1.6029	1.6072	1.6115	1.6157	1.6199	1.6241
24	V	11.9815	12.1852	12.3889	12.5925	12.7961	12.9997	13.2033	13.4069	13.6104
	H	465.76	471.09	476.44	481.82	487.22	492.65	498.10	503.58	509.08
	S	1.5815	1.5859	1.5904	1.5947	1.5990	1.6033	1.6075	1.6117	1.6159
28	V	10.2704	10.4450	10.6197	10.7943	10.9689	11.1435	11.3181	11.4926	11.6672
	H	465.73	471.06	476.42	481.80	487.20	492.63	498.08	503.56	509.06
	S	1.5745	1.5790	1.5834	1.5878	1.5921	1.5964	1.6006	1.6048	1.6089
32	V	8.9870	9.1399	9.2928	9.4457	9.5985	9.7513	9.9042	10.0570	10.2097
	H	465.71	471.04	476.39	481.78	487.18	492.61	498.07	503.54	509.04
	S	1.5685	1.5730	1.5774	1.5818	1.5861	1.5904	1.5946	1.5988	1.6029
36	V	7.9888	8.1248	8.2608	8.3967	8.5326	8.6685	8.8044	8.9403	9.0762
	H	465.69	471.02	476.37	481.75	487.16	492.59	498.05	503.52	509.02
	S	1.5632	1.5677	1.5721	1.5765	1.5808	1.5851	1.5893	1.5935	1.5976
40	V	7.1903	7.3127	7.4351	7.5576	7.6799	7.8023	7.9247	8.0470	8.1693
	H	465.66	470.99	476.35	481.73	487.14	492.57	498.03	503.51	509.01
	S	1.5585	1.5629	1.5674	1.5717	1.5761	1.5803	1.5846	1.5887	1.5929
44	V	6.5369	6.6483	6.7596	6.8710	6.9823	7.0936	7.2049	7.3161	7.4274
	H	465.64	470.97	476.33	481.71	487.12	492.55	498.01	503.49	508.99
	S	1.5542	1.5586	1.5631	1.5674	1.5718	1.5760	1.5803	1.5844	1.5886
48	V	5.9925	6.0946	6.1967	6.2988	6.4009	6.5030	6.6050	6.7070	6.8090
	H	465.61	470.95	476.30	481.69	487.10	492.53	497.99	503.47	508.97
	S	1.5502	1.5547	1.5591	1.5635	1.5678	1.5721	1.5763	1.5805	1.5847
52	V	5.5318	5.6261	5.7204	5.8147	5.9090	6.0032	6.0974	6.1917	6.2859
	H	465.59	470.92	476.28	481.67	487.08	492.51	497.97	503.45	508.95
	S	1.5466	1.5511	1.5555	1.5599	1.5642	1.5685	1.5727	1.5769	1.5810

114	PRESSURE		TEMPERATURE								
	PSIA		720	740	760	780	800	820	840	860	880
56	V		5.1369	5.2245	5.3121	5.3997	5.4873	5.5748	5.6624	5.7499	5.8374
	H		465.56	470.90	476.26	481.65	487.06	492.49	497.95	503.43	508.94
	S		1.5433	1.5478	1.5522	1.5566	1.5609	1.5652	1.5694	1.5736	1.5777
60	V		4.7946	4.8765	4.9583	5.0401	5.1218	5.2036	5.2853	5.3671	5.4488
	H		465.54	470.88	476.24	481.62	487.04	492.47	497.93	503.41	508.92
	S		1.5402	1.5446	1.5491	1.5534	1.5578	1.5620	1.5663	1.5705	1.5746
70	V		4.1102	4.1804	4.2506	4.3208	4.3910	4.4611	4.5312	4.6014	4.6715
	H		465.48	470.82	476.18	481.57	486.98	492.42	497.88	503.37	508.88
	S		1.5332	1.5377	1.5421	1.5465	1.5508	1.5551	1.5593	1.5635	1.5676
80	V		3.5968	3.6583	3.7198	3.7813	3.8428	3.9042	3.9657	4.0271	4.0885
	H		465.42	470.76	476.13	481.52	486.93	492.37	497.84	503.32	508.83
	S		1.5271	1.5316	1.5361	1.5404	1.5448	1.5490	1.5533	1.5575	1.5616
90	V		3.1975	3.2523	3.3070	3.3617	3.4164	3.4711	3.5258	3.5804	3.6351
	H		465.36	470.70	476.07	481.46	486.88	492.32	497.79	503.28	508.79
	S		1.5218	1.5263	1.5307	1.5351	1.5394	1.5437	1.5479	1.5521	1.5563
100	V		2.8781	2.9275	2.9768	3.0261	3.0754	3.1246	3.1739	3.2231	3.2723
	H		465.30	470.64	476.01	481.41	486.83	492.27	497.74	503.23	508.74
	S		1.5170	1.5215	1.5259	1.5303	1.5347	1.5389	1.5432	1.5474	1.5515
110	V		2.6168	2.6617	2.7066	2.7514	2.7963	2.8411	2.8859	2.9307	2.9755
	H		465.24	470.58	475.96	481.36	486.78	492.22	497.69	503.19	508.70
	S		1.5127	1.5172	1.5216	1.5260	1.5303	1.5346	1.5389	1.5430	1.5472
120	V		2.3990	2.4402	2.4814	2.5226	2.5637	2.6049	2.6460	2.6871	2.7282
	H		465.18	470.53	475.90	481.30	486.73	492.18	497.65	503.14	508.66
	S		1.5087	1.5132	1.5177	1.5220	1.5264	1.5307	1.5349	1.5391	1.5432
130	V		2.2147	2.2528	2.2909	2.3289	2.3669	2.4050	2.4430	2.4809	2.5189
	H		465.12	470.47	475.85	481.25	486.68	492.13	497.60	503.10	508.61
	S		1.5051	1.5096	1.5140	1.5184	1.5227	1.5270	1.5313	1.5355	1.5396
140	V		2.0567	2.0922	2.1275	2.1629	2.1983	2.2336	2.2689	2.3042	2.3395
	H		465.06	470.41	475.79	481.20	486.62	492.08	497.55	503.05	508.57
	S		1.5017	1.5062	1.5106	1.5150	1.5194	1.5237	1.5279	1.5321	1.5362
150	V		1.9198	1.9529	1.9860	2.0191	2.0521	2.0851	2.1181	2.1511	2.1840
	H		465.00	470.35	475.74	481.14	486.57	492.03	497.51	503.00	508.53
	S		1.4985	1.5030	1.5075	1.5119	1.5162	1.5205	1.5248	1.5290	1.5331

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
160	V	1.8001	1.8311	1.8622	1.8932	1.9242	1.9552	1.9861	2.0171	2.0480
	H	464.94	470.29	475.68	481.09	486.52	491.98	497.46	502.96	508.48
	S	1.4956	1.5001	1.5045	1.5089	1.5133	1.5176	1.5218	1.5260	1.5302
170	V	1.6944	1.7236	1.7529	1.7821	1.8113	1.8405	1.8697	1.8988	1.9280
	H	464.87	470.24	475.62	481.04	486.47	491.93	497.41	502.91	508.44
	S	1.4928	1.4973	1.5018	1.5062	1.5105	1.5148	1.5191	1.5233	1.5274
180	V	1.6004	1.6281	1.6557	1.6834	1.7110	1.7386	1.7662	1.7937	1.8213
	H	464.81	470.18	475.57	480.98	486.42	491.88	497.36	502.87	508.40
	S	1.4902	1.4947	1.4992	1.5036	1.5079	1.5122	1.5164	1.5206	1.5248
190	V	1.5163	1.5426	1.5688	1.5950	1.6212	1.6474	1.6736	1.6997	1.7258
	H	464.75	470.12	475.51	480.93	486.37	491.83	497.32	502.82	508.35
	S	1.4877	1.4922	1.4967	1.5011	1.5054	1.5097	1.5140	1.5182	1.5223
200	V	1.4407	1.4657	1.4906	1.5155	1.5404	1.5653	1.5902	1.6151	1.6399
	H	464.69	470.06	475.46	480.88	486.32	491.78	497.27	502.78	508.31
	S	1.4854	1.4899	1.4943	1.4987	1.5031	1.5074	1.5116	1.5158	1.5200
220	V	1.3100	1.3328	1.3555	1.3782	1.4009	1.4236	1.4462	1.4689	1.4915
	H	464.57	469.95	475.35	480.77	486.22	491.68	497.18	502.69	508.22
	S	1.4810	1.4855	1.4899	1.4943	1.4987	1.5030	1.5073	1.5115	1.5156
240	V	1.2011	1.2220	1.2429	1.2638	1.2846	1.3054	1.3262	1.3470	1.3678
	H	464.45	469.83	475.24	480.66	486.11	491.59	497.08	502.60	508.14
	S	1.4770	1.4815	1.4859	1.4903	1.4947	1.4990	1.5033	1.5075	1.5116
260	V	1.1090	1.1283	1.1476	1.1669	1.1862	1.2055	1.2247	1.2439	1.2632
	H	464.33	469.72	475.13	480.56	486.01	491.49	496.99	502.51	508.05
	S	1.4733	1.4778	1.4822	1.4867	1.4910	1.4953	1.4996	1.5038	1.5080
280	V	1.0300	1.0480	1.0659	1.0839	1.1019	1.1198	1.1377	1.1556	1.1735
	H	464.22	469.60	475.02	480.45	485.91	491.39	496.89	502.42	507.96
	S	1.4698	1.4743	1.4788	1.4832	1.4876	1.4919	1.4962	1.5004	1.5046
300	V	0.9615	0.9783	0.9952	1.0120	1.0288	1.0455	1.0623	1.0790	1.0957
	H	464.10	469.49	474.91	480.35	485.81	491.29	496.80	502.33	507.88
	S	1.4666	1.4711	1.4756	1.4800	1.4844	1.4887	1.4930	1.4972	1.5014
320	V	0.9016	0.9174	0.9332	0.9490	0.9648	0.9805	0.9963	1.0120	1.0277
	H	463.98	469.37	474.80	480.24	485.71	491.20	496.71	502.24	507.79
	S	1.4636	1.4681	1.4726	1.4770	1.4814	1.4857	1.4900	1.4942	1.4984

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
340	V	0.8488	0.8637	0.8786	0.8935	0.9083	0.9232	0.9380	0.9529	0.9677
	H	463.86	469.26	474.69	480.13	485.61	491.10	496.61	502.15	507.71
	S	1.4608	1.4653	1.4698	1.4742	1.4786	1.4829	1.4872	1.4914	1.4956
360	V	0.8018	0.8159	0.8300	0.8441	0.8582	0.8722	0.8863	0.9003	0.9143
	H	463.74	469.15	474.58	480.03	485.51	491.00	496.52	502.06	507.62
	S	1.4581	1.4626	1.4671	1.4716	1.4759	1.4803	1.4845	1.4888	1.4929
380	V	0.7597	0.7731	0.7865	0.7999	0.8133	0.8266	0.8400	0.8533	0.8666
	H	463.62	469.03	474.47	479.92	485.40	490.91	496.43	501.97	507.54
	S	1.4556	1.4601	1.4646	1.4690	1.4734	1.4777	1.4820	1.4863	1.4904
400	V	0.7219	0.7347	0.7474	0.7602	0.7729	0.7856	0.7983	0.8109	0.8236
	H	463.50	468.92	474.36	479.82	485.30	490.81	496.34	501.88	507.45
	S	1.4532	1.4577	1.4622	1.4666	1.4710	1.4754	1.4796	1.4839	1.4880
420	V	0.6877	0.6999	0.7120	0.7242	0.7363	0.7484	0.7605	0.7726	0.7847
	H	463.38	468.80	474.25	479.71	485.20	490.71	496.24	501.79	507.37
	S	1.4509	1.4554	1.4599	1.4643	1.4687	1.4731	1.4774	1.4816	1.4858
440	V	0.6565	0.6682	0.6798	0.6915	0.7031	0.7147	0.7263	0.7378	0.7494
	H	463.26	468.69	474.14	479.61	485.10	490.62	496.15	501.71	507.28
	S	1.4487	1.4532	1.4577	1.4622	1.4666	1.4709	1.4752	1.4794	1.4836
460	V	0.6281	0.6393	0.6505	0.6616	0.6727	0.6838	0.6949	0.7060	0.7170
	H	463.15	468.58	474.03	479.51	485.00	490.52	496.06	501.62	507.19
	S	1.4466	1.4511	1.4556	1.4601	1.4645	1.4688	1.4731	1.4773	1.4815
480	V	0.6021	0.6128	0.6235	0.6342	0.6449	0.6556	0.6662	0.6769	0.6874
	H	463.03	468.46	473.92	479.40	484.90	490.42	495.97	501.53	507.10
	S	1.4445	1.4491	1.4536	1.4581	1.4625	1.4668	1.4711	1.4753	1.4795
500	V	0.5781	0.5884	0.5988	0.6090	0.6193	0.6296	0.6398	0.6500	0.6602
	H	462.91	468.35	473.81	479.30	484.80	490.33	495.87	501.43	507.02
	S	1.4426	1.4472	1.4517	1.4561	1.4605	1.4649	1.4692	1.4734	1.4776
520	V	0.5560	0.5659	0.5759	0.5858	0.5957	0.6056	0.6154	0.6252	0.6351
	H	462.79	468.24	473.71	479.19	484.70	490.23	495.78	501.35	506.93
	S	1.4407	1.4453	1.4498	1.4543	1.4587	1.4630	1.4673	1.4716	1.4758
540	V	0.5355	0.5451	0.5547	0.5643	0.5738	0.5834	0.5928	0.6023	0.6118
	H	462.68	468.13	473.60	479.09	484.60	490.14	495.68	501.26	506.85
	S	1.4389	1.4435	1.4480	1.4525	1.4569	1.4612	1.4655	1.4698	1.4740

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
560	V	0.5165	0.5258	0.5350	0.5443	0.5535	0.5627	0.5719	0.5810	0.5902
	H	462.56	468.01	473.49	478.99	484.50	490.04	495.59	501.17	506.76
	S	1.4372	1.4418	1.4463	1.4508	1.4552	1.4595	1.4638	1.4681	1.4723
580	V	0.4988	0.5077	0.5167	0.5257	0.5346	0.5434	0.5523	0.5612	0.5701
	H	462.44	467.90	473.38	478.88	484.40	489.94	495.50	501.08	506.68
	S	1.4355	1.4401	1.4446	1.4491	1.4535	1.4579	1.4622	1.4664	1.4706
600	V	0.4822	0.4909	0.4996	0.5083	0.5169	0.5255	0.5341	0.5427	0.5513
	H	462.32	467.79	473.27	478.78	484.31	489.84	495.41	500.99	506.60
	S	1.4339	1.4385	1.4430	1.4475	1.4519	1.4562	1.4606	1.4648	1.4690
620	V	0.4668	0.4752	0.4836	0.4920	0.5004	0.5087	0.5171	0.5254	0.5337
	H	462.21	467.68	473.17	478.68	484.20	489.75	495.32	500.90	506.51
	S	1.4323	1.4369	1.4414	1.4459	1.4503	1.4547	1.4590	1.4633	1.4675
640	V	0.4523	0.4605	0.4686	0.4768	0.4849	0.4930	0.5011	0.5092	0.5172
	H	462.09	467.56	473.06	478.57	484.10	489.65	495.23	500.82	506.43
	S	1.4308	1.4354	1.4399	1.4444	1.4488	1.4532	1.4575	1.4617	1.4660
660	V	0.4386	0.4466	0.4545	0.4625	0.4703	0.4782	0.4861	0.4939	0.5018
	H	461.98	467.45	472.95	478.47	484.00	489.56	495.13	500.73	506.34
	S	1.4293	1.4339	1.4384	1.4429	1.4473	1.4517	1.4560	1.4603	1.4645
680	V	0.4258	0.4336	0.4413	0.4490	0.4566	0.4643	0.4720	0.4796	0.4872
	H	461.86	467.34	472.84	478.36	483.90	489.46	495.04	500.64	506.26
	S	1.4278	1.4324	1.4370	1.4415	1.4459	1.4503	1.4546	1.4589	1.4631
700	V	0.4137	0.4213	0.4288	0.4362	0.4437	0.4512	0.4586	0.4661	0.4735
	H	461.74	467.23	472.74	478.26	483.80	489.37	494.95	500.55	506.17
	S	1.4264	1.4310	1.4356	1.4401	1.4445	1.4489	1.4532	1.4575	1.4617
720	V	0.4023	0.4097	0.4170	0.4242	0.4315	0.4388	0.4460	0.4533	0.4605
	H	461.63	467.12	472.63	478.16	483.70	489.27	494.86	500.47	506.09
	S	1.4251	1.4297	1.4342	1.4387	1.4431	1.4475	1.4519	1.4561	1.4604
740	V	0.3915	0.3987	0.4058	0.4129	0.4200	0.4271	0.4341	0.4412	0.4482
	H	461.51	467.01	472.52	478.05	483.61	489.18	494.77	500.38	506.01
	S	1.4237	1.4283	1.4329	1.4374	1.4418	1.4462	1.4505	1.4548	1.4590
760	V	0.3813	0.3883	0.3952	0.4021	0.4091	0.4160	0.4229	0.4297	0.4366
	H	461.40	466.90	472.42	477.95	483.51	489.08	494.68	500.29	505.92
	S	1.4224	1.4270	1.4316	1.4361	1.4405	1.4449	1.4493	1.4535	1.4578

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
780	V	0.3716	0.3784	0.3852	0.3919	0.3987	0.4054	0.4122	0.4189	0.4256
	H	461.28	466.79	472.31	477.85	483.41	488.99	494.59	500.20	505.84
	S	1.4211	1.4258	1.4303	1.4348	1.4393	1.4437	1.4480	1.4523	1.4565
800	V	0.3623	0.3690	0.3756	0.3822	0.3888	0.3954	0.4020	0.4085	0.4151
	H	461.16	466.68	472.20	477.75	483.31	488.90	494.50	500.12	505.76
	S	1.4199	1.4245	1.4291	1.4336	1.4380	1.4424	1.4468	1.4511	1.4553
820	V	0.3536	0.3601	0.3665	0.3730	0.3795	0.3859	0.3923	0.3987	0.4051
	H	461.05	466.56	472.09	477.64	483.21	488.80	494.41	500.03	505.67
	S	1.4187	1.4233	1.4279	1.4324	1.4368	1.4412	1.4456	1.4499	1.4541
840	V	0.3452	0.3516	0.3579	0.3642	0.3705	0.3768	0.3831	0.3894	0.3956
	H	460.93	466.45	471.99	477.54	483.12	488.71	494.32	499.94	505.59
	S	1.4175	1.4221	1.4267	1.4312	1.4357	1.4401	1.4444	1.4487	1.4529
860	V	0.3372	0.3435	0.3497	0.3558	0.3620	0.3682	0.3743	0.3805	0.3866
	H	460.82	466.34	471.88	477.44	483.02	488.61	494.23	499.86	505.51
	S	1.4163	1.4210	1.4255	1.4301	1.4345	1.4389	1.4433	1.4476	1.4518
880	V	0.3296	0.3357	0.3418	0.3478	0.3539	0.3599	0.3659	0.3719	0.3779
	H	460.71	466.23	471.77	477.34	482.92	488.52	494.14	499.77	505.42
	S	1.4152	1.4198	1.4244	1.4289	1.4334	1.4378	1.4422	1.4465	1.4507
900	V	0.3224	0.3283	0.3343	0.3402	0.3461	0.3520	0.3579	0.3638	0.3697
	H	460.59	466.12	471.67	477.24	482.82	488.43	494.05	499.68	505.34
	S	1.4141	1.4187	1.4233	1.4278	1.4323	1.4367	1.4411	1.4454	1.4496
920	V	0.3154	0.3212	0.3271	0.3329	0.3387	0.3445	0.3503	0.3560	0.3618
	H	460.48	466.01	471.56	477.13	482.72	488.33	493.96	499.60	505.26
	S	1.4130	1.4176	1.4222	1.4268	1.4312	1.4356	1.4400	1.4443	1.4485
940	V	0.3087	0.3145	0.3202	0.3259	0.3316	0.3373	0.3429	0.3486	0.3542
	H	460.36	465.90	471.46	477.03	482.63	488.24	493.87	499.51	505.17
	S	1.4119	1.4166	1.4212	1.4257	1.4302	1.4346	1.4389	1.4432	1.4475
960	V	0.3024	0.3080	0.3136	0.3192	0.3248	0.3303	0.3359	0.3414	0.3469
	H	460.25	465.79	471.35	476.93	482.53	488.14	493.78	499.43	505.09
	S	1.4109	1.4155	1.4201	1.4247	1.4291	1.4335	1.4379	1.4422	1.4465
980	V	0.2962	0.3017	0.3073	0.3128	0.3182	0.3237	0.3291	0.3346	0.3400
	H	460.13	465.68	471.25	476.83	482.43	488.05	493.69	499.34	505.01
	S	1.4098	1.4145	1.4191	1.4236	1.4281	1.4325	1.4369	1.4412	1.4455

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
1000	V	0.2904	0.2958	0.3012	0.3066	0.3120	0.3173	0.3227	0.3280	0.3333
	H	460.02	465.57	471.14	476.73	482.34	487.96	493.60	499.25	504.93
	S	1.4088	1.4135	1.4181	1.4226	1.4271	1.4315	1.4359	1.4402	1.4445
1020	V	0.2847	0.2900	0.2953	0.3006	0.3059	0.3112	0.3164	0.3217	0.3269
	H	459.91	465.46	471.04	476.63	482.24	487.87	493.51	499.17	504.84
	S	1.4078	1.4125	1.4171	1.4217	1.4261	1.4306	1.4349	1.4393	1.4435
1040	V	0.2793	0.2845	0.2897	0.2949	0.3001	0.3053	0.3104	0.3156	0.3207
	H	459.79	465.35	470.93	476.53	482.14	487.77	493.42	499.08	504.76
	S	1.4069	1.4115	1.4161	1.4207	1.4252	1.4296	1.4340	1.4383	1.4426
1060	V	0.2741	0.2792	0.2843	0.2894	0.2945	0.2996	0.3047	0.3097	0.3148
	H	459.68	465.24	470.83	476.43	482.05	487.68	493.33	499.00	504.68
	S	1.4059	1.4106	1.4152	1.4197	1.4242	1.4287	1.4330	1.4374	1.4416
1080	V	0.2690	0.2741	0.2791	0.2841	0.2892	0.2942	0.2991	0.3041	0.3091
	H	459.57	465.13	470.72	476.33	481.95	487.59	493.24	498.91	504.60
	S	1.4050	1.4096	1.4143	1.4188	1.4233	1.4277	1.4321	1.4364	1.4407
1100	V	0.2642	0.2691	0.2741	0.2790	0.2840	0.2889	0.2938	0.2987	0.3035
	H	459.45	465.03	470.62	476.23	481.85	487.49	493.15	498.83	504.51
	S	1.4040	1.4087	1.4133	1.4179	1.4224	1.4268	1.4312	1.4355	1.4398
1120	V	0.2595	0.2644	0.2693	0.2741	0.2790	0.2838	0.2886	0.2934	0.2982
	H	459.34	464.92	470.51	476.13	481.76	487.40	493.06	498.74	504.43
	S	1.4031	1.4078	1.4124	1.4170	1.4215	1.4259	1.4303	1.4346	1.4389
1140	V	0.2550	0.2598	0.2646	0.2694	0.2742	0.2789	0.2837	0.2884	0.2931
	H	459.23	464.81	470.41	476.03	481.66	487.31	492.97	498.65	504.35
	S	1.4022	1.4069	1.4115	1.4161	1.4206	1.4250	1.4294	1.4338	1.4380
1160	V	0.2506	0.2553	0.2601	0.2648	0.2695	0.2742	0.2788	0.2835	0.2881
	H	459.12	464.70	470.31	475.93	481.56	487.22	492.89	498.57	504.27
	S	1.4013	1.4060	1.4107	1.4152	1.4197	1.4242	1.4286	1.4329	1.4372
1180	V	0.2464	0.2511	0.2557	0.2604	0.2650	0.2696	0.2742	0.2788	0.2833
	H	459.00	464.59	470.20	475.83	481.47	487.13	492.80	498.48	504.19
	S	1.4005	1.4052	1.4098	1.4144	1.4189	1.4233	1.4277	1.4321	1.4363
1200	V	0.2423	0.2469	0.2515	0.2561	0.2606	0.2652	0.2697	0.2742	0.2787
	H	458.89	464.48	470.10	475.73	481.37	487.03	492.71	498.40	504.11
	S	1.3996	1.4043	1.4089	1.4135	1.4180	1.4225	1.4269	1.4312	1.4355

120

PRESSURE
PSIA

720

740

760

TEMPERATURE

780

800

820

840

860

880

1220	V	0.2384	0.2429	0.2474	0.2520	0.2564	0.2609	0.2654	0.2698	0.2742
	H	458.77	464.38	470.00	475.63	481.28	486.94	492.62	498.31	504.02
	S	1.3988	1.4035	1.4081	1.4127	1.4172	1.4217	1.4261	1.4304	1.4347
1240	V	0.2346	0.2390	0.2435	0.2479	0.2524	0.2568	0.2612	0.2655	0.2699
	H	458.66	464.27	469.89	475.53	481.18	486.85	492.53	498.23	503.94
	S	1.3979	1.4026	1.4073	1.4119	1.4164	1.4208	1.4252	1.4296	1.4339
1260	V	0.2309	0.2353	0.2397	0.2441	0.2484	0.2528	0.2571	0.2614	0.2657
	H	458.55	464.16	469.79	475.43	481.09	486.76	492.44	498.15	503.86
	S	1.3971	1.4018	1.4065	1.4111	1.4156	1.4200	1.4244	1.4288	1.4331
1280	V	0.2273	0.2317	0.2360	0.2403	0.2446	0.2489	0.2532	0.2574	0.2617
	H	458.44	464.05	469.69	475.33	480.99	486.67	492.36	498.06	503.78
	S	1.3963	1.4010	1.4057	1.4103	1.4148	1.4192	1.4237	1.4280	1.4323
1300	V	0.2238	0.2281	0.2324	0.2367	0.2409	0.2451	0.2493	0.2535	0.2577
	H	458.33	463.95	469.58	475.23	480.90	486.58	492.27	497.98	503.70
	S	1.3955	1.4002	1.4049	1.4095	1.4140	1.4185	1.4229	1.4272	1.4315
1320	V	0.2205	0.2247	0.2289	0.2331	0.2373	0.2415	0.2456	0.2498	0.2539
	H	458.21	463.84	469.48	475.13	480.80	486.48	492.18	497.89	503.62
	S	1.3947	1.3994	1.4041	1.4087	1.4132	1.4177	1.4221	1.4265	1.4308
1340	V	0.2172	0.2214	0.2256	0.2297	0.2338	0.2379	0.2420	0.2461	0.2502
	H	458.10	463.73	469.38	475.03	480.71	486.39	492.09	497.81	503.54
	S	1.3939	1.3987	1.4033	1.4079	1.4125	1.4169	1.4213	1.4257	1.4300
1360	V	0.2140	0.2182	0.2223	0.2264	0.2304	0.2345	0.2385	0.2426	0.2466
	H	457.99	463.63	469.27	474.94	480.61	486.30	492.01	497.72	503.46
	S	1.3932	1.3979	1.4026	1.4072	1.4117	1.4162	1.4206	1.4250	1.4293
1380	V	0.2110	0.2150	0.2191	0.2231	0.2272	0.2312	0.2352	0.2391	0.2431
	H	457.88	463.52	469.17	474.84	480.52	486.21	491.92	497.64	503.38
	S	1.3924	1.3972	1.4018	1.4064	1.4110	1.4154	1.4199	1.4242	1.4285
1400	V	0.2080	0.2120	0.2160	0.2200	0.2240	0.2279	0.2319	0.2358	0.2397
	H	457.77	463.41	469.07	474.74	480.42	486.12	491.83	497.56	503.29
	S	1.3917	1.3964	1.4011	1.4057	1.4102	1.4147	1.4191	1.4235	1.4278
1450	V	0.2009	0.2048	0.2087	0.2125	0.2164	0.2202	0.2240	0.2278	0.2316
	H	457.49	463.15	468.81	474.49	480.19	485.89	491.61	497.35	503.09
	S	1.3898	1.3946	1.3993	1.4039	1.4084	1.4129	1.4174	1.4217	1.4260

PRESSURE PSIA		TEMPERATURE								
		720	740	760	780	800	820	840	860	880
1500	V	0.1942	0.1980	0.2018	0.2056	0.2093	0.2130	0.2167	0.2204	0.2241
	H	457.22	462.88	468.56	474.25	479.95	485.67	491.40	497.14	502.89
	S	1.3881	1.3928	1.3975	1.4021	1.4067	1.4112	1.4156	1.4200	1.4243
1550	V	0.1880	0.1917	0.1954	0.1990	0.2026	0.2063	0.2099	0.2134	0.2170
	H	456.94	462.62	468.31	474.00	479.72	485.44	491.18	496.93	502.69
	S	1.3863	1.3911	1.3958	1.4004	1.4050	1.4095	1.4140	1.4183	1.4227
1600	V	0.1822	0.1858	0.1894	0.1929	0.1964	0.1999	0.2034	0.2069	0.2104
	H	456.67	462.35	468.05	473.76	479.48	485.22	490.96	496.72	502.49
	S	1.3847	1.3894	1.3941	1.3988	1.4034	1.4079	1.4123	1.4167	1.4211
1650	V	0.1767	0.1802	0.1837	0.1871	0.1906	0.1940	0.1974	0.2008	0.2042
	H	456.39	462.09	467.80	473.52	479.25	484.99	490.75	496.51	502.29
	S	1.3830	1.3878	1.3925	1.3972	1.4018	1.4063	1.4107	1.4151	1.4195
1700	V	0.1716	0.1750	0.1784	0.1817	0.1851	0.1884	0.1917	0.1950	0.1983
	H	456.12	461.83	467.55	473.28	479.02	484.77	490.53	496.31	502.09
	S	1.3815	1.3862	1.3910	1.3956	1.4002	1.4047	1.4092	1.4136	1.4179
1750	V	0.1667	0.1700	0.1733	0.1766	0.1799	0.1831	0.1864	0.1896	0.1928
	H	455.85	461.57	467.30	473.04	478.79	484.55	490.32	496.10	501.90
	S	1.3799	1.3847	1.3894	1.3941	1.3987	1.4032	1.4077	1.4121	1.4165
1800	V	0.1621	0.1654	0.1686	0.1718	0.1750	0.1781	0.1813	0.1844	0.1876
	H	455.58	461.31	467.05	472.80	478.55	484.32	490.10	495.90	501.70
	S	1.3784	1.3832	1.3879	1.3926	1.3972	1.4018	1.4062	1.4106	1.4150
1850	V	0.1578	0.1610	0.1641	0.1672	0.1703	0.1734	0.1765	0.1796	0.1826
	H	455.31	461.05	466.80	472.56	478.32	484.10	489.89	495.69	501.50
	S	1.3769	1.3817	1.3865	1.3912	1.3958	1.4003	1.4048	1.4092	1.4136
1900	V	0.1537	0.1568	0.1598	0.1629	0.1659	0.1690	0.1720	0.1750	0.1779
	H	455.04	460.79	466.55	472.32	478.09	483.88	489.68	495.49	501.31
	S	1.3755	1.3803	1.3851	1.3897	1.3944	1.3989	1.4034	1.4078	1.4122
1950	V	0.1498	0.1528	0.1558	0.1588	0.1618	0.1647	0.1677	0.1706	0.1735
	H	454.77	460.53	466.30	472.08	477.87	483.66	489.47	495.28	501.11
	S	1.3741	1.3789	1.3837	1.3884	1.3930	1.3975	1.4020	1.4065	1.4108
2000	V	0.1461	0.1490	0.1520	0.1549	0.1578	0.1607	0.1636	0.1664	0.1693
	H	454.51	460.28	466.06	471.84	477.64	483.44	489.26	495.08	500.91
	S	1.3727	1.3775	1.3823	1.3870	1.3916	1.3962	1.4007	1.4051	1.4095

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
14.696	V	22.5544	22.8864	23.2185	23.5506	23.8826	24.2147	24.5467	24.8787	25.2107
	H	514.64	520.18	525.74	531.32	536.93	542.55	548.19	553.85	559.54
	S	1.6420	1.6460	1.6500	1.6540	1.6579	1.6618	1.6656	1.6694	1.6732
16	V	20.7168	21.0219	21.3269	21.6320	21.9370	22.2420	22.5470	22.8520	23.1570
	H	514.63	520.17	525.74	531.32	536.92	542.55	548.19	553.85	559.53
	S	1.6382	1.6422	1.6462	1.6502	1.6541	1.6580	1.6618	1.6656	1.6693
20	V	16.5751	16.8192	17.0634	17.3075	17.5516	17.7957	18.0397	18.2838	18.5278
	H	514.61	520.16	525.72	531.30	536.91	542.53	548.18	553.84	559.52
	S	1.6281	1.6322	1.6362	1.6401	1.6441	1.6479	1.6518	1.6556	1.6593
24	V	13.8140	14.0175	14.2210	14.4245	14.6280	14.8314	15.0349	15.2383	15.4418
	H	514.60	520.14	525.70	531.29	536.89	542.52	548.16	553.83	559.51
	S	1.6199	1.6240	1.6280	1.6319	1.6359	1.6397	1.6436	1.6474	1.6511
28	V	11.8417	12.0162	12.1907	12.3652	12.5397	12.7141	12.8886	13.0630	13.2374
	H	514.58	520.12	525.69	531.27	536.88	542.50	548.15	553.81	559.50
	S	1.6130	1.6171	1.6211	1.6250	1.6289	1.6328	1.6366	1.6404	1.6442
32	V	10.3625	10.5153	10.6680	10.8207	10.9734	11.1261	11.2788	11.4315	11.5842
	H	514.56	520.11	525.67	531.26	536.87	542.49	548.14	553.80	559.48
	S	1.6070	1.6110	1.6150	1.6190	1.6229	1.6268	1.6306	1.6344	1.6382
36	V	9.2120	9.3478	9.4837	9.6195	9.7553	9.8910	10.0268	10.1626	10.2983
	H	514.55	520.09	525.66	531.24	536.85	542.48	548.12	553.79	559.47
	S	1.6017	1.6057	1.6097	1.6137	1.6176	1.6215	1.6253	1.6291	1.6329
40	V	8.2916	8.4139	8.5362	8.6585	8.7807	8.9030	9.0252	9.1474	9.2696
	H	514.53	520.08	525.64	531.23	536.84	542.46	548.11	553.78	559.46
	S	1.5970	1.6010	1.6050	1.6090	1.6129	1.6168	1.6206	1.6244	1.6282
44	V	7.5386	7.6498	7.7610	7.8722	7.9834	8.0945	8.2057	8.3168	8.4280
	H	514.51	520.06	525.63	531.21	536.82	542.45	548.10	553.76	559.45
	S	1.5927	1.5967	1.6007	1.6047	1.6086	1.6125	1.6163	1.6201	1.6239
48	V	6.9110	7.0130	7.1150	7.2170	7.3189	7.4208	7.5228	7.6247	7.7266
	H	514.50	520.04	525.61	531.20	536.81	542.44	548.08	553.75	559.44
	S	1.5887	1.5928	1.5968	1.6008	1.6047	1.6086	1.6124	1.6162	1.6200
52	V	6.3801	6.4742	6.5684	6.6625	6.7567	6.8508	6.9449	7.0390	7.1331
	H	514.48	520.03	525.60	531.18	536.79	542.42	548.07	553.74	559.43
	S	1.5851	1.5892	1.5932	1.5972	1.6011	1.6050	1.6088	1.6126	1.6164

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
56	V	5.9249	6.0124	6.0999	6.1873	6.2748	6.3622	6.4496	6.5370	6.6244
	H	514.46	520.01	525.58	531.17	536.78	542.41	548.06	553.73	559.41
	S	1.5818	1.5858	1.5898	1.5938	1.5977	1.6016	1.6055	1.6093	1.6130
60	V	5.5305	5.6121	5.6938	5.7754	5.8571	5.9387	6.0203	6.1019	6.1835
	H	514.45	520.00	525.56	531.16	536.77	542.40	548.05	553.71	559.40
	S	1.5787	1.5827	1.5867	1.5907	1.5946	1.5985	1.6023	1.6061	1.6099
70	V	4.7415	4.8116	4.8817	4.9517	5.0218	5.0918	5.1618	5.2318	5.3018
	H	514.40	519.95	525.53	531.12	536.73	542.36	548.01	553.68	559.37
	S	1.5717	1.5758	1.5798	1.5837	1.5877	1.5916	1.5954	1.5992	1.6030
80	V	4.1499	4.2112	4.2726	4.3339	4.3953	4.4566	4.5179	4.5792	4.6405
	H	514.36	519.91	525.49	531.08	536.70	542.33	547.98	553.65	559.34
	S	1.5657	1.5697	1.5738	1.5777	1.5816	1.5855	1.5894	1.5932	1.5969
90	V	3.6897	3.7443	3.7989	3.8534	3.9080	3.9625	4.0171	4.0716	4.1261
	H	514.32	519.87	525.45	531.04	536.66	542.30	547.95	553.62	559.31
	S	1.5604	1.5644	1.5684	1.5724	1.5763	1.5802	1.5840	1.5879	1.5916
100	V	3.3215	3.3707	3.4199	3.4690	3.5182	3.5673	3.6164	3.6655	3.7146
	H	514.28	519.83	525.41	531.01	536.62	542.26	547.92	553.59	559.28
	S	1.5556	1.5597	1.5637	1.5676	1.5716	1.5754	1.5793	1.5831	1.5869
110	V	3.0203	3.0650	3.1098	3.1545	3.1992	3.2439	3.2886	3.3333	3.3780
	H	514.24	519.79	525.37	530.97	536.59	542.23	547.88	553.56	559.26
	S	1.5513	1.5553	1.5594	1.5633	1.5672	1.5711	1.5750	1.5788	1.5826
120	V	2.7693	2.8103	2.8514	2.8924	2.9334	2.9744	3.0154	3.0564	3.0974
	H	514.20	519.75	525.33	530.93	536.55	542.19	547.85	553.53	559.23
	S	1.5473	1.5514	1.5554	1.5594	1.5633	1.5672	1.5710	1.5748	1.5786
130	V	2.5569	2.5948	2.6327	2.6706	2.7085	2.7464	2.7843	2.8221	2.8600
	H	514.15	519.71	525.30	530.90	536.52	542.16	547.82	553.50	559.20
	S	1.5437	1.5478	1.5518	1.5557	1.5597	1.5636	1.5674	1.5712	1.5750
140	V	2.3748	2.4100	2.4453	2.4805	2.5157	2.5510	2.5862	2.6213	2.6565
	H	514.11	519.67	525.26	530.86	536.48	542.13	547.79	553.47	559.17
	S	1.5403	1.5444	1.5484	1.5524	1.5563	1.5602	1.5641	1.5679	1.5716
150	V	2.2170	2.2499	2.2829	2.3158	2.3487	2.3816	2.4144	2.4473	2.4802
	H	514.07	519.63	525.22	530.82	536.45	542.09	547.76	553.44	559.14
	S	1.5372	1.5413	1.5453	1.5493	1.5532	1.5571	1.5609	1.5647	1.5685

24	PRESSURE		TEMPERATURE								
	PSIA		900	920	940	960	980	1000	1020	1040	1060
160	V		2.0789	2.1098	2.1407	2.1716	2.2025	2.2333	2.2642	2.2950	2.3259
	H		514.03	519.59	525.18	530.79	536.41	542.06	547.72	553.41	559.11
	S		1.5343	1.5383	1.5423	1.5463	1.5503	1.5541	1.5580	1.5618	1.5656
170	V		1.9571	1.9862	2.0153	2.0444	2.0735	2.1026	2.1316	2.1607	2.1897
	H		513.99	519.55	525.14	530.75	536.38	542.03	547.69	553.38	559.08
	S		1.5315	1.5356	1.5396	1.5436	1.5475	1.5514	1.5552	1.5591	1.5628
180	V		1.8488	1.8763	1.9039	1.9314	1.9588	1.9863	2.0138	2.0412	2.0687
	H		513.95	519.51	525.10	530.71	536.34	541.99	547.66	553.35	559.05
	S		1.5289	1.5330	1.5370	1.5410	1.5449	1.5488	1.5526	1.5565	1.5602
190	V		1.7519	1.7780	1.8041	1.8302	1.8562	1.8823	1.9083	1.9344	1.9604
	H		513.90	519.47	525.07	530.68	536.31	541.96	547.63	553.32	559.02
	S		1.5264	1.5305	1.5345	1.5385	1.5424	1.5463	1.5502	1.5540	1.5578
200	V		1.6647	1.6895	1.7143	1.7391	1.7639	1.7887	1.8134	1.8382	1.8629
	H		513.86	519.44	525.03	530.64	536.27	541.93	547.60	553.29	558.99
	S		1.5241	1.5282	1.5322	1.5362	1.5401	1.5440	1.5478	1.5517	1.5554
220	V		1.5141	1.5367	1.5593	1.5819	1.6044	1.6270	1.6495	1.6720	1.6946
	H		513.78	519.36	524.95	530.57	536.20	541.86	547.53	553.22	558.93
	S		1.5197	1.5238	1.5278	1.5318	1.5357	1.5396	1.5435	1.5473	1.5511
240	V		1.3886	1.4093	1.4301	1.4508	1.4715	1.4922	1.5129	1.5336	1.5543
	H		513.70	519.28	524.88	530.50	536.13	541.79	547.47	553.16	558.88
	S		1.5158	1.5198	1.5238	1.5278	1.5318	1.5357	1.5395	1.5434	1.5471
260	V		1.2824	1.3016	1.3207	1.3399	1.3590	1.3782	1.3973	1.4164	1.4355
	H		513.61	519.20	524.80	530.42	536.07	541.73	547.41	553.10	558.82
	S		1.5121	1.5162	1.5202	1.5242	1.5281	1.5320	1.5359	1.5397	1.5435
280	V		1.1913	1.2092	1.2270	1.2448	1.2626	1.2805	1.2982	1.3160	1.3338
	H		513.53	519.12	524.72	530.35	536.00	541.66	547.34	553.04	558.76
	S		1.5087	1.5127	1.5168	1.5208	1.5247	1.5286	1.5325	1.5363	1.5401
300	V		1.1124	1.1291	1.1458	1.1624	1.1791	1.1957	1.2124	1.2290	1.2456
	H		513.45	519.04	524.65	530.28	535.93	541.59	547.28	552.98	558.70
	S		1.5055	1.5096	1.5136	1.5176	1.5215	1.5255	1.5293	1.5331	1.5369
320	V		1.0434	1.0590	1.0747	1.0904	1.1060	1.1216	1.1372	1.1528	1.1684
	H		513.37	518.96	524.57	530.21	535.86	541.53	547.22	552.92	558.65
	S		1.5025	1.5066	1.5106	1.5146	1.5186	1.5225	1.5264	1.5302	1.5340

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
340	V	0.9825	0.9972	1.0120	1.0267	1.0415	1.0562	1.0709	1.0856	1.1003
	H	513.28	518.88	524.50	530.13	535.79	541.46	547.15	552.86	558.59
	S	1.4997	1.5038	1.5078	1.5118	1.5158	1.5197	1.5236	1.5274	1.5312
360	V	0.9283	0.9423	0.9562	0.9702	0.9841	0.9981	1.0119	1.0258	1.0397
	H	513.20	518.80	524.42	530.06	535.72	541.40	547.08	552.79	558.52
	S	1.4971	1.5012	1.5052	1.5092	1.5131	1.5171	1.5209	1.5248	1.5285
380	V	0.8798	0.8931	0.9064	0.9196	0.9327	0.9460	0.9592	0.9723	0.9855
	H	513.12	518.72	524.35	529.99	535.64	541.32	547.02	552.73	558.46
	S	1.4946	1.4987	1.5027	1.5067	1.5106	1.5146	1.5184	1.5223	1.5261
400	V	0.8362	0.8489	0.8615	0.8740	0.8866	0.8991	0.9117	0.9242	0.9368
	H	513.04	518.65	524.27	529.91	535.57	541.26	546.96	552.67	558.41
	S	1.4922	1.4963	1.5003	1.5043	1.5083	1.5122	1.5161	1.5199	1.5237
420	V	0.7968	0.8087	0.8208	0.8328	0.8448	0.8568	0.8687	0.8807	0.8927
	H	512.96	518.56	524.19	529.84	535.51	541.19	546.89	552.61	558.35
	S	1.4899	1.4940	1.4981	1.5021	1.5060	1.5099	1.5138	1.5176	1.5214
440	V	0.7608	0.7723	0.7838	0.7953	0.8068	0.8182	0.8297	0.8411	0.8526
	H	512.87	518.48	524.12	529.77	535.44	541.12	546.83	552.55	558.29
	S	1.4877	1.4918	1.4959	1.4999	1.5039	1.5078	1.5117	1.5155	1.5193
460	V	0.7281	0.7391	0.7501	0.7611	0.7721	0.7831	0.7940	0.8050	0.8159
	H	512.79	518.40	524.04	529.69	535.37	541.06	546.77	552.49	558.23
	S	1.4857	1.4898	1.4938	1.4978	1.5018	1.5057	1.5096	1.5134	1.5172
480	V	0.6980	0.7086	0.7192	0.7297	0.7403	0.7508	0.7614	0.7719	0.7824
	H	512.71	518.33	523.96	529.62	535.30	540.99	546.70	552.43	558.17
	S	1.4837	1.4878	1.4918	1.4958	1.4998	1.5037	1.5076	1.5115	1.5153
500	V	0.6704	0.6806	0.6907	0.7009	0.7110	0.7212	0.7313	0.7414	0.7515
	H	512.62	518.25	523.89	529.55	535.23	540.93	546.64	552.37	558.12
	S	1.4818	1.4859	1.4899	1.4939	1.4979	1.5018	1.5057	1.5096	1.5134
520	V	0.6449	0.6547	0.6645	0.6743	0.6840	0.6938	0.7035	0.7133	0.7230
	H	512.54	518.17	523.81	529.48	535.16	540.86	546.58	552.31	558.06
	S	1.4799	1.4840	1.4881	1.4921	1.4961	1.5000	1.5039	1.5077	1.5115
540	V	0.6213	0.6307	0.6402	0.6496	0.6590	0.6684	0.6778	0.6872	0.6966
	H	512.46	518.09	523.74	529.41	535.09	540.79	546.51	552.25	558.00
	S	1.4782	1.4823	1.4863	1.4903	1.4943	1.4982	1.5021	1.5060	1.5098

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
560	V	0.5993	0.6085	0.6176	0.6267	0.6358	0.6449	0.6539	0.6630	0.6721
	H	512.38	518.01	523.66	529.33	535.02	540.73	546.45	552.19	557.94
	S	1.4764	1.4805	1.4846	1.4886	1.4926	1.4965	1.5004	1.5043	1.5081
580	V	0.5789	0.5877	0.5966	0.6054	0.6142	0.6229	0.6317	0.6405	0.6492
	H	512.30	517.93	523.59	529.26	534.95	540.66	546.39	552.13	557.89
	S	1.4748	1.4789	1.4830	1.4870	1.4910	1.4949	1.4988	1.5026	1.5064
600	V	0.5599	0.5684	0.5769	0.5855	0.5940	0.6025	0.6110	0.6195	0.6279
	H	512.22	517.86	523.52	529.19	534.88	540.60	546.32	552.07	557.83
	S	1.4732	1.4773	1.4814	1.4854	1.4894	1.4933	1.4972	1.5011	1.5049
620	V	0.5420	0.5503	0.5586	0.5668	0.5751	0.5833	0.5916	0.5998	0.6080
	H	512.14	517.78	523.44	529.12	534.82	540.53	546.26	552.01	557.77
	S	1.4716	1.4758	1.4798	1.4838	1.4878	1.4918	1.4957	1.4995	1.5033
640	V	0.5253	0.5333	0.5414	0.5494	0.5574	0.5654	0.5734	0.5813	0.5893
	H	512.05	517.70	523.37	529.05	534.75	540.46	546.20	551.95	557.71
	S	1.4701	1.4742	1.4783	1.4823	1.4863	1.4903	1.4942	1.4980	1.5018
660	V	0.5096	0.5174	0.5252	0.5330	0.5408	0.5485	0.5563	0.5640	0.5718
	H	511.97	517.62	523.29	528.98	534.68	540.40	546.14	551.89	557.66
	S	1.4687	1.4728	1.4769	1.4809	1.4849	1.4888	1.4927	1.4966	1.5004
680	V	0.4948	0.5024	0.5100	0.5176	0.5251	0.5327	0.5402	0.5477	0.5552
	H	511.89	517.55	523.22	528.91	534.61	540.33	546.07	551.83	557.60
	S	1.4673	1.4714	1.4755	1.4795	1.4835	1.4874	1.4913	1.4952	1.4990
700	V	0.4809	0.4883	0.4956	0.5030	0.5103	0.5177	0.5250	0.5323	0.5396
	H	511.81	517.47	523.14	528.83	534.54	540.27	546.01	551.77	557.54
	S	1.4659	1.4700	1.4741	1.4781	1.4821	1.4860	1.4899	1.4938	1.4976
720	V	0.4677	0.4749	0.4821	0.4892	0.4964	0.5036	0.5107	0.5178	0.5249
	H	511.73	517.39	523.07	528.76	534.47	540.20	545.95	551.71	557.48
	S	1.4645	1.4687	1.4727	1.4768	1.4808	1.4847	1.4886	1.4925	1.4963
740	V	0.4552	0.4623	0.4693	0.4762	0.4832	0.4902	0.4971	0.5041	0.5110
	H	511.65	517.31	522.99	528.69	534.41	540.14	545.88	551.65	557.43
	S	1.4632	1.4674	1.4714	1.4755	1.4795	1.4834	1.4873	1.4912	1.4950
760	V	0.4434	0.4503	0.4571	0.4639	0.4707	0.4775	0.4843	0.4911	0.4978
	H	511.57	517.24	522.92	528.62	534.34	540.07	545.82	551.59	557.37
	S	1.4619	1.4661	1.4702	1.4742	1.4782	1.4822	1.4861	1.4899	1.4938

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
780	V	0.4323	0.4389	0.4456	0.4522	0.4589	0.4655	0.4721	0.4787	0.4853
	H	511.49	517.16	522.85	528.55	534.27	540.01	545.76	551.53	557.31
	S	1.4607	1.4648	1.4689	1.4730	1.4770	1.4809	1.4848	1.4887	1.4925
800	V	0.4216	0.4281	0.4346	0.4411	0.4476	0.4541	0.4605	0.4670	0.4734
	H	511.41	517.08	522.77	528.48	534.20	539.94	545.70	551.47	557.26
	S	1.4595	1.4636	1.4677	1.4718	1.4758	1.4797	1.4836	1.4875	1.4913
820	V	0.4115	0.4179	0.4242	0.4306	0.4369	0.4432	0.4495	0.4558	0.4621
	H	511.33	517.01	522.70	528.41	534.14	539.88	545.64	551.41	557.20
	S	1.4583	1.4624	1.4665	1.4706	1.4746	1.4785	1.4825	1.4863	1.4902
840	V	0.4019	0.4081	0.4143	0.4205	0.4267	0.4328	0.4390	0.4452	0.4513
	H	511.25	516.93	522.63	528.34	534.07	539.81	545.57	551.35	557.14
	S	1.4571	1.4613	1.4654	1.4694	1.4734	1.4774	1.4813	1.4852	1.4890
860	V	0.3927	0.3988	0.4048	0.4109	0.4169	0.4230	0.4290	0.4350	0.4410
	H	511.17	516.85	522.55	528.27	534.00	539.75	545.51	551.29	557.09
	S	1.4560	1.4602	1.4642	1.4683	1.4723	1.4763	1.4802	1.4841	1.4879
880	V	0.3839	0.3898	0.3958	0.4017	0.4076	0.4136	0.4195	0.4254	0.4312
	H	511.09	516.78	522.48	528.20	533.93	539.68	545.45	551.23	557.03
	S	1.4549	1.4590	1.4631	1.4672	1.4712	1.4752	1.4791	1.4830	1.4868
900	V	0.3755	0.3813	0.3872	0.3930	0.3988	0.4046	0.4103	0.4161	0.4219
	H	511.01	516.70	522.41	528.13	533.86	539.62	545.39	551.17	556.97
	S	1.4538	1.4580	1.4621	1.4661	1.4701	1.4741	1.4780	1.4819	1.4857
920	V	0.3675	0.3732	0.3789	0.3846	0.3903	0.3959	0.4016	0.4073	0.4129
	H	510.93	516.62	522.33	528.06	533.80	539.55	545.33	551.11	556.91
	S	1.4527	1.4569	1.4610	1.4651	1.4691	1.4730	1.4770	1.4808	1.4847
940	V	0.3598	0.3654	0.3710	0.3766	0.3821	0.3877	0.3932	0.3988	0.4043
	H	510.85	516.55	522.26	527.99	533.73	539.49	545.26	551.05	556.86
	S	1.4517	1.4559	1.4600	1.4640	1.4680	1.4720	1.4759	1.4798	1.4837
960	V	0.3524	0.3579	0.3634	0.3689	0.3743	0.3798	0.3852	0.3907	0.3961
	H	510.77	516.47	522.19	527.92	533.66	539.42	545.20	550.99	556.80
	S	1.4507	1.4548	1.4589	1.4630	1.4670	1.4710	1.4749	1.4788	1.4826
980	V	0.3454	0.3508	0.3561	0.3615	0.3669	0.3722	0.3775	0.3829	0.3882
	H	510.69	516.39	522.11	527.85	533.60	539.36	545.14	550.93	556.74
	S	1.4497	1.4538	1.4579	1.4620	1.4660	1.4700	1.4739	1.4778	1.4817

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
1000	V	0.3386	0.3439	0.3492	0.3544	0.3597	0.3649	0.3702	0.3754	0.3806
	H	510.61	516.32	522.04	527.78	533.53	539.30	545.08	550.88	556.69
	S	1.4487	1.4529	1.4570	1.4610	1.4651	1.4690	1.4730	1.4768	1.4807
1020	V	0.3321	0.3373	0.3425	0.3476	0.3528	0.3579	0.3631	0.3682	0.3733
	H	510.53	516.24	521.97	527.71	533.46	539.23	545.02	550.82	556.63
	S	1.4477	1.4519	1.4560	1.4601	1.4641	1.4681	1.4720	1.4759	1.4797
1040	V	0.3258	0.3309	0.3360	0.3411	0.3462	0.3512	0.3563	0.3613	0.3663
	H	510.46	516.17	521.89	527.64	533.39	539.17	544.95	550.76	556.57
	S	1.4468	1.4509	1.4551	1.4591	1.4632	1.4671	1.4711	1.4750	1.4788
1060	V	0.3198	0.3248	0.3298	0.3348	0.3398	0.3447	0.3497	0.3546	0.3596
	H	510.38	516.09	521.82	527.57	533.33	539.10	544.89	550.70	556.52
	S	1.4458	1.4500	1.4541	1.4582	1.4622	1.4662	1.4701	1.4740	1.4779
1080	V	0.3140	0.3189	0.3238	0.3287	0.3336	0.3385	0.3434	0.3482	0.3531
	H	510.30	516.02	521.75	527.50	533.26	539.04	544.83	550.64	556.46
	S	1.4449	1.4491	1.4532	1.4573	1.4613	1.4653	1.4692	1.4731	1.4770
1100	V	0.3084	0.3132	0.3181	0.3229	0.3277	0.3325	0.3373	0.3421	0.3468
	H	510.22	515.94	521.68	527.43	533.19	538.97	544.77	550.58	556.41
	S	1.4440	1.4482	1.4523	1.4564	1.4604	1.4644	1.4684	1.4723	1.4761
1120	V	0.3030	0.3078	0.3125	0.3173	0.3220	0.3267	0.3314	0.3361	0.3408
	H	510.14	515.86	521.60	527.36	533.13	538.91	544.71	550.52	556.35
	S	1.4431	1.4473	1.4514	1.4555	1.4596	1.4635	1.4675	1.4714	1.4752
1140	V	0.2978	0.3025	0.3072	0.3118	0.3165	0.3211	0.3257	0.3304	0.3350
	H	510.06	515.79	521.53	527.29	533.06	538.85	544.65	550.46	556.29
	S	1.4423	1.4465	1.4506	1.4547	1.4587	1.4627	1.4666	1.4705	1.4744
1160	V	0.2928	0.2974	0.3020	0.3066	0.3111	0.3157	0.3203	0.3248	0.3294
	H	509.98	515.71	521.46	527.22	532.99	538.78	544.59	550.40	556.24
	S	1.4414	1.4456	1.4497	1.4538	1.4578	1.4618	1.4658	1.4697	1.4735
1180	V	0.2879	0.2924	0.2970	0.3015	0.3060	0.3105	0.3150	0.3195	0.3239
	H	509.90	515.64	521.39	527.15	532.93	538.72	544.52	550.35	556.18
	S	1.4406	1.4448	1.4489	1.4530	1.4570	1.4610	1.4649	1.4689	1.4727
1200	V	0.2832	0.2877	0.2921	0.2966	0.3010	0.3054	0.3099	0.3143	0.3187
	H	509.83	515.56	521.31	527.08	532.86	538.65	544.46	550.29	556.12
	S	1.4397	1.4439	1.4481	1.4521	1.4562	1.4602	1.4641	1.4680	1.4719

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
1220	V	0.2787	0.2831	0.2875	0.2918	0.2962	0.3006	0.3049	0.3093	0.3136
	H	509.75	515.49	521.24	527.01	532.79	538.59	544.40	550.23	556.07
	S	1.4389	1.4431	1.4472	1.4513	1.4554	1.4594	1.4633	1.4672	1.4711
1240	V	0.2743	0.2786	0.2829	0.2872	0.2915	0.2958	0.3001	0.3044	0.3087
	H	509.67	515.41	521.17	526.94	532.73	538.53	544.34	550.17	556.01
	S	1.4381	1.4423	1.4464	1.4505	1.4546	1.4586	1.4625	1.4664	1.4703
1260	V	0.2700	0.2743	0.2785	0.2828	0.2870	0.2913	0.2955	0.2997	0.3039
	H	509.59	515.34	521.10	526.87	532.66	538.46	544.28	550.11	555.96
	S	1.4373	1.4415	1.4457	1.4498	1.4538	1.4578	1.4617	1.4657	1.4695
1280	V	0.2659	0.2701	0.2743	0.2785	0.2827	0.2868	0.2910	0.2952	0.2993
	H	509.51	515.26	521.03	526.80	532.59	538.40	544.22	550.05	555.90
	S	1.4365	1.4407	1.4449	1.4490	1.4530	1.4570	1.4610	1.4649	1.4688
1300	V	0.2619	0.2660	0.2702	0.2743	0.2784	0.2825	0.2866	0.2907	0.2948
	H	509.44	515.19	520.95	526.73	532.53	538.34	544.16	549.99	555.84
	S	1.4358	1.4400	1.4441	1.4482	1.4523	1.4563	1.4602	1.4641	1.4680
1320	V	0.2580	0.2621	0.2662	0.2703	0.2743	0.2784	0.2824	0.2865	0.2905
	H	509.36	515.11	520.88	526.66	532.46	538.27	544.10	549.94	555.79
	S	1.4350	1.4392	1.4434	1.4475	1.4515	1.4555	1.4595	1.4634	1.4673
1340	V	0.2542	0.2583	0.2623	0.2663	0.2703	0.2743	0.2783	0.2823	0.2863
	H	509.28	515.04	520.81	526.60	532.40	538.21	544.04	549.88	555.73
	S	1.4343	1.4385	1.4426	1.4467	1.4508	1.4548	1.4587	1.4626	1.4665
1360	V	0.2506	0.2546	0.2586	0.2625	0.2665	0.2704	0.2744	0.2783	0.2822
	H	509.20	514.96	520.74	526.53	532.33	538.15	543.98	549.82	555.68
	S	1.4335	1.4377	1.4419	1.4460	1.4500	1.4540	1.4580	1.4619	1.4658
1380	V	0.2470	0.2510	0.2549	0.2588	0.2627	0.2666	0.2705	0.2744	0.2782
	H	509.12	514.89	520.67	526.46	532.26	538.08	543.91	549.76	555.62
	S	1.4328	1.4370	1.4411	1.4453	1.4493	1.4533	1.4573	1.4612	1.4651
1400	V	0.2436	0.2475	0.2513	0.2552	0.2591	0.2629	0.2667	0.2706	0.2744
	H	509.05	514.81	520.59	526.39	532.20	538.02	543.85	549.70	555.56
	S	1.4321	1.4363	1.4404	1.4445	1.4486	1.4526	1.4566	1.4605	1.4644
1450	V	0.2354	0.2392	0.2429	0.2466	0.2504	0.2541	0.2578	0.2615	0.2652
	H	508.85	514.63	520.42	526.22	532.03	537.86	543.70	549.56	555.43
	S	1.4303	1.4345	1.4387	1.4428	1.4469	1.4509	1.4548	1.4588	1.4627

PRESSURE PSIA		TEMPERATURE								
		900	920	940	960	980	1000	1020	1040	1060
1500	V	0.2277	0.2314	0.2350	0.2386	0.2423	0.2459	0.2495	0.2531	0.2566
	H	508.66	514.44	520.24	526.05	531.87	537.70	543.55	549.41	555.29
	S	1.4286	1.4328	1.4370	1.4411	1.4452	1.4492	1.4532	1.4571	1.4610
1550	V	0.2206	0.2241	0.2276	0.2312	0.2347	0.2382	0.2417	0.2451	0.2486
	H	508.47	514.26	520.06	525.88	531.70	537.55	543.40	549.27	555.15
	S	1.4269	1.4312	1.4353	1.4395	1.4435	1.4476	1.4515	1.4555	1.4594
1600	V	0.2138	0.2173	0.2207	0.2241	0.2276	0.2310	0.2343	0.2377	0.2411
	H	508.28	514.07	519.88	525.71	531.54	537.39	543.25	549.12	555.01
	S	1.4253	1.4296	1.4337	1.4379	1.4419	1.4460	1.4500	1.4539	1.4578
1650	V	0.2075	0.2109	0.2142	0.2175	0.2209	0.2242	0.2275	0.2308	0.2340
	H	508.09	513.89	519.71	525.54	531.38	537.23	543.10	548.98	554.87
	S	1.4238	1.4280	1.4322	1.4363	1.4404	1.4444	1.4484	1.4524	1.4563
1700	V	0.2016	0.2048	0.2081	0.2113	0.2146	0.2178	0.2210	0.2242	0.2274
	H	507.89	513.71	519.53	525.37	531.21	537.08	542.95	548.83	554.73
	S	1.4222	1.4265	1.4307	1.4348	1.4389	1.4429	1.4469	1.4509	1.4548
1750	V	0.1960	0.1991	0.2023	0.2055	0.2086	0.2118	0.2149	0.2180	0.2211
	H	507.70	513.52	519.35	525.20	531.05	536.92	542.80	548.69	554.59
	S	1.4208	1.4250	1.4292	1.4333	1.4374	1.4415	1.4455	1.4494	1.4533
1800	V	0.1907	0.1938	0.1969	0.1999	0.2030	0.2061	0.2091	0.2122	0.2152
	H	507.51	513.34	519.18	525.03	530.89	536.76	542.65	548.55	554.46
	S	1.4193	1.4236	1.4278	1.4319	1.4360	1.4400	1.4440	1.4480	1.4519
1850	V	0.1857	0.1887	0.1917	0.1947	0.1977	0.2007	0.2037	0.2066	0.2096
	H	507.32	513.16	519.00	524.86	530.73	536.61	542.50	548.40	554.32
	S	1.4179	1.4222	1.4264	1.4305	1.4346	1.4387	1.4427	1.4466	1.4505
1900	V	0.1809	0.1839	0.1868	0.1897	0.1927	0.1956	0.1985	0.2014	0.2043
	H	507.13	512.98	518.83	524.69	530.57	536.45	542.35	548.26	554.18
	S	1.4165	1.4208	1.4250	1.4291	1.4332	1.4373	1.4413	1.4453	1.4492
1950	V	0.1764	0.1793	0.1822	0.1850	0.1879	0.1907	0.1936	0.1964	0.1992
	H	506.95	512.79	518.65	524.52	530.40	536.30	542.20	548.12	554.04
	S	1.4152	1.4194	1.4236	1.4278	1.4319	1.4360	1.4400	1.4440	1.4479
2000	V	0.1721	0.1749	0.1777	0.1805	0.1833	0.1861	0.1889	0.1917	0.1944
	H	506.76	512.61	518.48	524.36	530.24	536.14	542.05	547.97	553.91
	S	1.4139	1.4181	1.4223	1.4265	1.4306	1.4347	1.4387	1.4427	1.4466

PRESSURE PSIA		TEMPERATURE								
		1080	1100	1120	1140	1160	1180	1200	1220	1240
14.696	V	25.5427	25.8747	26.2067	26.5386	26.8706	27.2025	27.5345	27.8664	28.1983
	H	565.23	570.95	576.69	582.44	588.21	593.99	599.79	605.61	611.45
	S	1.6769	1.6806	1.6842	1.6878	1.6914	1.6950	1.6985	1.7020	1.7054
16	V	23.4619	23.7669	24.0718	24.3768	24.6817	24.9866	25.2915	25.5964	25.9013
	H	565.23	570.95	576.68	582.44	588.20	593.99	599.79	605.61	611.44
	S	1.6731	1.6768	1.6804	1.6840	1.6876	1.6912	1.6947	1.6981	1.7016
20	V	18.7719	19.0159	19.2599	19.5040	19.7480	19.9920	20.2360	20.4799	20.7239
	H	565.22	570.94	576.67	582.43	588.20	593.98	599.78	605.60	611.44
	S	1.6630	1.6667	1.6704	1.6740	1.6776	1.6811	1.6846	1.6881	1.6916
24	V	15.6452	15.8486	16.0520	16.2554	16.4588	16.6622	16.8656	17.0690	17.2723
	H	565.21	570.93	576.66	582.42	588.19	593.97	599.78	605.59	611.43
	S	1.6549	1.6585	1.6622	1.6658	1.6694	1.6729	1.6765	1.6799	1.6834
28	V	13.4119	13.5863	13.7607	13.9351	14.1094	14.2838	14.4582	14.6325	14.8069
	H	565.20	570.92	576.65	582.41	588.18	593.96	599.77	605.59	611.42
	S	1.6479	1.6516	1.6553	1.6589	1.6625	1.6660	1.6695	1.6730	1.6765
32	V	11.7368	11.8895	12.0421	12.1948	12.3474	12.5000	12.6526	12.8052	12.9578
	H	565.19	570.91	576.64	582.40	588.17	593.96	599.76	605.58	611.41
	S	1.6419	1.6456	1.6493	1.6529	1.6565	1.6600	1.6635	1.6670	1.6705
36	V	10.4340	10.5698	10.7055	10.8412	10.9769	11.1126	11.2483	11.3840	11.5196
	H	565.17	570.89	576.63	582.39	588.16	593.95	599.75	605.57	611.41
	S	1.6366	1.6403	1.6440	1.6476	1.6512	1.6547	1.6582	1.6617	1.6652
40	V	9.3918	9.5140	9.6362	9.7584	9.8805	10.0027	10.1248	10.2470	10.3691
	H	565.16	570.88	576.62	582.38	588.15	593.94	599.74	605.56	611.40
	S	1.6319	1.6356	1.6392	1.6428	1.6464	1.6500	1.6535	1.6570	1.6604
44	V	8.5391	8.6502	8.7613	8.8724	8.9835	9.0946	9.2056	9.3167	9.4278
	H	565.15	570.87	576.61	582.37	588.14	593.93	599.73	605.55	611.39
	S	1.6276	1.6313	1.6349	1.6386	1.6421	1.6457	1.6492	1.6527	1.6561
48	V	7.8285	7.9304	8.0322	8.1341	8.2359	8.3378	8.4396	8.5415	8.6433
	H	565.14	570.86	576.60	582.36	588.13	593.92	599.73	605.55	611.38
	S	1.6237	1.6274	1.6310	1.6346	1.6382	1.6418	1.6453	1.6488	1.6522
52	V	7.2272	7.3213	7.4153	7.5094	7.6034	7.6975	7.7915	7.8855	7.9795
	H	565.13	570.85	576.59	582.35	588.12	593.91	599.72	605.54	611.38
	S	1.6201	1.6238	1.6274	1.6310	1.6346	1.6382	1.6417	1.6452	1.6486

132	PRESSURE PSIA		TEMPERATURE								
			1080	1100	1120	1140	1160	1180	1200	1220	1240
56	V		6.7118	6.7992	6.8865	6.9739	7.0612	7.1486	7.2359	7.3232	7.4106
	H		565.12	570.84	576.58	582.34	588.11	593.90	599.71	605.53	611.37
	S		1.6167	1.6204	1.6241	1.6277	1.6313	1.6348	1.6384	1.6418	1.6453
60	V		6.2651	6.3467	6.4283	6.5098	6.5914	6.6729	6.7544	6.8360	6.9175
	H		565.11	570.83	576.57	582.33	588.10	593.89	599.70	605.52	611.36
	S		1.6136	1.6173	1.6210	1.6246	1.6282	1.6317	1.6353	1.6387	1.6422
70	V		5.3718	5.4417	5.5117	5.5817	5.6516	5.7215	5.7915	5.8614	5.9313
	H		565.08	570.80	576.55	582.30	588.08	593.87	599.68	605.50	611.34
	S		1.6067	1.6104	1.6140	1.6177	1.6212	1.6248	1.6283	1.6318	1.6352
80	V		4.7018	4.7630	4.8243	4.8855	4.9468	5.0080	5.0692	5.1304	5.1917
	H		565.05	570.78	576.52	582.28	588.06	593.85	599.66	605.48	611.33
	S		1.6007	1.6044	1.6080	1.6116	1.6152	1.6188	1.6223	1.6258	1.6292
90	V		4.1806	4.2351	4.2896	4.3441	4.3986	4.4530	4.5075	4.5619	4.6164
	H		565.02	570.75	576.49	582.26	588.03	593.83	599.64	605.47	611.31
	S		1.5954	1.5990	1.6027	1.6063	1.6099	1.6135	1.6170	1.6205	1.6239
100	V		3.7637	3.8128	3.8619	3.9110	3.9600	4.0091	4.0581	4.1071	4.1562
	H		565.00	570.72	576.47	582.23	588.01	593.81	599.62	605.45	611.29
	S		1.5906	1.5943	1.5979	1.6016	1.6052	1.6087	1.6122	1.6157	1.6192
110	V		3.4226	3.4673	3.5119	3.5566	3.6012	3.6458	3.6904	3.7350	3.7796
	H		564.97	570.70	576.44	582.21	587.99	593.79	599.60	605.43	611.27
	S		1.5863	1.5900	1.5936	1.5973	1.6008	1.6044	1.6079	1.6114	1.6149
120	V		3.1384	3.1793	3.2203	3.2612	3.3022	3.3431	3.3840	3.4249	3.4658
	H		564.94	570.67	576.42	582.18	587.97	593.76	599.58	605.41	611.25
	S		1.5823	1.5860	1.5897	1.5933	1.5969	1.6005	1.6040	1.6075	1.6109
130	V		2.8979	2.9357	2.9735	3.0113	3.0491	3.0869	3.1247	3.1625	3.2003
	H		564.91	570.64	576.39	582.16	587.94	593.74	599.56	605.39	611.23
	S		1.5787	1.5824	1.5861	1.5897	1.5933	1.5969	1.6004	1.6039	1.6073
140	V		2.6917	2.7268	2.7620	2.7971	2.8323	2.8674	2.9025	2.9376	2.9727
	H		564.88	570.62	576.37	582.14	587.92	593.72	599.54	605.37	611.22
	S		1.5754	1.5791	1.5827	1.5864	1.5899	1.5935	1.5970	1.6005	1.6040
150	V		2.5130	2.5458	2.5787	2.6115	2.6443	2.6771	2.7099	2.7427	2.7755
	H		564.86	570.59	576.34	582.11	587.90	593.70	599.52	605.35	611.20
	S		1.5722	1.5759	1.5796	1.5832	1.5868	1.5904	1.5939	1.5974	1.6008

PRESSURE
PSIA

TEMPERATURE

		1080	1100	1120	1140	1160	1180	1200	1220	1240
160	V	2.3567	2.3875	2.4183	2.4491	2.4798	2.5106	2.5414	2.5721	2.6029
	H	564.83	570.56	576.32	582.09	587.87	593.68	599.50	605.33	611.18
	S	1.5693	1.5730	1.5767	1.5803	1.5839	1.5875	1.5910	1.5945	1.5979
170	V	2.2187	2.2477	2.2767	2.3057	2.3347	2.3637	2.3927	2.4216	2.4506
	H	564.80	570.54	576.29	582.06	587.85	593.66	599.48	605.31	611.16
	S	1.5666	1.5703	1.5739	1.5776	1.5811	1.5847	1.5882	1.5917	1.5952
180	V	2.0961	2.1235	2.1509	2.1783	2.2057	2.2331	2.2605	2.2879	2.3152
	H	564.77	570.51	576.27	582.04	587.83	593.63	599.46	605.29	611.14
	S	1.5640	1.5677	1.5713	1.5750	1.5786	1.5821	1.5856	1.5891	1.5926
190	V	1.9864	2.0124	2.0384	2.0643	2.0903	2.1163	2.1422	2.1682	2.1941
	H	564.74	570.48	576.24	582.02	587.81	593.61	599.43	605.27	611.12
	S	1.5615	1.5652	1.5689	1.5725	1.5761	1.5797	1.5832	1.5867	1.5901
200	V	1.8876	1.9123	1.9370	1.9617	1.9864	2.0111	2.0358	2.0604	2.0851
	H	564.72	570.46	576.22	581.99	587.78	593.59	599.41	605.25	611.11
	S	1.5592	1.5629	1.5665	1.5702	1.5738	1.5773	1.5809	1.5844	1.5878
220	V	1.7171	1.7396	1.7620	1.7845	1.8070	1.8295	1.8519	1.8744	1.8968
	H	564.66	570.41	576.17	581.94	587.74	593.55	599.37	605.21	611.07
	S	1.5548	1.5585	1.5622	1.5658	1.5694	1.5730	1.5765	1.5800	1.5835
240	V	1.5749	1.5956	1.6162	1.6368	1.6575	1.6781	1.6987	1.7193	1.7399
	H	564.61	570.35	576.12	581.90	587.69	593.51	599.33	605.18	611.03
	S	1.5509	1.5546	1.5582	1.5619	1.5655	1.5690	1.5726	1.5761	1.5795
260	V	1.4546	1.4737	1.4928	1.5119	1.5310	1.5500	1.5691	1.5881	1.6071
	H	564.55	570.30	576.07	581.85	587.65	593.46	599.29	605.14	611.00
	S	1.5472	1.5509	1.5546	1.5582	1.5618	1.5654	1.5689	1.5724	1.5759
280	V	1.3515	1.3693	1.3870	1.4048	1.4225	1.4402	1.4579	1.4756	1.4933
	H	564.50	570.25	576.02	581.80	587.60	593.42	599.25	605.10	610.96
	S	1.5438	1.5475	1.5512	1.5548	1.5585	1.5620	1.5655	1.5690	1.5725
300	V	1.2622	1.2788	1.2954	1.3119	1.3285	1.3451	1.3616	1.3781	1.3947
	H	564.44	570.20	575.97	581.75	587.56	593.38	599.21	605.06	610.93
	S	1.5407	1.5444	1.5481	1.5517	1.5553	1.5589	1.5624	1.5659	1.5694
320	V	1.1840	1.1996	1.2152	1.2306	1.2461	1.2617	1.2772	1.2927	1.3082
	H	564.39	570.14	575.92	581.70	587.51	593.33	599.16	605.02	610.88
	S	1.5377	1.5414	1.5451	1.5487	1.5523	1.5559	1.5594	1.5629	1.5664

PRESSURE PSIA		TEMPERATURE								
		1080	1100	1120	1140	1160	1180	1200	1220	1240
340	V	1.1149	1.1296	1.1442	1.1589	1.1735	1.1882	1.2028	1.2174	1.2321
	H	564.32	570.08	575.86	581.65	587.46	593.28	599.12	604.98	610.84
	S	1.5349	1.5386	1.5423	1.5460	1.5496	1.5531	1.5567	1.5602	1.5636
360	V	1.0536	1.0675	1.0813	1.0952	1.1090	1.1229	1.1367	1.1505	1.1644
	H	564.27	570.03	575.81	581.60	587.41	593.24	599.08	604.94	610.81
	S	1.5323	1.5360	1.5397	1.5433	1.5469	1.5505	1.5541	1.5576	1.5610
380	V	0.9987	1.0119	1.0250	1.0382	1.0513	1.0644	1.0776	1.0907	1.1038
	H	564.21	569.98	575.76	581.56	587.37	593.20	599.04	604.90	610.77
	S	1.5298	1.5335	1.5372	1.5409	1.5445	1.5480	1.5516	1.5551	1.5586
400	V	0.9493	0.9618	0.9743	0.9868	0.9993	1.0118	1.0243	1.0368	1.0492
	H	564.16	569.92	575.71	581.51	587.32	593.15	599.00	604.86	610.73
	S	1.5275	1.5312	1.5349	1.5385	1.5421	1.5457	1.5492	1.5527	1.5562
420	V	0.9046	0.9166	0.9285	0.9404	0.9523	0.9642	0.9761	0.9880	0.9999
	H	564.10	569.87	575.66	581.46	587.28	593.11	598.96	604.82	610.70
	S	1.5252	1.5289	1.5326	1.5362	1.5399	1.5434	1.5470	1.5505	1.5540
440	V	0.8640	0.8754	0.8868	0.8982	0.9096	0.9210	0.9323	0.9437	0.9551
	H	564.05	569.82	575.61	581.41	587.23	593.07	598.92	604.78	610.66
	S	1.5230	1.5268	1.5305	1.5341	1.5377	1.5413	1.5448	1.5483	1.5518
460	V	0.8269	0.8378	0.8487	0.8596	0.8706	0.8815	0.8923	0.9032	0.9141
	H	563.99	569.77	575.56	581.36	587.19	593.02	598.88	604.74	610.62
	S	1.5210	1.5247	1.5284	1.5321	1.5357	1.5392	1.5428	1.5463	1.5498
480	V	0.7929	0.8034	0.8138	0.8243	0.8348	0.8452	0.8557	0.8661	0.8766
	H	563.94	569.71	575.51	581.32	587.14	592.98	598.83	604.70	610.59
	S	1.5190	1.5227	1.5264	1.5301	1.5337	1.5373	1.5408	1.5443	1.5478
500	V	0.7616	0.7717	0.7817	0.7918	0.8019	0.8119	0.8220	0.8320	0.8420
	H	563.88	569.66	575.46	581.27	587.10	592.94	598.79	604.66	610.55
	S	1.5171	1.5209	1.5245	1.5282	1.5318	1.5354	1.5389	1.5425	1.5459
520	V	0.7327	0.7424	0.7521	0.7618	0.7715	0.7811	0.7908	0.8005	0.8101
	H	563.83	569.61	575.41	581.22	587.05	592.89	598.75	604.63	610.51
	S	1.5153	1.5190	1.5227	1.5264	1.5300	1.5336	1.5371	1.5406	1.5441
540	V	0.7060	0.7153	0.7247	0.7340	0.7433	0.7527	0.7620	0.7713	0.7806
	H	563.77	569.56	575.36	581.17	587.00	592.85	598.71	604.59	610.48
	S	1.5136	1.5173	1.5210	1.5246	1.5282	1.5318	1.5354	1.5389	1.5424

PRESSURE PSIA		1080	1100	1120	TEMPERATURE		1180	1200	1220	1240
					1140	1160				
560	V	0.6811	0.6901	0.5992	0.7082	0.7172	0.7262	0.7352	0.7442	0.7532
	H	563.72	569.50	575.31	581.12	586.96	592.81	598.67	604.55	610.44
	S	1.5119	1.5156	1.5193	1.5229	1.5266	1.5301	1.5337	1.5372	1.5407
580	V	0.6580	0.6667	0.6754	0.6842	0.6929	0.7016	0.7103	0.7190	0.7276
	H	563.66	569.45	575.26	581.08	586.91	592.76	598.63	604.51	610.40
	S	1.5102	1.5140	1.5176	1.5213	1.5249	1.5285	1.5321	1.5356	1.5391
600	V	0.6364	0.6449	0.6533	0.6617	0.6702	0.6786	0.6870	0.6954	0.7038
	H	563.61	569.40	575.21	581.03	586.87	592.72	598.59	604.47	610.37
	S	1.5086	1.5124	1.5161	1.5197	1.5234	1.5269	1.5305	1.5340	1.5375
620	V	0.6162	0.6244	0.6326	0.6408	0.6489	0.6571	0.6652	0.6734	0.6815
	H	563.55	569.35	575.16	580.98	586.82	592.68	598.55	604.43	610.33
	S	1.5071	1.5108	1.5145	1.5182	1.5218	1.5254	1.5290	1.5325	1.5360
640	V	0.5973	0.6052	0.6132	0.6211	0.6290	0.6369	0.6448	0.6527	0.6606
	H	563.50	569.29	575.11	580.93	586.78	592.63	598.51	604.39	610.29
	S	1.5056	1.5094	1.5131	1.5167	1.5203	1.5239	1.5275	1.5310	1.5345
660	V	0.5795	0.5872	0.5949	0.6026	0.6103	0.6180	0.6257	0.6333	0.6410
	H	563.44	569.24	575.06	580.89	586.73	592.59	598.47	604.35	610.26
	S	1.5042	1.5079	1.5116	1.5153	1.5189	1.5225	1.5261	1.5296	1.5331
680	V	0.5627	0.5702	0.5777	0.5852	0.5927	0.6001	0.6076	0.6151	0.6225
	H	563.39	569.19	575.01	580.84	586.69	592.55	598.42	604.31	610.22
	S	1.5028	1.5065	1.5102	1.5139	1.5175	1.5211	1.5247	1.5282	1.5317
700	V	0.5469	0.5542	0.5615	0.5688	0.5761	0.5833	0.5906	0.5978	0.6051
	H	563.33	569.14	574.96	580.79	586.64	592.51	598.38	604.28	610.18
	S	1.5014	1.5052	1.5089	1.5125	1.5162	1.5198	1.5233	1.5268	1.5303
720	V	0.5320	0.5391	0.5462	0.5533	0.5604	0.5674	0.5745	0.5816	0.5886
	H	563.28	569.08	574.91	580.74	586.60	592.46	598.34	604.24	610.15
	S	1.5001	1.5038	1.5075	1.5112	1.5148	1.5184	1.5220	1.5255	1.5290
740	V	0.5179	0.5248	0.5318	0.5386	0.5455	0.5524	0.5593	0.5662	0.5730
	H	563.22	569.03	574.86	580.70	586.55	592.42	598.30	604.20	610.11
	S	1.4988	1.5025	1.5063	1.5099	1.5136	1.5172	1.5207	1.5242	1.5277
760	V	0.5046	0.5113	0.5180	0.5248	0.5315	0.5382	0.5449	0.5516	0.5583
	H	563.17	568.98	574.81	580.65	586.51	592.38	598.26	604.16	610.07
	S	1.4975	1.5013	1.5050	1.5087	1.5123	1.5159	1.5195	1.5230	1.5265

PRESSURE PSIA		TEMPERATURE								
		1080	1100	1120	1140	1160	1180	1200	1220	1240
780	V	0.4919	0.4985	0.5050	0.5116	0.5181	0.5247	0.5312	0.5378	0.5443
	H	563.11	568.93	574.76	580.60	586.46	592.33	598.22	604.12	610.03
	S	1.4963	1.5001	1.5038	1.5074	1.5111	1.5147	1.5182	1.5218	1.5253
800	V	0.4798	0.4863	0.4927	0.4991	0.5055	0.5119	0.5182	0.5246	0.5310
	H	563.06	568.88	574.71	580.55	586.42	592.29	598.18	604.08	610.00
	S	1.4951	1.4989	1.5026	1.5063	1.5099	1.5135	1.5171	1.5206	1.5241
820	V	0.4684	0.4746	0.4809	0.4872	0.4934	0.4996	0.5059	0.5121	0.5183
	H	563.00	568.82	574.66	580.51	586.37	592.25	598.14	604.04	609.96
	S	1.4939	1.4977	1.5014	1.5051	1.5087	1.5123	1.5159	1.5194	1.5229
840	V	0.4575	0.4636	0.4697	0.4758	0.4819	0.4880	0.4941	0.5002	0.5063
	H	562.95	568.77	574.61	580.46	586.32	592.20	598.10	604.00	609.92
	S	1.4928	1.4966	1.5003	1.5040	1.5076	1.5112	1.5148	1.5183	1.5218
860	V	0.4470	0.4530	0.4590	0.4650	0.4710	0.4769	0.4829	0.4888	0.4948
	H	562.89	568.72	574.56	580.41	586.28	592.16	598.06	603.97	609.89
	S	1.4917	1.4954	1.4992	1.5028	1.5065	1.5101	1.5137	1.5172	1.5207
880	V	0.4371	0.4430	0.4488	0.4547	0.4605	0.4663	0.4722	0.4780	0.4838
	H	562.84	568.67	574.51	580.36	586.23	592.12	598.02	603.93	609.85
	S	1.4906	1.4944	1.4981	1.5018	1.5054	1.5090	1.5126	1.5161	1.5196
900	V	0.4276	0.4333	0.4391	0.4448	0.4505	0.4562	0.4619	0.4676	0.4733
	H	562.79	568.62	574.46	580.32	586.19	592.08	597.97	603.89	609.81
	S	1.4895	1.4933	1.4970	1.5007	1.5043	1.5079	1.5115	1.5151	1.5186
920	V	0.4185	0.4241	0.4298	0.4354	0.4410	0.4466	0.4521	0.4577	0.4633
	H	562.73	568.56	574.41	580.27	586.14	592.03	597.93	603.85	609.78
	S	1.4885	1.4922	1.4960	1.4996	1.5033	1.5069	1.5105	1.5140	1.5175
940	V	0.4098	0.4153	0.4208	0.4263	0.4318	0.4373	0.4428	0.4482	0.4537
	H	562.68	568.51	574.36	580.22	586.10	591.99	597.89	603.81	609.74
	S	1.4875	1.4912	1.4949	1.4986	1.5023	1.5059	1.5095	1.5130	1.5165
960	V	0.4015	0.4069	0.4123	0.4177	0.4230	0.4284	0.4338	0.4391	0.4445
	H	562.62	568.46	574.31	580.18	586.05	591.95	597.85	603.77	609.70
	S	1.4865	1.4902	1.4939	1.4976	1.5013	1.5049	1.5085	1.5120	1.5155
980	V	0.3935	0.3988	0.4041	0.4094	0.4146	0.4199	0.4252	0.4304	0.4357
	H	562.57	568.41	574.26	580.13	586.01	591.90	597.81	603.73	609.67
	S	1.4855	1.4892	1.4930	1.4966	1.5003	1.5039	1.5075	1.5110	1.5145

PRESSURE PSIA		TEMPERATURE								
		1080	1100	1120	1140	1160	1180	1200	1220	1240
1000	V	0.3858	0.3910	0.3962	0.4014	0.4065	0.4117	0.4169	0.4220	0.4272
	H	562.51	568.36	574.21	580.08	585.96	591.86	597.77	603.69	609.63
	S	1.4845	1.4883	1.4920	1.4957	1.4993	1.5029	1.5065	1.5101	1.5136
1020	V	0.3784	0.3835	0.3886	0.3937	0.3988	0.4039	0.4089	0.4140	0.4190
	H	562.46	568.30	574.16	580.03	585.92	591.82	597.73	603.66	609.59
	S	1.4836	1.4873	1.4910	1.4947	1.4984	1.5020	1.5056	1.5091	1.5126
1040	V	0.3713	0.3763	0.3813	0.3863	0.3913	0.3963	0.4013	0.4062	0.4112
	H	562.41	568.25	574.11	579.99	585.87	591.78	597.69	603.62	609.56
	S	1.4826	1.4864	1.4901	1.4938	1.4975	1.5011	1.5047	1.5082	1.5117
1060	V	0.3645	0.3694	0.3743	0.3792	0.3841	0.3890	0.3939	0.3988	0.4037
	H	562.35	568.20	574.06	579.94	585.83	591.73	597.65	603.58	609.52
	S	1.4817	1.4855	1.4892	1.4929	1.4966	1.5002	1.5038	1.5073	1.5108
1080	V	0.3579	0.3628	0.3676	0.3724	0.3772	0.3820	0.3868	0.3916	0.3964
	H	562.30	568.15	574.01	579.89	585.78	591.69	597.61	603.54	609.48
	S	1.4808	1.4846	1.4883	1.4920	1.4957	1.4993	1.5029	1.5064	1.5099
1100	V	0.3516	0.3563	0.3611	0.3658	0.3705	0.3753	0.3800	0.3847	0.3894
	H	562.24	568.10	573.96	579.85	585.74	591.65	597.57	603.50	609.45
	S	1.4799	1.4837	1.4874	1.4911	1.4948	1.4984	1.5020	1.5055	1.5091
1120	V	0.3455	0.3501	0.3548	0.3595	0.3641	0.3688	0.3734	0.3780	0.3826
	H	562.19	568.05	573.92	579.80	585.69	591.60	597.53	603.46	609.41
	S	1.4791	1.4828	1.4866	1.4903	1.4939	1.4975	1.5011	1.5047	1.5082
1140	V	0.3396	0.3442	0.3488	0.3533	0.3579	0.3625	0.3670	0.3716	0.3761
	H	562.14	567.99	573.87	579.75	585.65	591.56	597.49	603.42	609.37
	S	1.4782	1.4820	1.4857	1.4894	1.4931	1.4967	1.5003	1.5038	1.5074
1160	V	0.3339	0.3384	0.3429	0.3474	0.3519	0.3564	0.3609	0.3654	0.3698
	H	562.08	567.94	573.82	579.70	585.60	591.52	597.45	603.38	609.34
	S	1.4774	1.4811	1.4849	1.4886	1.4922	1.4959	1.4995	1.5030	1.5065
1180	V	0.3284	0.3328	0.3373	0.3417	0.3461	0.3506	0.3550	0.3594	0.3638
	H	562.03	567.89	573.77	579.66	585.56	591.48	597.40	603.35	609.30
	S	1.4765	1.4803	1.4841	1.4878	1.4914	1.4950	1.4986	1.5022	1.5057
1200	V	0.3231	0.3274	0.3318	0.3362	0.3405	0.3449	0.3492	0.3536	0.3579
	H	561.98	567.84	573.72	579.61	585.52	591.43	597.36	603.31	609.26
	S	1.4757	1.4795	1.4832	1.4869	1.4906	1.4942	1.4978	1.5014	1.5049

PRESSURE PSIA		TEMPERATURE								
		1080	1100	1120	1140	1160	1180	1200	1220	1240
1220	V	0.3179	0.3222	0.3265	0.3308	0.3351	0.3394	0.3437	0.3479	0.3522
	H	561.92	567.79	573.67	579.56	585.47	591.39	597.32	603.27	609.23
	S	1.4749	1.4787	1.4824	1.4862	1.4898	1.4934	1.4970	1.5006	1.5041
1240	V	0.3129	0.3172	0.3214	0.3257	0.3299	0.3341	0.3383	0.3425	0.3467
	H	561.87	567.74	573.62	579.52	585.43	591.35	597.28	603.23	609.19
	S	1.4741	1.4779	1.4817	1.4854	1.4890	1.4927	1.4963	1.4998	1.5033
1260	V	0.3081	0.3123	0.3165	0.3206	0.3248	0.3290	0.3331	0.3373	0.3414
	H	561.81	567.69	573.57	579.47	585.38	591.30	597.24	603.19	609.15
	S	1.4734	1.4771	1.4809	1.4846	1.4883	1.4919	1.4955	1.4990	1.5026
1280	V	0.3034	0.3076	0.3117	0.3158	0.3199	0.3240	0.3281	0.3322	0.3362
	H	561.76	567.63	573.52	579.42	585.34	591.26	597.20	603.15	609.12
	S	1.4726	1.4764	1.4801	1.4838	1.4875	1.4911	1.4947	1.4983	1.5018
1300	V	0.2989	0.3030	0.3070	0.3111	0.3151	0.3192	0.3232	0.3272	0.3312
	H	561.71	567.58	573.47	579.38	585.29	591.22	597.16	603.11	609.08
	S	1.4718	1.4756	1.4794	1.4831	1.4868	1.4904	1.4940	1.4975	1.5011
1320	V	0.2945	0.2985	0.3025	0.3065	0.3105	0.3145	0.3184	0.3224	0.3264
	H	561.65	567.53	573.42	579.33	585.25	591.18	597.12	603.07	609.04
	S	1.4711	1.4749	1.4786	1.4823	1.4860	1.4896	1.4932	1.4968	1.5003
1340	V	0.2902	0.2942	0.2981	0.3021	0.3060	0.3099	0.3139	0.3178	0.3217
	H	561.60	567.48	573.38	579.28	585.20	591.13	597.08	603.04	609.00
	S	1.4704	1.4741	1.4779	1.4816	1.4853	1.4889	1.4925	1.4961	1.4996
1360	V	0.2861	0.2900	0.2939	0.2978	0.3017	0.3055	0.3094	0.3132	0.3171
	H	561.55	567.43	573.33	579.24	585.16	591.09	597.04	603.00	609.97
	S	1.4696	1.4734	1.4772	1.4809	1.4846	1.4882	1.4918	1.4954	1.4989
1380	V	0.2821	0.2859	0.2898	0.2936	0.2974	0.3012	0.3051	0.3089	0.3127
	H	561.49	567.38	573.28	579.19	585.11	591.05	597.00	602.96	608.93
	S	1.4689	1.4727	1.4765	1.4802	1.4839	1.4875	1.4911	1.4947	1.4982
1400	V	0.2782	0.2820	0.2858	0.2895	0.2933	0.2971	0.3008	0.3046	0.3083
	H	561.44	567.33	573.23	579.14	585.07	591.01	596.96	602.92	608.89
	S	1.4682	1.4720	1.4758	1.4795	1.4832	1.4868	1.4904	1.4940	1.4975
1450	V	0.2689	0.2726	0.2762	0.2799	0.2835	0.2872	0.2908	0.2945	0.2981
	H	561.31	567.20	573.11	579.02	584.96	590.90	596.86	602.82	608.80
	S	1.4665	1.4703	1.4741	1.4778	1.4815	1.4851	1.4887	1.4923	1.4958

PRESSURE PSIA		TEMPERATURE								
		1080	1100	1120	1140	1160	1180	1200	1220	1240
1500	V	0.2602	0.2638	0.2673	0.2709	0.2744	0.2779	0.2815	0.2850	0.2885
	H	561.17	567.07	572.98	578.91	584.84	590.79	596.75	602.73	608.71
	S	1.4648	1.4686	1.4724	1.4761	1.4798	1.4834	1.4871	1.4906	1.4942
1550	V	0.2521	0.2555	0.2590	0.2624	0.2659	0.2693	0.2727	0.2761	0.2795
	H	561.04	566.94	572.86	578.79	584.73	590.69	596.65	602.63	608.62
	S	1.4632	1.4670	1.4708	1.4745	1.4782	1.4818	1.4855	1.4890	1.4926
1600	V	0.2445	0.2478	0.2512	0.2545	0.2579	0.2612	0.2645	0.2678	0.2711
	H	560.91	566.82	572.74	578.67	584.62	590.58	596.55	602.53	608.53
	S	1.4616	1.4654	1.4692	1.4729	1.4766	1.4803	1.4839	1.4875	1.4910
1650	V	0.2373	0.2406	0.2438	0.2471	0.2503	0.2536	0.2568	0.2600	0.2632
	H	560.77	566.69	572.62	578.56	584.51	590.47	596.45	602.44	608.43
	S	1.4601	1.4639	1.4677	1.4714	1.4751	1.4788	1.4824	1.4860	1.4895
1700	V	0.2306	0.2337	0.2369	0.2401	0.2432	0.2464	0.2495	0.2527	0.2558
	H	560.64	566.56	572.50	578.44	584.40	590.37	596.35	602.34	608.34
	S	1.4586	1.4624	1.4662	1.4700	1.4737	1.4773	1.4809	1.4845	1.4881
1750	V	0.2242	0.2273	0.2304	0.2335	0.2365	0.2396	0.2427	0.2457	0.2488
	H	560.51	566.44	572.38	578.33	584.29	590.26	596.25	602.24	608.25
	S	1.4572	1.4610	1.4648	1.4685	1.4722	1.4759	1.4795	1.4831	1.4867
1800	V	0.2182	0.2212	0.2242	0.2272	0.2302	0.2332	0.2362	0.2392	0.2421
	H	560.38	566.31	572.25	578.21	584.18	590.16	596.15	602.15	608.16
	S	1.4558	1.4596	1.4634	1.4671	1.4708	1.4745	1.4781	1.4817	1.4853
1850	V	0.2125	0.2155	0.2184	0.2213	0.2243	0.2272	0.2301	0.2330	0.2359
	H	560.24	566.18	572.13	578.09	584.07	590.05	596.04	602.05	608.07
	S	1.4544	1.4582	1.4620	1.4658	1.4695	1.4731	1.4768	1.4804	1.4839
1900	V	0.2071	0.2100	0.2129	0.2157	0.2186	0.2214	0.2243	0.2271	0.2299
	H	560.11	566.06	572.01	577.98	583.95	589.94	595.94	601.95	607.97
	S	1.4531	1.4569	1.4607	1.4644	1.4681	1.4718	1.4755	1.4790	1.4826
1950	V	0.2020	0.2048	0.2076	0.2104	0.2132	0.2160	0.2188	0.2215	0.2243
	H	559.98	565.93	571.89	577.86	583.84	589.84	595.84	601.86	607.88
	S	1.4518	1.4556	1.4594	1.4631	1.4669	1.4705	1.4742	1.4778	1.4813
2000	V	0.1972	0.1999	0.2026	0.2054	0.2081	0.2108	0.2135	0.2162	0.2189
	H	559.85	565.80	571.77	577.75	583.73	589.73	595.74	601.76	607.79
	S	1.4505	1.4543	1.4581	1.4619	1.4656	1.4693	1.4729	1.4765	1.4801

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
14.696	V	28.5302	28.8622	29.1941	29.5260	29.8579	30.1897	30.5216	30.8535	31.1854
	H	617.29	623.16	629.04	634.93	640.83	646.75	652.69	658.64	664.60
	S	1.7088	1.7122	1.7156	1.7189	1.7222	1.7255	1.7287	1.7319	1.7351
16	V	26.2062	26.5111	26.8160	27.1209	27.4257	27.7306	28.0354	28.3403	28.6451
	H	617.29	623.15	629.03	634.93	640.83	646.75	652.69	658.64	664.60
	S	1.7050	1.7084	1.7118	1.7151	1.7184	1.7217	1.7249	1.7281	1.7313
20	V	20.9679	21.2119	21.4558	21.6998	21.9437	22.1876	22.4316	22.6755	22.9194
	H	617.28	623.15	629.03	634.92	640.83	646.75	652.68	658.63	664.59
	S	1.6950	1.6984	1.7017	1.7051	1.7084	1.7116	1.7149	1.7181	1.7213
24	V	17.4757	17.6790	17.8824	18.0857	18.2890	18.4924	18.6957	18.8990	19.1023
	H	617.28	623.14	629.02	634.91	640.82	646.74	652.68	658.63	664.59
	S	1.6868	1.6902	1.6936	1.6969	1.7002	1.7034	1.7067	1.7099	1.7131
28	V	14.9812	15.1556	15.3299	15.5042	15.6785	15.8529	16.0272	16.2015	16.3758
	H	617.27	623.14	629.01	634.91	640.82	646.74	652.67	658.62	664.58
	S	1.6799	1.6833	1.6866	1.6900	1.6933	1.6965	1.6998	1.7030	1.7062
32	V	13.1104	13.2630	13.4155	13.5681	13.7207	13.8732	14.0258	14.1783	14.3309
	H	617.26	623.13	629.01	634.90	640.81	646.73	652.67	658.62	664.58
	S	1.6739	1.6773	1.6806	1.6840	1.6873	1.6905	1.6938	1.6970	1.7002
36	V	11.6553	11.7910	11.9266	12.0623	12.1979	12.3335	12.4692	12.6048	12.7404
	H	617.26	623.12	629.00	634.90	640.81	646.73	652.66	658.61	664.58
	S	1.6686	1.6720	1.6753	1.6787	1.6820	1.6852	1.6885	1.6917	1.6949
40	V	10.4912	10.6133	10.7355	10.8576	10.9797	11.1018	11.2238	11.3459	11.4680
	H	617.25	623.12	629.00	634.89	640.80	646.72	652.66	658.61	664.57
	S	1.6639	1.6672	1.6706	1.6739	1.6772	1.6805	1.6837	1.6870	1.6901
44	V	9.5388	9.6498	9.7609	9.8719	9.9829	10.0940	10.2050	10.3160	10.4270
	H	617.24	623.11	628.99	634.89	640.80	646.72	652.66	658.61	664.57
	S	1.6596	1.6630	1.6663	1.6696	1.6729	1.6762	1.6795	1.6827	1.6859
48	V	8.7451	8.8469	8.9487	9.0505	9.1523	9.2541	9.3559	9.4577	9.5594
	H	617.24	623.10	628.98	634.88	640.79	646.71	652.65	658.60	664.57
	S	1.6557	1.6590	1.6624	1.6657	1.6690	1.6723	1.6755	1.6788	1.6819
52	V	8.0735	8.1675	8.2615	8.3555	8.4495	8.5435	8.6374	8.7314	8.8254
	H	617.23	623.10	628.98	634.87	640.78	646.71	652.65	658.60	664.56
	S	1.6521	1.6554	1.6588	1.6621	1.6654	1.6687	1.6719	1.6752	1.6783

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
56	V	7.4979	7.5852	7.6725	7.7598	7.8471	7.9344	8.0216	8.1089	8.1962
	H	617.22	623.09	628.97	634.87	640.78	646.70	652.64	658.59	664.56
	S	1.6487	1.6521	1.6555	1.6588	1.6621	1.6654	1.6686	1.6718	1.6750
60	V	6.9990	7.0805	7.1620	7.2435	7.3250	7.4065	7.4879	7.5694	7.6509
	H	617.22	623.08	628.97	634.86	640.77	646.70	652.64	658.59	664.55
	S	1.6456	1.6490	1.6524	1.6557	1.6590	1.6623	1.6655	1.6687	1.6719
70	V	6.0012	6.0711	6.1410	6.2109	6.2808	6.3506	6.4205	6.4904	6.5602
	H	617.20	623.07	628.95	634.85	640.76	646.69	652.63	658.58	664.54
	S	1.6387	1.6421	1.6454	1.6488	1.6521	1.6553	1.6586	1.6618	1.6650
80	V	5.2529	5.3141	5.3753	5.4364	5.4976	5.5588	5.6200	5.6811	5.7423
	H	617.18	623.05	628.94	634.83	640.75	646.67	652.61	658.57	664.53
	S	1.6327	1.6360	1.6394	1.6427	1.6460	1.6493	1.6526	1.6558	1.6590
90	V	4.6708	4.7252	4.7797	4.8341	4.8885	4.9429	4.9973	5.0517	5.1061
	H	617.16	623.03	628.92	634.82	640.73	646.66	652.60	658.56	664.53
	S	1.6273	1.6307	1.6341	1.6374	1.6407	1.6440	1.6472	1.6505	1.6537
100	V	4.2052	4.2542	4.3032	4.3522	4.4012	4.4502	4.4992	4.5481	4.5971
	H	617.15	623.02	628.91	634.81	640.72	646.65	652.59	658.55	664.52
	S	1.6226	1.6260	1.6293	1.6327	1.6360	1.6393	1.6425	1.6457	1.6489
110	V	3.8242	3.8688	3.9134	3.9579	4.0025	4.0471	4.0916	4.1361	4.1807
	H	617.13	623.00	628.89	634.79	640.71	646.64	652.58	658.54	664.51
	S	1.6183	1.6217	1.6250	1.6284	1.6317	1.6350	1.6382	1.6414	1.6446
120	V	3.5067	3.5476	3.5885	3.6294	3.6702	3.7111	3.7520	3.7928	3.8337
	H	617.11	622.99	628.87	634.78	640.69	646.63	652.57	658.53	664.50
	S	1.6144	1.6178	1.6211	1.6245	1.6278	1.6310	1.6343	1.6375	1.6407
130	V	3.2381	3.2758	3.3136	3.3514	3.3891	3.4268	3.4646	3.5023	3.5400
	H	617.09	622.97	628.86	634.76	640.68	646.61	652.56	658.52	664.49
	S	1.6107	1.6141	1.6175	1.6208	1.6241	1.6274	1.6307	1.6339	1.6371
140	V	3.0078	3.0429	3.0780	3.1131	3.1481	3.1832	3.2182	3.2533	3.2883
	H	617.08	622.95	628.84	634.75	640.67	646.60	652.55	658.51	664.48
	S	1.6074	1.6108	1.6142	1.6175	1.6208	1.6241	1.6273	1.6305	1.6337
150	V	2.8082	2.8410	2.8738	2.9065	2.9393	2.9720	3.0048	3.0375	3.0702
	H	617.06	622.94	628.83	634.74	640.66	646.59	652.54	658.50	664.47
	S	1.6043	1.6077	1.6110	1.6144	1.6177	1.6210	1.6242	1.6274	1.6306

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
160	V	2.6336	2.6644	2.6951	2.7258	2.7565	2.7872	2.8179	2.8487	2.8793
	H	617.04	622.92	628.81	634.72	640.64	646.58	652.52	658.49	664.46
	S	1.6014	1.6048	1.6081	1.6115	1.6148	1.6180	1.6213	1.6245	1.6277
170	V	2.4795	2.5085	2.5374	2.5664	2.5953	2.6242	2.6531	2.6820	2.7109
	H	617.03	622.91	628.80	634.71	640.63	646.56	652.51	658.48	664.45
	S	1.5986	1.6020	1.6054	1.6087	1.6120	1.6153	1.6185	1.6218	1.6250
180	V	2.3426	2.3699	2.3973	2.4246	2.4520	2.4793	2.5066	2.5339	2.5612
	H	617.01	622.89	628.78	634.69	640.62	646.55	652.50	658.46	664.44
	S	1.5960	1.5994	1.6028	1.6061	1.6094	1.6127	1.6160	1.6192	1.6224
190	V	2.2200	2.2460	2.2719	2.2978	2.3237	2.3496	2.3755	2.4014	2.4273
	H	616.99	622.87	628.77	634.68	640.60	646.54	652.49	658.45	664.43
	S	1.5936	1.5970	1.6003	1.6037	1.6070	1.6103	1.6135	1.6167	1.6199
200	V	2.1098	2.1344	2.1590	2.1837	2.2083	2.2329	2.2575	2.2821	2.3067
	H	616.97	622.86	628.75	634.67	640.59	646.53	652.48	658.44	664.42
	S	1.5912	1.5946	1.5980	1.6013	1.6047	1.6079	1.6112	1.6144	1.6176
220	V	1.9192	1.9417	1.9641	1.9865	2.0089	2.0313	2.0537	2.0761	2.0985
	H	616.94	622.83	628.72	634.64	640.56	646.50	652.46	658.42	664.40
	S	1.5869	1.5903	1.5937	1.5970	1.6003	1.6036	1.6069	1.6101	1.6133
240	V	1.7605	1.7811	1.8016	1.8222	1.8428	1.8633	1.8839	1.9044	1.9250
	H	616.91	622.79	628.69	634.61	640.54	646.48	652.44	658.40	664.38
	S	1.5830	1.5864	1.5897	1.5931	1.5964	1.5997	1.6029	1.6061	1.6093
260	V	1.6262	1.6452	1.6642	1.6832	1.7022	1.7212	1.7402	1.7592	1.7781
	H	616.87	622.76	628.66	634.58	640.51	646.46	652.41	658.38	664.37
	S	1.5793	1.5827	1.5861	1.5894	1.5927	1.5960	1.5993	1.6025	1.6057
280	V	1.5110	1.5287	1.5464	1.5640	1.5817	1.5994	1.6170	1.6346	1.6523
	H	616.84	622.73	628.64	634.55	640.49	646.43	652.39	658.36	664.35
	S	1.5759	1.5794	1.5827	1.5861	1.5894	1.5927	1.5959	1.5991	1.6023
300	V	1.4111	1.4276	1.4441	1.4606	1.4771	1.4936	1.5101	1.5266	1.5430
	H	616.80	622.69	628.60	634.52	640.45	646.40	652.36	658.33	664.32
	S	1.5728	1.5762	1.5796	1.5829	1.5862	1.5895	1.5928	1.5960	1.5992
320	V	1.3237	1.3392	1.3547	1.3702	1.3857	1.4012	1.4167	1.4321	1.4476
	H	616.76	622.66	628.57	634.49	640.42	646.37	652.34	658.31	664.30
	S	1.5699	1.5733	1.5766	1.5800	1.5833	1.5866	1.5898	1.5931	1.5963

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
340	V	1.2467	1.2613	1.2759	1.2905	1.3051	1.3196	1.3342	1.3488	1.3634
	H	616.73	622.62	628.54	634.46	640.40	646.35	652.31	658.29	664.28
	S	1.5671	1.5705	1.5739	1.5772	1.5805	1.5838	1.5871	1.5903	1.5935
360	V	1.1782	1.1920	1.2058	1.2196	1.2334	1.2472	1.2609	1.2747	1.2885
	H	616.69	622.59	628.50	634.43	640.37	646.32	652.29	658.27	664.26
	S	1.5645	1.5679	1.5713	1.5746	1.5779	1.5812	1.5845	1.5877	1.5909
380	V	1.1169	1.1300	1.1431	1.1561	1.1692	1.1823	1.1954	1.2084	1.2215
	H	616.66	622.56	628.47	634.40	640.34	646.30	652.27	658.25	664.24
	S	1.5620	1.5654	1.5688	1.5721	1.5754	1.5787	1.5820	1.5852	1.5884
400	V	1.0617	1.0742	1.0866	1.0991	1.1115	1.1239	1.1363	1.1488	1.1612
	H	616.62	622.53	628.44	634.37	640.32	646.27	652.24	658.22	664.22
	S	1.5596	1.5631	1.5664	1.5698	1.5731	1.5764	1.5796	1.5829	1.5861
420	V	1.0118	1.0237	1.0355	1.0474	1.0592	1.0711	1.0829	1.0948	1.1066
	H	616.59	622.49	628.41	634.34	640.29	646.25	652.22	658.20	664.20
	S	1.5574	1.5608	1.5642	1.5675	1.5709	1.5742	1.5774	1.5806	1.5839
440	V	0.9664	0.9778	0.9891	1.0004	1.0118	1.0231	1.0344	1.0457	1.0570
	H	616.55	622.46	628.38	634.32	640.26	646.22	652.20	658.18	664.18
	S	1.5553	1.5587	1.5621	1.5654	1.5687	1.5720	1.5753	1.5785	1.5817
460	V	0.9250	0.9358	0.9467	0.9575	0.9684	0.9792	0.9901	1.0009	1.0117
	H	616.52	622.43	628.35	634.29	640.24	646.20	652.17	658.16	664.16
	S	1.5532	1.5566	1.5600	1.5634	1.5667	1.5700	1.5732	1.5765	1.5797
480	V	0.8870	0.8974	0.9078	0.9182	0.9286	0.9390	0.9494	0.9598	0.9702
	H	616.48	622.40	628.32	634.26	640.21	646.17	652.15	658.14	664.14
	S	1.5513	1.5547	1.5581	1.5614	1.5647	1.5680	1.5713	1.5745	1.5777
500	V	0.8520	0.8621	0.8721	0.8821	0.8921	0.9021	0.9120	0.9220	0.9320
	H	616.45	622.36	628.29	634.23	640.18	646.15	652.13	658.12	664.12
	S	1.5494	1.5528	1.5562	1.5595	1.5629	1.5662	1.5694	1.5727	1.5759
520	V	0.8198	0.8294	0.8390	0.8487	0.8583	0.8679	0.8775	0.8871	0.8967
	H	616.41	622.33	628.26	634.20	640.15	646.12	652.10	658.09	664.10
	S	1.5476	1.5510	1.5544	1.5577	1.5611	1.5644	1.5676	1.5709	1.5741
540	V	0.7899	0.7992	0.8085	0.8178	0.8270	0.8363	0.8456	0.8548	0.8641
	H	616.38	622.30	628.23	634.17	640.13	646.10	652.08	658.07	664.08
	S	1.5458	1.5492	1.5526	1.5560	1.5593	1.5626	1.5659	1.5691	1.5723

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
560	V	0.7622	0.7711	0.7801	0.7890	0.7980	0.8069	0.8159	0.8248	0.8338
	H	616.34	622.26	628.20	634.14	640.10	646.07	652.05	658.05	664.06
	S	1.5441	1.5476	1.5510	1.5543	1.5576	1.5609	1.5642	1.5674	1.5707
580	V	0.7363	0.7450	0.7537	0.7623	0.7710	0.7796	0.7883	0.7969	0.8055
	H	616.31	622.23	628.17	634.11	640.07	646.05	652.03	658.03	664.04
	S	1.5425	1.5459	1.5493	1.5527	1.5560	1.5593	1.5626	1.5658	1.5690
600	V	0.7122	0.7206	0.7290	0.7374	0.7457	0.7541	0.7625	0.7708	0.7792
	H	616.28	622.20	628.13	634.08	640.05	646.02	652.01	658.01	664.02
	S	1.5410	1.5444	1.5478	1.5511	1.5545	1.5578	1.5610	1.5643	1.5675
620	V	0.6897	0.6978	0.7059	0.7140	0.7221	0.7302	0.7383	0.7464	0.7545
	H	616.24	622.17	628.10	634.05	640.02	645.99	651.98	657.98	664.00
	S	1.5394	1.5429	1.5462	1.5496	1.5529	1.5562	1.5595	1.5628	1.5660
640	V	0.6685	0.6764	0.6843	0.6921	0.7000	0.7079	0.7157	0.7236	0.7314
	H	616.21	622.13	628.07	634.03	639.99	645.97	651.96	657.96	663.98
	S	1.5380	1.5414	1.5448	1.5481	1.5515	1.5548	1.5580	1.5613	1.5645
660	V	0.6486	0.6563	0.6639	0.6716	0.6792	0.6868	0.6945	0.7021	0.7097
	H	616.17	622.10	628.04	634.00	639.96	645.94	651.94	657.94	663.96
	S	1.5365	1.5400	1.5433	1.5467	1.5500	1.5533	1.5566	1.5599	1.5631
680	V	0.6299	0.6374	0.6448	0.6522	0.6596	0.6670	0.6744	0.6818	0.6892
	H	616.14	622.07	628.01	633.97	639.94	645.92	651.91	657.92	663.94
	S	1.5351	1.5386	1.5420	1.5453	1.5487	1.5520	1.5552	1.5585	1.5617
700	V	0.6123	0.6195	0.6268	0.6340	0.6412	0.6484	0.6556	0.6628	0.6700
	H	616.10	622.03	627.98	633.94	639.91	645.89	651.89	657.90	663.92
	S	1.5338	1.5372	1.5406	1.5440	1.5473	1.5506	1.5539	1.5571	1.5604
720	V	0.5956	0.6027	0.6097	0.6167	0.6237	0.6308	0.6378	0.6448	0.6518
	H	616.07	622.00	627.95	633.91	639.88	645.87	651.86	657.87	663.90
	S	1.5325	1.5359	1.5393	1.5427	1.5460	1.5493	1.5526	1.5558	1.5590
740	V	0.5799	0.5867	0.5936	0.6004	0.6073	0.6141	0.6209	0.6277	0.6345
	H	616.03	621.97	627.92	633.88	639.85	645.84	651.84	657.85	663.88
	S	1.5312	1.5346	1.5380	1.5414	1.5447	1.5480	1.5513	1.5546	1.5578
760	V	0.5650	0.5716	0.5783	0.5850	0.5916	0.5983	0.6049	0.6116	0.6182
	H	616.00	621.94	627.89	633.85	639.83	645.82	651.82	657.83	663.85
	S	1.5300	1.5334	1.5368	1.5402	1.5435	1.5468	1.5501	1.5533	1.5565

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
780	V	0.5508	0.5573	0.5638	0.5703	0.5768	0.5833	0.5898	0.5963	0.6027
	H	615.96	621.90	627.86	633.82	639.80	645.79	651.79	657.81	663.83
	S	1.5287	1.5322	1.5356	1.5389	1.5423	1.5456	1.5489	1.5521	1.5553
800	V	0.5373	0.5437	0.5500	0.5564	0.5627	0.5691	0.5754	0.5817	0.5880
	H	615.93	621.87	627.82	633.79	639.77	645.76	651.77	657.79	663.81
	S	1.5276	1.5310	1.5344	1.5378	1.5411	1.5444	1.5477	1.5509	1.5542
820	V	0.5245	0.5307	0.5369	0.5431	0.5493	0.5555	0.5617	0.5679	0.5740
	H	615.89	621.84	627.79	633.76	639.75	645.74	651.75	657.76	663.79
	S	1.5264	1.5298	1.5332	1.5366	1.5399	1.5433	1.5465	1.5498	1.5530
840	V	0.5123	0.5184	0.5245	0.5305	0.5366	0.5426	0.5486	0.5547	0.5607
	H	615.86	621.80	627.76	633.73	639.72	645.71	651.72	657.74	663.77
	S	1.5253	1.5287	1.5321	1.5355	1.5388	1.5421	1.5454	1.5487	1.5519
860	V	0.5007	0.5066	0.5126	0.5185	0.5244	0.5303	0.5362	0.5421	0.5480
	H	615.82	621.77	627.73	633.70	639.69	645.69	651.70	657.72	663.75
	S	1.5242	1.5276	1.5310	1.5344	1.5377	1.5410	1.5443	1.5476	1.5508
880	V	0.4896	0.4954	0.5012	0.5070	0.5128	0.5186	0.5243	0.5301	0.5359
	H	615.79	621.74	627.70	633.68	639.66	645.66	651.67	657.70	663.73
	S	1.5231	1.5265	1.5299	1.5333	1.5366	1.5400	1.5432	1.5465	1.5497
900	V	0.4790	0.4847	0.4904	0.4960	0.5017	0.5073	0.5130	0.5186	0.5243
	H	615.75	621.71	627.67	633.65	639.64	645.64	651.65	657.67	663.71
	S	1.5220	1.5255	1.5289	1.5322	1.5356	1.5389	1.5422	1.5454	1.5487
920	V	0.4689	0.4744	0.4800	0.4855	0.4911	0.4966	0.5021	0.5077	0.5132
	H	615.72	621.67	627.64	633.62	639.61	645.61	651.63	657.65	663.69
	S	1.5210	1.5244	1.5278	1.5312	1.5346	1.5379	1.5412	1.5444	1.5476
940	V	0.4591	0.4646	0.4700	0.4755	0.4809	0.4863	0.4917	0.4971	0.5026
	H	615.68	621.64	627.61	633.59	639.58	645.58	651.60	657.63	663.67
	S	1.5200	1.5234	1.5268	1.5302	1.5336	1.5369	1.5402	1.5434	1.5466
960	V	0.4498	0.4552	0.4605	0.4658	0.4711	0.4765	0.4818	0.4871	0.4924
	H	615.65	621.61	627.58	633.56	639.55	645.56	651.58	657.61	663.65
	S	1.5190	1.5224	1.5258	1.5292	1.5326	1.5359	1.5392	1.5424	1.5456
980	V	0.4409	0.4461	0.4514	0.4566	0.4618	0.4670	0.4722	0.4774	0.4826
	H	615.61	621.57	627.55	633.53	639.53	645.53	651.55	657.58	663.63
	S	1.5180	1.5215	1.5249	1.5282	1.5316	1.5349	1.5382	1.5415	1.5447

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
1000	V	0.4323	0.4374	0.4426	0.4477	0.4528	0.4579	0.4630	0.4681	0.4732
	H	615.58	621.54	627.51	633.50	639.50	645.51	651.53	657.56	663.61
	S	1.5171	1.5205	1.5239	1.5273	1.5306	1.5340	1.5372	1.5405	1.5437
1020	V	0.4241	0.4291	0.4341	0.4392	0.4442	0.4492	0.4542	0.4592	0.4642
	H	615.54	621.51	627.48	633.47	639.47	645.48	651.50	657.54	663.58
	S	1.5161	1.5196	1.5230	1.5264	1.5297	1.5330	1.5363	1.5396	1.5428
1040	V	0.4161	0.4211	0.4260	0.4310	0.4359	0.4408	0.4457	0.4507	0.4556
	H	615.51	621.47	627.45	633.44	639.44	645.46	651.48	657.52	663.56
	S	1.5152	1.5186	1.5221	1.5254	1.5288	1.5321	1.5354	1.5387	1.5419
1060	V	0.4085	0.4134	0.4182	0.4231	0.4279	0.4328	0.4376	0.4424	0.4472
	H	615.47	621.44	627.42	633.41	639.41	645.43	651.46	657.49	663.54
	S	1.5143	1.5177	1.5212	1.5245	1.5279	1.5312	1.5345	1.5378	1.5410
1080	V	0.4012	0.4059	0.4107	0.4155	0.4202	0.4250	0.4297	0.4345	0.4392
	H	615.44	621.41	627.39	633.38	639.39	645.40	651.43	657.47	663.52
	S	1.5134	1.5169	1.5203	1.5237	1.5270	1.5303	1.5336	1.5369	1.5401
1100	V	0.3941	0.3988	0.4035	0.4081	0.4128	0.4175	0.4221	0.4268	0.4315
	H	615.40	621.38	627.36	633.35	639.36	645.38	651.41	657.45	663.50
	S	1.5125	1.5160	1.5194	1.5228	1.5261	1.5295	1.5328	1.5360	1.5393
1120	V	0.3873	0.3919	0.3965	0.4011	0.4057	0.4103	0.4148	0.4194	0.4240
	H	615.37	621.34	627.33	633.32	639.33	645.35	651.38	657.43	663.48
	S	1.5117	1.5151	1.5186	1.5219	1.5253	1.5286	1.5319	1.5352	1.5384
1140	V	0.3807	0.3852	0.3897	0.3943	0.3988	0.4033	0.4078	0.4123	0.4168
	H	615.33	621.31	627.30	633.29	639.30	645.33	651.36	657.40	663.46
	S	1.5108	1.5143	1.5177	1.5211	1.5245	1.5278	1.5311	1.5343	1.5376
1160	V	0.3743	0.3788	0.3832	0.3877	0.3921	0.3966	0.4010	0.4054	0.4098
	H	615.30	621.28	627.26	633.26	639.28	645.30	651.33	657.38	663.44
	S	1.5100	1.5135	1.5169	1.5203	1.5236	1.5270	1.5303	1.5335	1.5368
1180	V	0.3682	0.3726	0.3769	0.3813	0.3857	0.3901	0.3944	0.3988	0.4031
	H	615.27	621.24	627.23	633.24	639.25	645.27	651.31	657.36	663.41
	S	1.5092	1.5127	1.5161	1.5195	1.5228	1.5261	1.5294	1.5327	1.5359
1200	V	0.3622	0.3665	0.3709	0.3752	0.3795	0.3838	0.3881	0.3923	0.3966
	H	615.23	621.21	627.20	633.21	639.22	645.25	651.29	657.33	663.39
	S	1.5084	1.5119	1.5153	1.5187	1.5220	1.5253	1.5286	1.5319	1.5352

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
1220	V	0.3565	0.3607	0.3650	0.3692	0.3734	0.3777	0.3819	0.3861	0.3903
	H	615.20	621.18	627.17	633.18	639.19	645.22	651.26	657.31	663.37
	S	1.5076	1.5111	1.5145	1.5179	1.5212	1.5246	1.5279	1.5311	1.5344
1240	V	0.3509	0.3551	0.3593	0.3635	0.3676	0.3718	0.3760	0.3801	0.3843
	H	615.16	621.14	627.14	633.15	639.17	645.19	651.24	657.29	663.35
	S	1.5068	1.5103	1.5137	1.5171	1.5205	1.5238	1.5271	1.5304	1.5336
1260	V	0.3455	0.3496	0.3538	0.3579	0.3620	0.3661	0.3702	0.3743	0.3784
	H	615.13	621.11	627.11	633.12	639.14	645.17	651.21	657.27	663.33
	S	1.5061	1.5095	1.5129	1.5163	1.5197	1.5230	1.5263	1.5296	1.5328
1280	V	0.3403	0.3444	0.3484	0.3525	0.3565	0.3606	0.3646	0.3686	0.3727
	H	615.09	621.08	627.08	633.09	639.11	645.14	651.19	657.24	663.31
	S	1.5053	1.5088	1.5122	1.5156	1.5189	1.5223	1.5256	1.5289	1.5321
1300	V	0.3352	0.3392	0.3432	0.3472	0.3512	0.3552	0.3592	0.3632	0.3671
	H	615.06	621.04	627.05	633.06	639.08	645.12	651.16	657.22	663.29
	S	1.5046	1.5080	1.5115	1.5148	1.5182	1.5215	1.5248	1.5281	1.5314
1320	V	0.3303	0.3343	0.3382	0.3422	0.3461	0.3500	0.3539	0.3579	0.3618
	H	615.02	621.01	627.01	633.03	639.05	645.09	651.14	657.20	663.27
	S	1.5038	1.5073	1.5107	1.5141	1.5175	1.5208	1.5241	1.5274	1.5306
1340	V	0.3256	0.3295	0.3333	0.3372	0.3411	0.3450	0.3488	0.3527	0.3566
	H	614.99	620.98	626.98	633.00	639.03	645.06	651.11	657.17	663.24
	S	1.5031	1.5066	1.5100	1.5134	1.5168	1.5201	1.5234	1.5267	1.5299
1360	V	0.3209	0.3248	0.3286	0.3324	0.3363	0.3401	0.3439	0.3477	0.3515
	H	614.95	620.95	626.95	632.97	639.00	645.04	651.09	657.15	663.22
	S	1.5024	1.5059	1.5093	1.5127	1.5161	1.5194	1.5227	1.5260	1.5292
1380	V	0.3165	0.3202	0.3240	0.3278	0.3316	0.3353	0.3391	0.3429	0.3466
	H	614.92	620.91	626.92	632.94	638.97	645.01	651.06	657.13	663.20
	S	1.5017	1.5052	1.5086	1.5120	1.5154	1.5187	1.5220	1.5253	1.5285
1400	V	0.3121	0.3158	0.3196	0.3233	0.3270	0.3307	0.3344	0.3381	0.3418
	H	614.88	620.88	626.89	632.91	638.94	644.98	651.04	657.10	663.18
	S	1.5010	1.5045	1.5079	1.5113	1.5147	1.5180	1.5213	1.5246	1.5278
1450	V	0.3017	0.3053	0.3089	0.3125	0.3161	0.3197	0.3233	0.3269	0.3305
	H	614.79	620.80	626.81	632.84	638.87	644.92	650.98	657.05	663.12
	S	1.4993	1.5028	1.5062	1.5096	1.5130	1.5163	1.5196	1.5229	1.5262

PRESSURE PSIA		TEMPERATURE								
		1260	1280	1300	1320	1340	1360	1380	1400	1420
1500	V	0.2920	0.2955	0.2990	0.3025	0.3060	0.3095	0.3130	0.3164	0.3199
	H	614.71	620.71	626.73	632.76	638.80	644.85	650.91	656.99	663.07
	S	1.4977	1.5011	1.5046	1.5080	1.5114	1.5147	1.5180	1.5213	1.5245
1550	V	0.2829	0.2863	0.2897	0.2931	0.2965	0.2999	0.3033	0.3066	0.3100
	H	614.62	620.63	626.65	632.69	638.73	644.79	650.85	656.93	662.02
	S	1.4961	1.4996	1.5030	1.5064	1.5098	1.5131	1.5164	1.5197	1.5230
1600	V	0.2744	0.2777	0.2810	0.2843	0.2876	0.2909	0.2942	0.2974	0.3007
	H	614.53	620.55	626.57	632.61	638.66	644.72	650.79	656.87	662.96
	S	1.4945	1.4980	1.5015	1.5049	1.5082	1.5116	1.5149	1.5182	1.5214
1650	V	0.2664	0.2696	0.2728	0.2760	0.2792	0.2824	0.2856	0.2888	0.2919
	H	614.44	620.46	626.50	632.54	638.59	644.65	650.73	656.81	662.91
	S	1.4930	1.4965	1.5000	1.5034	1.5068	1.5101	1.5134	1.5167	1.5200
1700	V	0.2589	0.2620	0.2651	0.2683	0.2714	0.2745	0.2775	0.2806	0.2837
	H	614.36	620.38	626.42	632.46	638.52	644.59	650.66	656.75	662.85
	S	1.4916	1.4951	1.4985	1.5019	1.5053	1.5087	1.5120	1.5153	1.5185
1750	V	0.2518	0.2549	0.2579	0.2609	0.2639	0.2669	0.2700	0.2730	0.2760
	H	614.27	620.30	626.34	632.39	638.45	644.52	650.60	656.69	662.79
	S	1.4902	1.4937	1.4971	1.5005	1.5039	1.5073	1.5106	1.5139	1.5171
1800	V	0.2451	0.2481	0.2510	0.2540	0.2569	0.2598	0.2628	0.2657	0.2686
	H	614.18	620.21	626.26	632.31	638.38	644.45	650.54	656.63	662.74
	S	1.4888	1.4923	1.4957	1.4991	1.5025	1.5059	1.5092	1.5125	1.5158
1850	V	0.2388	0.2416	0.2445	0.2474	0.2503	0.2531	0.2560	0.2588	0.2617
	H	614.09	620.13	626.18	632.24	638.31	644.39	650.47	656.57	662.68
	S	1.4874	1.4909	1.4944	1.4978	1.5012	1.5045	1.5079	1.5112	1.5144
1900	V	0.2327	0.2356	0.2384	0.2412	0.2440	0.2468	0.2496	0.2523	0.2551
	H	614.00	620.05	626.10	632.16	638.24	644.32	650.41	656.51	662.62
	S	1.4861	1.4896	1.4931	1.4965	1.4999	1.5032	1.5066	1.5099	1.5131
1950	V	0.2270	0.2298	0.2325	0.2353	0.2380	0.2407	0.2434	0.2462	0.2489
	H	613.92	619.96	626.02	632.09	638.16	644.25	650.35	656.45	662.57
	S	1.4849	1.4883	1.4918	1.4952	1.4986	1.5020	1.5053	1.5086	1.5119
2000	V	0.2216	0.2243	0.2270	0.2296	0.2323	0.2350	0.2376	0.2403	0.2429
	H	613.83	619.88	625.94	632.01	638.09	644.18	650.28	656.39	662.51
	S	1.4836	1.4871	1.4906	1.4940	1.4974	1.5007	1.5041	1.5074	1.5106

PRESSURE PSIA		TEMPERATURE								
		1440	1460	1480	1500	1520	1540	1560	1580	1600
14.696	V	31.5172	31.8491	32.1810	32.5128	32.8447	33.1765	33.5084	33.8402	34.1720
	H	670.57	676.56	682.56	688.57	694.59	700.63	706.67	712.73	718.80
	S	1.7383	1.7414	1.7445	1.7476	1.7506	1.7537	1.7567	1.7597	1.7626
16	V	28.9500	29.2548	29.5596	29.8645	30.1693	30.4741	30.7789	31.0837	31.3885
	H	670.57	676.56	682.56	688.57	694.59	700.62	706.67	712.73	718.80
	S	1.7345	1.7376	1.7407	1.7438	1.7468	1.7499	1.7529	1.7558	1.7588
20	V	23.1633	23.4073	23.6512	23.8951	24.1390	24.3829	24.6267	24.8706	25.1145
	H	670.57	676.55	682.55	688.56	694.59	700.62	706.67	712.73	718.80
	S	1.7244	1.7276	1.7307	1.7338	1.7368	1.7398	1.7428	1.7458	1.7488
24	V	19.3056	19.5089	19.7122	19.9155	20.1188	20.3220	20.5253	20.7286	20.9318
	H	670.56	676.55	682.55	688.56	694.59	700.62	706.67	712.73	718.80
	S	1.7162	1.7194	1.7225	1.7256	1.7286	1.7317	1.7347	1.7376	1.7406
28	V	16.5501	16.7243	16.8986	17.0729	17.2472	17.4214	17.5957	17.7700	17.9442
	H	670.56	676.55	682.55	688.56	694.58	700.62	706.67	712.73	718.80
	S	1.7093	1.7125	1.7156	1.7186	1.7217	1.7247	1.7277	1.7307	1.7337
32	V	14.4834	14.6359	14.7885	14.9410	15.0935	15.2460	15.3985	15.5510	15.7035
	H	670.56	676.54	682.54	688.56	694.58	700.62	706.67	712.72	718.79
	S	1.7033	1.7065	1.7096	1.7126	1.7157	1.7187	1.7217	1.7247	1.7277
36	V	12.8760	13.0116	13.1472	13.2828	13.4184	13.5540	13.6896	13.8252	13.9607
	H	670.55	676.54	682.54	688.55	694.58	700.62	706.66	712.72	718.79
	S	1.6980	1.7012	1.7043	1.7074	1.7104	1.7134	1.7165	1.7194	1.7224
40	V	11.5901	11.7122	11.8342	11.9563	12.0783	12.2004	12.3224	12.4445	12.5665
	H	670.55	676.54	682.54	688.55	694.58	700.61	706.66	712.72	718.79
	S	1.6933	1.6964	1.6995	1.7026	1.7057	1.7087	1.7117	1.7147	1.7177
44	V	10.5380	10.6490	10.7599	10.8709	10.9819	11.0929	11.2039	11.3148	11.4258
	H	670.55	676.53	682.54	688.55	694.57	700.61	706.66	712.72	718.79
	S	1.6890	1.6921	1.6953	1.6983	1.7014	1.7044	1.7074	1.7104	1.7134
48	V	9.6612	9.7630	9.8647	9.9665	10.0682	10.1700	10.2717	10.3734	10.4752
	H	670.54	676.53	682.53	688.55	694.57	700.61	706.66	712.72	718.79
	S	1.6851	1.6882	1.6913	1.6944	1.6975	1.7005	1.7035	1.7065	1.7095
52	V	8.9193	9.0133	9.1072	9.2012	9.2951	9.3890	9.4830	9.5769	9.6708
	H	670.54	676.53	682.53	688.54	694.57	700.61	706.66	712.72	718.79
	S	1.6815	1.6846	1.6877	1.6908	1.6939	1.6969	1.6999	1.7029	1.7059

150	PRESSURE PSIA		TEMPERATURE								
			1440	1460	1480	1500	1520	1540	1560	1580	1600
56	V		8.2834	8.3707	8.4579	8.5452	8.6324	8.7197	8.8069	8.8941	8.9814
	H		670.54	676.53	682.53	688.54	694.57	700.61	706.66	712.72	718.79
	S		1.6782	1.6813	1.6844	1.6875	1.6906	1.6936	1.6966	1.6996	1.7025
60	V		7.7323	7.8138	7.8952	7.9767	8.0581	8.1395	8.2210	8.3024	8.3838
	H		670.53	676.52	682.52	688.54	694.57	700.60	706.65	712.72	718.79
	S		1.6751	1.6782	1.6813	1.6844	1.6875	1.6905	1.6935	1.6965	1.6994
70	V		6.6301	6.6999	6.7698	6.8396	6.9095	6.9793	7.0491	7.1190	7.1888
	H		670.52	676.51	682.52	688.53	694.56	700.60	706.65	712.71	718.79
	S		1.6681	1.6713	1.6744	1.6775	1.6805	1.6835	1.6866	1.6895	1.6925
80	V		5.8034	5.8646	5.9257	5.9869	6.0480	6.1091	6.1702	6.2314	6.2925
	H		670.51	676.51	682.51	688.53	694.56	700.60	706.65	712.71	718.78
	S		1.6621	1.6653	1.6684	1.6714	1.6745	1.6775	1.6805	1.6835	1.6865
90	V		5.1605	5.2148	5.2692	5.3236	5.3779	5.4323	5.4867	5.5410	5.5954
	H		670.51	676.50	682.50	688.52	694.55	700.59	706.64	712.71	718.78
	S		1.6568	1.6600	1.6631	1.6661	1.6692	1.6722	1.6752	1.6782	1.6812
100	V		4.6461	4.6950	4.7440	4.7930	4.8419	4.8908	4.9398	4.9887	5.0377
	H		670.50	676.49	682.50	688.51	694.54	700.59	706.64	712.70	718.78
	S		1.6521	1.6552	1.6583	1.6614	1.6645	1.6675	1.6705	1.6735	1.6765
110	V		4.2252	4.2698	4.3143	4.3588	4.4033	4.4478	4.4923	4.5369	4.5814
	H		670.49	676.48	682.49	688.51	694.54	700.58	706.64	712.70	718.78
	S		1.6478	1.6509	1.6540	1.6571	1.6602	1.6632	1.6662	1.6692	1.6722
120	V		3.8745	3.9154	3.9562	3.9970	4.0378	4.0787	4.1195	4.1603	4.2011
	H		670.48	676.48	682.48	688.50	694.53	700.58	706.63	712.70	718.77
	S		1.6438	1.6470	1.6501	1.6532	1.6562	1.6593	1.6623	1.6653	1.6682
130	V		3.5778	3.6155	3.6532	3.6909	3.7286	3.7663	3.8040	3.8417	3.8794
	H		670.47	676.47	682.48	688.50	694.53	700.57	706.63	712.69	718.77
	S		1.6402	1.6434	1.6465	1.6496	1.6526	1.6557	1.6587	1.6617	1.6646
140	V		3.3234	3.3584	3.3935	3.4285	3.4635	3.4985	3.5335	3.5686	3.6036
	H		670.46	676.46	682.47	688.49	694.52	700.57	706.62	712.69	718.77
	S		1.6369	1.6400	1.6431	1.6462	1.6493	1.6523	1.6553	1.6583	1.6613
150	V		3.1029	3.1357	3.1684	3.2011	3.2338	3.2665	3.2992	3.3319	3.3645
	H		670.45	676.45	682.46	688.48	694.52	700.56	706.62	712.69	718.77
	S		1.6338	1.6369	1.6400	1.6431	1.6462	1.6492	1.6522	1.6552	1.6582

PRESSURE PSIA		1440	1460	1480	TEMPERATURE		1540	1560	1580	1600
					1500	1520				
160	V	2.9100	2.9407	2.9714	3.0021	3.0328	3.0634	3.0941	3.1247	3.1554
	H	670.45	676.44	682.46	688.48	694.51	700.56	706.62	712.69	718.77
	S	1.6309	1.6340	1.6371	1.6402	1.6433	1.6463	1.6493	1.6523	1.6553
170	V	2.7398	2.7687	2.7976	2.8265	2.8554	2.8843	2.9131	2.9420	2.9709
	H	670.44	676.44	682.45	688.47	694.51	700.55	706.61	712.68	718.76
	S	1.6281	1.6313	1.6344	1.6375	1.6405	1.6436	1.6466	1.6496	1.6525
180	V	2.5885	2.6158	2.6431	2.6704	2.6977	2.7250	2.7523	2.7796	2.8068
	H	670.43	676.43	682.44	688.47	694.50	700.55	706.61	712.68	718.76
	S	1.6255	1.6287	1.6318	1.6349	1.6379	1.6410	1.6440	1.6470	1.6499
190	V	2.4532	2.4790	2.5049	2.5308	2.5566	2.5825	2.6084	2.6342	2.6601
	H	670.42	676.42	682.43	688.46	694.50	700.55	706.61	712.68	718.76
	S	1.6231	1.6262	1.6293	1.6324	1.6355	1.6385	1.6415	1.6445	1.6475
200	V	2.3313	2.3559	2.3805	2.4051	2.4297	2.4543	2.4788	2.5034	2.5280
	H	670.41	676.41	682.43	688.45	694.49	700.54	706.60	712.67	718.76
	S	1.6208	1.6239	1.6270	1.6301	1.6332	1.6362	1.6392	1.6422	1.6452
220	V	2.1209	2.1433	2.1656	2.1880	2.2104	2.2327	2.2551	2.2774	2.2998
	H	670.39	676.40	682.41	688.44	694.48	700.53	706.59	712.67	718.75
	S	1.6165	1.6196	1.6227	1.6258	1.6289	1.6319	1.6349	1.6379	1.6409
240	V	1.9455	1.9661	1.9866	2.0071	2.0276	2.0481	2.0686	2.0891	2.1097
	H	670.38	676.38	682.40	688.43	694.47	700.52	706.59	712.66	718.75
	S	1.6125	1.6157	1.6188	1.6219	1.6249	1.6280	1.6310	1.6340	1.6369
260	V	1.7971	1.8161	1.8351	1.8540	1.8730	1.8919	1.9109	1.9298	1.9488
	H	670.36	676.37	682.39	688.42	694.46	700.51	706.58	712.66	718.74
	S	1.6089	1.6120	1.6151	1.6182	1.6213	1.6243	1.6273	1.6303	1.6333
280	V	1.6699	1.6876	1.7052	1.7228	1.7404	1.7580	1.7756	1.7931	1.8107
	H	670.34	676.35	682.37	688.41	694.45	700.51	706.57	712.64	718.73
	S	1.6055	1.6087	1.6118	1.6149	1.6179	1.6210	1.6240	1.6270	1.6299
300	V	1.5595	1.5760	1.5924	1.6089	1.6254	1.6418	1.6583	1.6747	1.6911
	H	670.32	676.33	682.35	688.38	694.43	700.49	706.55	712.63	718.72
	S	1.6024	1.6055	1.6086	1.6117	1.6148	1.6178	1.6209	1.6238	1.6268
320	V	1.4630	1.4785	1.4939	1.5094	1.5248	1.5403	1.5557	1.5711	1.5865
	H	670.30	676.31	682.33	688.37	694.42	700.48	706.55	712.63	718.72
	S	1.5994	1.6026	1.6057	1.6088	1.6119	1.6149	1.6179	1.6209	1.6239

52	PRESSURE PSIA		TEMPERATURE								
			1440	1460	1480	1500	1520	1540	1560	1580	1600
340	V		1.3779	1.3925	1.4070	1.4216	1.4361	1.4506	1.4652	1.4797	1.4942
	H		670.28	676.29	682.32	688.36	694.41	700.47	706.54	712.62	718.71
	S		1.5967	1.5998	1.6029	1.6060	1.6091	1.6121	1.6152	1.6182	1.6211
360	V		1.3022	1.3160	1.3298	1.3435	1.3572	1.3710	1.3847	1.3985	1.4122
	H		670.26	676.28	682.30	688.34	694.39	700.46	706.53	712.61	718.71
	S		1.5941	1.5972	1.6003	1.6034	1.6065	1.6095	1.6126	1.6156	1.6185
380	V		1.2345	1.2476	1.2606	1.2737	1.2867	1.2997	1.3127	1.3258	1.3388
	H		670.24	676.26	682.29	688.33	694.38	700.44	706.52	712.60	718.70
	S		1.5916	1.5947	1.5979	1.6010	1.6040	1.6071	1.6101	1.6131	1.6161
400	V		1.1736	1.1860	1.1984	1.2108	1.2232	1.2356	1.2480	1.2603	1.2727
	H		670.23	676.24	682.27	688.32	694.37	700.43	706.51	712.60	718.69
	S		1.5893	1.5924	1.5955	1.5986	1.6017	1.6047	1.6078	1.6108	1.6137
420	V		1.1184	1.1303	1.1421	1.1539	1.1657	1.1775	1.1893	1.2011	1.2129
	H		670.21	676.23	682.26	688.30	694.36	700.42	706.50	712.59	718.69
	S		1.5870	1.5902	1.5933	1.5964	1.5995	1.6025	1.6055	1.6085	1.6115
440	V		1.0683	1.0796	1.0909	1.1022	1.1135	1.1248	1.1360	1.1473	1.1586
	H		670.19	676.21	682.24	688.29	694.35	700.41	706.49	712.58	718.68
	S		1.5849	1.5881	1.5912	1.5943	1.5973	1.6004	1.6034	1.6064	1.6094
460	V		1.0225	1.0334	1.0442	1.0550	1.0658	1.0766	1.0874	1.0982	1.1089
	H		670.17	676.19	682.23	688.28	694.33	700.40	706.48	712.57	718.67
	S		1.5829	1.5860	1.5891	1.5922	1.5953	1.5984	1.6014	1.6044	1.6074
480	V		0.9806	0.9910	1.0013	1.0117	1.0220	1.0324	1.0428	1.0531	1.0634
	H		670.15	676.18	682.21	688.26	694.32	700.39	706.47	712.57	718.67
	S		1.5809	1.5841	1.5872	1.5903	1.5934	1.5964	1.5994	1.6024	1.6054
500	V		0.9420	0.9519	0.9619	0.9719	0.9818	0.9918	1.0017	1.0117	1.0216
	H		670.13	676.16	682.20	688.25	694.31	700.38	706.46	712.56	718.66
	S		1.5790	1.5822	1.5853	1.5884	1.5915	1.5945	1.5976	1.6006	1.6035
520	V		0.9063	0.9159	0.9255	0.9351	0.9447	0.9543	0.9638	0.9734	0.9830
	H		670.12	676.14	682.18	688.23	694.30	700.37	706.45	712.55	718.65
	S		1.5772	1.5804	1.5835	1.5866	1.5897	1.5928	1.5958	1.5988	1.6018
540	V		0.8733	0.8826	0.8918	0.9011	0.9103	0.9195	0.9287	0.9380	0.9472
	H		670.10	676.13	682.17	688.22	694.28	700.36	706.45	712.54	718.65
	S		1.5755	1.5787	1.5818	1.5849	1.5880	1.5910	1.5940	1.5970	1.6000

PRESSURE PSIA		TEMPERATURE								
		1440	1460	1480	1500	1520	1540	1560	1580	1600
560	V	0.8427	0.8516	0.8605	0.8694	0.8783	0.8873	0.8962	0.9051	0.9139
	H	670.08	676.11	682.15	688.21	694.27	700.35	706.44	712.53	718.64
	S	1.5738	1.5770	1.5801	1.5832	1.5863	1.5894	1.5924	1.5954	1.5984
580	V	0.8141	0.8228	0.8314	0.8400	0.8486	0.8572	0.8658	0.8744	0.8830
	H	670.06	676.09	682.14	688.19	694.26	700.34	706.43	712.53	718.64
	S	1.5722	1.5754	1.5785	1.5816	1.5847	1.5877	1.5908	1.5938	1.5968
600	V	0.7875	0.7959	0.8042	0.8125	0.8209	0.8292	0.8375	0.8458	0.8541
	H	670.04	676.08	682.12	688.18	694.25	700.33	706.42	712.52	718.63
	S	1.5707	1.5738	1.5769	1.5801	1.5831	1.5862	1.5892	1.5922	1.5952
620	V	0.7626	0.7707	0.7788	0.7868	0.7949	0.8030	0.8110	0.8191	0.8271
	H	670.02	676.06	682.11	688.17	694.24	700.32	706.41	712.51	718.62
	S	1.5691	1.5723	1.5754	1.5785	1.5816	1.5847	1.5877	1.5907	1.5937
640	V	0.7392	0.7471	0.7549	0.7627	0.7705	0.7784	0.7862	0.7940	0.8018
	H	670.00	676.04	682.09	688.15	694.22	700.30	706.40	712.50	718.61
	S	1.5677	1.5708	1.5740	1.5771	1.5802	1.5832	1.5862	1.5893	1.5922
660	V	0.7173	0.7249	0.7325	0.7401	0.7477	0.7553	0.7628	0.7704	0.7780
	H	669.98	676.02	682.08	688.14	694.21	700.29	706.39	712.49	718.61
	S	1.5663	1.5694	1.5726	1.5757	1.5787	1.5818	1.5848	1.5878	1.5908
680	V	0.6966	0.7040	0.7114	0.7188	0.7261	0.7335	0.7409	0.7482	0.7556
	H	669.97	676.01	682.06	688.12	694.20	700.28	706.38	712.48	718.60
	S	1.5649	1.5680	1.5712	1.5743	1.5774	1.5804	1.5835	1.5865	1.5894
700	V	0.6771	0.6843	0.6915	0.6987	0.7058	0.7130	0.7202	0.7273	0.7345
	H	669.95	675.99	682.04	688.11	694.18	700.27	706.37	712.48	718.59
	S	1.5635	1.5667	1.5698	1.5729	1.5760	1.5791	1.5821	1.5851	1.5881
720	V	0.6588	0.6657	0.6727	0.6797	0.6867	0.6936	0.7006	0.7076	0.7145
	H	669.93	675.97	682.03	688.09	694.17	700.26	706.36	712.47	718.59
	S	1.5622	1.5654	1.5685	1.5716	1.5747	1.5778	1.5808	1.5838	1.5868
740	V	0.6413	0.6481	0.6549	0.6617	0.6685	0.6753	0.6821	0.6889	0.6957
	H	669.91	675.96	682.01	688.08	694.16	700.25	706.35	712.46	718.58
	S	1.5610	1.5641	1.5673	1.5704	1.5735	1.5765	1.5796	1.5826	1.5855
760	V	0.6249	0.6315	0.6381	0.6447	0.6513	0.6580	0.6646	0.6712	0.6778
	H	669.89	675.94	682.00	688.07	694.15	700.24	706.34	712.45	718.57
	S	1.5597	1.5629	1.5660	1.5691	1.5722	1.5753	1.5783	1.5813	1.5843

154	PRESSURE		TEMPERATURE								
	PSIA		1440	1460	1480	1500	1520	1540	1560	1580	1600
780	V		0.6092	0.6157	0.6221	0.6286	0.6350	0.6415	0.6479	0.6544	0.6608
	H		669.87	675.92	681.98	688.05	694.13	700.23	706.33	712.44	718.56
	S		1.5585	1.5617	1.5648	1.5679	1.5710	1.5741	1.5771	1.5801	1.5831
800	V		0.5943	0.6007	0.6070	0.6133	0.6196	0.6258	0.6321	0.6384	0.6447
	H		669.85	675.90	681.96	688.04	694.12	700.21	706.32	712.43	718.56
	S		1.5574	1.5605	1.5637	1.5668	1.5699	1.5729	1.5759	1.5790	1.5819
820	V		0.5802	0.5864	0.5925	0.5987	0.6048	0.6110	0.6171	0.6232	0.6294
	H		669.83	675.89	681.95	688.02	694.11	700.20	706.31	712.42	718.55
	S		1.5562	1.5594	1.5625	1.5656	1.5687	1.5718	1.5748	1.5778	1.5808
840	V		0.5667	0.5727	0.5788	0.5848	0.5908	0.5968	0.6028	0.6088	0.6148
	H		669.81	675.87	681.93	688.01	694.09	700.19	706.30	712.42	718.54
	S		1.5551	1.5582	1.5614	1.5645	1.5676	1.5707	1.5737	1.5767	1.5797
860	V		0.5539	0.5598	0.5656	0.5715	0.5774	0.5833	0.5891	0.5950	0.6008
	H		669.80	675.85	681.92	687.99	694.08	700.18	706.29	712.41	718.53
	S		1.5540	1.5572	1.5603	1.5634	1.5665	1.5696	1.5726	1.5756	1.5786
880	V		0.5416	0.5474	0.5531	0.5589	0.5646	0.5704	0.5761	0.5818	0.5875
	H		669.78	675.83	681.90	687.98	694.07	700.17	706.28	712.40	718.53
	S		1.5529	1.5561	1.5592	1.5623	1.5654	1.5685	1.5715	1.5745	1.5775
900	V		0.5299	0.5355	0.5412	0.5468	0.5524	0.5580	0.5636	0.5692	0.5748
	H		669.76	675.82	681.88	687.96	694.05	700.16	706.27	712.39	718.52
	S		1.5519	1.5550	1.5582	1.5613	1.5644	1.5674	1.5705	1.5735	1.5765
920	V		0.5187	0.5242	0.5297	0.5352	0.5407	0.5462	0.5517	0.5572	0.5627
	H		669.74	675.80	681.87	687.95	694.04	700.14	706.26	712.38	718.51
	S		1.5508	1.5540	1.5572	1.5603	1.5634	1.5664	1.5695	1.5725	1.5755
940	V		0.5080	0.5134	0.5188	0.5242	0.5295	0.5349	0.5403	0.5457	0.5511
	H		669.72	675.78	681.85	687.93	694.03	700.13	706.25	712.37	718.50
	S		1.5498	1.5530	1.5561	1.5593	1.5624	1.5654	1.5685	1.5715	1.5745
960	V		0.4977	0.5030	0.5083	0.5135	0.5188	0.5241	0.5294	0.5346	0.5399
	H		669.70	675.76	681.84	687.92	694.01	700.12	706.24	712.36	718.50
	S		1.5488	1.5520	1.5552	1.5583	1.5614	1.5644	1.5675	1.5705	1.5735
980	V		0.4878	0.4930	0.4982	0.5034	0.5085	0.5137	0.5189	0.5240	0.5292
	H		669.68	675.74	681.82	687.90	694.00	700.11	706.22	712.35	718.49
	S		1.5479	1.5511	1.5542	1.5573	1.5604	1.5635	1.5665	1.5695	1.5725

PRESSURE PSIA		TEMPERATURE								
		1440	1460	1480	1500	1520	1540	1560	1580	1600
1000	V	0.4783	0.4834	0.4885	0.4936	0.4987	0.5037	0.5088	0.5139	0.5189
	H	669.66	675.73	681.80	687.89	693.99	700.10	706.21	712.34	718.48
	S	1.5469	1.5501	1.5533	1.5564	1.5595	1.5625	1.5656	1.5686	1.5716
1020	V	0.4692	0.4742	0.4792	0.4842	0.4892	0.4942	0.4991	0.5041	0.5091
	H	669.64	675.71	681.79	687.88	693.97	700.08	706.20	712.33	718.47
	S	1.5460	1.5492	1.5523	1.5555	1.5585	1.5616	1.5647	1.5677	1.5707
1040	V	0.4605	0.4654	0.4703	0.4752	0.4801	0.4849	0.4898	0.4947	0.4996
	H	669.62	675.69	681.77	687.86	693.96	700.07	706.19	712.32	718.46
	S	1.5451	1.5483	1.5514	1.5545	1.5576	1.5607	1.5638	1.5668	1.5698
1060	V	0.4520	0.4569	0.4617	0.4665	0.4713	0.4761	0.4809	0.4856	0.4904
	H	669.60	675.67	681.75	687.85	693.95	700.06	706.18	712.31	718.46
	S	1.5442	1.5474	1.5505	1.5537	1.5567	1.5598	1.5629	1.5659	1.5689
1080	V	0.4439	0.4487	0.4534	0.4581	0.4628	0.4675	0.4722	0.4769	0.4816
	H	669.58	675.65	681.74	687.83	693.93	700.05	706.17	712.30	718.45
	S	1.5432	1.5465	1.5497	1.5528	1.5559	1.5589	1.5620	1.5650	1.5680
1100	V	0.4361	0.4408	0.4454	0.4500	0.4547	0.4593	0.4639	0.4685	0.4732
	H	669.56	675.64	681.72	687.81	693.92	700.03	706.16	712.29	718.44
	S	1.5425	1.5456	1.5488	1.5519	1.5550	1.5581	1.5611	1.5641	1.5671
1120	V	0.4286	0.4331	0.4377	0.4423	0.4468	0.4514	0.4559	0.4604	0.4650
	H	669.54	675.62	681.70	687.80	693.91	700.02	706.15	712.28	718.43
	S	1.5416	1.5448	1.5479	1.5511	1.5542	1.5572	1.5603	1.5633	1.5663
1140	V	0.4213	0.4258	0.4303	0.4347	0.4392	0.4437	0.4482	0.4526	0.4571
	H	669.52	675.60	681.69	687.78	693.89	700.01	706.14	712.28	718.42
	S	1.5408	1.5440	1.5471	1.5502	1.5533	1.5564	1.5595	1.5625	1.5655
1160	V	0.4143	0.4187	0.4231	0.4275	0.4319	0.4363	0.4407	0.4451	0.4495
	H	669.50	675.58	681.67	687.77	693.88	700.00	706.13	712.27	718.41
	S	1.5400	1.5431	1.5463	1.5494	1.5525	1.5556	1.5586	1.5617	1.5647
1180	V	0.4075	0.4118	0.4162	0.4205	0.4248	0.4292	0.4335	0.4378	0.4421
	H	669.48	675.56	681.65	687.75	693.86	699.99	706.12	712.26	718.41
	S	1.5392	1.5423	1.5455	1.5486	1.5517	1.5548	1.5578	1.5609	1.5639
1200	V	0.4009	0.4052	0.4095	0.4137	0.4180	0.4222	0.4265	0.4307	0.4350
	H	669.46	675.55	681.64	687.74	693.85	699.97	706.10	712.25	718.40
	S	1.5384	1.5415	1.5447	1.5478	1.5509	1.5540	1.5570	1.5601	1.5631

PRESSURE
PSIA

TEMPERATURE

		1440	1460	1480	1500	1520	1540	1560	1580	1600
1220	V	0.3946	0.3988	0.4030	0.4072	0.4114	0.4156	0.4197	0.4239	0.4281
	H	669.44	675.53	681.62	687.72	693.84	699.96	706.09	712.24	718.39
	S	1.5376	1.5408	1.5439	1.5470	1.5501	1.5532	1.5563	1.5593	1.5623
1240	V	0.3884	0.3926	0.3967	0.4008	0.4050	0.4091	0.4132	0.4173	0.4214
	H	669.42	675.51	681.60	687.71	693.82	699.95	706.08	712.23	718.38
	S	1.5368	1.5400	1.5431	1.5463	1.5494	1.5525	1.5555	1.5585	1.5615
1260	V	0.3825	0.3865	0.3906	0.3947	0.3988	0.4028	0.4069	0.4109	0.4150
	H	669.40	675.49	681.59	687.69	693.81	699.93	706.07	712.22	718.37
	S	1.5361	1.5392	1.5424	1.5455	1.5486	1.5517	1.5548	1.5578	1.5608
1280	V	0.3767	0.3807	0.3847	0.3887	0.3927	0.3968	0.4008	0.4047	0.4087
	H	669.38	675.47	681.57	687.68	693.79	699.92	706.06	712.21	718.36
	S	1.5353	1.5385	1.5416	1.5448	1.5479	1.5510	1.5540	1.5570	1.5600
1300	V	0.3711	0.3751	0.3790	0.3830	0.3869	0.3909	0.3948	0.3987	0.4027
	H	669.36	675.45	681.55	687.66	693.78	699.91	706.05	712.20	718.35
	S	1.5346	1.5378	1.5409	1.5440	1.5472	1.5502	1.5533	1.5563	1.5593
1320	V	0.3657	0.3696	0.3735	0.3774	0.3813	0.3852	0.3890	0.3929	0.3968
	H	669.34	675.43	681.54	687.65	693.77	699.90	706.04	712.19	718.34
	S	1.5338	1.5370	1.5402	1.5433	1.5464	1.5495	1.5526	1.5556	1.5586
1340	V	0.3604	0.3643	0.3681	0.3720	0.3758	0.3796	0.3835	0.3873	0.3911
	H	669.32	675.42	681.52	687.63	693.75	699.88	706.02	712.18	718.34
	S	1.5331	1.5363	1.5395	1.5426	1.5457	1.5488	1.5519	1.5549	1.5579
1360	V	0.3553	0.3591	0.3629	0.3667	0.3705	0.3743	0.3780	0.3818	0.3856
	H	669.30	675.40	681.50	687.61	693.74	699.87	706.01	712.16	718.33
	S	1.5324	1.5356	1.5388	1.5419	1.5450	1.5481	1.5512	1.5542	1.5572
1380	V	0.3504	0.3541	0.3578	0.3616	0.3653	0.3690	0.3728	0.3765	0.3802
	H	669.28	675.38	681.48	687.60	693.72	699.86	706.00	712.15	718.32
	S	1.5317	1.5349	1.5381	1.5412	1.5443	1.5474	1.5505	1.5535	1.5565
1400	V	0.3455	0.3492	0.3529	0.3566	0.3603	0.3640	0.3676	0.3713	0.3750
	H	669.26	675.36	681.47	687.58	693.71	699.84	705.99	712.14	718.31
	S	1.5311	1.5342	1.5374	1.5405	1.5436	1.5467	1.5498	1.5528	1.5558
1450	V	0.3341	0.3376	0.3412	0.3448	0.3483	0.3519	0.3554	0.3590	0.3625
	H	669.21	675.31	681.42	687.54	693.67	699.81	705.96	712.12	718.28
	S	1.5294	1.5326	1.5357	1.5389	1.5420	1.5451	1.5481	1.5511	1.5542

PRESSURE PSIA		TEMPERATURE								
		1440	1460	1480	1500	1520	1540	1560	1580	1600
1500	V	0.3234	0.3268	0.3303	0.3337	0.3372	0.3406	0.3441	0.3475	0.3509
	H	669.16	675.27	681.38	687.50	693.64	699.78	705.93	712.09	718.26
	S	1.5278	1.5310	1.5341	1.5373	1.5404	1.5435	1.5465	1.5495	1.5526
1550	V	0.3133	0.3167	0.3200	0.3234	0.3267	0.3301	0.3334	0.3367	0.3401
	H	669.11	675.22	681.34	687.46	693.60	699.74	705.90	712.06	718.24
	S	1.5262	1.5294	1.5326	1.5357	1.5388	1.5419	1.5450	1.5480	1.5510
1600	V	0.3039	0.3072	0.3105	0.3137	0.3169	0.3202	0.3234	0.3267	0.3299
	H	669.06	675.17	681.29	687.42	693.56	699.71	705.87	712.04	718.21
	S	1.5247	1.5279	1.5310	1.5342	1.5373	1.5404	1.5434	1.5465	1.5495
1650	V	0.2951	0.2983	0.3014	0.3046	0.3077	0.3109	0.3140	0.3172	0.3203
	H	669.01	675.12	681.25	687.38	693.52	699.68	705.84	712.01	718.19
	S	1.5232	1.5264	1.5296	1.5327	1.5358	1.5389	1.5420	1.5450	1.5480
1700	V	0.2868	0.2899	0.2930	0.2960	0.2991	0.3021	0.3052	0.3083	0.3113
	H	668.96	675.08	681.20	687.34	693.49	699.64	705.81	711.98	718.16
	S	1.5218	1.5250	1.5281	1.5313	1.5344	1.5375	1.5405	1.5436	1.5466
1750	V	0.2790	0.2820	0.2849	0.2879	0.2909	0.2939	0.2969	0.2998	0.3028
	H	668.91	675.03	681.16	687.30	693.45	699.61	705.78	711.95	718.14
	S	1.5204	1.5236	1.5267	1.5299	1.5330	1.5361	1.5392	1.5422	1.5452
1800	V	0.2716	0.2745	0.2774	0.2803	0.2832	0.2861	0.2890	0.2919	0.2948
	H	668.85	674.98	681.11	687.26	693.41	699.57	705.74	711.92	718.11
	S	1.5190	1.5222	1.5254	1.5285	1.5316	1.5347	1.5378	1.5409	1.5439
1850	V	0.2645	0.2674	0.2702	0.2731	0.2759	0.2787	0.2815	0.2844	0.2872
	H	668.80	674.93	681.07	687.21	693.37	699.54	705.71	711.89	718.09
	S	1.5177	1.5209	1.5241	1.5272	1.5303	1.5334	1.5365	1.5395	1.5426
1900	V	0.2579	0.2607	0.2634	0.2662	0.2690	0.2717	0.2745	0.2772	0.2800
	H	668.75	674.88	681.02	687.17	693.33	699.50	705.68	711.87	718.06
	S	1.5164	1.5196	1.5228	1.5259	1.5290	1.5321	1.5352	1.5383	1.5413
1950	V	0.2516	0.2543	0.2570	0.2597	0.2624	0.2651	0.2678	0.2705	0.2731
	H	668.70	674.83	680.98	687.13	693.29	699.47	705.65	711.84	718.03
	S	1.5151	1.5183	1.5215	1.5247	1.5278	1.5309	1.5340	1.5370	1.5400
2000	V	0.2456	0.2482	0.2509	0.2535	0.2561	0.2588	0.2614	0.2640	0.2666
	H	668.64	674.78	680.93	687.09	693.25	699.43	705.61	711.81	718.01
	S	1.5139	1.5171	1.5203	1.5234	1.5266	1.5297	1.5327	1.5358	1.5388