

National Bureau of Standards
Library, N.W. Bldg
APR 3 1962

PB 161631



Technical Note

130

PROVISIONAL THERMODYNAMIC FUNCTIONS FOR PARA-HYDROGEN

HANS M. RODER AND ROBERT D. GOODWIN



U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

THE NATIONAL BUREAU OF STANDARDS

Functions and Activities

The functions of the National Bureau of Standards are set forth in the Act of Congress, March 3, 1901, as amended by Congress in Public Law 619, 1950. These include the development and maintenance of the national standards of measurement and the provision of means and methods for making measurements consistent with these standards; the determination of physical constants and properties of materials; the development of methods and instruments for testing materials, devices, and structures; advisory services to government agencies on scientific and technical problems; invention and development of devices to serve special needs of the Government; and the development of standard practices, codes, and specifications. The work includes basic and applied research, development, engineering, instrumentation, testing, evaluation, calibration services, and various consultation and information services. Research projects are also performed for other government agencies when the work relates to and supplements the basic program of the Bureau or when the Bureau's unique competence is required. The scope of activities is suggested by the listing of divisions and sections on the inside of the back cover.

Publications

The results of the Bureau's research are published either in the Bureau's own series of publications or in the journals of professional and scientific societies. The Bureau itself publishes three periodicals available from the Government Printing Office: The Journal of Research, published in four separate sections, presents complete scientific and technical papers; the Technical News Bulletin presents summary and preliminary reports on work in progress; and Basic Radio Propagation Predictions provides data for determining the best frequencies to use for radio communications throughout the world. There are also five series of non-periodical publications: Monographs, Applied Mathematics Series, Handbooks, Miscellaneous Publications, and Technical Notes.

A complete listing of the Bureau's publications can be found in National Bureau of Standards Circular 460, Publications of the National Bureau of Standards, 1901 to June 1947 (\$1.25), and the Supplement to National Bureau of Standards Circular 460, July 1947 to June 1957 (\$1.50), and Miscellaneous Publication 240, July 1957 to June 1960 (Includes Titles of Papers Published in Outside Journals 1950 to 1959) (\$2.25); available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

NATIONAL BUREAU OF STANDARDS

Technical Note

130

DECEMBER 1961

PROVISIONAL THERMODYNAMIC FUNCTIONS FOR PARA-HYDROGEN

Hans M. Roder and Robert D. Goodwin
NBS Boulder Laboratories

The work described in this report was supported
in part by the National Aeronautics and Space
Administration.

NBS Technical Notes are designed to supplement the Bureau's regular publications program. They provide a means for making available scientific data that are of transient or limited interest. Technical Notes may be listed or referred to in the open literature. They are for sale by the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.

DISTRIBUTED BY
UNITED STATES DEPARTMENT OF COMMERCE
OFFICE OF TECHNICAL SERVICES
WASHINGTON 25, D. C.

Price \$3.00

CONTENTS

LIST OF TABLES	III
LIST OF FIGURES.	III
LIST OF SYMBOLS & UNITS	IV
ABSTRACT.	1
1. INTRODUCTION.	2
2. THE DATA.	2
2.1 Experimental PVT data	2
2.2 "Specific heat of ideal gas"	3
2.3 Vapor pressure	3
2.4 Saturated liquid density	3
2.5 Saturated vapor density	4
2.6 Heat of vaporization at the boiling point.	4
2.7 The specific heat of the saturated liquid	4
2.8 Vapor pressure vs. saturated liquid density	6
2.9 Selected parameters.	6
3. THE CALCULATED PVT SURFACE	7
3.1 The equation of state.	7
3.2 Regions of application	8
3.3 Deviations	9
4. THE DERIVED THERMODYNAMIC FUNCTIONS.	12
4.1 The baseline or reference values	12
4.2 Equations used in the high temperature region	13
4.3 Equations used in the compressed liquid region	14
4.4 The transition between the two regions	14
4.5 Discussion of errors.	15
5. EXTENSION OF THE TABULATED VALUES TO 300°K	15
6. DESCRIPTION OF THE PROVISIONAL THERMODYNAMIC CHARTS	17
6.1 T-S chart, 20-100°K.	17
6.2 T-S chart, 80-300°K.	17
6.3 H-S chart, 20-60°K	18
7. ACKNOWLEDGEMENTS.	18
8. REFERENCES.	19
9. THE TABLES OF PROVISIONAL THERMODYNAMIC FUNCTIONS FOR PARA-HYDROGEN.	21
SUPPLEMENT A (British units)	75

III

LIST OF TABLES

- Table 1 Densities of saturated para-hydrogen vapor
Table 2 Adjustments in entropy and enthalpy 31-37°K
Table 3 Adjustments in specific volume and enthalpy at 101°K

LIST OF FIGURES

- Figure 1 Schematic deviations along isotherms, pressure vs.
volume
Figure 2 Schematic phase diagram, density vs. temperature
Figure D-20A T-S Chart 20 to 100°K 1 to 340 atm
Figure D-21A T-S Chart 80 to 300°K 1 to 100 atm
Figure D-22A H-S Chart 20 to 60°K 1 to 340 atm

LIST OF SYMBOLS AND UNITS

R	gas constant, 82.082 $\text{cm}^3 \text{ atm/g mole } ^\circ\text{K}$
P	pressure atm
	P_{sat} vapor pressure
	P_c critical pressure, 12.770 atm
V	volume $\text{cm}^3/\text{g mole}$
	V_{gas} volume of saturated vapor, $\text{cm}^3/\text{g mole}$
	V_{liq} volume of saturated liquid, $\text{cm}^3/\text{g mole}$
T	absolute temperature, degrees Kelvin, Triple point of H_2O 273.16°K
	T_c critical temperature, 32.984°K
C_p°	"Specific heat of ideal gas", $\text{cal/g mole } ^\circ\text{K}$
ρ	density, $\text{g mole}/\text{cm}^3$
	ρ_{sat} saturated liquid density
	ρ_c critical density, $0.0152672 \text{ g mole}/\text{cm}^3$
ΔH_{vap}	heat of vaporization, cal/g mole
C_{sat}	saturated liquid heat capacity, $\text{cal/g mole } ^\circ\text{K}$
Z	= PV/RT
$h_{T, \rho}$	enthalpy at T and ρ , cal/g or j/g
$u_{T, \rho}$	internal energy at T and ρ , cal/g or j/g
$s_{T, \rho}$	entropy at T and ρ , $\text{cal/g}^\circ\text{K or j/g}^\circ\text{K}$

PROVISIONAL THERMODYNAMIC FUNCTIONS FOR
PARA-HYDROGEN

by

Hans M. Roder and Robert D. Goodwin
Cryogenic Engineering Laboratory

ABSTRACT

New PVT data recently obtained at this laboratory were used to compute tabular values of internal energy, enthalpy, and entropy of para-hydrogen. These properties, together with specific volume, are presented here as functions of temperature and pressure. The new data encompassed the temperature range 20° to 100°K at pressures up to 340 atm. Earlier data were used to extend the tables to 300°K. Above 100°K the upper limit of pressure is 100 atm. The information is also presented in the form of thermodynamic charts. In supplement A to this report the thermodynamic tables and charts are presented in units of: psia, degrees Rankine, BTU, pounds, and cubic feet.

1. INTRODUCTION

The urgency of the need for thermodynamic functions of para-hydrogen prompts this Technical Note, and justifies the approximations used in computation of the provisional functions. The 20.3°K equilibrium hydrogen (0.21% ortho) is simply called parahydrogen in this report.

Subsequent sections present the data used, the equation of state which is used to represent the PVT data, the derived thermodynamic functions, the extension of these functions above 100°K, and the resulting thermodynamic tables and charts.

More accurate computations of the thermodynamic functions are planned. When completed, they will supersede results given in the present report. Either direct numerical techniques or an improved equation of state will be employed with PVT data from Goodwin [1961, 1962] and specific heats from Younglove [1962].

In consideration of engineering requirements Supplement A of this report presents the thermodynamic tables and charts in the following units: psia, degrees Rankine, BTU, pounds, cubic feet.

2. THE DATA

The data needed for the calculations include experimental PVT data, the ideal specific heat, the vapor pressure as a function of temperature, the saturated liquid and vapor densities, the heat of vaporization at the normal boiling point, the specific heat of the saturated liquid, the vapor pressure as a function of saturated liquid density, and the critical point data.

2.1 Experimental PVT Data

Goodwin and co-workers [1961, 1962] measured 1211 PVT points for "para-hydrogen" in the ranges of 15 to 100°K and 2 to 350 atm. Of these, 15 experimental points represent vapor pressure determinations while 2 others fall on the melting line. For computational purposes these data were represented by an equation of state as described in section 3.

2.2 "Specific Heat of Ideal Gas"

The values given by Woolley, Scott, and Brickwedde [1948] for para-hydrogen were approximated in the range 10 to 100°K by

$$C_p^{\circ} = A + BT + CT^2 + DT^3 + ET^4 + FT^5 \dots \dots \quad (1).$$

No corrections were made for the more recent values of the physical constants. The maximum deviation is .0043 cal/mole °K at 90°K or .08%, and the mean deviation is .0024 cal/mole °K.

Values of the coefficients of the power series are:

$$\begin{aligned} A &= + .4977816011 \times 10^{-2} \\ B &= - .3384077523 \times 10^{-3} \\ C &= + .3521443738 \times 10^{-4} \\ D &= - .1435633178 \times 10^{-6} \\ E &= + .2303247505 \times 10^{-8} \\ F &= - .1038316229 \times 10^{-8} \end{aligned}$$

2.3 Vapor Pressure

Values used are those given by Hoge and Arnold [1951], at temperatures adjusted by -0.01°K to conform to the NBS 1955 scale for platinum resistance thermometers. After this change the maximum difference between Hoge and Arnold [1951] and Goodwin [1961, 1962] is .01 atm, while the mean difference for Goodwin's 15 points is less than .003 atm.

Smooth interpolation of P_{sat} , dP_{sat}/dT , and of d^2P_{sat}/dT^2 close to the critical temperature is required for calculation of the saturated liquid and vapor densities and of the specific heat of the saturated liquid. An interpolation polynomial was used between 30°K and the critical point as follows:

$$\log_{10} P_{\text{sat}} = A + BT + CT^2 + DT^3 \dots \dots \dots \quad (2)$$

with

$$\begin{aligned} A &= - .93945023 \times 10^{+1} \\ B &= + .82691525 \\ C &= - .23118467 \times 10^{-1} \\ D &= + .23345215 \times 10^{-3} \end{aligned}$$

2.4 Saturated Liquid Density

The isotherms in the compressed fluid region were expressed as low-order polynomials of pressure in density. These were then iterated to yield the densities at the appropriate vapor pressures.

The resulting densities can be expressed as a function of temperature as suggested by Hou and Martin [1959],

$$\rho_{\text{sat}} - \rho_c = \sum_{n=1}^4 A_n (T_c - T)^{n/3} \dots \dots \dots \quad (3)$$

where

$$\begin{aligned} A_1 &= .62675345 \times 10^{-2} \\ A_2 &= .14973511 \times 10^{-2} \\ A_3 &= -.18306903 \times 10^{-3} \\ A_4 &= -.20693181 \times 10^{-4} \end{aligned}$$

with results presented by Goodwin, et al., [1961]. The uncertainty of $\pm 2\%$ in the critical density from Hoge and Lassiter [1951] implies that (3) should not be extrapolated above 32.5°K.

2.5 Saturated Vapor Density

These densities were obtained in a manner similar to section 2.4, except that experimental lines of constant volume were also intersected to the respective vapor pressures. Values used are given in Table 1.

2.6 The Heat of Vaporization at the Boiling Point

If (3) is fitted to the saturated vapor data and extrapolated to the normal boiling point, one can compute V_{gas} . V_{liq} is obtained in similar manner from the saturated liquid data, while dP_{sat}/dT at the normal boiling point is interpolated from the tables by Hoge and Arnold [1951]. The Clapeyron equation

$$\frac{dP_{\text{sat}}}{dT} = \frac{\Delta H_{\text{vap}}}{T(V_{\text{gas}} - V_{\text{liq}})} \dots \dots \dots \quad (4)$$

yields a value of 215.3 cal/mole in excellent agreement with the value of 214.8 cal/mole given by Johnston [1950]. The latter value was used in subsequent computations.

2.7 The Specific Heat of the Saturated Liquid

Younglove [1962] recently has measured the specific heat of the saturated liquid at this laboratory. The 33 experimental points in the temperature range of 14.8°K to 31.5°K are represented by an equation of the form

$$C_{\text{sat}} = \frac{AT}{(T_c - T)^n} + B + CT + DT^2 + ET^3 \dots \dots \dots \quad (5)$$

first suggested by Osborne and Van Dusen [1918]. The coefficients in (5) are:

$$\begin{aligned}
 A &= + .43272654 \\
 B &= - .13333618 \times 10 \\
 C &= + .36251851 \\
 D &= - .12869527 \times 10^{-1} \\
 E &= + .17227638 \times 10^{-3} \\
 n &= 0.5
 \end{aligned}$$

Table 1. Densities of Saturated Para Hydrogen Vapor

Temperature °K	Experimental Density g mol/cm ³
22.222	.0010851
23.645	.0014968
24.000	.0016161
25.000	.0019939
25.389	.0021612
26.000	.0024447
26.246	.0025670
27.000	.0029795
27.571	.0033329
28.000	.0036225
28.482	.0039820
29.000	.0044107
29.585	.0049651
30.000	.0054028
31.000	.0067190
31.047	.0067862
31.853	.0083107
32.000	.0087699
32.480	.0101436
32.795	.0118154

With $0.1 < n < 1$ the equation has the required singular point at the critical temperature, yet the integrals

$$\int_T^{T_c} C_{\text{sat}} dT \quad \text{and} \quad \int_T^{T_c} \frac{C_{\text{sat}}}{T} dT$$

remain finite. The behavior of (5) near the critical point is sensitive of the choice of value for n ; Equation (5) should not be extrapolated above 32.6°K .

2.8 Vapor Pressure vs. Saturated Liquid Density

For computation of changes in internal energy or enthalpy along the saturated liquid line, a relation between vapor pressure and saturated liquid density is required. The data in sections 2.3 and 2.4 above have been combined in the following expression:

$$P_c - P_{\text{sat}} = A(\rho_{\text{sat}} - \rho_c)^3 + B(\rho_{\text{sat}} - \rho_c)^4 + C(\rho_{\text{sat}} - \rho_c)^5 + D(\rho_{\text{sat}} - \rho_c)^6 + E(\rho_{\text{sat}} - \rho_c)^7 \dots \dots \dots \dots \dots \dots \dots \quad (6)$$

Equation (6) is not valid for temperatures above 32.5°K . The values of the coefficients in (6) are:

$$\begin{aligned} A &= +7.3123950 \times 10^{+6} \\ B &= -6.2975538 \times 10^{+8} \\ C &= +3.4607546 \times 10^{+10} \\ D &= -1.2549385 \times 10^{+12} \\ E &= +1.8502401 \times 10^{+13} \end{aligned}$$

2.9 Selected Parameters

The value of the normal boiling point temperature was selected from Hoge and Arnold [1951] to be 20.268°K after adjustment by -0.01°K from the published value.

The critical constants were selected from Hoge and Lassiter [1951]. After adjusting the critical temperature by -0.01°K , the values are:

critical temperature,	32.984°K ;
critical pressure,	12.770 atm;
critical volume,	$65.5 \text{ cm}^3/\text{mole}$.

Experimental work is in progress for more accurate determination of the critical properties.

A value of 4.25 cal/g°K has been adopted for the entropy at the critical point. This value is thought to be most consistent with the other values tabulated. Extrapolation of (5) yields an erroneous value of 4.036 cal/g°K. The most probable value is 4.17 cal/g°K obtained by integrating along the 33°K isotherm, using S^* as a base to a final density of 0.01555 mole/cm³. This value for the density is that indicated at present by work in progress on the determination of the rectilinear diameter.

The value of 82.082 cm³ atm/mole °K, adopted throughout the computations for the gas constant R, is subject to adjustment. Errors from other sources, however, are much more significant; it is felt that no useful purpose would be served by any recalculation. The molecular weight of hydrogen used in the computations is 2.01572 g/mole. Conversion of calories to joules is accomplished by:

$$1 \text{ cal} = 4.184 \text{ joules.}$$

3. THE CALCULATED PVT SURFACE

The basic approximation in these calculations is the substitution of a PVT surface, generated from an equation of state, for the actual PVT data.

3.1 The Equation of State

The equation of state used is an adaptation of the Benedict, Webb, Rubin [1940] equation proposed by Strobridge [1962]:

$$\begin{aligned} P = & A_1 T\rho + A_1 A_2 T\rho^2 + A_3 \rho^2 + \frac{A_4^* \rho^2}{T^2} + \frac{A_5^* \rho^2}{T^4} + A_7 A_1 T\rho^3 + \\ & A_8 \rho^3 + \frac{A_9^* T\rho^4}{T^2} + \frac{A_{10}^* \rho^3 e^{-A_{17}\rho^2}}{T^3} + \frac{A_{11}^* \rho^3 e^{-A_{17}\rho^2}}{T^3} + \frac{A_{12}^* \rho^3 e^{-A_{17}\rho^2}}{T^4} \end{aligned}$$

$$+ \frac{A_{13} \rho^5 e^{-A_{17}\rho^2}}{T^2} + \frac{* A_{14} \rho^5 e^{-A_{17}\rho^2}}{T^3} + \frac{* A_{15} \rho^5 e^{-A_{17}\rho^2}}{T^4} + A_{16} \rho^6 \dots \quad (7)$$

The starred terms are additions to the original BWR equation.

3.2 Regions of Application

Equation (7) first was applied to the entire set of PVT data. The coefficient A_{17} was varied over a wide range of values. A final value of 0.0018 was adopted and is used in both of the following regions of application. These regions were selected to obtain the best possible fit along one side of the two phase boundary, without having to fit the other side at the same time.

(1) The High Temperature Region. The following experimental points were used to determine the coefficients of the PVT surface:

All experimental points at $T \geq 33^\circ\text{K}$;
 all experimental points at $T \geq 33^\circ\text{K}$ and $\rho < \rho_c$;
 all saturated vapor line points (these were doubly weighted).

(2) The Compressed Liquid Region. The data used to determine the coefficients include:

All experimental points with $T \leq 40^\circ\text{K}$ and $\rho > \rho_c$;
 all points on saturated liquid line (doubly weighted).

The Coefficients for (7) as determined by least squares are:

High Temperature	Compressed Liquid
$A_1 = .8208199823 \times 10^{+2}$	$A_1 = .8208199823 \times 10^{+2}$
$A_2 = .2062278898 \times 10^{+2}$	$A_2 = .6374020840 \times 10^{+2}$
$A_3 = - .1292792029 \times 10^{+6}$	$A_3 = - .3539180407 \times 10^{+6}$
$A_4 = - .7237230137 \times 10^{+7}$	$A_4 = - .4810952457 \times 10^{+7}$
$A_5 = .1159242745 \times 10^{+9}$	$A_5 = .9127883349 \times 10^{+8}$
$A_6 = - .1010879875 \times 10^{+11}$	$A_6 = - .8816106422 \times 10^{+10}$
$A_7 = .3176293970 \times 10^{+3}$	$A_7 = - .1283735749 \times 10^{+4}$
$A_8 = .2581305967 \times 10^{+7}$	$A_8 = .8076213444 \times 10^{+7}$
$A_9 = .2410669065 \times 10^{+6}$	$A_9 = .1425160973 \times 10^{+7}$
$A_{10} = - .1070380625 \times 10^{+11}$	$A_{10} = .6410245277 \times 10^{+10}$
$A_{11} = .1016369054 \times 10^{+13}$	$A_{11} = .1085162913 \times 10^{+12}$
$A_{12} = - .1938431002 \times 10^{+14}$	$A_{12} = - .2930340262 \times 10^{+13}$
$A_{13} = .3857308627 \times 10^{+13}$	$A_{13} = - .5235483345 \times 10^{+13}$
$A_{14} = - .6757463236 \times 10^{+15}$	$A_{14} = - .2551114380 \times 10^{+15}$
$A_{15} = .1462114653 \times 10^{+17}$	$A_{15} = .4732799310 \times 10^{+16}$
$A_{16} = .5254992259 \times 10^{+11}$	$A_{16} = .3522327774 \times 10^{+11}$
$A_{17} = .1800100800 \times 10^{+4}$	$A_{17} = .1800100800 \times 10^{+4}$

3. 3 Deviations

In the calculation of densities or specific volumes for pressures greater than critical, the compressed liquid PVT surface of (7) was assumed to be valid for temperatures less than or equal to 32°K, while the high temperature PVT surface was used for temperatures greater than or equal to 33°K.

Some continuity of these independently-defined PVT surfaces at their common boundary ($32\text{-}33^\circ\text{K}$, at densities $> \rho_c$) was achieved by determining the constants for the compressed liquid surface with data extending up to 40°K into the high temperature region. The densities were not smoothed from one surface to the other. All derived properties, however, were smoothed from one surface to the other (see sec. 4.4).

For the high temperature PVT surface the greatest deviations between the surface and the experimental data occur near the critical point. Schematic deviations from isotherms are shown greatly exaggerated in Fig. 1. Near the critical point $(\partial P/\partial \rho)_T \approx 0$. The pressures are approximated with reasonable deviations; the densities however, are subject to large deviations, i.e., up to 16%. For this reason computations on isobars between 10 atm and 15 atm were omitted intentionally. Computations utilizing (7) in this area may be subject to serious errors. The deviations of the approximate PVT surface along the saturated vapor line are 0% deviation in density at 22°K , 0.06% at 28°K , and 16% at 32.795°K .

For the compressed liquid PVT surface the greatest deviations again occur along the saturated liquid line. At 20°K the calculated pressure is 0.18 atm or 20% too low. The deviation falls off to 1.5% at 22°K and is negligible above 24°K .

For other regions the deviations are sufficiently small to be summarized as mean deviations:

Surface	Density	Pressure
High temperature	$\pm 0.00046 \text{ mole/cm}^3$ or $\pm 0.35\%$	$\pm 0.18 \text{ atm}$ or $\pm 0.3\%$
Compressed liquid	$\pm 0.00027 \text{ mole/cm}^3$ or $\pm 0.14\%$	$\pm 0.1 \text{ atm}$ or $\pm 0.9\%$

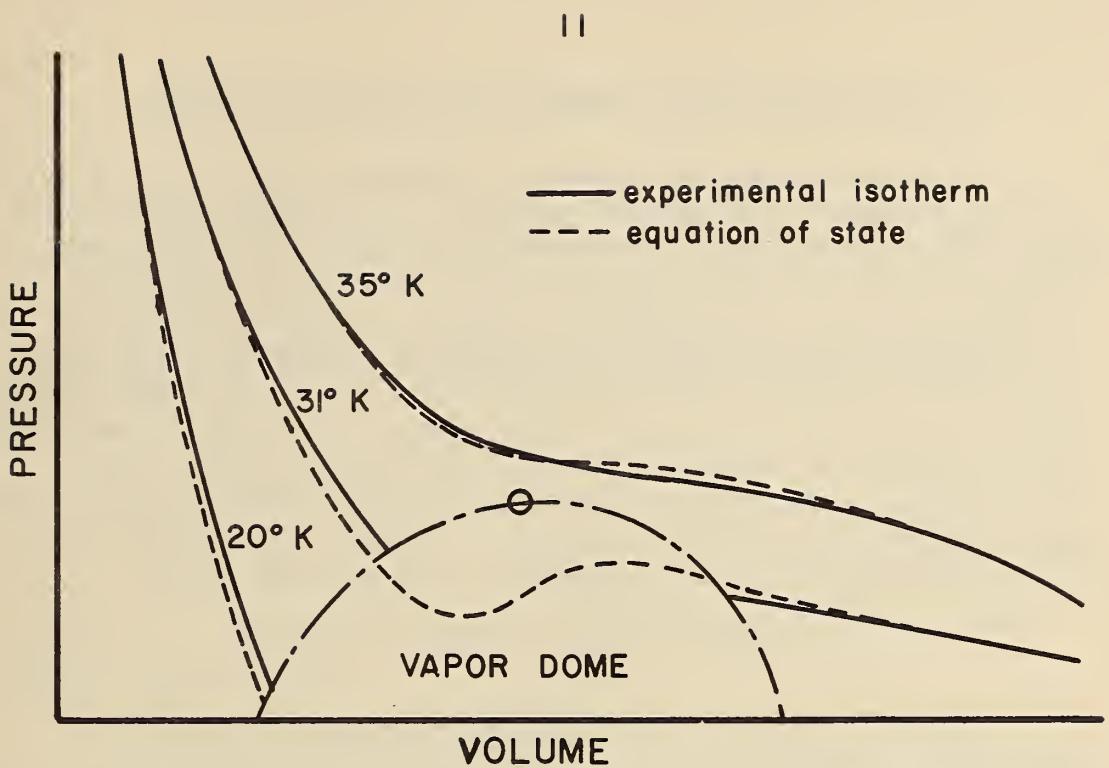


FIGURE 1 SCHEMATIC DEVIATIONS ALONG ISOTHERMS

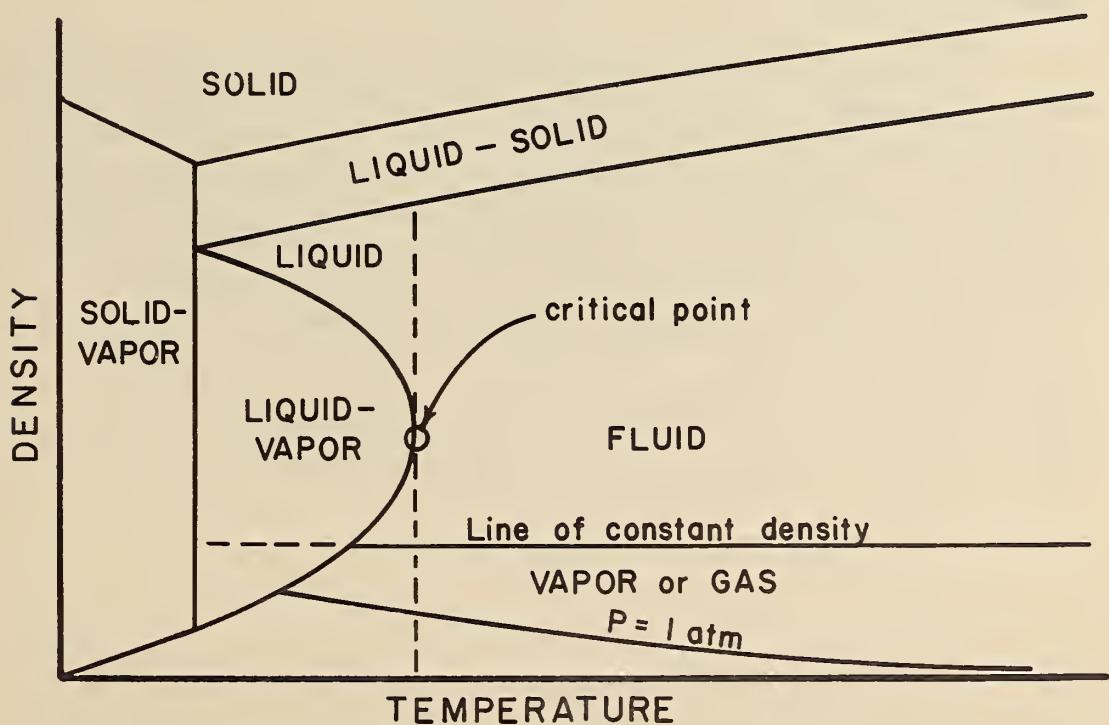


FIGURE 2 SCHEMATIC PHASE DIAGRAM

4. THE DERIVED THERMODYNAMIC FUNCTIONS

The computed thermodynamic functions presented here are entropy, enthalpy, and internal energy. For practical applications pressure is required as an independent variable. For computational purposes, however, density is selected as an independent variable to obtain well-behaved functions. Computations follow horizontal or vertical paths on a density vs. temperature diagram as shown in Figure 2. PVT data are required for computation on paths of constant temperature, while specific heat data are required for computation on paths of constant density or pressure. The following sections discuss the reference values, the equations used in the high temperature and compressed liquid regions respectively, the transition between the two regions, and possible errors.

4.1 The baseline or reference values

Specific heat data for the ideal gas are given by Woolley, Scott, and Brickwedde [1948]. These specific heats and the thermodynamic functions derived from them constitute the reference values for computation of the thermodynamic functions in all other states of the fluid by means of PVT data.

For the compressed liquid region the following considerations apply. The vertical paths of computation with PVT data on the ρ -T diagram are blocked below the critical temperature by the coexistence region. Hence a new baseline for thermodynamic functions is established along the saturated liquid line of the phase diagram (Fig. 2). Computations are carried to the co-existence region at the boiling point by means of the virial coefficients, and are carried across the co-existence region by means of the heat of vaporization (sec. 2.6). Properties of the saturated liquid at temperatures other than the boiling point are then computed by means of the specific heat of the saturated liquid (sec. 2.7), the vapor pressure (sec. 2.3), and the saturated liquid density (sec. 2.4).

4.2 Equations used in the high temperature region

To compute enthalpy:

$$H_{T, \rho} = H_{T_0}^o + \int_{T_0}^T C_p^o dT + RT(Z-1) + \int_0^\rho \left[\frac{P}{2} - \frac{T}{2} \left(\frac{\partial P}{\partial T} \right)_\rho \right] d\rho \quad (8)$$

where $H_{T_0}^o$ is the molal enthalpy of the ideal gas at the normal boiling point. The symbol $H_{T_0}^o$ is used for brevity in place of $H_{20.268}^o - H_0^o$.

To compute entropy:

$$S_{T, \rho} = S_{T_0}^* + \int_{T_0}^T C_p^o \frac{dT}{T} - R \ln \frac{P}{Z} + \int_0^\rho \left[\frac{R}{\rho} - \frac{1}{2} \left(\frac{\partial P}{\partial T} \right)_\rho \right] d\rho \quad (9)$$

where $S_{T_0}^*$ is the molal entropy of the ideal gas at 1 atm. at the normal boiling point.

To compute internal energy:

$$U_{T, \rho} = H_{T, \rho} - P \cdot V \dots \dots \dots \quad (10)$$

Normally the values of enthalpy and entropy for the saturated vapor at the boiling point are calculated from (8) and (9) expressing the PVT behavior by virial coefficients. If the PVT behavior is expressed by (7) the following deviations result: + 0.201 cal/g, + 0.013 cal/g°K. For subsequent comparisons with more accurate values of the thermodynamic functions, it is convenient to establish a defined agreement of values for the vapor at the boiling point. For computations with (7), therefore, the following arbitrary values for the constants in (8) and (9) are selected, differing by above amounts from those of Woolley, Scott and Brickwedde [1948]

$$S_{20.268}^* = 7.319 \text{ cal/g°K} \text{ and}$$

$$H_{20.268}^o = 50.177 \text{ cal/g.}$$

4.3 Equations used in the compressed liquid region

To compute enthalpy:

$$H_{T,\rho} = H_{T,\rho \text{ sat}} + \int_{\rho \text{ sat}}^{\rho} \left[\frac{P}{\rho^2} - \frac{T}{2} \left(\frac{\partial P}{\partial T} \right)_{\rho} \right] T d\rho + \frac{P}{\rho} - \frac{Psat}{\rho sat} \quad (11)$$

To compute entropy:

$$S_{T,\rho} = S_{T,\rho \text{ sat}} + \int_{\rho \text{ sat}}^{\rho} \left[-\frac{1}{2} \left(\frac{\partial P}{\partial T} \right)_{\rho} \right] T d\rho \dots \dots \dots \quad (12)$$

To compute internal energy, equation (10) was used.

4.4 The transition between the two regions

The two regions were matched for all pressures greater than 15 atm by utilizing differencing techniques and the empirical relations (13) and (14)

$$\text{Adjustment in } S = A_1 + B_1 \cdot P \dots \dots \dots \quad (13)$$

$$\text{Adjustment in } H = A_2 + (B_2 \cdot T) \cdot P \dots \dots \dots \quad (14)$$

The adjustments calculated for the 31 and 32°K isotherms are added to the values computed from the compressed liquid PVT surface, while those for the 33 thru 37°K isotherms are added to the values calculated from the high temperature PVT surface. The smoothing was checked for consistency on a final plot of isobars and isotherms in enthalpy vs. entropy co-ordinates. Minima in the isotherms are in good agreement with the Joule-Thomson inversion characteristics of normal hydrogen as given by Woolley, Scott and Brickwedde [1948]. Table 2 gives the parameters used in (13) and (14)

Table 2

Adjustments in entropy and enthalpy 31-37°K

T°K	A ₁	B ₁	A ₂	(B ₂ · T)
31	.00282	- .132 x 10 ⁻⁵	.087	- 4.1 x 10 ⁻⁵
32	.02134	- .464 x 10 ⁻⁵	.637	- 14.8 x 10 ⁻⁵
33	.11576	- 4.792 x 10 ⁻⁵	3.954	- 158.1 x 10 ⁻⁵
34	.06626	- 3.688 x 10 ⁻⁵	2.284	- 125.4 x 10 ⁻⁵
35	.03494	- 2.964 x 10 ⁻⁵	1.213	- 103.7 x 10 ⁻⁵
36	.01579	- 2.144 x 10 ⁻⁵	.554	- 77.2 x 10 ⁻⁵
37	.00496	- 1.084 x 10 ⁻⁵	.184	- 40.1 x 10 ⁻⁵

15
4.5 Discussion of Errors

Reliable determination of uncertainties in thermodynamic networks is a difficult task. This discussion is necessarily brief. The difference between the computed reference values at the boiling point and those computed from virial coefficients has already been stated (sec. 4.2). The adjustments between high temperature and compressed liquid regions have also been discussed (sec. 4.4).

An error of 4% in the saturated vapor volume at 10 atm, resulting from substitution of the PVT surface of (7) for experimental data, leads directly to an error of 4% in the heat of vaporization, and thus directly to equivalent errors of 0.074 cal/g°K in the entropy and of 2.316 cal/g in the enthalpy of the saturated vapor at 10 atm.

In the compressed liquid region it is possible to compare the derived entropies with values computed from preliminary measurements of specific heat at the constant, triple-point density and the triple-point liquid thermal functions as established in Section 4.1 [Younglove 1962]. Disagreement in entropy is 1.1% (equivalent to 5 atm on T-S chart) at 23°K, and is 2.7% (equivalent to 24 atm on T-S chart) at 42°K, the specific heat data in each case indicating a lower value of entropy than given here.

Along the 100°K isotherm the agreement with other data is exceedingly good (see sec. 5).

5. EXTENSION OF THE TABULATED VALUES TO 300°K

The data of Goodwin [1961, 1962] are limited to temperatures below 100°K. It is possible to extend the tabulations presented here to 300°K on isobars between 1 atm and 100 atm by using published thermal data for normal hydrogen and the interpolation and conversion procedure proposed by Dean [1961].

The values thus obtained are adjusted slightly to fit smoothly to Goodwin's [1961, 1962] data in the two independent variables, specific volume and enthalpy. Internal energy and entropy are then recalculated from the smoothed values. The adjustments in specific volume and enthalpy were made as follows. The first difference $(100^{\circ}\text{K} - 101^{\circ}\text{K})_{\text{calc}}$ was set equal to the average of the first differences $(99^{\circ}\text{K} - 100^{\circ}\text{K})_{\text{Goodwin}}$ and $(101^{\circ}\text{K} - 102^{\circ}\text{K})_{\text{Dean}}$.

The value at 101°K K_{calc} was then calculated from 100°K $\text{K}_{\text{Goodwin}}$ by means of this adjusted first difference. Finally the resulting difference between 101°K K_{calc} and 101°K K_{Dean} was applied to all of Dean's entries up to 300°K . The values of these actual adjustments as well as the percentage for all isobars at 101°K is given in Table 3. Irregularities in Table 3 occur because (7) is assumed to yield smooth results, while Dean uses 3 different interpolations and changes the order of interpolation within a set of computations.

Table 3

Adjustments in specific volume and enthalpy at 101°K

Pressure Atm	Delta H cal/g	Per cent Delta H	Delta V cm^3/g	Per cent Delta V
1.0	0.2380	0.090	1.1259	0.027
2.0	0.2150	0.081	0.4475	0.022
3.0	0.1930	0.073	0.2250	0.016
4.0	0.1690	0.064	0.1180	0.011
5.0	0.1480	0.056	0.0568	0.007
6.0	0.1280	0.048	0.0149	0.002
7.0	0.1060	0.040	-0.0177	-0.003
8.0	0.0850	0.032	-0.0650	-0.012
9.0	0.0660	0.025	-0.1168	-0.026
10.0	0.0440	0.017	-0.1629	-0.040
15.0	-0.0560	-0.022	-0.2708	-0.099
20.0	-0.1380	-0.053	-0.1347	-0.066
25.0	-0.2080	-0.081	-0.0793	-0.048
30.0	-0.2750	-0.108	-0.0725	-0.053
35.0	-0.3540	-0.140	-0.0566	-0.048
40.0	-0.4040	-0.160	-0.0398	-0.038
45.0	-0.4200	-0.167	-0.0239	-0.026
50.0	-0.4210	-0.168	-0.0100	-0.012
60.0	-0.5290	-0.214	0.0182	0.026
70.0	-0.4780	-0.195	0.0337	0.056
80.0	-0.4720	-0.194	0.0443	0.083
90.0	-0.4710	-0.195	0.0504	0.106
100.0	-0.4540	-0.189	0.0563	0.129

6. DESCRIPTION OF THE PROVISIONAL THERMODYNAMIC CHARTS

Temperature-entropy and enthalpy-entropy charts are included as Figures D-20A, D-21A and D-22A. The intersections of lines of constant density and lines of constant enthalpy with isobars are required for accurate plots in addition to the values given in Section 9. These additional state points were obtained and utilized as outlined below.

6.1 T-S chart, 20 - 100°K

Intersections of isobars, with lines of constant enthalpy and constant density, were computed by interative procedures using equations (7), (8), (9), (11), and (12), except in the range of temperatures from 31° to 37°K for densities above critical density. In the latter range the values tabulated in Section 9 were used to obtain graphical interpolations.

Additional values of entropy along lines of constant density were computed at intermediate values of temperature as needed.

Values of $H_{T, \rho_{\text{sat}}}$ and $S_{T, \rho_{\text{sat}}}$, for use in (11) and (12) at intermediate temperatures, were determined by parabolic interpolation.

The properties for the two-phase region were determined for each isobar using the saturated liquid and vapor properties listed in Section 9.

6.2 T-S chart, 80 - 300°K

Values in Section 9 were used for temperatures from 100° to 300°K in the construction of this T-S chart. The particular values used in the determination of the constant property lines were obtained by parabolic interpolation. The values from 80° to 100°K are the same as those used on the T-S chart from 20° to 100°K. The constant property lines for this temperature range were determined as outlined above.

6.3 H-S chart, 20 - 60°K

The values of the properties were calculated as outlined in section 6.1. In addition, values of enthalpy and entropy at the intersections of the constant temperature and the constant density lines were computed and plotted.

7. ACKNOWLEDGEMENTS

This report incorporates results of research programs in three different sections of the Cryogenic Engineering Division under R. B. Scott. The continuing experimental program under R. J. Corruccini is conducted by a group including the authors, D. E. Diller, L. A. Weber, and B. A. Younglove. A program under B. W. Birmingham for computation and correlation of thermal properties of cryogenic fluids from published data has been conducted by J. W. Dean, D. B. Mann and T. R. Strobridge. Thermal properties of hydrogen above 100°K were computed by Dean. Correlation of properties across the boundary at 100°K and computer programming for the final tabulations were performed by Mann. The several computer programs required for examination of his modified B. W. R. equation, and for its application to the computation of thermal properties, were developed by Strobridge. The cryogenic data compilation program under V. J. Johnson provided the assistance of R. D. McCarty and R. B. Stewart who programmed the interpolation procedures for use of the digital plotter in preparing the charts. The quality of these charts is due to the painstaking draftsmanship of R. D. Weekley, L. J. Ericks and T. W. Griffith, and careful checking by McCarty and Stewart.

8. REFERENCES

- Benedict, M., G. B. Webb and L. C. Rubin, An empirical equation for thermodynamic properties of light hydrocarbons and their mixtures, *J. Chem. Phys.* 8, No. 4, 334-345 (April 1940).
- Dean, J. W., A tabulation of thermodynamic properties of n-hydrogen from low temperatures to 300°K and from 1 to 100 atm, NBS TN #120 (PB161621), Nov., 1961.
- Goodwin, R. D., Apparatus for determination of pressure-density-temperature relations and specific heats of hydrogen to 350 atmospheres at temperatures above 10°K, *J. Research NBS* 65C, (Engineering & Instrumentation), No. 4, 231-243 (Oct-Dec., 1961).
- Goodwin, R. D., to be published, (1962).
- Goodwin, R. D., D. E. Diller, H. M. Roder and L. A. Weber, The densities of saturated liquid hydrogen, *Cryogenics* 2, (2), 81-83 (Dec., 1961).
- Hoge, H. J., and R. D. Arnold, Vapor pressures of hydrogen, deuterium, and hydrogen deuteride and dew-point pressures of their mixtures, *J. Research NBS* 47, No. 2, 63-74 (Aug., 1951).
- Hoge, H. J., and J. W. Lassiter, Critical temperatures, pressures, and volumes of hydrogen, deuterium, and hydrogen deuteride, *J. Research NBS* 47, No. 2, 75-79 (Aug., 1951).
- Hou, Y. C., and J. J. Martin, Physical and thermodynamic properties of trifluoromethane, *A. I. Ch. E. Journal* 5, No. 1, 125-129 (Mar., 1959).
- Johnston, H. L., J. T. Clarke, E. B. Rifkin and E. C. Kerr, Condensed gas calorimetry. I. Heat capacities, latent heats and entropies of pure para-hydrogen from 12.7 to 20.3°K. Description of the condensed gas calorimeter in use in the cryogenic laboratory of the Ohio State University, *J. Am. Chem. Soc.* 72, No. 9, 3933-3938 (Sept., 1950).
- Osborne, N. S., and M. S. Van Dusen, Specific heat of liquid ammonia (saturation), *J. Am. Chem. Soc.* 40, No. 1, (Jan., 1918).

Strobridge, T. R., The thermodynamic properties of nitrogen from 64 to 300°K between 0.1 and 200 atmospheres, NBS TN #129 (PB161630), January, 1962.

Woolley, H. W., R. B. Scott and F. G. Brickwedde, Compilation of thermal properties of hydrogen in its various isotopic and ortho-para modifications, J. Research NBS 41, No. 5, 379-475 (Nov., 1948).

Younglove, B. A., to be published J. Research NBS, (1962).

9. THE TABLES OF PROVISIONAL THERMODYNAMIC FUNCTIONS FOR PARA-HYDROGEN

The following 26 pages of tables present 35 isobars, distributed as follows: 1 to 10 atm. by 1; 15 to 50 atm. by 5; 60 to 100 atm. by 10; and 120 to 340 atm. by 20. Column headings also give the units.

1.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	14.06	-258.23	-259.66	7.889					
* 20.268	14.13	-255.65	-257.08	8.017					
* 20.268	746.07	190.21	114.61	30.016	91.00	3702.82	975.55	600.36	46.586
21.00	781.25	199.44	120.28	30.464	92.00	3743.72	988.26	608.93	46.725
22.00	827.95	211.50	127.60	31.025	93.00	3784.61	1001.06	617.58	46.864
23.00	873.57	223.12	134.61	31.542	94.00	3825.50	1013.95	626.33	47.001
24.00	918.44	234.47	141.41	32.025	95.00	3866.39	1026.92	635.16	47.139
25.00	962.77	245.63	148.07	32.480	96.00	3907.27	1039.98	644.07	47.275
26.00	1006.68	256.64	154.64	32.912	97.00	3948.14	1053.12	653.07	47.412
27.00	1050.26	267.57	161.15	33.325	98.00	3989.02	1066.34	662.16	47.547
28.00	1093.59	278.42	167.61	33.719	99.00	4029.89	1079.65	671.33	47.682
29.00	1136.69	289.21	174.04	34.098	100.00	4070.75	1093.04	680.57	47.817
30.00	1179.61	299.96	180.44	34.462					
31.00	1222.37	310.67	186.82	34.814	101.00	4111.60	1106.52	689.90	47.951
32.00	1264.99	321.36	193.19	35.153	102.00	4152.44	1120.08	699.32	48.085
33.00	1307.48	332.02	199.54	35.481	103.00	4193.27	1133.72	708.83	48.218
34.00	1349.86	342.66	205.89	35.799	104.00	4234.09	1147.45	718.42	48.350
35.00	1392.15	353.28	212.23	36.106	105.00	4274.92	1161.26	728.09	48.482
36.00	1434.34	363.89	218.55	36.405	106.00	4315.74	1175.15	737.85	48.614
37.00	1476.44	374.48	224.88	36.695	107.00	4356.55	1189.13	747.69	48.745
38.00	1518.47	385.05	231.20	36.977	108.00	4397.37	1203.18	757.61	48.876
39.00	1560.43	395.62	237.51	37.252	109.00	4438.18	1217.31	767.60	49.006
40.00	1602.32	406.18	243.82	37.519	110.00	4478.99	1231.53	777.68	49.136
41.00	1644.15	416.73	250.14	37.780	111.00	4519.80	1245.82	787.83	49.265
42.00	1685.92	427.27	256.45	38.034	112.00	4560.61	1260.18	798.07	49.394
43.00	1727.64	437.81	262.76	38.282	113.00	4601.42	1274.62	808.37	49.523
44.00	1769.32	448.34	269.07	38.524	114.00	4642.22	1289.14	818.75	49.651
45.00	1810.94	458.88	275.39	38.761	115.00	4683.03	1303.73	829.21	49.778
46.00	1852.53	469.41	281.70	38.992	116.00	4723.84	1318.39	839.73	49.905
47.00	1894.07	479.95	288.03	39.219	117.00	4764.64	1333.12	850.33	50.031
48.00	1935.58	490.49	294.36	39.441	118.00	4805.45	1347.92	860.99	50.157
49.00	1977.05	501.03	300.70	39.658	119.00	4846.26	1362.79	871.73	50.283
50.00	2018.49	511.57	307.05	39.871	120.00	4887.07	1377.72	882.53	50.408
51.00	2059.90	522.13	313.41	40.080	121.00	4927.87	1392.71	893.38	50.532
52.00	2101.28	532.70	319.79	40.285	122.00	4968.68	1407.76	904.30	50.656
53.00	2142.63	543.28	326.18	40.487	123.00	5009.49	1422.88	915.28	50.779
54.00	2183.96	553.87	332.58	40.685	124.00	5050.31	1438.05	926.32	50.902
55.00	2225.26	564.48	339.00	40.879	125.00	5091.12	1453.28	937.41	51.025
56.00	2266.54	575.10	345.45	41.071	126.00	5131.90	1468.58	948.57	51.146
57.00	2307.80	585.75	351.91	41.259	127.00	5172.68	1483.92	959.79	51.268
58.00	2349.03	596.42	358.40	41.445	128.00	5213.46	1499.33	971.06	51.389
59.00	2390.25	607.11	364.92	41.628	129.00	5254.24	1514.78	982.38	51.509
60.00	2431.44	617.83	371.46	41.808	130.00	5295.02	1530.29	993.76	51.629
61.00	2472.62	628.57	378.04	41.985	131.00	5335.79	1545.85	1005.19	51.748
62.00	2513.79	639.35	384.64	42.161	132.00	5376.57	1561.46	1016.66	51.867
63.00	2554.93	650.16	391.28	42.334	133.00	5417.34	1577.11	1028.18	51.985
64.00	2596.07	661.01	397.96	42.504	134.00	5458.12	1592.81	1039.75	52.102
65.00	2637.18	671.89	404.68	42.673	135.00	5498.89	1608.56	1051.37	52.219
66.00	2678.29	682.82	411.44	42.840	136.00	5539.66	1624.35	1063.03	52.336
67.00	2719.38	693.78	418.24	43.005	137.00	5580.44	1640.18	1074.73	52.452
68.00	2760.46	704.79	425.09	43.168	138.00	5621.21	1656.05	1086.47	52.567
69.00	2801.52	715.85	431.99	43.329	139.00	5661.98	1671.96	1098.24	52.682
70.00	2842.58	726.96	438.94	43.489	140.00	5702.76	1687.91	1110.06	52.796
71.00	2883.62	738.12	445.94	43.648	141.00	5743.53	1703.89	1121.91	52.910
72.00	2924.66	749.33	452.99	43.804	142.00	5784.30	1719.91	1133.80	53.023
73.00	2965.68	760.61	460.11	43.960	143.00	5825.08	1735.96	1145.72	53.136
74.00	3006.70	771.94	467.29	44.114	144.00	5865.85	1752.04	1157.67	53.248
75.00	3047.70	783.33	474.52	44.267	145.00	5906.62	1768.15	1169.65	53.360
76.00	3088.70	794.78	481.83	44.419	146.00	5947.40	1784.29	1181.65	53.471
77.00	3129.69	806.31	489.19	44.569	147.00	5988.17	1800.46	1193.69	53.581
78.00	3170.67	817.90	496.63	44.719	148.00	6028.95	1816.65	1205.75	53.691
79.00	3211.64	829.55	504.13	44.867	149.00	6069.72	1832.87	1217.83	53.800
80.00	3252.61	841.29	511.72	45.015	150.00	6110.50	1849.10	1229.94	53.909
81.00	3293.57	853.09	519.37	45.162	151.00	6151.25	1865.31	1242.02	54.016
82.00	3334.52	864.97	527.10	45.307	152.00	6192.01	1881.53	1254.11	54.123
83.00	3375.46	876.93	534.91	45.452	153.00	6232.77	1897.77	1266.22	54.230
84.00	3416.40	888.97	542.80	45.597	154.00	6273.52	1914.03	1278.35	54.336
85.00	3457.34	901.09	550.77	45.740	155.00	6314.28	1930.30	1290.49	54.441
86.00	3498.26	913.29	558.83	45.883	156.00	6355.03	1946.58	1302.64	54.546
87.00	3539.19	925.57	566.96	46.025	157.00	6395.79	1962.88	1314.80	54.650
88.00	3580.10	937.94	575.18	46.166	158.00	6436.54	1979.18	1326.98	54.753
89.00	3621.02	950.39	583.49	46.307	159.00	6477.30	1995.50	1339.17	54.856
90.00	3661.92	962.93	591.89	46.447	160.00	6518.05	2011.82	1351.36	54.959

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	6558.81	2028.15	1363.57	55.060	231.00	9410.53	3154.54	2200.99	60.878
162.00	6599.56	2044.49	1375.78	55.162	232.00	9451.29	3170.13	2212.45	60.946
163.00	6640.32	2060.84	1387.99	55.262	233.00	9492.05	3185.70	2223.89	61.013
164.00	6681.07	2077.19	1400.21	55.362	234.00	9532.81	3201.25	2235.32	61.079
165.00	6721.83	2093.55	1412.44	55.462	235.00	9573.56	3216.79	2246.73	61.146
166.00	6762.59	2109.91	1424.67	55.560	236.00	9614.31	3232.32	2258.12	61.212
167.00	6803.34	2126.27	1436.90	55.659	237.00	9655.06	3247.82	2269.50	61.277
168.00	6844.10	2142.64	1449.14	55.756	238.00	9695.80	3263.31	2280.86	61.342
169.00	6884.86	2159.00	1461.37	55.854	239.00	9736.54	3278.78	2292.20	61.407
170.00	6925.61	2175.37	1473.61	55.950	240.00	9777.27	3294.24	2303.53	61.472
171.00	6966.36	2191.73	1485.85	56.046	241.00	9817.99	3309.68	2314.84	61.536
172.00	7007.11	2208.10	1498.08	56.142	242.00	9858.71	3325.10	2326.14	61.600
173.00	7047.85	2224.46	1510.32	56.236	243.00	9899.43	3340.51	2337.42	61.663
174.00	7088.60	2240.82	1522.55	56.331	244.00	9940.13	3355.90	2348.69	61.727
175.00	7129.34	2257.18	1534.78	56.424	245.00	9980.83	3371.27	2359.94	61.789
176.00	7170.08	2273.54	1547.01	56.518	246.00	10021.53	3386.63	2371.18	61.852
177.00	7210.83	2289.89	1559.23	56.610	247.00	10062.21	3401.98	2382.40	61.914
178.00	7251.57	2306.23	1571.45	56.702	248.00	10102.89	3417.30	2393.60	61.976
179.00	7292.31	2322.57	1583.66	56.794	249.00	10143.56	3432.61	2404.79	62.038
180.00	7333.05	2338.90	1595.86	56.885	250.00	10184.22	3447.91	2415.97	62.099
181.00	7373.79	2355.23	1608.06	56.975	251.00	10224.87	3463.23	2427.16	62.160
182.00	7414.53	2371.55	1620.25	57.065	252.00	10265.51	3478.53	2438.35	62.221
183.00	7455.27	2387.86	1632.43	57.155	253.00	10306.15	3493.81	2449.52	62.282
184.00	7496.01	2404.16	1644.60	57.243	254.00	10346.78	3509.09	2460.67	62.342
185.00	7536.75	2420.45	1656.77	57.332	255.00	10387.40	3524.34	2471.81	62.402
186.00	7577.49	2436.73	1668.92	57.419	256.00	10428.02	3539.59	2482.94	62.461
187.00	7618.23	2453.00	1681.07	57.507	257.00	10468.62	3554.81	2494.05	62.521
188.00	7658.97	2469.27	1693.20	57.593	258.00	10509.22	3570.03	2505.15	62.580
189.00	7699.71	2485.52	1705.32	57.680	259.00	10549.82	3585.23	2516.24	62.639
190.00	7740.45	2501.76	1717.43	57.765	260.00	10590.41	3600.42	2527.32	62.697
191.00	7781.19	2517.98	1729.53	57.851	261.00	10630.99	3615.60	2538.38	62.755
192.00	7821.93	2534.20	1741.62	57.935	262.00	10671.58	3630.76	2549.43	62.813
193.00	7862.67	2550.40	1753.70	58.019	263.00	10712.15	3645.91	2560.47	62.871
194.00	7903.40	2566.59	1765.76	58.103	264.00	10752.73	3661.05	2571.50	62.929
195.00	7944.14	2582.77	1777.81	58.186	265.00	10793.31	3676.18	2582.52	62.986
196.00	7984.88	2598.93	1789.84	58.269	266.00	10833.88	3691.30	2593.52	63.043
197.00	8025.62	2615.08	1801.86	58.351	267.00	10874.46	3706.40	2604.52	63.099
198.00	8066.36	2631.22	1813.87	58.433	268.00	10915.04	3721.50	2615.50	63.156
199.00	8107.09	2647.34	1825.86	58.514	269.00	10955.62	3736.58	2626.48	63.212
200.00	8147.83	2663.44	1837.84	58.595	270.00	10996.21	3751.66	2637.44	63.268
201.00	8188.56	2679.52	1849.80	58.675	271.00	11036.80	3766.73	2648.39	63.324
202.00	8229.28	2695.59	1861.73	58.755	272.00	11077.40	3781.78	2659.34	63.379
203.00	8270.01	2711.64	1873.66	58.834	273.00	11118.01	3796.83	2670.27	63.434
204.00	8310.73	2727.68	1885.57	58.913	274.00	11158.63	3811.87	2681.20	63.489
205.00	8351.45	2743.69	1897.46	58.991	275.00	11199.25	3826.91	2692.11	63.544
206.00	8392.18	2759.70	1909.34	59.069	276.00	11239.89	3841.93	2703.02	63.599
207.00	8432.90	2775.69	1921.20	59.146	277.00	11280.55	3856.95	2713.92	63.653
208.00	8473.63	2791.66	1933.05	59.223	278.00	11321.21	3871.96	2724.81	63.707
209.00	8514.35	2807.62	1944.88	59.300	279.00	11361.90	3886.97	2735.69	63.761
210.00	8555.08	2823.56	1956.69	59.376	280.00	11402.59	3901.97	2746.57	63.815
211.00	8595.80	2839.48	1968.49	59.452	281.00	11443.31	3916.96	2757.44	63.868
212.00	8636.53	2855.39	1980.27	59.527	282.00	11484.04	3931.95	2768.30	63.921
213.00	8677.26	2871.28	1992.03	59.602	283.00	11524.79	3946.93	2779.15	63.974
214.00	8717.99	2887.15	2003.78	59.676	284.00	11565.56	3961.91	2790.00	64.027
215.00	8758.72	2903.01	2015.51	59.750	285.00	11606.35	3976.88	2800.83	64.080
216.00	8799.45	2918.85	2027.23	59.823	286.00	11647.16	3991.85	2811.67	64.132
217.00	8840.18	2934.68	2038.93	59.897	287.00	11687.99	4006.81	2822.49	64.184
218.00	8880.91	2950.49	2050.61	59.969	288.00	11728.84	4021.77	2833.31	64.237
219.00	8921.64	2966.28	2062.27	60.041	289.00	11769.71	4036.72	2844.12	64.288
220.00	8962.38	2982.06	2073.92	60.113	290.00	11810.60	4051.67	2854.93	64.340
221.00	9003.12	2997.82	2085.56	60.185	291.00	11851.51	4066.61	2865.72	64.391
222.00	9043.85	3013.56	2097.17	60.256	292.00	11892.43	4081.55	2876.52	64.443
223.00	9084.59	3029.29	2108.77	60.327	293.00	11933.37	4096.48	2887.30	64.494
224.00	9125.33	3045.00	2120.36	60.397	294.00	11974.32	4111.41	2898.08	64.545
225.00	9166.07	3060.70	2131.92	60.467	295.00	12015.29	4126.33	2908.85	64.595
226.00	9206.81	3076.38	2143.47	60.536	296.00	12056.27	4141.25	2919.62	64.646
227.00	9247.55	3092.04	2155.01	60.605	297.00	12097.25	4156.16	2930.37	64.696
228.00	9288.29	3107.69	2166.53	60.674	298.00	12138.25	4171.07	2941.13	64.746
229.00	9329.03	3123.32	2178.03	60.743	299.00	12179.24	4185.96	2951.87	64.796
230.00	9369.77	3138.93	2189.52	60.811	300.00	12220.24	4200.86	2962.61	64.846

2.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	14.03	-257.27	-260.12	7.866					
21.00	14.27	-247.44	-250.33	8.348					
22.00	14.54	-236.94	-239.89	8.834	91.00	1850.11	973.63	598.70	43.708
* 22.855	14.80	-227.36	-230.36	9.262	92.00	1870.65	986.38	607.29	43.848
* 22.855	394.76	201.59	121.60	28.037	93.00	1891.18	999.22	615.97	43.986
23.00	398.71	203.66	122.87	28.127	94.00	1911.71	1012.14	624.73	44.125
24.00	425.02	217.31	131.18	28.708	95.00	1932.24	1025.15	633.59	44.262
25.00	450.19	230.14	138.90	29.231	96.00	1952.76	1038.25	642.52	44.399
26.00	474.57	242.43	146.26	29.714	97.00	1973.27	1051.43	651.55	44.536
27.00	498.39	254.36	153.36	30.164	98.00	1993.78	1064.69	660.65	44.672
28.00	521.80	266.04	160.30	30.589	99.00	2014.29	1078.03	669.84	44.807
29.00	544.87	277.54	167.12	30.992	100.00	2034.80	1091.46	679.11	44.942
30.00	567.69	288.89	173.85	31.377					
31.00	590.29	300.14	180.51	31.746	101.00	2055.29	1104.97	688.45	45.077
32.00	612.70	311.30	187.13	32.100	102.00	2075.78	1118.56	697.89	45.211
33.00	634.97	322.39	193.72	32.442	103.00	2096.25	1132.23	707.42	45.344
34.00	657.09	333.42	200.26	32.771	104.00	2116.73	1145.99	717.02	45.477
35.00	679.10	344.41	206.79	33.089	105.00	2137.20	1159.83	726.71	45.609
36.00	701.00	355.35	213.29	33.398	106.00	2157.67	1173.75	736.49	45.741
37.00	722.81	366.25	219.78	33.696	107.00	2178.14	1187.75	746.34	45.873
38.00	744.52	377.13	226.25	33.986	108.00	2198.60	1201.83	756.27	46.004
39.00	766.16	387.97	232.71	34.268	109.00	2219.07	1215.99	766.28	46.134
40.00	787.73	398.79	239.16	34.542	110.00	2239.53	1230.23	776.38	46.264
41.00	809.23	409.59	245.60	34.809	111.00	2259.99	1244.54	786.54	46.394
42.00	830.68	420.37	252.04	35.069	112.00	2280.44	1258.93	796.79	46.523
43.00	852.06	431.14	258.47	35.322	113.00	2300.90	1273.40	807.11	46.652
44.00	873.39	441.89	264.89	35.569	114.00	2321.35	1287.94	817.50	46.780
45.00	894.68	452.63	271.32	35.810	115.00	2341.81	1302.55	827.97	46.907
46.00	915.92	463.35	277.74	36.046	116.00	2362.26	1317.23	838.51	47.034
47.00	937.12	474.08	284.17	36.277	117.00	2382.71	1331.98	849.11	47.161
48.00	958.28	484.79	290.60	36.502	118.00	2403.17	1346.80	859.79	47.287
49.00	979.40	495.50	297.03	36.723	119.00	2423.62	1361.69	870.53	47.413
50.00	1000.49	506.21	303.47	36.939	120.00	2444.07	1376.65	881.34	47.538
51.00	1021.55	516.93	309.91	37.152	121.00	2464.52	1391.66	892.21	47.663
52.00	1042.57	527.64	316.37	37.360	122.00	2484.97	1406.73	903.14	47.787
53.00	1063.57	538.37	322.84	37.564	123.00	2505.42	1421.86	914.12	47.910
54.00	1084.54	549.10	329.32	37.765	124.00	2525.87	1437.05	925.17	48.033
55.00	1105.49	559.84	335.81	37.962	125.00	2546.32	1452.31	936.28	48.156
56.00	1126.41	570.59	342.33	38.155	126.00	2566.76	1467.61	947.45	48.278
57.00	1147.31	581.36	348.86	38.346	127.00	2587.19	1482.98	958.67	48.399
58.00	1168.19	592.15	355.42	38.534	128.00	2607.62	1498.40	969.95	48.520
59.00	1189.05	602.96	362.00	38.718	129.00	2628.05	1513.87	981.28	48.640
60.00	1209.89	613.78	368.60	38.900	130.00	2648.47	1529.40	992.67	48.760
61.00	1230.71	624.64	375.23	39.080	131.00	2668.90	1544.97	1004.10	48.880
62.00	1251.51	635.52	381.90	39.257	132.00	2689.32	1560.59	1015.59	48.998
63.00	1272.30	646.43	388.59	39.431	133.00	2709.75	1576.26	1027.12	49.117
64.00	1293.07	657.37	395.33	39.604	134.00	2730.17	1591.98	1038.70	49.234
65.00	1313.83	668.34	402.09	39.774	135.00	2750.59	1607.74	1050.32	49.352
66.00	1334.58	679.36	408.91	39.942	136.00	2771.01	1623.55	1061.99	49.468
67.00	1355.31	690.41	415.76	40.108	137.00	2791.43	1639.39	1073.69	49.584
68.00	1376.03	701.51	422.65	40.272	138.00	2811.85	1655.28	1085.44	49.700
69.00	1396.74	712.64	429.60	40.435	139.00	2832.27	1671.20	1097.23	49.815
70.00	1417.43	723.83	436.59	40.596	140.00	2852.69	1687.16	1109.05	49.929
71.00	1438.12	735.07	443.63	40.755	141.00	2873.11	1703.16	1120.91	50.043
72.00	1458.79	746.35	450.73	40.913	142.00	2893.53	1719.19	1132.80	50.156
73.00	1479.45	757.70	457.89	41.070	143.00	2913.95	1735.25	1144.73	50.269
74.00	1500.11	769.10	465.10	41.225	144.00	2934.36	1751.35	1156.68	50.381
75.00	1520.76	780.55	472.38	41.379	145.00	2954.78	1767.47	1168.67	50.493
76.00	1541.39	792.08	479.71	41.531	146.00	2975.20	1783.63	1180.69	50.604
77.00	1562.02	803.66	487.12	41.683	147.00	2995.61	1799.81	1192.73	50.714
78.00	1582.64	815.31	494.59	41.833	148.00	3016.03	1816.01	1204.80	50.824
79.00	1603.25	827.03	502.13	41.982	149.00	3036.44	1832.24	1216.89	50.933
80.00	1623.86	838.82	509.75	42.131	150.00	3056.86	1848.49	1229.00	51.042
81.00	1644.46	850.68	517.43	42.278	151.00	3077.27	1864.71	1241.09	51.150
82.00	1665.05	862.62	525.20	42.424	152.00	3097.67	1880.95	1253.19	51.257
83.00	1685.64	874.63	533.03	42.570	153.00	3118.07	1897.20	1265.31	51.364
84.00	1706.22	886.72	540.95	42.715	154.00	3138.48	1913.47	1277.44	51.470
85.00	1726.79	898.89	548.95	42.859	155.00	3158.88	1929.75	1289.59	51.575
86.00	1747.36	911.13	557.03	43.002	156.00	3179.28	1946.05	1301.75	51.680
87.00	1767.92	923.47	565.20	43.145	157.00	3199.69	1962.35	1313.92	51.784
88.00	1788.47	935.88	573.45	43.286	158.00	3220.09	1978.67	1326.10	51.888
89.00	1809.03	948.37	581.78	43.428	159.00	3240.49	1995.00	1338.30	51.991
90.00	1829.57	960.96	590.20	43.568	160.00	3260.89	2011.34	1350.50	52.093

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	3281.29	2027.68	1362.71	52.195	231.00	4708.26	3154.61	2200.45	58.016
162.00	3301.69	2044.03	1374.93	52.296	232.00	4728.65	3170.20	2211.91	58.083
163.00	3322.09	2060.39	1387.15	52.397	233.00	4749.04	3185.78	2223.36	58.150
164.00	3342.50	2076.76	1399.38	52.497	234.00	4769.42	3201.34	2234.79	58.217
165.00	3362.90	2093.12	1411.61	52.596	235.00	4789.81	3216.88	2246.20	58.283
166.00	3383.30	2109.50	1423.85	52.695	236.00	4810.20	3232.41	2257.60	58.349
167.00	3403.70	2125.87	1436.09	52.794	237.00	4830.58	3247.92	2268.98	58.415
168.00	3424.10	2142.24	1448.33	52.891	238.00	4850.96	3263.41	2280.34	58.480
169.00	3444.50	2158.62	1460.58	52.989	239.00	4871.34	3278.89	2291.69	58.545
170.00	3464.90	2175.00	1472.82	53.085	240.00	4891.71	3294.35	2303.02	58.609
171.00	3485.29	2191.38	1485.06	53.181	241.00	4912.09	3309.80	2314.34	58.674
172.00	3505.69	2207.75	1497.31	53.277	242.00	4932.46	3325.22	2325.63	58.737
173.00	3526.08	2224.13	1509.55	53.372	243.00	4952.82	3340.64	2336.92	58.801
174.00	3546.47	2240.50	1521.79	53.466	244.00	4973.19	3356.03	2348.19	58.864
175.00	3566.86	2256.86	1534.02	53.560	245.00	4993.55	3371.41	2359.44	58.927
176.00	3587.25	2273.23	1546.25	53.653	246.00	5013.90	3386.77	2370.68	58.990
177.00	3607.65	2289.59	1558.48	53.746	247.00	5034.26	3402.12	2381.90	59.052
178.00	3628.04	2305.94	1570.70	53.838	248.00	5054.60	3417.45	2393.11	59.114
179.00	3648.43	2322.29	1582.92	53.930	249.00	5074.95	3432.77	2404.30	59.176
180.00	3668.82	2338.63	1595.13	54.021	250.00	5095.29	3448.07	2415.48	59.237
181.00	3689.20	2354.97	1607.33	54.111	251.00	5115.62	3463.39	2426.68	59.298
182.00	3709.59	2371.29	1619.52	54.201	252.00	5135.96	3478.70	2437.87	59.359
183.00	3729.98	2387.61	1631.71	54.290	253.00	5156.28	3493.99	2449.04	59.419
184.00	3750.37	2403.92	1643.89	54.379	254.00	5176.61	3509.26	2460.20	59.480
185.00	3770.76	2420.22	1656.06	54.468	255.00	5196.93	3524.53	2471.34	59.540
186.00	3791.14	2436.51	1668.21	54.556	256.00	5217.25	3539.77	2482.47	59.599
187.00	3811.53	2452.79	1680.36	54.643	257.00	5237.56	3555.01	2493.59	59.659
188.00	3831.92	2469.06	1692.50	54.730	258.00	5257.87	3570.23	2504.69	59.718
189.00	3852.31	2485.32	1704.63	54.816	259.00	5278.18	3585.43	2515.78	59.777
190.00	3872.69	2501.57	1716.74	54.902	260.00	5298.48	3600.63	2526.86	59.835
191.00	3893.08	2517.80	1728.85	54.987	261.00	5318.78	3615.81	2537.93	59.894
192.00	3913.46	2534.02	1740.94	55.072	262.00	5339.08	3630.98	2548.98	59.952
193.00	3933.85	2550.23	1753.02	55.156	263.00	5359.38	3646.13	2560.02	60.009
194.00	3954.23	2566.43	1765.08	55.239	264.00	5379.68	3661.28	2571.05	60.067
195.00	3974.62	2582.61	1777.14	55.323	265.00	5399.98	3676.41	2582.07	60.124
196.00	3995.00	2598.78	1789.17	55.405	266.00	5420.27	3691.53	2593.08	60.181
197.00	4015.39	2614.94	1801.20	55.488	267.00	5440.57	3706.64	2604.08	60.238
198.00	4035.77	2631.08	1813.21	55.569	268.00	5460.87	3721.74	2615.07	60.294
199.00	4056.16	2647.21	1825.21	55.651	269.00	5481.17	3736.83	2626.04	60.350
200.00	4076.54	2663.32	1837.19	55.731	270.00	5501.47	3751.91	2637.01	60.406
201.00	4096.92	2679.41	1849.15	55.812	271.00	5521.77	3766.98	2647.96	60.462
202.00	4117.29	2695.48	1861.09	55.891	272.00	5542.08	3782.04	2658.91	60.517
203.00	4137.67	2711.54	1873.02	55.971	273.00	5562.39	3797.10	2669.85	60.573
204.00	4158.05	2727.58	1884.93	56.049	274.00	5582.71	3812.14	2680.77	60.628
205.00	4178.42	2743.61	1896.83	56.128	275.00	5603.03	3827.18	2691.69	60.682
206.00	4198.80	2759.62	1908.71	56.206	276.00	5623.35	3842.21	2702.60	60.737
207.00	4219.17	2775.61	1920.58	56.283	277.00	5643.69	3857.23	2713.51	60.791
208.00	4239.55	2791.59	1932.42	56.360	278.00	5664.03	3872.24	2724.40	60.845
209.00	4259.92	2807.55	1944.26	56.437	279.00	5684.37	3887.25	2735.28	60.899
210.00	4280.30	2823.50	1956.08	56.513	280.00	5704.73	3902.26	2746.16	60.953
211.00	4300.67	2839.43	1967.88	56.589	281.00	5725.09	3917.25	2757.03	61.006
212.00	4321.05	2855.34	1979.66	56.664	282.00	5745.46	3932.24	2767.89	61.060
213.00	4341.42	2871.24	1991.43	56.739	283.00	5765.84	3947.23	2778.75	61.113
214.00	4361.80	2887.12	2003.18	56.813	284.00	5786.23	3962.21	2789.60	61.166
215.00	4382.18	2902.99	2014.92	56.887	285.00	5806.63	3977.18	2800.44	61.218
216.00	4402.55	2918.84	2026.64	56.960	286.00	5827.03	3992.15	2811.27	61.271
217.00	4422.93	2934.67	2038.34	57.034	287.00	5847.45	4007.12	2822.10	61.323
218.00	4443.31	2950.49	2050.02	57.106	288.00	5867.88	4022.08	2832.92	61.375
219.00	4463.69	2966.28	2061.69	57.179	289.00	5888.32	4037.03	2843.73	61.427
220.00	4484.06	2982.07	2073.35	57.251	290.00	5908.76	4051.98	2854.54	61.478
221.00	4504.44	2997.83	2084.98	57.322	291.00	5929.22	4066.93	2865.34	61.530
222.00	4524.82	3013.58	2096.60	57.393	292.00	5949.68	4081.87	2876.13	61.581
223.00	4545.20	3029.32	2108.21	57.464	293.00	5970.15	4096.80	2886.92	61.632
224.00	4565.58	3045.03	2119.79	57.534	294.00	5990.63	4111.73	2897.70	61.683
225.00	4585.96	3060.74	2131.37	57.604	295.00	6011.11	4126.66	2908.47	61.734
226.00	4606.34	3076.42	2142.92	57.674	296.00	6031.60	4141.57	2919.24	61.784
227.00	4626.72	3092.09	2154.46	57.743	297.00	6052.09	4156.49	2930.00	61.834
228.00	4647.10	3107.74	2165.98	57.812	298.00	6072.59	4171.39	2940.75	61.885
229.00	4667.49	3123.38	2177.48	57.880	299.00	6093.09	4186.29	2951.50	61.934
230.00	4687.87	3139.00	2188.97	57.948	300.00	6113.59	4201.19	2962.24	61.984

3.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	14.01	-256.31	-260.56	7.843					
21.00	14.24	-246.53	-250.86	8.323					
22.00	14.51	-236.10	-240.51	8.805	91.00	1232.57	971.71	597.04	42.017
23.00	14.80	-224.92	-229.42	9.304	92.00	1246.32	984.50	605.65	42.157
24.00	15.14	-212.89	-217.49	9.818	93.00	1260.07	997.38	614.35	42.296
* 24.628	15.37	-204.82	-209.50	10.148	94.00	1273.81	1010.35	623.14	42.435
* 24.628	268.20	205.13	123.61	26.804	95.00	1287.54	1023.40	632.01	42.573
25.00	275.62	210.97	127.18	27.039	96.00	1301.28	1036.53	640.98	42.710
26.00	294.57	225.62	136.08	27.614	97.00	1315.01	1049.74	650.02	42.847
27.00	312.49	239.26	144.27	28.129	98.00	1328.73	1063.05	659.14	42.984
28.00	329.72	252.23	152.00	28.601	99.00	1342.45	1076.43	668.35	43.120
29.00	346.45	264.74	159.43	29.040	100.00	1356.17	1089.89	677.64	43.255
30.00	362.81	276.93	166.65	29.453					
31.00	378.87	288.88	173.72	29.845	101.00	1369.88	1103.43	687.01	43.390
32.00	394.69	300.65	180.68	30.219	102.00	1383.58	1117.05	696.47	43.524
33.00	410.31	312.27	187.55	30.576	103.00	1397.27	1130.76	706.01	43.658
34.00	425.77	323.78	194.36	30.920	104.00	1410.97	1144.55	715.64	43.791
35.00	441.09	335.19	201.11	31.251	105.00	1424.66	1158.42	725.34	43.924
36.00	456.28	346.52	207.82	31.570	106.00	1438.34	1172.37	735.13	44.056
37.00	471.37	357.79	214.50	31.879	107.00	1452.03	1186.39	745.00	44.187
38.00	486.35	368.99	221.15	32.177	108.00	1465.71	1200.50	754.95	44.319
39.00	501.25	380.14	227.78	32.467	109.00	1479.39	1214.69	764.98	44.449
40.00	516.07	391.25	234.38	32.748	110.00	1493.06	1228.95	775.09	44.580
41.00	530.82	402.32	240.96	33.022	111.00	1506.74	1243.29	785.27	44.710
42.00	545.51	413.35	247.54	33.288	112.00	1520.41	1257.71	795.53	44.839
43.00	560.13	424.36	254.09	33.547	113.00	1534.08	1272.20	805.86	44.968
44.00	574.70	435.34	260.64	33.799	114.00	1547.75	1286.76	816.27	45.096
45.00	589.21	446.29	267.19	34.045	115.00	1561.42	1301.39	826.75	45.224
46.00	603.68	457.22	273.72	34.285	116.00	1575.09	1316.10	837.30	45.351
47.00	618.11	468.14	280.25	34.520	117.00	1588.76	1330.87	847.91	45.478
48.00	632.49	479.04	286.78	34.750	118.00	1602.43	1345.71	858.60	45.604
49.00	646.84	489.93	293.31	34.974	119.00	1616.09	1360.62	869.35	45.730
50.00	661.15	500.81	299.84	35.194	120.00	1629.76	1375.59	880.17	45.855
51.00	675.43	511.69	306.37	35.409	121.00	1643.42	1390.62	891.04	45.980
52.00	689.67	522.56	312.92	35.620	122.00	1657.08	1405.70	901.98	46.104
53.00	703.89	533.43	319.47	35.828	123.00	1670.75	1420.85	912.97	46.228
54.00	718.08	544.30	326.03	36.031	124.00	1684.41	1436.06	924.03	46.351
55.00	732.24	555.18	332.60	36.230	125.00	1698.07	1451.33	935.14	46.474
56.00	746.38	566.07	339.18	36.426	126.00	1711.72	1466.65	946.32	46.596
57.00	760.50	576.96	345.79	36.619	127.00	1725.37	1482.04	957.55	46.717
58.00	774.60	587.87	352.41	36.809	128.00	1739.01	1497.47	968.84	46.838
59.00	788.67	598.79	359.05	36.996	129.00	1752.66	1512.96	980.18	46.959
60.00	802.73	609.73	365.72	37.180	130.00	1766.30	1528.50	991.58	47.079
61.00	816.76	620.69	372.42	37.361	131.00	1779.94	1544.09	1003.02	47.198
62.00	830.78	631.68	379.14	37.539	132.00	1793.58	1559.73	1014.52	47.317
63.00	844.79	642.69	385.89	37.716	133.00	1807.22	1575.42	1026.06	47.436
64.00	858.77	653.72	392.68	37.889	134.00	1820.86	1591.15	1037.64	47.554
65.00	872.75	664.80	399.50	38.061	135.00	1834.50	1606.93	1049.28	47.671
66.00	886.71	675.90	406.36	38.231	136.00	1848.13	1622.75	1060.95	47.788
67.00	900.65	687.04	413.26	38.398	137.00	1861.77	1638.61	1072.67	47.904
68.00	914.58	698.22	420.21	38.564	138.00	1875.40	1654.51	1084.42	48.019
69.00	928.50	709.44	427.20	38.728	139.00	1889.04	1670.45	1096.22	48.134
70.00	942.41	720.70	434.24	38.890	140.00	1902.67	1686.43	1108.05	48.249
71.00	956.31	732.02	441.32	39.050	141.00	1916.31	1702.44	1119.92	48.363
72.00	970.20	743.38	448.46	39.209	142.00	1929.94	1718.49	1131.82	48.476
73.00	984.08	754.79	455.66	39.366	143.00	1943.57	1734.57	1143.76	48.589
74.00	997.95	766.26	462.91	39.522	144.00	1957.20	1750.68	1155.72	48.701
75.00	1011.80	777.79	470.23	39.677	145.00	1970.83	1766.82	1167.72	48.813
76.00	1025.65	789.37	477.60	39.831	146.00	1984.47	1782.99	1179.74	48.924
77.00	1039.50	801.02	485.04	39.983	147.00	1998.10	1799.18	1191.79	49.035
78.00	1053.33	812.73	492.55	40.134	148.00	2011.73	1815.40	1203.87	49.145
79.00	1067.16	824.51	500.13	40.284	149.00	2025.36	1831.64	1215.97	49.254
80.00	1080.97	836.36	507.77	40.433	150.00	2038.99	1847.91	1228.09	49.363
81.00	1094.79	848.28	515.49	40.581	151.00	2052.61	1864.14	1240.18	49.471
82.00	1108.59	860.27	523.28	40.728	152.00	2066.23	1880.39	1252.29	49.578
83.00	1122.39	872.33	531.15	40.875	153.00	2079.85	1896.65	1264.41	49.685
84.00	1136.18	884.47	539.10	41.020	154.00	2093.47	1912.93	1276.55	49.791
85.00	1149.97	896.69	547.13	41.165	155.00	2107.09	1929.23	1288.71	49.896
86.00	1163.75	908.99	555.24	41.308	156.00	2120.71	1945.53	1300.87	50.001
87.00	1177.52	921.37	563.43	41.451	157.00	2134.33	1961.85	1313.05	50.105
88.00	1191.29	933.83	571.71	41.594	158.00	2147.95	1978.18	1325.24	50.209
89.00	1205.06	946.37	580.07	41.736	159.00	2161.56	1994.52	1337.44	50.312
90.00	1218.82	959.00	588.51	41.877	160.00	2175.18	2010.87	1349.65	50.415

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	2188.80	2027.22	1361.86	50.517	231.00	3140.84	3154.67	2199.91	56.340
162.00	2202.42	2043.58	1374.09	50.618	232.00	3154.44	3170.27	2211.38	56.408
163.00	2216.03	2059.95	1386.31	50.719	233.00	3168.04	3185.85	2222.82	56.475
164.00	2229.65	2076.32	1398.55	50.819	234.00	3181.63	3201.42	2234.26	56.541
165.00	2243.26	2092.70	1410.79	50.918	235.00	3195.23	3216.97	2245.67	56.608
166.00	2256.88	2109.08	1423.03	51.017	236.00	3208.83	3232.50	2257.07	56.674
167.00	2270.50	2125.47	1435.27	51.116	237.00	3222.42	3248.01	2268.45	56.739
168.00	2284.11	2141.85	1447.52	51.213	238.00	3236.02	3263.51	2279.82	56.804
169.00	2297.73	2158.24	1459.77	51.311	239.00	3249.61	3278.99	2291.17	56.869
170.00	2311.34	2174.62	1472.01	51.407	240.00	3263.20	3294.46	2302.50	56.934
171.00	2324.95	2191.01	1484.26	51.504	241.00	3276.78	3309.91	2313.82	56.998
172.00	2338.56	2207.39	1496.51	51.599	242.00	3290.37	3325.34	2325.12	57.062
173.00	2352.17	2223.78	1508.76	51.694	243.00	3303.95	3340.76	2336.41	57.126
174.00	2365.78	2240.16	1521.00	51.788	244.00	3317.54	3356.16	2347.68	57.189
175.00	2379.39	2256.53	1533.24	51.882	245.00	3331.12	3371.54	2358.94	57.252
176.00	2393.00	2272.91	1545.48	51.976	246.00	3344.69	3386.91	2370.18	57.314
177.00	2406.60	2289.28	1557.71	52.068	247.00	3358.27	3402.26	2381.41	57.377
178.00	2420.21	2305.64	1569.94	52.160	248.00	3371.84	3417.60	2392.62	57.439
179.00	2433.81	2322.00	1582.16	52.252	249.00	3385.41	3432.92	2403.81	57.500
180.00	2447.42	2338.35	1594.37	52.343	250.00	3398.97	3448.22	2414.99	57.562
181.00	2461.02	2354.69	1606.58	52.434	251.00	3412.54	3463.55	2426.20	57.623
182.00	2474.63	2371.02	1618.78	52.524	252.00	3426.10	3478.86	2437.39	57.684
183.00	2488.23	2387.35	1630.97	52.613	253.00	3439.66	3494.16	2448.56	57.744
184.00	2501.83	2403.67	1643.15	52.702	254.00	3453.21	3509.44	2459.72	57.805
185.00	2515.44	2419.98	1655.33	52.791	255.00	3466.76	3524.70	2470.87	57.864
186.00	2529.04	2436.28	1667.49	52.878	256.00	3480.32	3539.96	2482.00	57.924
187.00	2542.64	2452.57	1679.65	52.966	257.00	3493.86	3555.20	2493.12	57.984
188.00	2556.24	2468.85	1691.79	53.053	258.00	3507.41	3570.42	2504.23	58.043
189.00	2569.85	2485.11	1703.92	53.139	259.00	3520.96	3585.63	2515.32	58.102
190.00	2583.45	2501.37	1716.04	53.225	260.00	3534.50	3600.83	2526.40	58.160
191.00	2597.05	2517.61	1728.15	53.310	261.00	3548.04	3616.02	2537.47	58.218
192.00	2610.65	2533.84	1740.25	53.395	262.00	3561.58	3631.19	2548.53	58.276
193.00	2624.25	2550.06	1752.33	53.479	263.00	3575.12	3646.35	2559.58	58.334
194.00	2637.85	2566.27	1764.40	53.563	264.00	3588.66	3661.50	2570.61	58.392
195.00	2651.45	2582.46	1776.46	53.646	265.00	3602.19	3676.64	2581.63	58.449
196.00	2665.05	2598.63	1788.51	53.729	266.00	3615.73	3691.76	2592.64	58.506
197.00	2678.65	2614.80	1800.54	53.811	267.00	3629.27	3706.88	2603.64	58.563
198.00	2692.24	2630.95	1812.55	53.893	268.00	3642.81	3721.98	2614.63	58.619
199.00	2705.84	2647.08	1824.55	53.974	269.00	3656.35	3737.08	2625.61	58.675
200.00	2719.44	2663.20	1836.54	54.055	270.00	3669.89	3752.16	2636.58	58.731
201.00	2733.04	2679.30	1848.50	54.135	271.00	3683.43	3767.24	2647.54	58.787
202.00	2746.63	2695.38	1860.45	54.215	272.00	3696.97	3782.30	2658.49	58.843
203.00	2760.22	2711.44	1872.38	54.294	273.00	3710.52	3797.36	2669.43	58.898
204.00	2773.81	2727.49	1884.30	54.373	274.00	3724.07	3812.41	2680.36	58.953
205.00	2787.41	2743.53	1896.20	54.451	275.00	3737.62	3827.45	2691.28	59.008
206.00	2801.00	2759.54	1908.09	54.529	276.00	3751.18	3842.48	2702.19	59.062
207.00	2814.59	2775.55	1919.96	54.607	277.00	3764.74	3857.51	2713.09	59.116
208.00	2828.18	2791.53	1931.81	54.684	278.00	3778.30	3872.53	2723.99	59.171
209.00	2841.78	2807.50	1943.65	54.761	279.00	3791.87	3887.54	2734.88	59.225
210.00	2855.37	2823.45	1955.47	54.837	280.00	3805.44	3902.55	2745.76	59.278
211.00	2868.96	2839.39	1967.27	54.912	281.00	3819.02	3917.55	2756.63	59.332
212.00	2882.55	2855.31	1979.06	54.988	282.00	3832.61	3932.54	2767.49	59.385
213.00	2896.15	2871.21	1990.83	55.063	283.00	3846.20	3947.53	2778.35	59.438
214.00	2909.74	2887.10	2002.59	55.137	284.00	3859.79	3962.51	2789.20	59.491
215.00	2923.33	2902.97	2014.33	55.211	285.00	3873.39	3977.49	2800.04	59.544
216.00	2936.92	2918.83	2026.05	55.284	286.00	3887.00	3992.46	2810.88	59.596
217.00	2950.52	2934.66	2037.76	55.358	287.00	3900.62	4007.43	2821.71	59.648
218.00	2964.11	2950.49	2049.45	55.430	288.00	3914.24	4022.39	2832.53	59.700
219.00	2977.70	2966.29	2061.12	55.503	289.00	3927.86	4037.35	2843.35	59.752
220.00	2991.30	2982.08	2072.78	55.575	290.00	3941.49	4052.30	2854.15	59.804
221.00	3004.89	2997.85	2084.41	55.646	291.00	3955.13	4067.25	2864.96	59.855
222.00	3018.48	3013.61	2096.04	55.717	292.00	3968.77	4082.19	2875.75	59.906
223.00	3032.08	3029.34	2107.64	55.788	293.00	3982.42	4097.13	2886.54	59.957
224.00	3045.67	3045.07	2119.23	55.858	294.00	3996.07	4112.06	2897.32	60.008
225.00	3059.27	3060.77	2130.81	55.928	295.00	4009.73	4126.98	2908.09	60.059
226.00	3072.86	3076.46	2142.37	55.998	296.00	4023.39	4141.90	2918.86	60.110
227.00	3086.45	3092.14	2153.91	56.067	297.00	4037.05	4156.82	2929.62	60.160
228.00	3100.05	3107.79	2165.43	56.136	298.00	4050.72	4171.73	2940.38	60.210
229.00	3113.64	3123.43	2176.94	56.204	299.00	4064.38	4186.63	2951.12	60.260
230.00	3127.24	3139.06	2188.43	56.272	300.00	4078.05	4201.52	2961.86	60.310

4.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.98	-255.34	-261.00	7.821					
21.00	14.21	-245.61	-251.37	8.298					
22.00	14.47	-235.25	-241.11	8.777	91.00	923.82	969.80	595.37	40.812
23.00	14.76	-224.15	-230.14	9.273	92.00	934.18	982.64	604.01	40.952
24.00	15.09	-212.23	-218.35	9.782	93.00	944.53	995.56	612.74	41.092
25.00	15.47	-199.32	-205.59	10.307	94.00	954.87	1008.56	621.55	41.231
26.00	15.93	-185.17	-191.62	10.861	95.00	965.22	1021.65	630.45	41.370
* 26.020	15.93	-184.87	-191.33	10.872	96.00	975.56	1034.82	639.43	41.507
* 26.020	201.69	204.93	123.18	25.868	97.00	985.89	1048.08	648.49	41.645
27.00	217.40	221.33	133.22	26.487	98.00	996.22	1061.41	657.64	41.782
28.00	232.17	236.43	142.33	27.036	99.00	1006.55	1074.82	666.87	41.918
29.00	246.13	250.49	150.73	27.530	100.00	1016.88	1088.32	676.18	42.053
30.00	259.52	263.87	158.68	27.983					
31.00	272.50	276.76	166.32	28.406	101.00	1027.19	1101.89	685.56	42.188
32.00	285.16	289.32	173.74	28.805	102.00	1037.50	1115.54	695.03	42.323
33.00	297.57	301.60	180.99	29.183	103.00	1047.80	1129.28	704.60	42.457
34.00	309.78	313.68	188.13	29.543	104.00	1058.10	1143.10	714.24	42.591
35.00	321.81	325.59	195.16	29.889	105.00	1068.40	1157.00	723.96	42.724
36.00	333.70	337.38	202.12	30.221	106.00	1078.69	1170.97	733.77	42.856
37.00	345.47	349.05	209.03	30.540	107.00	1088.98	1185.03	743.66	42.988
38.00	357.12	360.62	215.88	30.849	108.00	1099.27	1199.17	753.62	43.120
39.00	368.68	372.12	222.69	31.148	109.00	1109.56	1213.38	763.67	43.251
40.00	380.15	383.54	229.47	31.437	110.00	1119.84	1227.67	773.79	43.381
41.00	391.54	394.90	236.21	31.717	111.00	1130.13	1242.04	783.98	43.511
42.00	402.86	406.21	242.93	31.990	112.00	1140.41	1256.48	794.26	43.641
43.00	414.11	417.47	249.63	32.255	113.00	1150.69	1270.99	804.60	43.770
44.00	425.31	428.69	256.31	32.513	114.00	1160.97	1285.57	815.02	43.898
45.00	436.45	439.87	262.98	32.764	115.00	1171.24	1300.23	825.51	44.026
46.00	447.54	451.02	269.63	33.009	116.00	1181.52	1314.96	836.07	44.154
47.00	458.59	462.14	276.27	33.248	117.00	1191.79	1329.75	846.70	44.281
48.00	469.59	473.24	282.91	33.482	118.00	1202.07	1344.61	857.40	44.407
49.00	480.55	484.31	289.54	33.710	119.00	1212.34	1359.54	868.16	44.533
50.00	491.48	495.36	296.17	33.934	120.00	1222.61	1374.53	878.99	44.658
51.00	502.37	506.41	302.80	34.152	121.00	1232.89	1389.58	889.88	44.783
52.00	513.23	517.44	309.43	34.366	122.00	1243.16	1404.68	900.82	44.908
53.00	524.06	528.46	316.06	34.576	123.00	1253.43	1419.85	911.82	45.031
54.00	534.86	539.48	322.70	34.782	124.00	1263.70	1435.08	922.89	45.155
55.00	545.64	550.50	329.36	34.985	125.00	1273.97	1450.36	934.01	45.277
56.00	556.39	561.52	336.02	35.183	126.00	1284.22	1465.70	945.19	45.400
57.00	567.11	572.54	342.69	35.378	127.00	1294.48	1481.10	956.44	45.521
58.00	577.82	583.58	349.38	35.570	128.00	1304.73	1496.56	967.74	45.643
59.00	588.50	594.62	356.10	35.759	129.00	1314.98	1512.07	979.09	45.763
60.00	599.17	605.67	362.83	35.945	130.00	1325.24	1527.62	990.49	45.883
61.00	609.81	616.74	369.59	36.128	131.00	1335.48	1543.23	1001.94	46.003
62.00	620.44	627.83	376.37	36.308	132.00	1345.73	1558.89	1013.45	46.122
63.00	631.05	638.94	383.18	36.486	133.00	1355.98	1574.59	1025.00	46.241
64.00	641.65	650.08	390.02	36.661	134.00	1366.23	1590.34	1036.59	46.359
65.00	652.23	661.24	396.90	36.834	135.00	1376.47	1606.13	1048.23	46.476
66.00	662.79	672.44	403.81	37.005	136.00	1386.72	1621.97	1059.91	46.593
67.00	673.35	683.67	410.76	37.174	137.00	1396.96	1637.84	1071.64	46.709
68.00	683.89	694.93	417.76	37.341	138.00	1407.20	1653.76	1083.40	46.825
69.00	694.41	706.23	424.79	37.506	139.00	1417.45	1669.71	1095.21	46.940
70.00	704.93	717.58	431.87	37.669	140.00	1427.69	1685.70	1107.05	47.055
71.00	715.43	728.97	439.01	37.831	141.00	1437.93	1701.73	1118.92	47.169
72.00	725.93	740.41	446.19	37.991	142.00	1448.17	1717.79	1130.83	47.282
73.00	736.41	751.89	453.43	38.149	143.00	1458.41	1733.88	1142.78	47.395
74.00	746.89	763.43	460.72	38.306	144.00	1468.65	1750.01	1154.75	47.508
75.00	757.35	775.03	468.07	38.462	145.00	1478.88	1766.16	1166.75	47.619
76.00	767.81	786.68	475.49	38.616	146.00	1489.12	1782.34	1178.78	47.731
77.00	778.26	798.39	482.96	38.769	147.00	1499.36	1798.55	1190.84	47.841
78.00	788.70	810.16	490.51	38.921	148.00	1509.60	1814.78	1202.92	47.951
79.00	799.13	822.00	498.12	39.072	149.00	1519.83	1831.04	1215.03	48.061
80.00	809.56	833.91	505.80	39.222	150.00	1530.07	1847.31	1227.16	48.170
81.00	819.97	845.88	513.55	39.370	151.00	1540.30	1863.56	1239.26	48.278
82.00	830.38	857.93	521.37	39.518	152.00	1550.53	1879.82	1251.37	48.385
83.00	840.79	870.05	529.28	39.665	153.00	1560.76	1896.09	1263.50	48.492
84.00	851.19	882.24	537.25	39.811	154.00	1570.98	1912.38	1275.65	48.598
85.00	861.58	894.51	545.31	39.956	155.00	1581.21	1928.69	1287.81	48.703
86.00	871.97	906.86	553.45	40.101	156.00	1591.44	1945.01	1299.98	48.808
87.00	882.35	919.28	561.67	40.244	157.00	1601.66	1961.34	1312.16	48.913
88.00	892.72	931.79	569.97	40.387	158.00	1611.89	1977.67	1324.36	49.016
89.00	903.09	944.37	578.35	40.530	159.00	1622.12	1994.02	1336.56	49.119
90.00	913.46	957.05	586.82	40.671	160.00	1632.34	2010.38	1348.78	49.222

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	1642.57	2026.75	1361.00	49.324	231.00	2357.13	3154.74	2199.37	55.151
162.00	1652.79	2043.12	1373.23	49.425	232.00	2367.34	3170.34	2210.84	55.218
163.00	1663.01	2059.50	1385.46	49.526	233.00	2377.54	3185.93	2222.29	55.285
164.00	1673.24	2075.88	1397.70	49.626	234.00	2387.75	3201.50	2233.72	55.352
165.00	1683.46	2092.27	1409.94	49.726	235.00	2397.95	3217.05	2245.14	55.418
166.00	1693.69	2108.66	1422.19	49.825	236.00	2408.15	3232.59	2256.54	55.484
167.00	1703.91	2125.05	1434.44	49.923	237.00	2418.35	3248.11	2267.93	55.550
168.00	1714.13	2141.45	1446.69	50.021	238.00	2428.55	3263.61	2279.30	55.615
169.00	1724.35	2157.84	1458.94	50.119	239.00	2438.75	3279.10	2290.65	55.680
170.00	1734.58	2174.24	1471.19	50.215	240.00	2448.95	3294.57	2301.99	55.744
171.00	1744.79	2190.63	1483.45	50.312	241.00	2459.14	3310.02	2313.31	55.809
172.00	1755.01	2207.03	1495.70	50.407	242.00	2469.34	3325.46	2324.61	55.873
173.00	1765.23	2223.42	1507.95	50.502	243.00	2479.53	3340.88	2335.90	55.936
174.00	1775.44	2239.81	1520.20	50.597	244.00	2489.72	3356.29	2347.18	55.999
175.00	1785.66	2256.20	1532.45	50.691	245.00	2499.91	3371.68	2358.44	56.062
176.00	1795.87	2272.58	1544.69	50.784	246.00	2510.10	3387.05	2369.68	56.125
177.00	1806.09	2288.96	1556.93	50.877	247.00	2520.28	3402.41	2380.91	56.187
178.00	1816.30	2305.33	1569.16	50.969	248.00	2530.47	3417.75	2392.12	56.249
179.00	1826.52	2321.69	1581.39	51.061	249.00	2540.65	3433.07	2403.32	56.311
180.00	1836.73	2338.05	1593.61	51.152	250.00	2550.83	3448.38	2414.51	56.372
181.00	1846.94	2354.41	1605.82	51.242	251.00	2561.00	3463.71	2425.71	56.433
182.00	1857.15	2370.75	1618.03	51.332	252.00	2571.18	3479.03	2436.90	56.494
183.00	1867.37	2387.09	1630.22	51.422	253.00	2581.35	3494.33	2448.08	56.555
184.00	1877.58	2403.41	1642.41	51.511	254.00	2591.52	3509.62	2459.24	56.615
185.00	1887.79	2419.73	1654.59	51.599	255.00	2601.69	3524.89	2470.39	56.675
186.00	1898.00	2436.04	1666.76	51.687	256.00	2611.86	3540.15	2481.53	56.735
187.00	1908.21	2452.34	1678.92	51.775	257.00	2622.03	3555.39	2492.65	56.794
188.00	1918.42	2468.62	1691.07	51.861	258.00	2632.19	3570.62	2503.76	56.854
189.00	1928.63	2484.90	1703.20	51.948	259.00	2642.35	3585.84	2514.86	56.912
190.00	1938.84	2501.16	1715.33	52.034	260.00	2652.52	3601.04	2525.95	56.971
191.00	1949.04	2517.41	1727.45	52.119	261.00	2662.68	3616.23	2537.02	57.029
192.00	1959.25	2533.65	1739.55	52.204	262.00	2672.84	3631.41	2548.08	57.087
193.00	1969.46	2549.88	1751.64	52.288	263.00	2682.99	3646.57	2559.13	57.145
194.00	1979.67	2566.09	1763.71	52.372	264.00	2693.15	3661.73	2570.16	57.203
195.00	1989.87	2582.29	1775.77	52.455	265.00	2703.31	3676.87	2581.19	57.260
196.00	2000.08	2598.48	1787.82	52.538	266.00	2713.47	3692.00	2592.20	57.317
197.00	2010.29	2614.65	1799.86	52.620	267.00	2723.62	3707.12	2603.20	57.374
198.00	2020.49	2630.81	1811.88	52.702	268.00	2733.78	3722.23	2614.20	57.430
199.00	2030.70	2646.95	1823.89	52.783	269.00	2743.94	3737.33	2625.18	57.486
200.00	2040.91	2663.08	1835.88	52.864	270.00	2754.10	3752.41	2636.15	57.542
201.00	2051.11	2679.18	1847.84	52.945	271.00	2764.26	3767.49	2647.11	57.598
202.00	2061.31	2695.27	1859.80	53.024	272.00	2774.42	3782.56	2658.06	57.654
203.00	2071.51	2711.34	1871.73	53.104	273.00	2784.59	3797.63	2669.00	57.709
204.00	2081.71	2727.40	1883.66	53.183	274.00	2794.75	3812.68	2679.94	57.764
205.00	2091.91	2743.44	1895.56	53.261	275.00	2804.92	3827.72	2690.86	57.819
206.00	2102.11	2759.46	1907.45	53.339	276.00	2815.09	3842.76	2701.77	57.873
207.00	2112.31	2775.47	1919.33	53.417	277.00	2825.26	3857.79	2712.68	57.928
208.00	2122.52	2791.46	1931.18	53.494	278.00	2835.44	3872.81	2723.58	57.982
209.00	2132.72	2807.44	1943.03	53.570	279.00	2845.62	3887.83	2734.47	58.036
210.00	2142.92	2823.40	1954.85	53.646	280.00	2855.80	3902.84	2745.35	58.089
211.00	2153.12	2839.34	1966.66	53.722	281.00	2865.99	3917.84	2756.22	58.143
212.00	2163.32	2855.27	1978.45	53.797	282.00	2876.18	3932.84	2767.09	58.196
213.00	2173.52	2871.18	1990.23	53.872	283.00	2886.37	3947.83	2777.95	58.249
214.00	2183.72	2887.07	2001.99	53.947	284.00	2896.57	3962.81	2788.80	58.302
215.00	2193.92	2902.95	2013.73	54.021	285.00	2906.77	3977.79	2799.65	58.355
216.00	2204.12	2918.81	2025.46	54.094	286.00	2916.98	3992.77	2810.48	58.407
217.00	2214.32	2934.65	2037.17	54.168	287.00	2927.19	4007.74	2821.31	58.459
218.00	2224.52	2950.48	2048.86	54.240	288.00	2937.41	4022.70	2832.14	58.511
219.00	2234.72	2966.29	2060.54	54.313	289.00	2947.63	4037.66	2842.95	58.563
220.00	2244.92	2982.09	2072.20	54.385	290.00	2957.86	4052.61	2853.76	58.615
221.00	2255.12	2997.86	2083.84	54.456	291.00	2968.09	4067.56	2864.56	58.666
222.00	2265.32	3013.63	2095.47	54.527	292.00	2978.32	4082.51	2875.36	58.718
223.00	2275.52	3029.37	2107.08	54.598	293.00	2988.56	4097.44	2886.15	58.769
224.00	2285.72	3045.10	2118.67	54.669	294.00	2998.80	4112.38	2896.93	58.820
225.00	2295.93	3060.81	2130.25	54.739	295.00	3009.04	4127.30	2907.71	58.870
226.00	2306.13	3076.50	2141.81	54.808	296.00	3019.28	4142.23	2918.48	58.921
227.00	2316.33	3092.18	2153.35	54.877	297.00	3029.53	4157.14	2929.24	58.971
228.00	2326.53	3107.85	2164.88	54.946	298.00	3039.78	4172.05	2939.99	59.021
229.00	2336.73	3123.49	2176.39	55.015	299.00	3050.03	4186.95	2950.74	59.071
230.00	2346.93	3139.12	2187.89	55.083	300.00	3060.28	4201.85	2961.48	59.121

5.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.96	-254.36	-261.43	7.799					
21.00	14.18	-244.68	-251.87	8.274					
22.00	14.44	-234.38	-241.70	8.750	91.00	738.59	967.90	593.71	39.873
23.00	14.72	-223.37	-230.83	9.242	92.00	746.91	980.78	602.38	40.014
24.00	15.04	-211.56	-219.18	9.746	93.00	755.22	993.74	611.13	40.154
25.00	15.42	-198.79	-206.60	10.265	94.00	763.53	1006.78	619.96	40.294
26.00	15.85	-184.84	-192.87	10.811	95.00	771.84	1019.91	628.88	40.433
27.00	16.39	-169.36	-177.66	11.395	96.00	780.14	1033.12	637.88	40.571
* 27.184	16.49	-166.29	-174.64	11.510	97.00	788.44	1046.41	646.97	40.709
* 27.184	160.24	202.35	212.17	25.087	98.00	796.74	1059.78	656.13	40.846
28.00	171.83	217.62	130.57	25.641	99.00	805.03	1073.23	665.39	40.982
29.00	184.70	234.20	140.62	26.223	100.00	813.31	1086.76	674.72	41.118
30.00	196.67	249.34	149.70	26.736					
31.00	208.03	263.56	158.17	27.202	101.00	821.59	1100.37	684.11	41.254
32.00	218.95	277.14	166.22	27.634	102.00	829.86	1114.05	693.61	41.388
33.00	229.55	290.27	173.97	28.038	103.00	838.13	1127.82	703.19	41.523
34.00	239.88	303.05	181.52	28.419	104.00	846.39	1141.66	712.85	41.657
35.00	250.01	315.57	188.91	28.782	105.00	854.65	1155.59	722.59	41.790
36.00	259.96	327.87	196.17	29.129	106.00	862.91	1169.60	732.41	41.923
37.00	269.77	340.01	203.34	29.461	107.00	871.17	1183.68	742.31	42.055
38.00	279.45	352.00	210.43	29.781	108.00	879.42	1197.84	752.29	42.187
39.00	289.03	363.88	217.45	30.090	109.00	887.67	1212.08	762.35	42.318
40.00	298.51	375.65	224.42	30.388	110.00	895.92	1226.40	772.49	42.449
41.00	307.90	387.33	231.34	30.676	111.00	904.17	1240.79	782.70	42.579
42.00	317.21	398.93	238.22	30.956	112.00	912.41	1255.25	792.99	42.709
43.00	326.46	410.47	245.08	31.227	113.00	920.66	1269.79	803.35	42.838
44.00	335.64	421.94	251.90	31.491	114.00	928.90	1284.40	813.78	42.966
45.00	344.76	433.37	258.70	31.748	115.00	937.14	1299.07	824.28	43.095
46.00	353.84	444.74	265.48	31.998	116.00	945.38	1313.82	834.85	43.222
47.00	362.86	456.07	272.24	32.241	117.00	953.62	1328.64	845.50	43.349
48.00	371.84	467.37	278.99	32.479	118.00	961.86	1343.52	856.20	43.476
49.00	380.78	478.64	285.73	32.712	119.00	970.10	1358.47	866.98	43.602
50.00	389.68	489.88	292.46	32.939	120.00	978.34	1373.48	877.82	43.728
51.00	398.54	501.09	299.18	33.161	121.00	986.57	1388.55	888.71	43.853
52.00	407.37	512.29	305.90	33.378	122.00	994.81	1403.67	899.66	43.977
53.00	416.17	523.47	312.63	33.591	123.00	1003.04	1418.86	910.68	44.101
54.00	424.94	534.64	319.36	33.800	124.00	1011.28	1434.10	921.75	44.225
55.00	433.68	545.80	326.08	34.005	125.00	1019.51	1449.41	932.88	44.348
56.00	442.40	556.96	332.82	34.206	126.00	1027.74	1464.77	944.08	44.470
57.00	451.09	568.11	339.58	34.403	127.00	1035.96	1480.19	955.33	44.592
58.00	459.77	579.27	346.34	34.597	128.00	1044.17	1495.66	966.64	44.713
59.00	468.42	590.43	353.12	34.788	129.00	1052.39	1511.18	978.00	44.834
60.00	477.05	601.60	359.92	34.976	130.00	1060.61	1526.76	989.41	44.954
61.00	485.66	612.78	366.74	35.161	131.00	1068.82	1542.38	1000.87	45.074
62.00	494.25	623.98	373.58	35.343	132.00	1077.04	1558.05	1012.38	45.193
63.00	502.83	635.20	380.45	35.522	133.00	1085.25	1573.77	1023.94	45.312
64.00	511.39	646.43	387.35	35.699	134.00	1093.46	1589.54	1035.55	45.430
65.00	519.93	657.70	394.28	35.874	135.00	1101.67	1605.34	1047.19	45.548
66.00	528.46	668.98	401.25	36.046	136.00	1109.88	1621.19	1058.89	45.665
67.00	536.98	680.30	408.25	36.216	137.00	1118.09	1637.09	1070.62	45.781
68.00	545.49	691.65	415.29	36.384	138.00	1126.30	1653.02	1082.39	45.897
69.00	553.98	703.04	422.38	36.551	139.00	1134.50	1668.99	1094.20	46.012
70.00	562.46	714.46	429.51	36.715	140.00	1142.71	1684.99	1106.05	46.127
71.00	570.93	725.93	436.68	36.878	141.00	1150.91	1701.03	1117.94	46.241
72.00	579.39	737.44	443.91	37.039	142.00	1159.12	1717.11	1129.85	46.355
73.00	587.83	749.00	451.19	37.198	143.00	1167.32	1733.21	1141.80	46.468
74.00	596.27	760.61	458.52	37.356	144.00	1175.53	1749.35	1153.78	46.580
75.00	604.70	772.27	465.92	37.513	145.00	1183.73	1765.52	1165.79	46.692
76.00	613.12	783.99	473.37	37.668	146.00	1191.93	1781.71	1177.83	46.803
77.00	621.53	795.77	480.88	37.822	147.00	1200.13	1797.93	1189.90	46.914
78.00	629.94	807.60	488.46	37.974	148.00	1208.33	1814.18	1201.99	47.024
79.00	638.33	819.50	496.11	38.126	149.00	1216.53	1830.45	1214.10	47.134
80.00	646.72	831.47	503.82	38.277	150.00	1224.73	1846.74	1226.24	47.243
81.00	655.10	843.49	511.60	38.426	151.00	1232.92	1862.99	1238.34	47.351
82.00	663.48	855.59	519.46	38.574	152.00	1241.12	1879.26	1250.47	47.458
83.00	671.85	867.77	527.39	38.722	153.00	1249.31	1895.55	1262.60	47.565
84.00	680.21	880.01	535.40	38.869	154.00	1257.50	1911.85	1274.76	47.671
85.00	688.56	892.33	543.49	39.014	155.00	1265.70	1928.17	1286.92	47.777
86.00	696.91	904.73	551.66	39.159	156.00	1273.89	1944.50	1299.10	47.882
87.00	705.26	917.20	559.90	39.304	157.00	1282.08	1960.84	1311.29	47.986
88.00	713.60	929.76	568.23	39.447	158.00	1290.27	1977.19	1323.49	48.090
89.00	721.93	942.39	576.64	39.590	159.00	1298.46	1993.55	1335.70	48.193
90.00	730.26	955.10	585.14	39.732	160.00	1306.65	2009.92	1347.92	48.296

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	1314.84	2026.30	1360.15	48.398	231.00	1886.92	3154.82	2198.83	54.227
162.00	1323.02	2042.68	1372.39	48.499	232.00	1895.09	3170.43	2210.30	54.295
163.00	1331.21	2059.07	1384.63	48.600	233.00	1903.25	3186.02	2221.76	54.362
164.00	1339.40	2075.46	1396.87	48.700	234.00	1911.42	3201.59	2233.19	54.428
165.00	1347.59	2091.86	1409.12	48.800	235.00	1919.59	3217.15	2244.62	54.495
166.00	1355.78	2108.26	1421.37	48.899	236.00	1927.75	3232.69	2256.02	54.561
167.00	1363.96	2124.66	1433.63	48.998	237.00	1935.92	3248.22	2267.41	54.626
168.00	1372.15	2141.07	1445.88	49.096	238.00	1944.08	3263.73	2278.78	54.692
169.00	1380.34	2157.47	1458.14	49.193	239.00	1952.24	3279.22	2290.14	54.757
170.00	1388.52	2173.88	1470.40	49.290	240.00	1960.40	3294.69	2301.48	54.821
171.00	1396.70	2190.28	1482.66	49.386	241.00	1968.56	3310.15	2312.80	54.886
172.00	1404.89	2206.69	1494.92	49.482	242.00	1976.72	3325.60	2324.11	54.949
173.00	1413.07	2223.09	1507.17	49.577	243.00	1984.88	3341.02	2335.41	55.013
174.00	1421.25	2239.49	1519.43	49.671	244.00	1993.03	3356.43	2346.68	55.076
175.00	1429.43	2255.88	1531.68	49.765	245.00	2001.19	3371.83	2357.95	55.139
176.00	1437.61	2272.27	1543.93	49.859	246.00	2009.34	3387.20	2369.19	55.202
177.00	1445.79	2288.66	1556.17	49.952	247.00	2017.49	3402.57	2380.43	55.264
178.00	1453.96	2305.04	1568.41	50.044	248.00	2025.64	3417.91	2391.64	55.326
179.00	1462.14	2321.42	1580.64	50.136	249.00	2033.79	3433.24	2402.85	55.388
180.00	1470.32	2337.78	1592.86	50.227	250.00	2041.94	3448.56	2414.03	55.449
181.00	1478.50	2354.15	1605.08	50.317	251.00	2050.09	3463.89	2425.24	55.511
182.00	1486.67	2370.50	1617.29	50.407	252.00	2058.23	3479.22	2436.44	55.572
183.00	1494.85	2386.84	1629.49	50.497	253.00	2066.37	3494.52	2447.62	55.632
184.00	1503.03	2403.18	1641.69	50.586	254.00	2074.51	3509.81	2458.78	55.692
185.00	1511.20	2419.50	1653.87	50.675	255.00	2082.65	3525.09	2469.94	55.752
186.00	1519.38	2435.82	1666.05	50.762	256.00	2090.79	3540.35	2481.08	55.812
187.00	1527.55	2452.13	1678.21	50.850	257.00	2098.93	3555.60	2492.20	55.872
188.00	1535.72	2468.42	1690.36	50.937	258.00	2107.06	3570.83	2503.32	55.931
189.00	1543.90	2484.70	1702.50	51.023	259.00	2115.20	3586.06	2514.42	55.990
190.00	1552.07	2500.97	1714.64	51.109	260.00	2123.33	3601.26	2525.50	56.048
191.00	1560.25	2517.23	1726.75	51.194	261.00	2131.46	3616.46	2536.58	56.107
192.00	1568.42	2533.48	1738.86	51.279	262.00	2139.59	3631.64	2547.64	56.165
193.00	1576.59	2549.72	1750.95	51.364	263.00	2147.72	3646.81	2558.69	56.222
194.00	1584.76	2565.94	1763.03	51.447	264.00	2155.85	3661.97	2569.73	56.280
195.00	1592.94	2582.14	1775.10	51.531	265.00	2163.98	3677.12	2580.76	56.337
196.00	1601.11	2598.34	1787.15	51.614	266.00	2172.11	3692.25	2591.78	56.394
197.00	1609.28	2614.52	1799.19	51.696	267.00	2180.24	3707.37	2602.78	56.451
198.00	1617.45	2630.68	1811.22	51.778	268.00	2188.37	3722.49	2613.77	56.508
199.00	1625.62	2646.83	1823.23	51.859	269.00	2196.50	3737.59	2624.76	56.564
200.00	1633.79	2662.96	1835.22	51.940	270.00	2204.63	3752.68	2635.73	56.620
201.00	1641.96	2679.07	1847.20	52.020	271.00	2212.76	3767.77	2646.70	56.676
202.00	1650.12	2695.17	1859.15	52.100	272.00	2220.90	3782.84	2657.65	56.731
203.00	1658.29	2711.25	1871.09	52.180	273.00	2229.03	3797.91	2668.59	56.786
204.00	1666.46	2727.31	1883.02	52.259	274.00	2237.17	3812.96	2679.53	56.841
205.00	1674.62	2743.36	1894.93	52.337	275.00	2245.30	3828.01	2690.45	56.896
206.00	1682.79	2759.39	1906.82	52.415	276.00	2253.44	3843.05	2701.37	56.951
207.00	1690.96	2775.41	1918.70	52.493	277.00	2261.58	3858.08	2712.28	57.005
208.00	1699.12	2791.40	1930.56	52.570	278.00	2269.73	3873.11	2723.18	57.059
209.00	1707.29	2807.39	1942.41	52.646	279.00	2277.87	3888.13	2734.07	57.113
210.00	1715.45	2823.35	1954.24	52.723	280.00	2286.02	3903.14	2744.95	57.167
211.00	1723.62	2839.30	1966.05	52.798	281.00	2294.17	3918.14	2755.83	57.220
212.00	1731.78	2855.24	1977.85	52.874	282.00	2302.33	3933.14	2766.69	57.274
213.00	1739.95	2871.15	1989.63	52.949	283.00	2310.49	3948.14	2777.56	57.327
214.00	1748.11	2887.05	2001.39	53.023	284.00	2318.65	3963.12	2788.41	57.380
215.00	1756.28	2902.93	2013.14	53.097	285.00	2326.81	3978.11	2799.25	57.432
216.00	1764.44	2918.80	2024.87	53.171	286.00	2334.98	3993.08	2810.09	57.485
217.00	1772.61	2934.65	2036.58	53.244	287.00	2343.15	4008.05	2820.92	57.537
218.00	1780.77	2950.48	2048.28	53.317	288.00	2351.33	4023.02	2831.75	57.589
219.00	1788.94	2966.30	2059.96	53.389	289.00	2359.50	4037.98	2842.56	57.641
220.00	1797.10	2982.10	2071.62	53.461	290.00	2367.68	4052.94	2853.38	57.693
221.00	1805.27	2997.89	2083.27	53.533	291.00	2375.87	4067.89	2864.18	57.744
222.00	1813.43	3013.65	2094.90	53.604	292.00	2384.06	4082.83	2874.98	57.795
223.00	1821.60	3029.40	2106.51	53.675	293.00	2392.25	4097.77	2885.77	57.846
224.00	1829.76	3045.14	2118.11	53.745	294.00	2400.44	4112.70	2896.55	57.897
225.00	1837.93	3060.85	2129.69	53.815	295.00	2408.63	4127.63	2907.33	57.948
226.00	1846.09	3076.55	2141.25	53.885	296.00	2416.83	4142.56	2918.10	57.998
227.00	1854.26	3092.24	2152.80	53.954	297.00	2425.03	4157.47	2928.86	58.049
228.00	1862.42	3107.91	2164.33	54.023	298.00	2433.23	4172.38	2939.62	58.099
229.00	1870.59	3123.56	2175.84	54.091	299.00	2441.43	4187.29	2950.37	58.149
230.00	1878.75	3139.19	2187.34	54.159	300.00	2449.63	4202.18	2961.11	58.199

6.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.93	-253.38	-261.85	7.777					
21.00	14.16	-243.76	-252.36	8.249					
22.00	14.40	-233.51	-242.27	8.723	91.00	615.11	966.01	592.05	39.103
23.00	14.68	-222.58	-231.50	9.212	92.00	622.07	978.93	600.74	39.244
24.00	15.00	-210.87	-219.98	9.712	93.00	629.03	991.93	609.51	39.385
25.00	15.36	-198.23	-207.57	10.225	94.00	635.98	1005.02	618.37	39.525
26.00	15.78	-184.48	-194.07	10.764	95.00	642.93	1018.18	627.31	39.664
27.00	16.29	-169.28	-179.19	11.337	96.00	649.88	1031.43	636.34	39.803
28.00	16.93	-152.09	-162.39	11.963	97.00	656.82	1044.76	645.44	39.941
* 28.195	17.08	-148.41	-158.80	12.093	98.00	663.75	1058.16	654.63	40.078
* 28.195	131.72	198.05	117.97	24.401	99.00	670.69	1071.65	663.90	40.215
29.00	142.21	214.81	128.36	24.987	100.00	677.62	1085.21	673.25	40.352
30.00	153.77	232.79	139.31	25.597					
31.00	164.35	248.94	149.02	26.126	101.00	684.54	1098.85	682.68	40.487
32.00	174.31	263.94	157.96	26.602	102.00	691.45	1112.57	692.19	40.622
33.00	183.82	278.15	166.40	27.040	103.00	698.36	1126.37	701.79	40.757
34.00	192.99	291.81	174.48	27.448	104.00	705.27	1140.24	711.46	40.891
35.00	201.91	305.06	182.30	27.832	105.00	712.17	1154.20	721.22	41.025
36.00	210.63	317.98	189.93	28.196	106.00	719.07	1168.23	731.06	41.158
37.00	219.17	330.65	197.41	28.543	107.00	725.97	1182.34	740.98	41.290
38.00	227.57	343.12	204.77	28.876	108.00	732.87	1196.53	750.98	41.422
39.00	235.84	355.41	212.04	29.195	109.00	739.76	1210.80	761.05	41.554
40.00	244.01	367.56	219.22	29.503	110.00	746.65	1225.14	771.20	41.685
41.00	252.08	379.59	226.34	29.800	111.00	753.54	1239.56	781.43	41.815
42.00	260.07	391.52	233.40	30.087	112.00	760.43	1254.04	791.73	41.945
43.00	267.99	403.35	240.43	30.365	113.00	767.32	1268.60	802.10	42.074
44.00	275.84	415.09	247.40	30.635	114.00	774.20	1283.23	812.55	42.203
45.00	283.62	426.77	254.35	30.898	115.00	781.09	1297.94	823.06	42.332
46.00	291.35	438.39	261.26	31.153	116.00	787.97	1312.70	833.65	42.460
47.00	299.03	449.94	268.15	31.402	117.00	794.85	1327.54	844.30	42.587
48.00	306.67	461.45	275.01	31.644	118.00	801.73	1342.45	855.02	42.714
49.00	314.26	472.92	281.86	31.880	119.00	808.61	1357.41	865.80	42.840
50.00	321.81	484.34	288.70	32.111	120.00	815.49	1372.45	876.65	42.966
51.00	329.32	495.74	295.53	32.337	121.00	822.37	1387.53	887.56	43.091
52.00	336.80	507.10	302.35	32.558	122.00	829.25	1402.68	898.52	43.216
53.00	344.25	518.45	309.16	32.774	123.00	836.13	1417.88	909.54	43.340
54.00	351.67	529.77	315.98	32.985	124.00	843.01	1433.14	920.62	43.464
55.00	359.06	541.08	322.79	33.193	125.00	849.88	1448.46	931.76	43.587
56.00	366.42	552.38	329.61	33.396	126.00	856.75	1463.84	942.97	43.709
57.00	373.76	563.67	336.44	33.596	127.00	863.61	1479.28	954.23	43.831
58.00	381.08	574.95	343.28	33.793	128.00	870.47	1494.77	965.55	43.953
59.00	388.37	586.24	350.13	33.985	129.00	877.34	1510.31	976.92	44.074
60.00	395.65	597.53	356.99	34.175	130.00	884.19	1525.90	988.34	44.194
61.00	402.90	608.82	363.88	34.362	131.00	891.05	1541.54	999.81	44.314
62.00	410.14	620.13	370.79	34.546	132.00	897.91	1557.23	1011.33	44.433
63.00	417.36	631.45	377.71	34.727	133.00	904.77	1572.96	1022.90	44.552
64.00	424.57	642.79	384.67	34.905	134.00	911.62	1588.74	1034.51	44.670
65.00	431.76	654.14	391.66	35.082	135.00	918.47	1604.57	1046.17	44.788
66.00	438.93	665.52	398.68	35.255	136.00	925.33	1620.43	1057.86	44.905
67.00	446.09	676.93	405.74	35.427	137.00	932.18	1636.34	1069.61	45.021
68.00	453.24	688.37	412.83	35.596	138.00	939.03	1652.28	1081.39	45.137
69.00	460.37	699.84	419.96	35.764	139.00	945.88	1668.27	1093.21	45.253
70.00	467.49	711.35	427.14	35.929	140.00	952.73	1684.29	1105.06	45.368
71.00	474.61	722.89	434.36	36.093	141.00	959.57	1700.34	1116.95	45.482
72.00	481.71	734.48	441.63	36.255	142.00	966.42	1716.43	1128.88	45.595
73.00	488.80	746.11	448.95	36.416	143.00	973.27	1732.55	1140.84	45.709
74.00	495.88	757.79	456.32	36.574	144.00	980.11	1748.70	1152.82	45.821
75.00	502.95	769.53	463.75	36.732	145.00	986.96	1764.88	1164.84	45.933
76.00	510.01	781.31	471.24	36.888	146.00	993.80	1781.09	1176.89	46.045
77.00	517.07	793.15	478.80	37.043	147.00	1000.65	1797.32	1188.96	46.155
78.00	524.11	805.05	486.41	37.196	148.00	1007.49	1813.58	1201.06	46.266
79.00	531.15	817.01	494.09	37.349	149.00	1014.33	1829.86	1213.18	46.375
80.00	538.18	829.03	501.84	37.500	150.00	1021.17	1846.16	1225.32	46.484
81.00	545.21	841.12	509.66	37.650	151.00	1028.01	1862.43	1237.43	46.592
82.00	552.22	853.27	517.55	37.799	152.00	1034.85	1878.71	1249.56	46.700
83.00	559.23	865.50	525.51	37.947	153.00	1041.68	1895.01	1261.71	46.807
84.00	566.24	877.79	533.55	38.095	154.00	1048.52	1911.33	1273.87	46.913
85.00	573.24	890.17	541.66	38.241	155.00	1055.35	1927.66	1286.04	47.019
86.00	580.23	902.61	549.86	38.387	156.00	1062.19	1944.00	1298.22	47.124
87.00	587.22	915.13	558.14	38.531	157.00	1069.02	1960.35	1310.42	47.228
88.00	594.20	927.73	566.49	38.675	158.00	1075.86	1976.71	1322.63	47.332
89.00	601.17	940.41	574.93	38.819	159.00	1082.69	1993.08	1334.85	47.435
90.00	608.14	953.17	583.45	38.961	160.00	1089.52	2009.46	1347.07	47.538

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	1096.35	2025.85	1359.31	47.640	231.00	1573.44	3154.90	2198.30	53.472
162.00	1103.18	2042.25	1371.55	47.742	232.00	1580.25	3170.52	2209.78	53.540
163.00	1110.01	2058.64	1383.79	47.843	233.00	1587.06	3186.11	2221.23	53.607
164.00	1116.85	2075.05	1396.04	47.943	234.00	1593.87	3201.69	2232.67	53.674
165.00	1123.68	2091.46	1408.30	48.043	235.00	1600.68	3217.26	2244.10	53.740
166.00	1130.51	2107.87	1420.56	48.142	236.00	1607.48	3232.81	2255.51	53.806
167.00	1137.34	2124.28	1432.82	48.240	237.00	1614.29	3248.34	2266.90	53.872
168.00	1144.17	2140.70	1445.08	48.338	238.00	1621.10	3263.85	2278.28	53.937
169.00	1150.99	2157.11	1457.35	48.436	239.00	1627.90	3279.35	2289.64	54.002
170.00	1157.82	2173.53	1469.61	48.533	240.00	1634.70	3294.83	2300.98	54.067
171.00	1164.65	2189.94	1481.87	48.629	241.00	1641.51	3310.29	2312.31	54.131
172.00	1171.47	2206.35	1494.14	48.725	242.00	1648.31	3325.74	2323.62	54.195
173.00	1178.30	2222.77	1506.40	48.820	243.00	1655.11	3341.17	2334.92	54.258
174.00	1185.12	2239.18	1518.66	48.914	244.00	1661.91	3356.59	2346.20	54.322
175.00	1191.94	2255.58	1530.92	49.008	245.00	1668.71	3371.99	2357.47	54.385
176.00	1198.77	2271.98	1543.17	49.102	246.00	1675.51	3387.37	2368.72	54.447
177.00	1205.59	2288.38	1555.42	49.195	247.00	1682.30	3402.74	2379.95	54.510
178.00	1212.41	2304.77	1567.66	49.287	248.00	1689.10	3418.09	2391.17	54.572
179.00	1219.23	2321.15	1579.90	49.379	249.00	1695.89	3433.42	2402.38	54.633
180.00	1226.05	2337.53	1592.13	49.470	250.00	1702.68	3448.74	2413.57	54.695
181.00	1232.87	2353.90	1604.35	49.561	251.00	1709.47	3464.08	2424.78	54.756
182.00	1239.69	2370.26	1616.57	49.651	252.00	1716.26	3479.41	2435.98	54.817
183.00	1246.51	2386.61	1628.78	49.741	253.00	1723.05	3494.72	2447.16	54.878
184.00	1253.33	2402.95	1640.97	49.830	254.00	1729.84	3510.02	2458.33	54.938
185.00	1260.15	2419.29	1653.16	49.918	255.00	1736.62	3525.30	2469.49	54.998
186.00	1266.96	2435.61	1665.34	50.006	256.00	1743.41	3540.56	2480.63	55.058
187.00	1273.78	2451.93	1677.51	50.094	257.00	1750.19	3555.82	2491.76	55.117
188.00	1280.60	2468.23	1689.67	50.181	258.00	1756.97	3571.06	2502.88	55.177
189.00	1287.42	2484.52	1701.82	50.267	259.00	1763.75	3586.28	2513.98	55.235
190.00	1294.23	2500.80	1713.95	50.353	260.00	1770.53	3601.50	2525.07	55.294
191.00	1301.05	2517.07	1726.07	50.438	261.00	1777.31	3616.70	2536.15	55.352
192.00	1307.87	2533.32	1738.18	50.523	262.00	1784.09	3631.88	2547.21	55.410
193.00	1314.68	2549.56	1750.28	50.608	263.00	1790.87	3647.06	2558.27	55.468
194.00	1321.50	2565.79	1762.37	50.691	264.00	1797.65	3662.22	2569.31	55.526
195.00	1328.31	2582.01	1774.44	50.775	265.00	1804.43	3677.37	2580.34	55.583
196.00	1335.13	2598.21	1786.50	50.858	266.00	1811.21	3692.51	2591.36	55.640
197.00	1341.94	2614.39	1798.54	50.940	267.00	1817.98	3707.64	2602.36	55.697
198.00	1348.75	2630.57	1810.57	51.022	268.00	1824.76	3722.75	2613.36	55.753
199.00	1355.57	2646.72	1822.58	51.103	269.00	1831.54	3737.86	2624.35	55.810
200.00	1362.38	2662.86	1834.58	51.184	270.00	1838.32	3752.96	2635.32	55.866
201.00	1369.19	2678.98	1846.56	51.265	271.00	1845.10	3768.04	2646.29	55.921
202.00	1376.00	2695.08	1858.52	51.345	272.00	1851.88	3783.12	2657.24	55.977
203.00	1382.81	2711.17	1870.46	51.424	273.00	1858.66	3798.19	2668.19	56.032
204.00	1389.62	2727.24	1882.39	51.503	274.00	1865.44	3813.25	2679.12	56.087
205.00	1396.43	2743.29	1894.31	51.581	275.00	1872.22	3828.30	2690.05	56.142
206.00	1403.24	2759.33	1906.21	51.659	276.00	1879.01	3843.34	2700.97	56.197
207.00	1410.05	2775.35	1918.09	51.737	277.00	1885.80	3858.38	2711.88	56.251
208.00	1416.86	2791.36	1929.95	51.814	278.00	1892.58	3873.41	2722.78	56.305
209.00	1423.67	2807.35	1941.80	51.891	279.00	1899.37	3888.43	2733.67	56.359
210.00	1430.48	2823.32	1953.64	51.967	280.00	1906.17	3903.44	2744.56	56.413
211.00	1437.29	2839.27	1965.45	52.043	281.00	1912.96	3918.45	2755.44	56.466
212.00	1444.10	2855.21	1977.25	52.118	282.00	1919.76	3933.45	2766.30	56.520
213.00	1450.90	2871.13	1989.03	52.193	283.00	1926.56	3948.45	2777.17	56.573
214.00	1457.71	2887.04	2000.80	52.268	284.00	1933.36	3963.44	2788.02	56.626
215.00	1464.52	2902.93	2012.55	52.342	285.00	1940.17	3978.42	2798.87	56.678
216.00	1471.33	2918.80	2024.28	52.415	286.00	1946.98	3993.40	2809.71	56.731
217.00	1478.14	2934.66	2036.00	52.489	287.00	1953.79	4008.37	2820.54	56.783
218.00	1484.94	2950.50	2047.70	52.562	288.00	1960.60	4023.34	2831.36	56.835
219.00	1491.75	2966.32	2059.39	52.634	289.00	1967.42	4038.30	2842.18	56.887
220.00	1498.56	2982.13	2071.05	52.706	290.00	1974.23	4053.26	2852.99	56.939
221.00	1505.37	2997.91	2082.70	52.778	291.00	1981.05	4068.21	2863.80	56.990
222.00	1512.18	3013.69	2094.34	52.849	292.00	1987.88	4083.16	2874.60	57.041
223.00	1518.98	3029.44	2105.95	52.920	293.00	1994.70	4098.10	2885.39	57.093
224.00	1525.79	3045.18	2117.55	52.990	294.00	2001.53	4113.04	2896.17	57.143
225.00	1532.60	3060.91	2129.14	53.060	295.00	2008.36	4127.97	2906.95	57.194
226.00	1539.41	3076.61	2140.70	53.130	296.00	2015.19	4142.89	2917.72	57.245
227.00	1546.21	3092.30	2152.26	53.199	297.00	2022.02	4157.81	2928.49	57.295
228.00	1553.02	3107.97	2163.79	53.268	298.00	2028.86	4172.72	2939.25	57.345
229.00	1559.83	3123.63	2175.31	53.336	299.00	2035.69	4187.63	2950.00	57.395
230.00	1566.63	3139.27	2186.81	53.405	300.00	2042.52	4202.53	2960.74	57.445

7.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.91	-252.40	-262.27	7.756					
21.00	14.13	-242.82	-252.84	8.226					
22.00	14.37	-232.63	-242.83	8.697	91.00	526.93	964.13	590.39	38.449
23.00	14.65	-221.77	-232.16	9.182	92.00	532.92	977.09	599.11	38.591
24.00	14.95	-210.15	-220.76	9.678	93.00	538.90	990.14	607.90	38.732
25.00	15.31	-197.65	-208.51	10.187	94.00	544.89	1003.26	616.78	38.872
26.00	15.72	-184.08	-195.22	10.718	95.00	550.87	1016.46	625.75	39.012
27.00	16.20	-169.15	-180.64	11.281	96.00	556.84	1029.75	634.79	39.151
28.00	16.81	-152.39	-164.32	11.892	97.00	562.81	1043.11	643.92	39.289
29.00	17.62	-132.84	-145.33	12.575	98.00	568.78	1056.55	653.13	39.427
* 29.094	17.73	-130.79	-143.36	12.647	99.00	574.74	1070.07	662.42	39.565
* 29.094	110.76	192.30	113.74	23.773	100.00	580.70	1083.67	671.79	39.701
30.00	121.83	213.17	126.76	24.480					
31.00	132.34	232.38	138.50	25.110	101.00	586.66	1097.34	681.23	39.837
32.00	141.87	249.39	148.77	25.650	102.00	592.60	1111.08	690.76	39.973
33.00	150.76	265.06	158.13	26.132	103.00	598.54	1124.91	700.37	40.108
34.00	159.22	279.84	166.91	26.574	104.00	604.48	1138.82	710.07	40.242
35.00	167.34	293.98	175.28	26.983	105.00	610.41	1152.80	719.84	40.376
36.00	175.22	307.64	183.36	27.368	106.00	616.34	1166.87	729.70	40.509
37.00	182.89	320.93	191.21	27.733	107.00	622.27	1181.01	739.63	40.642
38.00	190.40	333.94	198.89	28.079	108.00	628.20	1195.22	749.65	40.774
39.00	197.77	346.71	206.43	28.411	109.00	634.12	1209.51	759.74	40.906
40.00	205.02	359.28	213.87	28.729	110.00	640.04	1223.88	769.90	41.037
41.00	212.17	371.69	221.21	29.036	111.00	645.96	1238.32	780.14	41.168
42.00	219.22	383.96	228.47	29.331	112.00	651.88	1252.83	790.46	41.298
43.00	226.19	396.10	235.67	29.617	113.00	657.80	1267.42	800.85	41.428
44.00	233.10	408.15	242.81	29.894	114.00	663.71	1282.07	811.30	41.557
45.00	239.93	420.09	249.91	30.162	115.00	669.63	1296.80	821.83	41.685
46.00	246.71	431.96	256.97	30.423	116.00	675.54	1311.59	832.43	41.813
47.00	253.44	443.75	263.99	30.677	117.00	681.45	1326.45	843.09	41.941
48.00	260.12	455.48	270.99	30.924	118.00	687.37	1341.37	853.83	42.068
49.00	266.75	467.15	277.96	31.165	119.00	693.28	1356.36	864.62	42.194
50.00	273.34	478.78	284.90	31.399	120.00	699.19	1371.41	875.48	42.320
51.00	279.89	490.35	291.83	31.629	121.00	705.09	1386.51	886.40	42.446
52.00	286.41	501.90	298.75	31.853	122.00	711.00	1401.68	897.37	42.570
53.00	292.89	513.40	305.67	32.072	123.00	716.91	1416.90	908.40	42.695
54.00	299.34	524.89	312.57	32.287	124.00	722.82	1432.18	919.49	42.818
55.00	305.77	536.34	319.47	32.497	125.00	728.72	1447.52	930.64	42.942
56.00	312.17	547.79	326.37	32.703	126.00	734.62	1462.92	941.86	43.064
57.00	318.54	559.21	333.28	32.905	127.00	740.51	1478.37	953.13	43.186
58.00	324.89	570.63	340.19	33.104	128.00	746.40	1493.88	964.46	43.308
59.00	331.22	582.04	347.12	33.299	129.00	752.30	1509.43	975.83	43.429
60.00	337.52	593.45	354.05	33.491	130.00	758.18	1525.04	987.26	43.550
61.00	343.81	604.86	361.00	33.679	131.00	764.07	1540.70	998.74	43.670
62.00	350.08	616.27	367.97	33.865	132.00	769.96	1556.40	1010.27	43.789
63.00	356.33	627.70	374.97	34.048	133.00	775.85	1572.15	1021.85	43.908
64.00	362.57	639.14	381.98	34.228	134.00	781.73	1587.95	1033.47	44.026
65.00	368.79	650.60	389.02	34.405	135.00	787.62	1603.79	1045.13	44.144
66.00	374.99	662.07	396.10	34.581	136.00	793.50	1619.67	1056.84	44.261
67.00	381.18	673.57	403.21	34.754	137.00	799.38	1635.59	1068.59	44.378
68.00	387.36	685.10	410.35	34.924	138.00	805.26	1651.55	1080.38	44.494
69.00	393.53	696.65	417.53	35.093	139.00	811.14	1667.55	1092.21	44.609
70.00	399.68	708.24	424.76	35.260	140.00	817.02	1683.58	1104.07	44.724
71.00	405.82	719.86	432.02	35.425	141.00	822.90	1699.65	1115.97	44.839
72.00	411.95	731.53	439.34	35.588	142.00	828.78	1715.75	1127.90	44.953
73.00	418.07	743.23	446.70	35.749	143.00	834.66	1731.88	1139.87	45.066
74.00	424.18	754.98	454.12	35.909	144.00	840.53	1748.05	1151.86	45.178
75.00	430.29	766.78	461.59	36.068	145.00	846.41	1764.24	1163.89	45.290
76.00	436.38	778.63	469.12	36.224	146.00	852.28	1780.46	1175.94	45.402
77.00	442.46	790.54	476.71	36.380	147.00	858.16	1796.71	1188.02	45.513
78.00	448.54	802.50	484.36	36.534	148.00	864.03	1812.98	1200.13	45.623
79.00	454.61	814.52	492.08	36.688	149.00	869.91	1829.27	1212.25	45.733
80.00	460.67	826.60	499.86	36.839	150.00	875.78	1845.59	1224.40	45.842
81.00	466.72	838.75	507.71	36.990	151.00	881.65	1861.87	1236.52	45.950
82.00	472.77	850.96	515.63	37.140	152.00	887.51	1878.17	1248.66	46.058
83.00	478.81	863.23	523.63	37.289	153.00	893.38	1894.48	1260.81	46.165
84.00	484.84	875.59	531.70	37.437	154.00	899.25	1910.81	1272.97	46.271
85.00	490.87	888.01	539.84	37.584	155.00	905.11	1927.15	1285.15	46.377
86.00	496.89	900.50	548.07	37.730	156.00	910.98	1943.50	1297.35	46.482
87.00	502.91	913.07	556.37	37.875	157.00	916.84	1959.86	1309.55	46.587
88.00	508.92	925.72	564.75	38.020	158.00	922.71	1976.23	1321.76	46.691
89.00	514.93	938.44	573.22	38.164	159.00	928.57	1992.62	1333.99	46.794
90.00	520.93	951.24	581.76	38.307	160.00	934.43	2009.01	1346.22	46.897

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	940.29	2025.41	1358.46	46.999	231.00	1349.53	3154.98	2197.77	52.834
162.00	946.16	2041.81	1370.71	47.100	232.00	1355.37	3170.60	2209.24	52.901
163.00	952.02	2058.22	1382.96	47.201	233.00	1361.21	3186.20	2220.70	52.968
164.00	957.88	2074.64	1395.22	47.302	234.00	1367.05	3201.79	2232.15	53.035
165.00	963.74	2091.05	1407.48	47.402	235.00	1372.89	3217.36	2243.58	53.101
166.00	969.60	2107.48	1419.74	47.501	236.00	1378.72	3232.91	2254.99	53.167
167.00	975.46	2123.90	1432.01	47.599	237.00	1384.56	3248.45	2266.39	53.233
168.00	981.32	2140.32	1444.28	47.698	238.00	1390.40	3263.96	2277.76	53.298
169.00	987.18	2156.75	1456.55	47.795	239.00	1396.23	3279.47	2289.13	53.363
170.00	993.04	2173.17	1468.82	47.892	240.00	1402.07	3294.95	2300.47	53.428
171.00	998.89	2189.60	1481.09	47.988	241.00	1407.90	3310.42	2311.81	53.492
172.00	1004.75	2206.02	1493.36	48.084	242.00	1413.73	3325.87	2323.12	53.556
173.00	1010.60	2222.44	1505.63	48.179	243.00	1419.56	3341.31	2334.42	53.620
174.00	1016.46	2238.86	1517.89	48.274	244.00	1425.39	3356.73	2345.71	53.683
175.00	1022.31	2255.28	1530.16	48.368	245.00	1431.22	3372.13	2356.97	53.746
176.00	1028.17	2271.69	1542.41	48.461	246.00	1437.05	3387.52	2368.23	53.809
177.00	1034.02	2288.09	1554.67	48.554	247.00	1442.88	3402.89	2379.47	53.871
178.00	1039.87	2304.49	1566.91	48.647	248.00	1448.71	3418.25	2390.69	53.933
179.00	1045.72	2320.88	1579.16	48.739	249.00	1454.53	3433.59	2401.90	53.995
180.00	1051.57	2337.27	1591.39	48.830	250.00	1460.36	3448.92	2413.09	54.057
181.00	1057.42	2353.64	1603.62	48.921	251.00	1466.18	3464.26	2424.31	54.118
182.00	1063.27	2370.01	1615.84	49.011	252.00	1472.00	3479.59	2435.51	54.179
183.00	1069.12	2386.38	1628.05	49.100	253.00	1477.82	3494.91	2446.70	54.240
184.00	1074.97	2402.73	1640.25	49.190	254.00	1483.64	3510.21	2457.87	54.300
185.00	1080.82	2419.07	1652.45	49.278	255.00	1489.46	3525.49	2469.03	54.360
186.00	1086.67	2435.40	1664.63	49.366	256.00	1495.28	3540.76	2480.17	54.420
187.00	1092.52	2451.72	1676.81	49.454	257.00	1501.10	3556.02	2491.30	54.479
188.00	1098.37	2468.03	1688.97	49.541	258.00	1506.91	3571.27	2502.42	54.538
189.00	1104.22	2484.33	1701.12	49.627	259.00	1512.73	3586.50	2513.53	54.597
190.00	1110.06	2500.62	1713.26	49.713	260.00	1518.54	3601.71	2524.62	54.656
191.00	1115.91	2516.90	1725.39	49.798	261.00	1524.35	3616.92	2535.70	54.714
192.00	1121.76	2533.16	1737.50	49.883	262.00	1530.17	3632.11	2546.77	54.772
193.00	1127.60	2549.41	1749.60	49.968	263.00	1535.98	3647.29	2557.83	54.830
194.00	1133.45	2565.64	1761.69	50.052	264.00	1541.79	3662.45	2568.87	54.888
195.00	1139.30	2581.86	1773.77	50.135	265.00	1547.60	3677.61	2579.90	54.945
196.00	1145.14	2598.07	1785.83	50.218	266.00	1553.42	3692.75	2590.92	55.002
197.00	1150.99	2614.26	1797.88	50.300	267.00	1559.23	3707.88	2601.93	55.059
198.00	1156.83	2630.44	1809.91	50.382	268.00	1565.04	3723.01	2612.93	55.115
199.00	1162.68	2646.61	1821.93	50.464	269.00	1570.85	3738.12	2623.92	55.172
200.00	1168.52	2662.75	1833.93	50.545	270.00	1576.66	3753.22	2634.90	55.228
201.00	1174.36	2678.88	1845.91	50.625	271.00	1582.48	3768.31	2645.87	55.284
202.00	1180.20	2694.99	1857.88	50.705	272.00	1588.29	3783.39	2656.83	55.339
203.00	1186.04	2711.08	1869.83	50.785	273.00	1594.10	3798.46	2667.77	55.394
204.00	1191.89	2727.16	1881.76	50.864	274.00	1599.92	3813.53	2678.71	55.449
205.00	1197.73	2743.22	1893.68	50.942	275.00	1605.74	3828.58	2689.64	55.504
206.00	1203.57	2759.26	1905.58	51.020	276.00	1611.55	3843.63	2700.56	55.559
207.00	1209.41	2775.29	1917.47	51.098	277.00	1617.37	3858.67	2711.47	55.613
208.00	1215.25	2791.30	1929.33	51.175	278.00	1623.19	3873.70	2722.38	55.667
209.00	1221.09	2807.30	1941.19	51.252	279.00	1629.02	3888.72	2733.27	55.721
210.00	1226.93	2823.28	1953.02	51.328	280.00	1634.84	3903.74	2744.16	55.775
211.00	1232.77	2839.24	1964.85	51.404	281.00	1640.67	3918.75	2755.04	55.829
212.00	1238.60	2855.18	1976.65	51.479	282.00	1646.49	3933.76	2765.91	55.882
213.00	1244.44	2871.11	1988.44	51.554	283.00	1652.32	3948.76	2776.77	55.935
214.00	1250.28	2887.02	2000.21	51.629	284.00	1658.16	3963.75	2787.63	55.988
215.00	1256.12	2902.92	2011.96	51.703	285.00	1663.99	3978.73	2798.48	56.041
216.00	1261.96	2918.80	2023.70	51.776	286.00	1669.83	3993.72	2809.32	56.093
217.00	1267.80	2934.66	2035.42	51.850	287.00	1675.67	4008.69	2820.15	56.145
218.00	1273.64	2950.51	2047.12	51.923	288.00	1681.51	4023.66	2830.98	56.197
219.00	1279.48	2966.33	2058.81	51.995	289.00	1687.35	4038.63	2841.80	56.249
220.00	1285.32	2982.15	2070.48	52.067	290.00	1693.20	4053.58	2852.61	56.301
221.00	1291.15	2997.94	2082.13	52.139	291.00	1699.04	4068.54	2863.42	56.352
222.00	1296.99	3013.72	2093.77	52.210	292.00	1704.89	4083.49	2874.22	56.404
223.00	1302.83	3029.48	2105.39	52.281	293.00	1710.74	4098.43	2885.01	56.455
224.00	1308.67	3045.23	2116.99	52.351	294.00	1716.60	4113.37	2895.80	56.506
225.00	1314.51	3060.95	2128.58	52.421	295.00	1722.45	4128.30	2906.58	56.556
226.00	1320.34	3076.67	2140.15	52.491	296.00	1728.31	4143.23	2917.35	56.607
227.00	1326.18	3092.36	2151.71	52.560	297.00	1734.16	4158.14	2928.11	56.657
228.00	1332.02	3108.04	2163.25	52.629	298.00	1740.02	4173.06	2938.87	56.707
229.00	1337.86	3123.70	2174.77	52.698	299.00	1745.88	4187.97	2949.63	56.757
230.00	1343.69	3139.35	2186.27	52.766	300.00	1751.73	4202.86	2960.37	56.807

8.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.88	-251.42	-262.67	7.735					
21.00	14.10	-241.88	-253.31	8.202					
22.00	14.34	-231.75	-243.37	8.671	91.00	460.80	962.26	588.73	37.880
23.00	14.61	-220.96	-232.80	9.153	92.00	466.06	975.26	597.47	38.022
24.00	14.91	-209.43	-221.52	9.645	93.00	471.32	988.34	606.29	38.164
25.00	15.25	-197.05	-209.41	10.149	94.00	476.58	1001.51	615.19	38.305
26.00	15.65	-183.64	-196.32	10.674	95.00	481.83	1014.75	624.18	38.445
27.00	16.12	-168.95	-182.02	11.227	96.00	487.07	1028.07	633.25	38.584
28.00	16.70	-152.59	-166.12	11.824	97.00	492.32	1041.47	642.40	38.723
29.00	17.45	-133.75	-147.89	12.482	98.00	497.56	1054.95	651.63	38.861
* 29.907	18.45	-113.03	-127.98	13.187	99.00	502.79	1068.51	660.94	38.999
* 29.907	94.60	185.22	108.54	23.181	100.00	508.03	1082.14	670.33	39.136
30.00	95.83	187.97	110.29	23.273					
31.00	107.28	212.88	125.92	24.091	101.00	513.25	1095.84	679.78	39.272
32.00	116.89	233.04	138.28	24.731	102.00	518.47	1109.62	689.33	39.408
33.00	125.54	250.76	148.99	25.276	103.00	523.69	1123.47	698.96	39.543
34.00	133.58	266.99	158.71	25.761	104.00	528.90	1137.41	708.67	39.678
35.00	141.20	282.24	167.79	26.203	105.00	534.11	1151.42	718.46	39.812
36.00	148.50	296.79	176.42	26.613	106.00	539.32	1165.52	728.33	39.946
37.00	155.56	310.82	184.72	26.997	107.00	544.52	1179.68	738.28	40.079
38.00	162.43	324.44	192.77	27.361	108.00	549.72	1193.93	748.31	40.211
39.00	169.15	337.75	200.64	27.706	109.00	554.92	1208.25	758.41	40.343
40.00	175.72	350.78	208.34	28.036	110.00	560.12	1222.64	768.59	40.475
41.00	182.19	363.61	215.93	28.353	111.00	565.31	1237.10	778.85	40.605
42.00	188.55	376.25	223.41	28.658	112.00	570.50	1251.64	789.18	40.736
43.00	194.83	388.74	230.81	28.951	113.00	575.69	1266.25	799.58	40.866
44.00	201.03	401.09	238.13	29.235	114.00	580.88	1280.92	810.05	40.995
45.00	207.16	413.32	245.40	29.510	115.00	586.06	1295.67	820.59	41.124
46.00	213.23	425.45	252.61	29.777	116.00	591.25	1310.48	831.20	41.252
47.00	219.24	437.49	259.77	30.036	117.00	596.43	1325.36	841.88	41.380
48.00	225.20	449.45	266.90	30.288	118.00	601.61	1340.31	852.63	41.507
49.00	231.11	461.34	273.99	30.533	119.00	606.79	1355.31	863.44	41.634
50.00	236.99	473.16	281.06	30.772	120.00	611.97	1370.39	874.31	41.760
51.00	242.82	484.93	288.10	31.005	121.00	617.14	1385.51	885.24	41.885
52.00	248.61	496.65	295.13	31.232	122.00	622.32	1400.69	896.23	42.010
53.00	254.38	508.34	302.14	31.455	123.00	627.49	1415.93	907.27	42.135
54.00	260.11	519.97	309.13	31.672	124.00	632.66	1431.23	918.38	42.258
55.00	265.81	531.59	316.13	31.886	125.00	637.84	1446.58	929.54	42.382
56.00	271.48	543.18	323.11	32.094	126.00	643.00	1462.00	940.77	42.505
57.00	277.13	554.74	330.10	32.299	127.00	648.16	1477.47	952.05	42.627
58.00	282.76	566.29	337.09	32.500	128.00	653.32	1492.99	963.39	42.749
59.00	288.36	577.83	344.09	32.697	129.00	658.49	1508.56	974.78	42.870
60.00	293.94	589.36	351.10	32.891	130.00	663.64	1524.19	986.22	42.990
61.00	299.50	600.89	358.11	33.082	131.00	668.80	1539.86	997.71	43.111
62.00	305.05	612.42	365.15	33.269	132.00	673.96	1555.58	1009.25	43.230
63.00	310.57	623.95	372.20	33.454	133.00	679.12	1571.34	1020.84	43.349
64.00	316.08	635.50	379.28	33.635	134.00	684.27	1587.16	1032.47	43.467
65.00	321.57	647.05	386.38	33.814	135.00	689.43	1603.01	1044.14	43.585
66.00	327.05	658.62	393.51	33.991	136.00	694.58	1618.90	1055.86	43.703
67.00	332.51	670.21	400.67	34.165	137.00	699.74	1634.84	1067.62	43.819
68.00	337.97	681.82	407.87	34.337	138.00	704.89	1650.81	1079.41	43.936
69.00	343.40	693.46	415.10	34.507	139.00	710.05	1666.83	1091.25	44.051
70.00	348.83	705.13	422.37	34.675	140.00	715.20	1682.88	1103.12	44.166
71.00	354.25	716.84	429.69	34.841	141.00	720.35	1698.96	1115.03	44.281
72.00	359.65	728.58	437.05	35.006	142.00	725.50	1715.07	1126.96	44.395
73.00	365.04	740.36	444.45	35.168	143.00	730.66	1731.22	1138.94	44.508
74.00	370.43	752.18	451.91	35.329	144.00	735.81	1747.40	1150.94	44.621
75.00	375.80	764.05	459.43	35.488	145.00	740.96	1763.61	1162.97	44.733
76.00	381.17	775.97	466.99	35.646	146.00	746.11	1779.84	1175.03	44.844
77.00	386.52	787.94	474.62	35.802	147.00	751.26	1796.10	1187.11	44.955
78.00	391.87	799.96	482.31	35.958	148.00	756.41	1812.38	1199.22	45.066
79.00	397.21	812.04	490.06	36.112	149.00	761.56	1828.69	1211.35	45.176
80.00	402.55	824.18	497.88	36.264	150.00	766.71	1845.02	1223.51	45.285
81.00	407.87	836.39	505.77	36.416	151.00	771.85	1861.31	1235.63	45.393
82.00	413.19	848.65	513.72	36.566	152.00	777.00	1877.62	1247.77	45.501
83.00	418.50	860.98	521.74	36.716	153.00	782.14	1893.95	1259.93	45.608
84.00	423.81	873.38	529.85	36.864	154.00	787.28	1910.29	1272.10	45.714
85.00	429.11	885.86	538.02	37.012	155.00	792.42	1926.64	1284.29	45.820
86.00	434.40	898.40	546.28	37.159	156.00	797.55	1943.00	1296.49	45.925
87.00	439.69	911.02	554.61	37.305	157.00	802.69	1959.38	1308.70	46.030
88.00	444.98	923.71	563.02	37.450	158.00	807.83	1975.76	1320.92	46.134
89.00	450.26	936.48	571.51	37.594	159.00	812.97	1992.16	1333.15	46.237
90.00	455.53	949.33	580.08	37.737	160.00	818.10	2008.56	1345.39	46.340

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	823.24	2024.97	1357.63	46.442	231.00	1181.58	3155.06	2197.25	52.280
162.00	828.37	2041.38	1369.89	46.544	232.00	1186.69	3170.69	2208.73	52.348
163.00	833.51	2057.80	1382.15	46.645	233.00	1191.80	3186.29	2220.19	52.415
164.00	838.64	2074.23	1394.41	46.746	234.00	1196.91	3201.88	2231.64	52.481
165.00	843.77	2090.66	1406.68	46.846	235.00	1202.02	3217.46	2243.07	52.548
166.00	848.91	2107.09	1418.95	46.945	236.00	1207.13	3233.02	2254.49	52.614
167.00	854.04	2123.53	1431.22	47.043	237.00	1212.24	3248.56	2265.89	52.680
168.00	859.17	2139.96	1443.50	47.142	238.00	1217.35	3264.08	2277.27	52.745
169.00	864.30	2156.40	1455.78	47.239	239.00	1222.46	3279.59	2288.64	52.810
170.00	869.43	2172.83	1468.05	47.336	240.00	1227.56	3295.08	2299.99	52.875
171.00	874.56	2189.27	1480.33	47.433	241.00	1232.67	3310.55	2311.32	52.939
172.00	879.69	2205.70	1492.61	47.528	242.00	1237.78	3326.01	2322.64	53.003
173.00	884.81	2222.13	1504.88	47.624	243.00	1242.88	3341.45	2333.94	53.067
174.00	889.94	2238.56	1517.15	47.718	244.00	1247.99	3356.88	2345.23	53.130
175.00	895.07	2254.98	1529.42	47.812	245.00	1253.09	3372.28	2356.50	53.193
176.00	900.19	2271.40	1541.68	47.906	246.00	1258.19	3387.68	2367.76	53.256
177.00	905.32	2287.81	1553.94	47.999	247.00	1263.29	3403.05	2379.00	53.318
178.00	910.44	2304.22	1566.20	48.091	248.00	1268.39	3418.41	2390.23	53.380
179.00	915.57	2320.62	1578.44	48.183	249.00	1273.49	3433.76	2401.44	53.442
180.00	920.69	2337.02	1590.68	48.275	250.00	1278.59	3449.09	2412.64	53.503
181.00	925.82	2353.40	1602.92	48.365	251.00	1283.69	3464.44	2423.86	53.565
182.00	930.94	2369.78	1615.14	48.456	252.00	1288.79	3479.78	2435.06	53.626
183.00	936.06	2386.15	1627.36	48.545	253.00	1293.88	3495.10	2446.25	53.686
184.00	941.19	2402.51	1639.57	48.634	254.00	1298.98	3510.40	2457.42	53.747
185.00	946.31	2418.86	1651.77	48.723	255.00	1304.07	3525.69	2468.59	53.807
186.00	951.43	2435.20	1663.95	48.811	256.00	1309.16	3540.97	2479.73	53.867
187.00	956.55	2451.53	1676.13	48.899	257.00	1314.25	3556.23	2490.87	53.926
188.00	961.67	2467.85	1688.30	48.986	258.00	1319.34	3571.48	2501.99	53.985
189.00	966.79	2484.16	1700.46	49.072	259.00	1324.44	3586.72	2513.10	54.044
190.00	971.91	2500.45	1712.60	49.158	260.00	1329.52	3601.94	2524.20	54.103
191.00	977.03	2516.74	1724.73	49.244	261.00	1334.61	3617.15	2535.28	54.161
192.00	982.15	2533.01	1736.85	49.329	262.00	1339.70	3632.34	2546.35	54.219
193.00	987.27	2549.26	1748.96	49.413	263.00	1344.79	3647.53	2557.41	54.277
194.00	992.39	2565.50	1761.05	49.497	264.00	1349.88	3662.70	2568.46	54.335
195.00	997.51	2581.73	1773.13	49.581	265.00	1354.97	3677.86	2579.49	54.392
196.00	1002.63	2597.95	1785.19	49.663	266.00	1360.05	3693.00	2590.51	54.449
197.00	1007.75	2614.15	1797.25	49.746	267.00	1365.14	3708.14	2601.53	54.506
198.00	1012.87	2630.33	1809.28	49.828	268.00	1370.23	3723.27	2612.53	54.563
199.00	1017.98	2646.50	1821.30	49.909	269.00	1375.32	3738.38	2623.52	54.619
200.00	1023.10	2662.66	1833.31	49.990	270.00	1380.40	3753.48	2634.50	54.675
201.00	1028.22	2678.79	1845.30	50.071	271.00	1385.49	3768.58	2645.47	54.731
202.00	1033.33	2694.90	1857.26	50.151	272.00	1390.58	3783.66	2656.43	54.786
203.00	1038.44	2711.00	1869.22	50.230	273.00	1395.67	3798.74	2667.38	54.842
204.00	1043.56	2727.09	1881.16	50.309	274.00	1400.76	3813.81	2678.32	54.897
205.00	1048.67	2743.15	1893.08	50.388	275.00	1405.85	3828.87	2689.25	54.952
206.00	1053.79	2759.20	1904.98	50.466	276.00	1410.94	3843.92	2700.18	55.006
207.00	1058.90	2775.24	1916.87	50.544	277.00	1416.04	3858.96	2711.09	55.061
208.00	1064.01	2791.26	1928.74	50.621	278.00	1421.13	3873.99	2721.99	55.115
209.00	1069.13	2807.26	1940.60	50.698	279.00	1426.23	3889.02	2732.89	55.169
210.00	1074.24	2823.24	1952.44	50.774	280.00	1431.32	3904.04	2743.78	55.222
211.00	1079.35	2839.21	1964.26	50.850	281.00	1436.42	3919.06	2754.66	55.276
212.00	1084.46	2855.16	1976.07	50.925	282.00	1441.52	3934.06	2765.53	55.329
213.00	1089.58	2871.10	1987.86	51.000	283.00	1446.63	3949.06	2776.40	55.382
214.00	1094.69	2887.01	1999.64	51.075	284.00	1451.73	3964.06	2787.26	55.435
215.00	1099.80	2902.91	2011.39	51.149	285.00	1456.84	3979.05	2798.11	55.488
216.00	1104.91	2918.80	2023.13	51.222	286.00	1461.94	3994.03	2808.95	55.540
217.00	1110.02	2934.67	2034.86	51.296	287.00	1467.05	4009.01	2819.78	55.593
218.00	1115.14	2950.52	2046.56	51.369	288.00	1472.17	4023.98	2830.61	55.645
219.00	1120.25	2966.35	2058.25	51.441	289.00	1477.28	4038.95	2841.43	55.697
220.00	1125.36	2982.17	2069.93	51.513	290.00	1482.39	4053.91	2852.25	55.748
221.00	1130.47	2997.97	2081.59	51.585	291.00	1487.51	4068.87	2863.06	55.800
222.00	1135.58	3013.75	2093.23	51.656	292.00	1492.63	4083.82	2873.86	55.851
223.00	1140.69	3029.52	2104.85	51.727	293.00	1497.75	4098.76	2884.65	55.902
224.00	1145.80	3045.27	2116.46	51.797	294.00	1502.87	4113.70	2895.44	55.953
225.00	1150.91	3061.00	2128.05	51.868	295.00	1508.00	4128.63	2906.22	56.004
226.00	1156.02	3076.72	2139.62	51.937	296.00	1513.12	4143.56	2916.99	56.054
227.00	1161.14	3092.42	2151.18	52.007	297.00	1518.24	4158.48	2927.76	56.105
228.00	1166.25	3108.10	2162.72	52.075	298.00	1523.37	4173.40	2938.52	56.155
229.00	1171.36	3123.77	2174.24	52.144	299.00	1528.50	4188.31	2949.28	56.205
230.00	1176.47	3139.42	2185.75	52.212	300.00	1533.62	4203.21	2960.02	56.255

9.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.86	-250.43	-263.06	7.714					
21.00	14.07	-240.94	-253.77	8.179	91.00	409.37	960.39	587.07	37.376
22.00	14.31	-230.86	-243.91	8.645	92.00	414.07	973.44	595.84	37.519
23.00	14.57	-220.14	-233.43	9.124	93.00	418.77	986.56	604.68	37.661
24.00	14.87	-208.69	-222.25	9.613	94.00	423.45	999.77	613.61	37.802
25.00	15.20	-196.42	-210.29	10.112	95.00	428.14	1013.05	622.62	37.943
26.00	15.59	-183.17	-197.38	10.631	96.00	432.82	1026.41	631.71	38.083
27.00	16.04	-168.70	-183.33	11.176	97.00	437.50	1039.85	640.88	38.222
28.00	16.59	-152.68	-167.82	11.760	98.00	442.17	1053.36	650.14	38.360
29.00	17.29	-134.45	-150.22	12.397	99.00	446.84	1066.95	659.47	38.498
30.00	18.27	-112.65	-129.30	13.137	100.00	451.51	1080.62	668.88	38.636
* 30.650	19.29	-94.75	-112.34	13.726					
* 30.650	81.66	176.79	102.32	22.609	101.00	456.17	1094.36	678.35	38.772
31.00	86.14	188.23	109.67	22.980	102.00	460.83	1108.17	687.91	38.909
32.00	96.64	214.03	125.90	23.800	103.00	465.48	1122.05	697.56	39.044
33.00	105.43	234.82	138.67	24.440	104.00	470.13	1136.02	707.28	39.179
34.00	113.32	253.05	149.72	24.984	105.00	474.78	1150.07	717.09	39.313
35.00	120.64	269.73	159.72	25.468	106.00	479.43	1164.19	726.97	39.447
36.00	127.56	285.37	169.04	25.908	107.00	484.07	1178.38	736.93	39.580
37.00	134.19	300.26	177.89	26.316	108.00	488.71	1192.65	746.98	39.713
38.00	140.59	314.59	186.38	26.699	109.00	493.34	1207.00	757.09	39.845
39.00	146.82	328.50	194.61	27.060	110.00	497.98	1221.42	767.29	39.977
40.00	152.89	342.06	202.64	27.403					
41.00	158.83	355.34	210.50	27.731	111.00	502.60	1235.91	777.56	40.108
42.00	164.67	368.39	218.22	28.045	112.00	507.23	1250.47	787.90	40.239
43.00	170.41	381.24	225.84	28.348	113.00	511.85	1265.10	798.31	40.369
44.00	176.07	393.92	233.36	28.639	114.00	516.47	1279.80	808.80	40.498
45.00	181.65	406.45	240.80	28.921	115.00	521.09	1294.57	819.36	40.627
46.00	187.18	418.86	248.17	29.194	116.00	525.71	1309.40	829.98	40.756
47.00	192.64	431.16	255.49	29.458	117.00	530.32	1324.30	840.68	40.884
48.00	198.04	443.36	262.76	29.715	118.00	534.93	1339.26	851.44	41.011
49.00	203.40	455.47	269.99	29.965	119.00	539.53	1354.29	862.26	41.138
50.00	208.72	467.51	277.17	30.208	120.00	544.14	1369.38	873.15	41.264
51.00	213.99	479.47	284.33	30.445	121.00	548.74	1384.52	884.10	41.390
52.00	219.23	491.38	291.46	30.676	122.00	553.34	1399.72	895.10	41.515
53.00	224.43	503.24	298.57	30.902	123.00	557.94	1414.98	906.16	41.639
54.00	229.60	515.05	305.67	31.123	124.00	562.54	1430.29	917.28	41.763
55.00	234.74	526.82	312.75	31.339	125.00	567.14	1445.66	928.46	41.887
56.00	239.85	538.56	319.83	31.550	126.00	571.73	1461.09	939.71	42.010
57.00	244.94	550.26	326.90	31.758	127.00	576.32	1476.58	951.00	42.132
58.00	250.00	561.95	333.97	31.961	128.00	580.91	1492.12	962.36	42.254
59.00	255.04	573.62	341.04	32.160	129.00	585.50	1507.71	973.76	42.375
60.00	260.06	585.27	348.12	32.356	130.00	590.09	1523.35	985.21	42.496
61.00	265.05	596.92	355.21	32.549	131.00	594.68	1539.04	996.72	42.616
62.00	270.03	608.56	362.31	32.738	132.00	599.27	1554.77	1008.27	42.736
63.00	274.99	620.20	369.43	32.924	133.00	603.86	1570.55	1019.87	42.855
64.00	279.94	631.85	376.57	33.108	134.00	608.45	1586.38	1031.51	42.974
65.00	284.86	643.50	383.73	33.288	135.00	613.03	1602.25	1043.19	43.092
66.00	289.78	655.17	390.92	33.467	136.00	617.62	1618.16	1054.92	43.209
67.00	294.68	666.85	398.13	33.642	137.00	622.21	1634.11	1066.68	43.326
68.00	299.56	678.56	405.38	33.816	138.00	626.80	1650.10	1078.49	43.442
69.00	304.43	690.28	412.66	33.987	139.00	631.39	1666.12	1090.33	43.558
70.00	309.29	702.04	419.99	34.156	140.00	635.98	1682.19	1102.21	43.673
71.00	314.14	713.82	427.35	34.323	141.00	640.57	1698.28	1114.12	43.788
72.00	318.98	725.64	434.75	34.488	142.00	645.15	1714.41	1126.07	43.902
73.00	323.81	737.49	442.20	34.652	143.00	649.74	1730.58	1138.04	44.015
74.00	328.63	749.39	449.70	34.814	144.00	654.33	1746.77	1150.05	44.128
75.00	333.44	761.32	457.26	34.974	145.00	658.92	1762.99	1162.08	44.240
76.00	338.23	773.31	464.87	35.133	146.00	663.51	1779.24	1174.14	44.352
77.00	343.03	785.35	472.53	35.290	147.00	668.10	1795.51	1186.23	44.463
78.00	347.81	797.43	480.26	35.446	148.00	672.69	1811.81	1198.34	44.573
79.00	352.58	809.57	488.04	35.601	149.00	677.28	1828.13	1210.48	44.683
80.00	357.35	821.77	495.90	35.754	150.00	681.87	1844.47	1222.64	44.793
81.00	362.11	834.03	503.82	35.906	151.00	686.45	1860.77	1234.77	44.901
82.00	366.86	846.36	511.80	36.058	152.00	691.03	1877.09	1246.91	45.009
83.00	371.61	858.74	519.86	36.208	153.00	695.60	1893.43	1259.08	45.116
84.00	376.35	871.20	527.99	36.357	154.00	700.18	1909.78	1271.25	45.222
85.00	381.08	883.72	536.20	36.505	155.00	704.75	1926.15	1283.45	45.328
86.00	385.81	896.31	544.48	36.652	156.00	709.33	1942.52	1295.65	45.434
87.00	390.53	908.98	552.84	36.799	157.00	713.90	1958.91	1307.87	45.538
88.00	395.25	921.72	561.28	36.944	158.00	718.47	1975.30	1320.09	45.642
89.00	399.96	934.53	569.80	37.089	159.00	723.04	1991.71	1332.33	45.746
90.00	404.67	947.42	578.40	37.233	160.00	727.61	2008.12	1344.58	45.849

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	732.18	2024.54	1356.83	45.951	231.00	1050.93	3155.16	2196.76	51.792
162.00	736.75	2040.97	1369.09	46.053	232.00	1055.48	3170.79	2208.24	51.859
163.00	741.32	2057.40	1381.36	46.154	233.00	1060.02	3186.40	2219.71	51.926
164.00	745.89	2073.84	1393.63	46.255	234.00	1064.57	3201.99	2231.16	51.993
165.00	750.46	2090.28	1405.90	46.354	235.00	1069.11	3217.57	2242.59	52.059
166.00	755.02	2106.72	1418.18	46.454	236.00	1073.66	3233.13	2254.01	52.125
167.00	759.59	2123.17	1430.46	46.553	237.00	1078.20	3248.68	2265.41	52.191
168.00	764.15	2139.61	1442.74	46.651	238.00	1082.74	3264.21	2276.80	52.257
169.00	768.72	2156.06	1455.03	46.748	239.00	1087.29	3279.72	2288.17	52.322
170.00	773.28	2172.50	1467.31	46.845	240.00	1091.83	3295.22	2299.52	52.386
171.00	777.84	2188.95	1479.59	46.942	241.00	1096.37	3310.70	2310.86	52.451
172.00	782.40	2205.39	1491.88	47.038	242.00	1100.91	3326.16	2322.18	52.515
173.00	786.97	2221.83	1504.16	47.133	243.00	1105.45	3341.60	2333.49	52.578
174.00	791.53	2238.27	1516.43	47.228	244.00	1109.99	3357.03	2344.78	52.642
175.00	796.09	2254.70	1528.71	47.322	245.00	1114.53	3372.45	2356.06	52.705
176.00	800.65	2271.13	1540.98	47.416	246.00	1119.06	3387.85	2367.32	52.768
177.00	805.21	2287.55	1553.24	47.509	247.00	1123.60	3403.23	2378.56	52.830
178.00	809.77	2303.97	1565.50	47.601	248.00	1128.14	3418.59	2389.79	52.892
179.00	814.33	2320.38	1577.75	47.693	249.00	1132.67	3433.94	2401.01	52.954
180.00	818.88	2336.78	1590.00	47.784	250.00	1137.20	3449.28	2412.21	53.015
181.00	823.44	2353.17	1602.24	47.875	251.00	1141.74	3464.63	2423.43	53.077
182.00	828.00	2369.56	1614.47	47.966	252.00	1146.27	3479.97	2434.63	53.138
183.00	832.56	2385.94	1626.69	48.055	253.00	1150.80	3495.30	2445.83	53.198
184.00	837.11	2402.31	1638.90	48.144	254.00	1155.33	3510.61	2457.01	53.259
185.00	841.67	2418.67	1651.11	48.233	255.00	1159.86	3525.90	2468.17	53.319
186.00	846.23	2435.01	1663.30	48.321	256.00	1164.39	3541.19	2479.32	53.379
187.00	850.78	2451.35	1675.48	48.409	257.00	1168.92	3556.45	2490.46	53.438
188.00	855.34	2467.68	1687.65	48.496	258.00	1173.44	3571.71	2501.59	53.497
189.00	859.89	2483.99	1699.81	48.582	259.00	1177.97	3586.95	2512.70	53.556
190.00	864.45	2500.29	1711.96	48.668	260.00	1182.50	3602.17	2523.80	53.615
191.00	869.00	2516.58	1724.10	48.754	261.00	1187.02	3617.39	2534.88	53.673
192.00	873.56	2532.86	1736.22	48.839	262.00	1191.55	3632.59	2545.96	53.731
193.00	878.11	2549.13	1748.33	48.923	263.00	1196.07	3647.77	2557.02	53.789
194.00	882.67	2565.37	1760.43	49.007	264.00	1200.60	3662.95	2568.07	53.847
195.00	887.22	2581.61	1772.51	49.091	265.00	1205.12	3678.11	2579.11	53.904
196.00	891.77	2597.83	1784.58	49.174	266.00	1209.64	3693.27	2590.13	53.961
197.00	896.33	2614.04	1796.64	49.256	267.00	1214.17	3708.41	2601.15	54.018
198.00	900.88	2630.23	1808.68	49.338	268.00	1218.69	3723.54	2612.15	54.075
199.00	905.43	2646.41	1820.70	49.420	269.00	1223.22	3738.65	2623.14	54.131
200.00	909.98	2662.57	1832.71	49.501	270.00	1227.74	3753.76	2634.13	54.187
201.00	914.53	2678.71	1844.70	49.581	271.00	1232.26	3768.86	2645.10	54.243
202.00	919.08	2694.83	1856.67	49.661	272.00	1236.79	3783.95	2656.06	54.298
203.00	923.63	2710.94	1868.63	49.741	273.00	1241.31	3799.03	2667.01	54.354
204.00	928.18	2727.02	1880.57	49.820	274.00	1245.84	3814.10	2677.96	54.409
205.00	932.73	2743.10	1892.50	49.899	275.00	1250.37	3829.16	2688.89	54.464
206.00	937.28	2759.16	1904.41	49.977	276.00	1254.90	3844.22	2699.82	54.518
207.00	941.83	2775.20	1916.30	50.054	277.00	1259.42	3859.26	2710.73	54.573
208.00	946.37	2791.22	1928.17	50.132	278.00	1263.95	3874.30	2721.64	54.627
209.00	950.92	2807.23	1940.03	50.208	279.00	1268.49	3889.33	2732.54	54.681
210.00	955.47	2823.22	1951.88	50.285	280.00	1273.02	3904.36	2743.43	54.735
211.00	960.02	2839.19	1963.71	50.361	281.00	1277.55	3919.37	2754.31	54.788
212.00	964.56	2855.15	1975.52	50.436	282.00	1282.09	3934.38	2765.19	54.842
213.00	969.11	2871.09	1987.31	50.511	283.00	1286.62	3949.39	2776.05	54.895
214.00	973.66	2887.01	1999.09	50.586	284.00	1291.16	3964.38	2786.91	54.948
215.00	978.20	2902.92	2010.85	50.660	285.00	1295.70	3979.38	2797.76	55.000
216.00	982.75	2918.81	2022.59	50.734	286.00	1300.24	3994.36	2808.61	55.053
217.00	987.30	2934.68	2034.32	50.807	287.00	1304.79	4009.34	2819.44	55.105
218.00	991.84	2950.54	2046.03	50.880	288.00	1309.33	4024.32	2830.27	55.157
219.00	996.39	2966.38	2057.72	50.952	289.00	1313.88	4039.29	2841.10	55.209
220.00	1000.94	2982.20	2069.40	51.024	290.00	1318.42	4054.25	2851.91	55.261
221.00	1005.48	2998.01	2081.06	51.096	291.00	1322.97	4069.21	2862.72	55.312
222.00	1010.03	3013.80	2092.70	51.167	292.00	1327.52	4084.16	2873.53	55.364
223.00	1014.57	3029.57	2104.33	51.238	293.00	1332.08	4099.11	2884.32	55.415
224.00	1019.12	3045.32	2115.94	51.309	294.00	1336.63	4114.05	2895.11	55.466
225.00	1023.66	3061.06	2127.53	51.379	295.00	1341.18	4128.98	2905.89	55.516
226.00	1028.21	3076.79	2139.11	51.449	296.00	1345.74	4143.91	2916.67	55.567
227.00	1032.75	3092.49	2150.67	51.518	297.00	1350.29	4158.83	2927.43	55.617
228.00	1037.30	3108.18	2162.22	51.587	298.00	1354.85	4173.75	2938.20	55.667
229.00	1041.84	3123.85	2173.75	51.655	299.00	1359.41	4188.66	2948.95	55.717
230.00	1046.39	3139.51	2185.26	51.724	300.00	1363.96	4203.56	2959.70	55.767

10.00 ATMOSPHERE ISO8AR

TEMPERATURE* (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.83	-249.44	-263.45	7.693					
21.00	14.05	-239.99	-254.22	8.157	91.00	368.24	958.54	585.42	36.924
22.00	14.28	-229.97	-244.43	8.620	92.00	372.49	971.63	594.20	37.067
23.00	14.54	-219.31	-234.04	9.096	93.00	376.73	984.79	603.07	37.209
24.00	14.83	-207.94	-222.97	9.581	94.00	380.97	998.03	612.02	37.351
25.00	15.16	-195.78	-211.14	10.076	95.00	385.20	1011.36	621.06	37.492
26.00	15.53	-182.67	-198.41	10.589	96.00	389.43	1024.75	630.17	37.632
27.00	15.97	-168.41	-184.59	11.127	97.00	393.65	1038.23	639.37	37.772
28.00	16.49	-152.70	-169.41	11.700	98.00	397.87	1051.78	648.64	37.911
29.00	17.15	-134.98	-152.36	12.318	99.00	402.09	1065.41	657.99	38.049
30.00	18.04	-114.24	-132.51	13.022	100.00	406.30	1079.10	667.42	38.187
31.00	19.44	-87.52	-107.22	13.898					
* 31.336	20.32	-75.36	-95.94	14.289	101.00	410.51	1092.87	676.91	38.324
* 31.336	70.98	166.91	94.99	22.041	102.00	414.72	1106.72	686.49	38.460
32.00	79.19	190.56	110.31	22.788	103.00	418.93	1120.64	696.14	38.596
33.00	88.71	216.58	126.70	23.590	104.00	423.13	1134.63	705.88	38.731
34.00	96.73	237.70	139.69	24.220	105.00	427.34	1148.71	715.70	38.866
35.00	103.94	256.27	150.95	24.759	106.00	431.53	1162.86	725.60	39.000
36.00	110.64	273.26	161.16	25.238	107.00	435.73	1177.08	735.57	39.134
37.00	116.97	289.19	170.67	25.674	108.00	439.92	1191.38	745.62	39.267
38.00	123.04	304.36	179.69	26.079	109.00	444.10	1205.75	755.75	39.399
39.00	128.89	318.95	188.35	26.458	110.00	448.29	1220.20	765.96	39.531
40.00	134.57	333.09	196.74	26.816					
41.00	140.11	346.87	204.90	27.156	111.00	452.47	1234.71	776.24	39.662
42.00	145.54	360.36	212.90	27.481	112.00	456.64	1249.30	786.59	39.793
43.00	150.86	373.61	220.75	27.793	113.00	460.81	1263.95	797.02	39.923
44.00	156.09	386.64	228.48	28.092	114.00	464.98	1278.67	807.52	40.053
45.00	161.25	399.50	236.12	28.381	115.00	469.15	1293.46	818.09	40.182
46.00	166.33	412.20	243.67	28.661	116.00	473.31	1308.32	828.72	40.311
47.00	171.36	424.77	251.14	28.931	117.00	477.47	1323.24	839.43	40.439
48.00	176.32	437.22	258.56	29.193	118.00	481.62	1338.22	850.20	40.567
49.00	181.24	449.56	265.92	29.447	119.00	485.78	1353.27	861.04	40.694
50.00	186.11	461.82	273.24	29.695	120.00	489.93	1368.37	871.94	40.820
51.00	190.94	473.99	280.52	29.936	121.00	494.07	1383.53	882.90	40.946
52.00	195.73	486.09	287.76	30.171	122.00	498.22	1398.75	893.91	41.071
53.00	200.48	498.12	294.98	30.400	123.00	502.36	1414.02	904.99	41.196
54.00	205.21	510.10	302.18	30.624	124.00	506.50	1429.35	916.12	41.320
55.00	209.90	522.03	309.36	30.843	125.00	510.64	1444.73	927.32	41.443
56.00	214.56	533.92	316.52	31.057	126.00	514.77	1460.18	938.57	41.566
57.00	219.19	545.78	323.68	31.267	127.00	518.91	1475.68	949.88	41.689
58.00	223.81	557.60	330.83	31.473	128.00	523.05	1491.24	961.25	41.811
59.00	228.39	569.40	337.98	31.675	129.00	527.18	1506.84	972.66	41.932
60.00	232.96	581.18	345.14	31.872	130.00	531.31	1522.50	984.13	42.053
61.00	237.51	592.95	352.30	32.067	131.00	535.45	1538.20	995.65	42.174
62.00	242.03	604.71	359.47	32.258	132.00	539.58	1553.95	1007.21	42.293
63.00	246.54	616.46	366.65	32.446	133.00	543.71	1569.75	1018.82	42.413
64.00	251.03	628.21	373.85	32.631	134.00	547.84	1585.59	1030.47	42.531
65.00	255.51	639.96	381.07	32.814	135.00	551.98	1601.47	1042.17	42.649
66.00	259.97	651.73	388.32	32.993	136.00	556.11	1617.40	1053.91	42.767
67.00	264.42	663.50	395.58	33.170	137.00	560.24	1633.36	1065.69	42.884
68.00	268.85	675.30	402.89	33.345	138.00	564.37	1649.37	1077.50	43.000
69.00	273.27	687.11	410.22	33.517	139.00	568.51	1665.41	1089.35	43.116
70.00	277.68	698.95	417.59	33.680	140.00	572.64	1681.49	1101.24	43.231
71.00	282.07	710.81	425.00	33.856	141.00	576.77	1697.60	1113.16	43.346
72.00	286.46	722.71	432.45	34.022	142.00	580.91	1713.74	1125.12	43.460
73.00	290.83	734.64	439.95	34.187	143.00	585.04	1729.92	1137.10	43.574
74.00	295.20	746.60	447.49	34.350	144.00	589.18	1746.12	1149.12	43.687
75.00	299.55	758.61	455.09	34.511	145.00	593.32	1762.36	1161.16	43.799
76.00	303.90	770.66	462.73	34.671	146.00	597.45	1778.62	1173.23	43.911
77.00	308.24	782.76	470.44	34.829	147.00	601.59	1794.90	1185.33	44.022
78.00	312.57	794.91	478.20	34.985	148.00	605.72	1811.21	1197.45	44.132
79.00	316.89	807.11	486.03	35.141	149.00	609.86	1827.55	1209.59	44.242
80.00	321.20	819.37	493.91	35.295	150.00	614.00	1843.90	1221.75	44.352
81.00	325.51	831.69	501.87	35.448	151.00	618.12	1860.22	1233.89	44.460
82.00	329.81	844.07	509.89	35.600	152.00	622.24	1876.55	1246.05	44.568
83.00	334.10	856.51	517.98	35.751	153.00	626.37	1892.90	1258.22	44.675
84.00	338.39	869.02	526.14	35.901	154.00	630.49	1909.27	1270.41	44.782
85.00	342.67	881.59	534.38	36.049	155.00	634.61	1925.64	1282.60	44.888
86.00	346.95	894.23	542.69	36.197	156.00	638.73	1942.03	1294.82	44.993
87.00	351.22	906.94	551.07	36.344	157.00	642.85	1958.43	1307.04	45.098
88.00	355.48	919.73	559.54	36.490	158.00	646.97	1974.84	1319.27	45.202
89.00	359.74	932.59	568.09	36.636	159.00	651.09	1991.25	1331.52	45.306
90.00	363.99	945.53	576.71	36.780	160.00	655.21	2007.68	1343.77	45.409

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	659.33	2024.11	1356.03	45.511	231.00	946.41	3155.23	2196.26	51.354
162.00	663.44	2040.55	1368.30	45.613	232.00	950.50	3170.86	2207.74	51.421
163.00	667.56	2056.99	1380.57	45.714	233.00	954.60	3186.48	2219.21	51.488
164.00	671.67	2073.44	1392.85	45.815	234.00	958.69	3202.07	2230.66	51.555
165.00	675.79	2089.89	1405.13	45.915	235.00	962.78	3217.65	2242.09	51.622
166.00	679.90	2106.34	1417.41	46.014	236.00	966.87	3233.21	2253.51	51.688
167.00	684.02	2122.80	1429.70	46.113	237.00	970.96	3248.76	2264.91	51.753
168.00	688.13	2139.25	1441.98	46.207	238.00	975.05	3264.29	2276.30	51.819
169.00	692.24	2155.71	1454.27	46.301	239.00	979.14	3279.81	2287.67	51.884
170.00	696.35	2172.16	1466.56	46.398	240.00	983.23	3295.31	2299.03	51.949
171.00	700.47	2188.62	1478.85	46.495	241.00	987.32	3310.79	2310.37	52.013
172.00	704.58	2205.07	1491.14	46.592	242.00	991.40	3326.26	2321.70	52.077
173.00	708.69	2221.52	1503.42	46.688	243.00	995.49	3341.71	2333.01	52.141
174.00	712.80	2237.97	1515.71	46.783	244.00	999.58	3357.15	2344.30	52.204
175.00	716.91	2254.41	1527.98	46.878	245.00	1003.66	3372.57	2355.58	52.267
176.00	721.01	2270.84	1540.26	46.972	246.00	1007.75	3387.98	2366.85	52.330
177.00	725.12	2287.28	1552.53	47.066	247.00	1011.84	3403.37	2378.10	52.392
178.00	729.23	2303.70	1564.79	47.159	248.00	1015.92	3418.75	2389.34	52.455
179.00	733.34	2320.12	1577.05	47.251	249.00	1020.01	3434.11	2400.56	52.516
180.00	737.44	2336.53	1589.30	47.343	250.00	1024.09	3449.45	2411.77	52.578
181.00	741.55	2352.94	1601.54	47.435	251.00	1028.17	3464.82	2423.00	52.639
182.00	745.65	2369.33	1613.78	47.525	252.00	1032.25	3480.17	2434.21	52.700
183.00	749.76	2385.72	1626.00	47.616	253.00	1036.34	3495.51	2445.41	52.761
184.00	753.86	2402.09	1638.22	47.705	254.00	1040.42	3510.83	2456.60	52.821
185.00	757.97	2418.46	1650.43	47.794	255.00	1044.50	3526.14	2467.78	52.882
186.00	762.07	2434.82	1662.63	47.882	256.00	1048.58	3541.44	2478.94	52.941
187.00	766.17	2451.16	1674.82	47.970	257.00	1052.66	3556.71	2490.08	53.001
188.00	770.28	2467.50	1686.99	48.057	258.00	1056.73	3571.98	2501.22	53.060
189.00	774.38	2483.82	1699.16	48.143	259.00	1060.81	3587.23	2512.34	53.119
190.00	778.48	2500.13	1711.31	48.230	260.00	1064.89	3602.47	2523.44	53.178
191.00	782.58	2516.43	1723.45	48.315	261.00	1068.97	3617.69	2534.54	53.237
192.00	786.69	2532.71	1735.58	48.400	262.00	1073.04	3632.90	2545.62	53.295
193.00	790.79	2548.98	1747.69	48.485	263.00	1077.12	3648.10	2556.68	53.353
194.00	794.89	2565.24	1759.80	48.569	264.00	1081.19	3663.28	2567.74	53.410
195.00	798.99	2581.48	1771.88	48.652	265.00	1085.26	3678.45	2578.78	53.468
196.00	803.09	2597.71	1783.96	48.735	266.00	1089.34	3693.61	2589.81	53.525
197.00	807.19	2613.92	1796.02	48.818	267.00	1093.41	3708.76	2600.83	53.581
198.00	811.29	2630.12	1808.06	48.900	268.00	1097.49	3723.89	2611.83	53.638
199.00	815.39	2646.31	1820.09	48.981	269.00	1101.56	3739.01	2622.83	53.694
200.00	819.49	2662.47	1832.11	49.062	270.00	1105.63	3754.12	2633.81	53.750
201.00	823.58	2678.62	1844.10	49.143	271.00	1109.70	3769.22	2644.78	53.806
202.00	827.68	2694.75	1856.08	49.223	272.00	1113.78	3784.31	2655.74	53.862
203.00	831.78	2710.86	1868.04	49.302	273.00	1117.85	3799.38	2666.69	53.917
204.00	835.87	2726.96	1879.98	49.382	274.00	1121.92	3814.45	2677.63	53.972
205.00	839.97	2743.03	1891.91	49.460	275.00	1126.00	3829.51	2688.56	54.027
206.00	844.07	2759.10	1903.82	49.538	276.00	1130.07	3844.55	2699.48	54.082
207.00	848.16	2775.15	1915.72	49.616	277.00	1134.14	3859.59	2710.39	54.136
208.00	852.26	2791.18	1927.60	49.693	278.00	1138.22	3874.62	2721.29	54.190
209.00	856.35	2807.19	1939.47	49.770	279.00	1142.29	3889.64	2732.18	54.244
210.00	860.45	2823.19	1951.31	49.846	280.00	1146.37	3904.66	2743.07	54.298
211.00	864.54	2839.17	1963.14	49.922	281.00	1150.45	3919.66	2753.94	54.351
212.00	868.64	2855.13	1974.96	49.998	282.00	1154.53	3934.66	2764.81	54.405
213.00	872.73	2871.08	1986.76	50.073	283.00	1158.61	3949.66	2775.67	54.458
214.00	876.83	2887.01	1998.54	50.148	284.00	1162.69	3964.64	2786.52	54.511
215.00	880.92	2902.92	2010.30	50.222	285.00	1166.77	3979.62	2797.36	54.563
216.00	885.02	2918.81	2022.05	50.295	286.00	1170.85	3994.60	2808.20	54.616
217.00	889.11	2934.69	2033.78	50.369	287.00	1174.94	4009.57	2819.03	54.668
218.00	893.20	2950.55	2045.49	50.442	288.00	1179.03	4024.54	2829.86	54.720
219.00	897.30	2966.40	2057.19	50.514	289.00	1183.12	4039.50	2840.68	54.772
220.00	901.39	2982.23	2068.87	50.586	290.00	1187.21	4054.46	2851.49	54.824
221.00	905.48	2998.04	2080.53	50.658	291.00	1191.30	4069.42	2862.30	54.875
222.00	909.58	3013.83	2092.18	50.729	292.00	1195.40	4084.37	2873.10	54.926
223.00	913.67	3029.61	2103.81	50.800	293.00	1199.49	4099.32	2883.90	54.977
224.00	917.76	3045.37	2115.42	50.871	294.00	1203.59	4114.27	2894.70	55.028
225.00	921.86	3061.12	2127.02	50.941	295.00	1207.69	4129.22	2905.49	55.079
226.00	925.95	3076.84	2138.60	51.011	296.00	1211.80	4144.16	2916.27	55.130
227.00	930.04	3092.56	2150.16	51.080	297.00	1215.90	4159.10	2927.05	55.180
228.00	934.14	3108.25	2161.71	51.149	298.00	1220.01	4174.04	2937.83	55.230
229.00	938.23	3123.93	2173.24	51.218	299.00	1224.12	4188.97	2948.60	55.280
230.00	942.32	3139.59	2184.76	51.286	300.00	1228.23	4203.91	2959.37	55.330

15.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.72	-244.44	-265.29	7.594					
21.00	13.92	-235.18	-256.34	8.048	91.00	244.94	949.42	577.15	35.163
22.00	14.14	-225.40	-246.89	8.501	92.00	247.82	962.72	586.06	35.308
23.00	14.37	-215.03	-236.88	8.964	93.00	250.70	976.09	595.05	35.453
24.00	14.64	-204.03	-226.28	9.434	94.00	253.58	989.53	604.12	35.597
25.00	14.93	-192.33	-215.02	9.909	95.00	256.45	1003.04	613.27	35.740
26.00	15.26	-179.82	-203.02	10.399	96.00	259.32	1016.63	622.50	35.882
27.00	15.64	-166.39	-190.16	10.905	97.00	262.18	1030.28	631.80	36.024
28.00	16.08	-151.85	-176.29	11.436	98.00	265.04	1044.01	641.18	36.164
29.00	16.59	-135.95	-161.16	11.991	99.00	267.90	1057.81	650.64	36.304
30.00	17.22	-118.32	-144.49	12.589	100.00	270.75	1071.68	660.17	36.444
31.00	18.04	-98.09	-125.51	13.252	101.00	273.61	1085.61	669.75	36.582
32.00	19.19	-73.71	-102.87	14.050	102.00	276.47	1099.61	679.40	36.720
33.00	20.73	-45.01	-76.52	14.923	103.00	279.33	1113.68	689.12	36.858
34.00	25.16	13.55	-24.70	16.668	104.00	282.19	1127.83	698.92	36.994
35.00	49.07	163.89	89.31	21.050	105.00	285.04	1142.04	708.81	37.130
36.00	57.35	198.35	111.18	22.019	106.00	287.89	1156.33	718.77	37.266
37.00	63.78	223.80	126.86	22.714	107.00	290.73	1170.69	728.81	37.401
38.00	69.36	245.60	140.18	23.296	108.00	293.57	1185.12	738.92	37.535
39.00	74.44	265.63	152.49	23.816	109.00	296.40	1199.62	749.11	37.668
40.00	79.17	284.02	163.69	24.281	110.00	299.23	1214.19	759.38	37.801
41.00	83.66	301.26	174.11	24.707	111.00	302.05	1228.82	769.73	37.934
42.00	87.95	317.64	183.97	25.102	112.00	304.87	1243.53	780.15	38.066
43.00	92.09	333.36	193.40	25.472	113.00	307.69	1258.29	790.64	38.197
44.00	96.10	348.56	202.51	25.821	114.00	310.49	1273.13	801.20	38.328
45.00	100.00	363.34	211.35	26.154	115.00	313.29	1288.02	811.84	38.458
46.00	103.82	377.76	219.97	26.470	116.00	316.09	1302.98	822.55	38.587
47.00	107.56	391.88	228.41	26.774	117.00	318.88	1318.01	833.33	38.716
48.00	111.22	405.74	236.70	27.066	118.00	321.67	1333.09	844.18	38.845
49.00	114.83	419.39	244.86	27.347	119.00	324.45	1348.23	855.09	38.973
50.00	118.38	432.84	252.91	27.619	120.00	327.23	1363.43	866.07	39.100
51.00	121.88	446.12	260.88	27.882	121.00	330.00	1378.68	877.11	39.226
52.00	125.34	459.26	268.76	28.137	122.00	332.77	1393.99	888.21	39.352
53.00	128.76	472.26	276.57	28.385	123.00	335.53	1409.35	899.37	39.478
54.00	132.14	485.16	284.32	28.626	124.00	338.30	1424.77	910.58	39.602
55.00	135.49	497.94	292.02	28.861	125.00	341.05	1440.23	921.86	39.727
56.00	138.81	510.64	299.67	29.089	126.00	343.82	1455.77	933.19	39.850
57.00	142.09	523.26	307.29	29.313	127.00	346.59	1471.35	944.57	39.974
58.00	145.35	535.80	314.88	29.531	128.00	349.36	1486.99	956.00	40.096
59.00	148.59	548.29	322.45	29.744	129.00	352.12	1502.68	967.48	40.218
60.00	151.80	560.72	330.00	29.953	130.00	354.89	1518.41	979.01	40.340
61.00	154.99	573.11	337.54	30.158	131.00	357.65	1534.19	990.59	40.461
62.00	158.17	585.46	345.07	30.359	132.00	360.42	1550.02	1002.22	40.581
63.00	161.32	597.78	352.59	30.556	133.00	363.19	1565.90	1013.88	40.701
64.00	164.45	610.07	360.13	30.750	134.00	365.95	1581.81	1025.59	40.820
65.00	167.57	622.34	367.66	30.940	135.00	368.72	1597.77	1037.34	40.939
66.00	170.67	634.61	375.20	31.127	136.00	371.49	1613.77	1049.13	41.057
67.00	173.76	646.86	382.76	31.311	137.00	374.27	1629.81	1060.95	41.174
68.00	176.84	659.11	390.34	31.493	138.00	377.04	1645.88	1072.81	41.291
69.00	179.90	671.36	397.94	31.672	139.00	379.81	1661.99	1084.71	41.408
70.00	182.95	683.62	405.57	31.848	140.00	382.59	1678.14	1096.64	41.523
71.00	185.98	695.89	413.22	32.022	141.00	385.37	1694.32	1108.59	41.639
72.00	189.01	708.18	420.91	32.194	142.00	388.15	1710.54	1120.58	41.753
73.00	192.02	720.48	428.63	32.364	143.00	390.93	1726.78	1132.60	41.867
74.00	195.03	732.82	436.40	32.532	144.00	393.71	1743.05	1144.64	41.981
75.00	198.02	745.17	444.21	32.697	145.00	396.50	1759.35	1156.71	42.093
76.00	201.01	757.57	452.06	32.862	146.00	399.29	1775.68	1168.80	42.206
77.00	203.98	769.99	459.96	33.024	147.00	402.07	1792.03	1180.92	42.317
78.00	206.95	782.46	467.92	33.185	148.00	404.86	1808.41	1193.06	42.428
79.00	209.91	794.97	475.93	33.344	149.00	407.65	1824.81	1205.22	42.539
80.00	212.87	807.53	484.00	33.502	150.00	410.44	1841.23	1217.40	42.648
81.00	215.81	820.13	492.12	33.659	151.00	413.21	1857.60	1229.57	42.757
82.00	218.75	832.79	500.31	33.814	152.00	415.97	1874.00	1241.75	42.866
83.00	221.69	845.50	508.57	33.968	153.00	418.74	1890.40	1253.95	42.973
84.00	224.61	858.27	516.89	34.121	154.00	421.51	1906.83	1266.17	43.080
85.00	227.53	871.10	525.28	34.273	155.00	424.27	1923.26	1278.40	43.186
86.00	230.45	883.99	533.74	34.424	156.00	427.04	1939.70	1290.64	43.292
87.00	233.36	896.94	542.27	34.573	157.00	429.80	1956.16	1302.90	43.397
88.00	236.26	909.96	550.87	34.722	158.00	432.56	1972.62	1315.16	43.502
89.00	239.16	923.04	559.56	34.870	159.00	435.32	1989.09	1327.44	43.606
90.00	242.05	936.20	568.31	35.017	160.00	438.08	2005.57	1339.72	43.709

15.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	440.84	2022.05	1352.01	43.812	231.00	632.89	3155.71	2193.77	49.668
162.00	443.60	2038.54	1364.31	43.914	232.00	635.63	3171.36	2205.26	49.736
163.00	446.36	2055.04	1376.61	44.015	233.00	638.36	3187.00	2216.75	49.803
164.00	449.12	2071.54	1388.92	44.116	234.00	641.09	3202.62	2228.21	49.870
165.00	451.87	2088.04	1401.23	44.217	235.00	643.83	3218.22	2239.66	49.937
166.00	454.63	2104.54	1413.55	44.316	236.00	646.56	3233.81	2251.10	50.003
167.00	457.38	2121.04	1425.86	44.415	237.00	649.29	3249.38	2262.52	50.069
168.00	460.13	2137.55	1438.18	44.514	238.00	652.02	3264.94	2273.92	50.134
169.00	462.89	2154.05	1450.50	44.612	239.00	654.75	3280.48	2285.31	50.199
170.00	465.64	2170.55	1462.83	44.709	240.00	657.49	3296.00	2296.68	50.264
171.00	468.39	2187.06	1475.14	44.806	241.00	660.22	3311.51	2308.04	50.329
172.00	471.14	2203.56	1487.46	44.902	242.00	662.95	3327.00	2319.38	50.393
173.00	473.90	2220.05	1499.77	44.998	243.00	665.68	3342.48	2330.71	50.457
174.00	476.65	2236.55	1512.08	45.093	244.00	668.41	3357.94	2342.02	50.520
175.00	479.40	2253.03	1524.39	45.187	245.00	671.14	3373.39	2353.32	50.583
176.00	482.15	2269.52	1536.69	45.281	246.00	673.87	3388.82	2364.60	50.646
177.00	484.90	2285.99	1548.99	45.375	247.00	676.60	3404.24	2375.87	50.709
178.00	487.65	2302.46	1561.28	45.468	248.00	679.32	3419.64	2387.12	50.771
179.00	490.40	2318.93	1573.56	45.560	249.00	682.05	3435.02	2398.36	50.833
180.00	493.15	2335.38	1585.84	45.651	250.00	684.78	3450.39	2409.58	50.894
181.00	495.90	2351.83	1598.11	45.743	251.00	687.51	3465.78	2420.83	50.956
182.00	498.64	2368.26	1610.37	45.833	252.00	690.23	3481.16	2432.06	51.017
183.00	501.39	2384.69	1622.62	45.923	253.00	692.96	3496.52	2443.28	51.078
184.00	504.14	2401.11	1634.86	46.013	254.00	695.69	3511.87	2454.48	51.138
185.00	506.88	2417.52	1647.10	46.102	255.00	698.41	3527.20	2465.67	51.199
186.00	509.63	2433.91	1659.32	46.190	256.00	701.14	3542.51	2476.85	51.258
187.00	512.38	2450.30	1671.53	46.278	257.00	703.86	3557.82	2488.01	51.318
188.00	515.12	2466.67	1683.73	46.365	258.00	706.58	3573.11	2499.16	51.377
189.00	517.87	2483.03	1695.92	46.452	259.00	709.31	3588.38	2510.29	51.437
190.00	520.61	2499.38	1708.10	46.538	260.00	712.03	3603.64	2521.42	51.495
191.00	523.36	2515.72	1720.26	46.624	261.00	714.75	3618.89	2532.52	51.554
192.00	526.10	2532.04	1732.41	46.709	262.00	717.48	3634.12	2543.62	51.612
193.00	528.85	2548.35	1744.55	46.794	263.00	720.20	3649.34	2554.70	51.670
194.00	531.59	2564.64	1756.67	46.878	264.00	722.92	3664.54	2565.77	51.728
195.00	534.33	2580.92	1768.78	46.962	265.00	725.64	3679.74	2576.82	51.785
196.00	537.08	2597.18	1780.87	47.045	266.00	728.36	3694.91	2587.87	51.842
197.00	539.82	2613.43	1792.95	47.128	267.00	731.08	3710.08	2598.90	51.899
198.00	542.56	2629.67	1805.02	47.210	268.00	733.80	3725.23	2609.92	51.956
199.00	545.30	2645.88	1817.07	47.292	269.00	736.52	3740.38	2620.92	52.012
200.00	548.04	2662.09	1829.10	47.373	270.00	739.24	3755.51	2631.92	52.069
201.00	550.78	2678.26	1841.12	47.453	271.00	741.97	3770.62	2642.90	52.124
202.00	553.52	2694.42	1853.11	47.534	272.00	744.69	3785.73	2653.87	52.180
203.00	556.26	2710.57	1865.09	47.613	273.00	747.41	3800.82	2664.83	52.235
204.00	559.00	2726.69	1877.06	47.693	274.00	750.13	3815.91	2675.78	52.291
205.00	561.74	2742.80	1889.00	47.771	275.00	752.85	3830.98	2686.72	52.346
206.00	564.48	2758.90	1900.93	47.850	276.00	755.57	3846.05	2697.65	52.400
207.00	567.22	2774.98	1912.85	47.928	277.00	758.29	3861.10	2708.56	52.455
208.00	569.96	2791.04	1924.75	48.005	278.00	761.01	3876.15	2719.47	52.509
209.00	572.70	2807.08	1936.63	48.082	279.00	763.74	3891.18	2730.37	52.563
210.00	575.44	2823.10	1948.49	48.158	280.00	766.46	3906.21	2741.26	52.617
211.00	578.17	2839.11	1960.34	48.234	281.00	769.18	3921.23	2752.14	52.670
212.00	580.91	2855.11	1972.17	48.310	282.00	771.91	3936.25	2763.02	52.724
213.00	583.65	2871.08	1983.98	48.385	283.00	774.63	3951.25	2773.88	52.777
214.00	586.39	2887.04	1995.78	48.460	284.00	777.35	3966.26	2784.74	52.830
215.00	589.12	2902.98	2007.56	48.534	285.00	780.08	3981.25	2795.59	52.882
216.00	591.86	2918.90	2019.32	48.608	286.00	782.81	3996.24	2806.44	52.935
217.00	594.60	2934.81	2031.07	48.682	287.00	785.53	4011.22	2817.28	52.987
218.00	597.33	2950.70	2042.80	48.755	288.00	788.26	4026.20	2828.11	53.039
219.00	600.07	2966.57	2054.51	48.827	289.00	790.99	4041.17	2838.93	53.091
220.00	602.81	2982.42	2066.21	48.900	290.00	793.72	4056.14	2849.75	53.143
221.00	605.54	2998.26	2077.89	48.971	291.00	796.45	4071.11	2860.57	53.194
222.00	608.28	3014.08	2089.55	49.043	292.00	799.19	4086.07	2871.38	53.246
223.00	611.01	3029.88	2101.19	49.114	293.00	801.92	4101.03	2882.19	53.297
224.00	613.75	3045.67	2112.82	49.184	294.00	804.65	4115.99	2892.99	53.348
225.00	616.48	3061.44	2124.44	49.255	295.00	807.39	4130.95	2903.79	53.399
226.00	619.22	3077.19	2136.03	49.325	296.00	810.12	4145.90	2914.58	53.449
227.00	621.95	3092.93	2147.61	49.394	297.00	812.86	4160.85	2925.37	53.500
228.00	624.69	3108.65	2159.17	49.463	298.00	815.60	4175.80	2936.16	53.550
229.00	627.42	3124.35	2170.72	49.532	299.00	818.33	4190.74	2946.94	53.600
230.00	630.16	3140.04	2182.25	49.600	300.00	821.07	4205.68	2957.72	53.650

20.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.62	-239.38	-266.97	7.501					
21.00	13.80	-230.30	-258.27	7.947	91.00	183.40	940.58	568.92	33.890
22.00	14.01	-220.71	-249.10	8.390	92.00	185.60	954.08	577.97	34.038
23.00	14.23	-210.59	-239.43	8.842	93.00	187.80	967.65	587.08	34.184
24.00	14.47	-199.89	-229.22	9.299	94.00	189.99	981.29	596.27	34.330
25.00	14.74	-188.56	-218.43	9.759	95.00	192.18	994.99	605.53	34.475
26.00	15.04	-176.53	-207.00	10.231	96.00	194.37	1008.76	614.87	34.619
27.00	15.37	-163.69	-194.84	10.714	97.00	196.55	1022.59	624.29	34.763
28.00	15.75	-149.96	-181.87	11.215	98.00	198.73	1036.50	633.78	34.905
29.00	16.18	-135.17	-167.95	11.732	99.00	200.90	1050.46	643.34	35.047
30.00	16.68	-119.17	-152.98	12.275	100.00	203.07	1064.50	652.97	35.188
31.00	17.29	-101.52	-136.56	12.853	101.00	205.24	1078.59	662.66	35.328
32.00	18.04	-81.79	-118.36	13.482	102.00	207.40	1092.74	672.42	35.468
33.00	19.02	-60.20	-98.74	14.159	103.00	209.56	1106.95	682.26	35.606
34.00	20.34	-33.29	-74.51	14.964	104.00	211.72	1121.24	692.18	35.744
35.00	22.43	1.62	-43.84	15.974	105.00	213.87	1135.59	702.17	35.882
36.00	26.67	54.16	.11	17.450	106.00	216.02	1150.02	712.23	36.019
37.00	34.40	121.04	51.34	19.281	107.00	218.17	1164.51	722.37	36.155
38.00	41.10	166.67	83.38	20.499	108.00	220.31	1179.06	732.58	36.290
39.00	46.46	199.62	105.47	21.355	109.00	222.46	1193.69	742.87	36.425
40.00	51.08	226.29	122.78	22.030	110.00	224.59	1208.38	753.22	36.559
41.00	55.24	249.43	137.48	22.602	111.00	226.73	1223.13	763.65	36.692
42.00	59.10	270.31	150.54	23.105	112.00	228.86	1237.95	774.15	36.825
43.00	62.73	289.62	162.49	23.559	113.00	230.99	1252.83	784.71	36.958
44.00	66.19	307.78	173.64	23.977	114.00	233.12	1267.78	795.34	37.089
45.00	69.51	325.06	184.20	24.365	115.00	235.25	1282.78	806.04	37.220
46.00	72.72	341.65	194.28	24.730	116.00	237.37	1297.85	816.80	37.351
47.00	75.83	357.67	204.00	25.075	117.00	239.49	1312.98	827.63	37.481
48.00	78.86	373.23	213.42	25.402	118.00	241.61	1328.16	838.52	37.610
49.00	81.82	388.40	222.58	25.715	119.00	243.73	1343.41	849.47	37.739
50.00	84.72	403.23	231.54	26.015	120.00	245.85	1358.71	860.48	37.867
51.00	87.57	417.78	240.32	26.303	121.00	247.96	1374.05	871.54	37.994
52.00	90.36	432.07	248.96	26.580	122.00	250.08	1389.45	882.66	38.121
53.00	93.11	446.15	257.46	26.848	123.00	252.19	1404.91	893.83	38.247
54.00	95.82	460.03	265.85	27.108	124.00	254.30	1420.42	905.06	38.372
55.00	98.50	473.75	274.14	27.360	125.00	256.41	1435.98	916.34	38.497
56.00	101.14	487.31	282.36	27.604	126.00	258.52	1451.60	927.70	38.622
57.00	103.75	500.75	290.50	27.842	127.00	260.62	1467.27	939.11	38.746
58.00	106.33	514.06	298.57	28.073	128.00	262.72	1482.99	950.57	38.869
59.00	108.89	527.27	306.60	28.299	129.00	264.82	1498.76	962.08	38.992
60.00	111.42	540.38	314.59	28.520	130.00	266.92	1514.57	973.64	39.114
61.00	113.94	553.42	322.54	28.735	131.00	269.02	1530.43	985.24	39.235
62.00	116.43	566.39	330.45	28.946	132.00	271.12	1546.34	996.90	39.356
63.00	118.90	579.30	338.35	29.152	133.00	273.22	1562.29	1008.59	39.477
64.00	121.35	592.14	346.23	29.355	134.00	275.32	1578.28	1020.33	39.597
65.00	123.79	604.95	354.10	29.553	135.00	277.42	1594.31	1032.11	39.716
66.00	126.21	617.72	361.97	29.748	136.00	279.52	1610.38	1043.93	39.834
67.00	128.61	630.46	369.83	29.940	137.00	281.61	1626.49	1055.79	39.952
68.00	131.00	643.18	377.70	30.128	138.00	283.71	1642.64	1067.68	40.070
69.00	133.38	655.88	385.58	30.314	139.00	285.81	1658.82	1079.61	40.187
70.00	135.75	668.56	393.48	30.496	140.00	287.91	1675.04	1091.58	40.303
71.00	138.10	681.24	401.39	30.676	141.00	290.01	1691.29	1103.57	40.419
72.00	140.44	693.93	409.32	30.853	142.00	292.10	1707.56	1115.60	40.534
73.00	142.77	706.61	417.29	31.028	143.00	294.20	1723.87	1127.66	40.648
74.00	145.09	719.31	425.28	31.201	144.00	296.30	1740.21	1139.74	40.762
75.00	147.41	732.02	433.31	31.372	145.00	298.40	1756.58	1151.86	40.875
76.00	149.71	744.76	441.37	31.541	146.00	300.50	1772.97	1163.99	40.988
77.00	152.00	757.51	449.48	31.707	147.00	302.59	1789.38	1176.15	41.100
78.00	154.29	770.30	457.64	31.872	148.00	304.69	1805.81	1188.34	41.211
79.00	156.57	783.12	465.84	32.036	149.00	306.79	1822.27	1200.55	41.322
80.00	158.84	795.97	474.09	32.197	150.00	308.89	1838.75	1212.77	41.432
81.00	161.10	808.86	482.39	32.357	151.00	310.97	1855.18	1224.98	41.541
82.00	163.36	821.80	490.75	32.516	152.00	313.06	1871.63	1237.20	41.650
83.00	165.61	834.77	499.18	32.673	153.00	315.15	1888.10	1249.43	41.758
84.00	167.85	847.80	507.66	32.829	154.00	317.23	1904.57	1261.68	41.865
85.00	170.09	860.88	516.21	32.984	155.00	319.32	1921.06	1273.94	41.972
86.00	172.32	874.02	524.82	33.138	156.00	321.40	1937.55	1286.22	42.078
87.00	174.54	887.21	533.50	33.290	157.00	323.48	1954.06	1298.50	42.184
88.00	176.77	900.46	542.25	33.442	158.00	325.57	1970.58	1310.80	42.288
89.00	178.98	913.77	551.07	33.592	159.00	327.65	1987.10	1323.10	42.393
90.00	181.19	927.15	559.96	33.742	160.00	329.73	2003.63	1335.41	42.496

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	331.81	2020.16	1347.73	42.599	231.00	476.33	3156.32	2191.00	48.469
162.00	333.89	2036.70	1360.06	42.702	232.00	478.39	3172.00	2202.51	48.537
163.00	335.97	2053.24	1372.39	42.804	233.00	480.44	3187.66	2214.01	48.604
164.00	338.04	2069.79	1384.72	42.905	234.00	482.50	3203.30	2225.49	48.671
165.00	340.12	2086.34	1397.06	43.005	235.00	484.55	3218.93	2236.96	48.738
166.00	342.20	2102.89	1409.40	43.105	236.00	486.61	3234.54	2248.41	48.804
167.00	344.27	2119.44	1421.75	43.205	237.00	488.66	3250.14	2259.85	48.870
168.00	346.35	2135.99	1434.09	43.304	238.00	490.71	3265.72	2271.27	48.936
169.00	348.42	2152.53	1446.43	43.402	239.00	492.76	3281.28	2282.67	49.001
170.00	350.50	2169.08	1458.78	43.499	240.00	494.82	3296.83	2294.06	49.066
171.00	352.57	2185.63	1471.12	43.596	241.00	496.87	3312.36	2305.43	49.130
172.00	354.65	2202.17	1483.47	43.693	242.00	498.92	3327.88	2316.79	49.195
173.00	356.72	2218.71	1495.81	43.789	243.00	500.97	3343.38	2328.13	49.258
174.00	358.79	2235.25	1508.14	43.884	244.00	503.02	3358.87	2339.46	49.322
175.00	360.86	2251.78	1520.48	43.979	245.00	505.07	3374.34	2350.78	49.385
176.00	362.93	2268.31	1532.81	44.073	246.00	507.12	3389.79	2362.07	49.448
177.00	365.00	2284.83	1545.13	44.167	247.00	509.17	3405.23	2373.36	49.511
178.00	367.07	2301.34	1557.45	44.260	248.00	511.22	3420.65	2384.63	49.573
179.00	369.14	2317.85	1569.76	44.352	249.00	513.27	3436.06	2395.88	49.635
180.00	371.21	2334.34	1582.06	44.444	250.00	515.32	3451.45	2407.12	49.697
181.00	373.28	2350.83	1594.36	44.535	251.00	517.37	3466.87	2418.38	49.758
182.00	375.35	2367.31	1606.64	44.626	252.00	519.42	3482.27	2429.63	49.820
183.00	377.42	2383.78	1618.92	44.716	253.00	521.47	3497.65	2440.86	49.881
184.00	379.49	2400.24	1631.19	44.806	254.00	523.52	3513.02	2452.08	49.941
185.00	381.55	2416.68	1643.45	44.895	255.00	525.57	3528.37	2463.29	50.002
186.00	383.62	2433.12	1655.69	44.984	256.00	527.61	3543.71	2474.48	50.062
187.00	385.69	2449.55	1667.93	45.072	257.00	529.66	3559.04	2485.65	50.121
188.00	387.75	2465.96	1680.15	45.159	258.00	531.71	3574.35	2496.82	50.181
189.00	389.82	2482.36	1692.37	45.246	259.00	533.75	3589.65	2507.97	50.240
190.00	391.89	2498.75	1704.57	45.333	260.00	535.80	3604.93	2519.10	50.299
191.00	393.95	2515.12	1716.75	45.419	261.00	537.85	3620.20	2530.22	50.358
192.00	396.02	2531.48	1728.93	45.504	262.00	539.89	3635.45	2541.33	50.416
193.00	398.08	2547.82	1741.09	45.589	263.00	541.94	3650.69	2552.43	50.474
194.00	400.15	2564.15	1753.23	45.674	264.00	543.98	3665.92	2563.51	50.532
195.00	402.21	2580.47	1765.36	45.757	265.00	546.03	3681.13	2574.57	50.589
196.00	404.28	2596.77	1777.48	45.841	266.00	548.07	3696.33	2585.63	50.646
197.00	406.34	2613.05	1789.58	45.924	267.00	550.12	3711.51	2596.67	50.703
198.00	408.40	2629.32	1801.67	46.006	268.00	552.16	3726.69	2607.70	50.760
199.00	410.47	2645.58	1813.74	46.088	269.00	554.21	3741.85	2618.72	50.817
200.00	412.53	2661.81	1825.80	46.169	270.00	556.25	3757.00	2629.72	50.873
201.00	414.59	2678.02	1837.83	46.250	271.00	558.30	3772.13	2640.72	50.929
202.00	416.66	2694.22	1849.84	46.331	272.00	560.34	3787.26	2651.70	50.984
203.00	418.72	2710.39	1861.84	46.410	273.00	562.38	3802.37	2662.67	51.040
204.00	420.78	2726.55	1873.83	46.490	274.00	564.43	3817.47	2673.63	51.095
205.00	422.84	2742.70	1885.79	46.569	275.00	566.47	3832.57	2684.58	51.150
206.00	424.90	2758.82	1897.74	46.647	276.00	568.52	3847.65	2695.51	51.205
207.00	426.96	2774.93	1909.68	46.725	277.00	570.56	3862.72	2706.44	51.259
208.00	429.02	2791.02	1921.59	46.803	278.00	572.61	3877.78	2717.36	51.314
209.00	431.08	2807.10	1933.49	46.880	279.00	574.65	3892.83	2728.27	51.368
210.00	433.14	2823.15	1945.37	46.957	280.00	576.70	3907.87	2739.17	51.422
211.00	435.20	2839.19	1957.24	47.033	281.00	578.74	3922.91	2750.06	51.475
212.00	437.26	2855.21	1969.09	47.109	282.00	580.79	3937.94	2760.94	51.529
213.00	439.31	2871.21	1980.92	47.184	283.00	582.84	3952.96	2771.81	51.582
214.00	441.37	2887.20	1992.73	47.259	284.00	584.88	3967.97	2782.67	51.635
215.00	443.43	2903.17	2004.53	47.333	285.00	586.93	3982.98	2793.53	51.687
216.00	445.49	2919.12	2016.31	47.407	286.00	588.98	3997.98	2804.38	51.740
217.00	447.55	2935.05	2028.07	47.481	287.00	591.02	4012.97	2815.23	51.792
218.00	449.61	2950.97	2039.82	47.554	288.00	593.07	4027.96	2826.07	51.844
219.00	451.66	2966.87	2051.55	47.627	289.00	595.12	4042.95	2836.90	51.896
220.00	453.72	2982.75	2063.26	47.699	290.00	597.17	4057.93	2847.73	51.948
221.00	455.78	2998.61	2074.96	47.771	291.00	599.22	4072.90	2858.55	52.000
222.00	457.83	3014.46	2086.64	47.843	292.00	601.27	4087.88	2869.37	52.051
223.00	459.89	3030.29	2098.30	47.914	293.00	603.32	4102.85	2880.18	52.102
224.00	461.95	3046.10	2109.94	47.984	294.00	605.37	4117.81	2890.99	52.153
225.00	464.00	3061.90	2121.57	48.055	295.00	607.43	4132.77	2901.79	52.204
226.00	466.06	3077.68	2133.18	48.125	296.00	609.48	4147.73	2912.60	52.255
227.00	468.11	3093.44	2144.78	48.194	297.00	611.53	4162.69	2923.39	52.305
228.00	470.17	3109.18	2156.36	48.264	298.00	613.58	4177.65	2934.19	52.355
229.00	472.23	3124.91	2167.92	48.332	299.00	615.64	4192.60	2944.98	52.405
230.00	474.28	3140.62	2179.47	48.401	300.00	617.69	4207.55	2955.76	52.455

25.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.52	-234.26	-268.51	7.413					
21.00	13.69	-225.34	-260.03	7.851	91.00	146.56	932.02	560.76	32.885
22.00	13.89	-215.94	-251.11	8.286	92.00	148.36	945.73	569.93	33.035
23.00	14.09	-206.03	-241.73	8.728	93.00	150.14	959.49	579.17	33.184
24.00	14.32	-195.59	-231.86	9.174	94.00	151.92	973.32	588.48	33.332
25.00	14.57	-184.56	-221.45	9.623	95.00	153.70	987.21	597.86	33.479
26.00	14.84	-172.90	-210.48	10.079	96.00	155.48	1001.16	607.31	33.625
27.00	15.14	-160.54	-198.88	10.545	97.00	157.25	1015.17	616.84	33.770
28.00	15.47	-147.40	-186.59	11.025	98.00	159.02	1029.24	626.44	33.914
29.00	15.85	-133.38	-173.52	11.514	99.00	160.78	1043.38	636.10	34.058
30.00	16.27	-118.43	-159.66	12.021	100.00	162.54	1057.58	645.84	34.200
31.00	16.77	-102.26	-144.73	12.552	101.00	164.30	1071.82	655.63	34.342
32.00	17.35	-84.69	-128.64	13.112	102.00	166.04	1086.11	665.49	34.483
33.00	18.10	-66.00	-111.86	13.699	103.00	167.79	1100.47	675.44	34.623
34.00	18.96	-44.41	-92.44	14.345	104.00	169.53	1114.90	685.45	34.762
35.00	20.06	-19.83	-70.66	15.056	105.00	171.26	1129.39	695.54	34.901
36.00	21.56	8.73	-45.89	15.858	106.00	173.00	1143.94	705.70	35.039
37.00	23.72	42.83	-17.25	16.790	107.00	174.73	1158.56	715.93	35.176
38.00	26.85	82.99	14.97	17.860	108.00	176.46	1173.25	726.23	35.313
39.00	30.81	124.84	46.79	18.947	109.00	178.19	1188.00	736.60	35.449
40.00	34.90	161.66	73.26	19.880	110.00	179.92	1202.81	747.04	35.584
41.00	38.72	192.73	94.65	20.647	111.00	181.64	1217.68	757.55	35.719
42.00	42.25	219.56	112.53	21.294	112.00	183.36	1232.61	768.12	35.853
43.00	45.54	243.45	128.10	21.856	113.00	185.09	1247.61	778.75	35.986
44.00	48.64	265.27	142.06	22.358	114.00	186.81	1262.66	789.45	36.119
45.00	51.58	285.55	154.88	22.814	115.00	188.53	1277.78	800.20	36.251
46.00	54.41	304.67	166.85	23.234	116.00	190.25	1292.95	811.02	36.382
47.00	57.13	322.86	178.15	23.625	117.00	191.96	1308.18	821.90	36.513
48.00	59.76	340.31	188.93	23.993	118.00	193.68	1323.47	832.84	36.643
49.00	62.32	357.16	199.30	24.340	119.00	195.40	1338.82	843.83	36.772
50.00	64.81	373.49	209.32	24.670	120.00	197.12	1354.21	854.88	36.901
51.00	67.25	389.40	219.05	24.985	121.00	198.83	1369.66	865.98	37.029
52.00	69.63	404.93	228.54	25.287	122.00	200.55	1385.15	877.12	37.157
53.00	71.97	420.14	237.82	25.576	123.00	202.27	1400.70	888.32	37.284
54.00	74.27	435.07	246.93	25.855	124.00	203.98	1416.30	899.57	37.410
55.00	76.53	449.75	255.88	26.125	125.00	205.70	1431.95	910.87	37.536
56.00	78.76	464.22	264.70	26.386	126.00	207.40	1447.65	922.27	37.661
57.00	80.96	478.49	273.41	26.638	127.00	209.10	1463.41	933.71	37.785
58.00	83.13	492.59	282.02	26.883	128.00	210.80	1479.21	945.21	37.909
59.00	85.27	506.55	290.54	27.122	129.00	212.50	1495.06	956.76	38.033
60.00	87.39	520.36	298.99	27.354	130.00	214.19	1510.95	968.35	38.155
61.00	89.49	534.06	307.37	27.581	131.00	215.89	1526.89	980.00	38.278
62.00	91.57	547.65	315.71	27.802	132.00	217.59	1542.87	991.68	38.399
63.00	93.62	561.15	324.00	28.018	133.00	219.28	1558.89	1003.42	38.520
64.00	95.66	574.56	332.25	28.229	134.00	220.97	1574.96	1015.19	38.640
65.00	97.68	587.91	340.47	28.436	135.00	222.66	1591.06	1027.01	38.760
66.00	99.69	601.19	348.67	28.639	136.00	224.35	1607.20	1038.87	38.879
67.00	101.68	614.42	356.85	28.837	137.00	226.04	1623.38	1050.76	38.998
68.00	103.66	627.60	365.02	29.033	138.00	227.73	1639.59	1062.70	39.116
69.00	105.62	640.75	373.20	29.225	139.00	229.42	1655.84	1074.67	39.233
70.00	107.57	653.86	381.37	29.413	140.00	231.11	1672.12	1086.67	39.350
71.00	109.51	666.95	389.55	29.599	141.00	232.80	1688.44	1098.71	39.466
72.00	111.44	680.03	397.74	29.782	142.00	234.49	1704.78	1110.78	39.581
73.00	113.36	693.10	405.95	29.962	143.00	236.17	1721.15	1122.88	39.696
74.00	115.27	706.16	414.18	30.140	144.00	237.86	1737.55	1135.01	39.810
75.00	117.16	719.23	422.43	30.315	145.00	239.54	1753.97	1147.16	39.924
76.00	119.05	732.30	430.71	30.488	146.00	241.23	1770.42	1159.35	40.037
77.00	120.94	745.38	439.03	30.659	147.00	242.91	1786.89	1171.55	40.150
78.00	122.81	758.48	447.39	30.828	148.00	244.60	1803.39	1183.78	40.261
79.00	124.67	771.60	455.78	30.996	149.00	246.28	1819.90	1196.03	40.373
80.00	126.53	784.74	464.22	31.161	150.00	247.96	1836.43	1208.30	40.483
81.00	128.38	797.92	472.71	31.325	151.00	249.64	1852.92	1220.54	40.593
82.00	130.23	811.12	481.24	31.487	152.00	251.32	1869.43	1232.80	40.702
83.00	132.06	824.37	489.84	31.647	153.00	252.99	1885.94	1245.07	40.810
84.00	133.90	837.65	498.48	31.806	154.00	254.67	1902.47	1257.35	40.918
85.00	135.72	850.98	507.19	31.964	155.00	256.34	1919.01	1269.65	41.025
86.00	137.54	864.36	515.95	32.121	156.00	258.02	1935.56	1281.95	41.131
87.00	139.36	877.79	524.78	32.276	157.00	259.69	1952.12	1294.27	41.237
88.00	141.17	891.26	533.67	32.430	158.00	261.37	1968.68	1306.59	41.342
89.00	142.97	904.79	542.64	32.583	159.00	263.04	1985.26	1318.93	41.447
90.00	144.77	918.38	551.66	32.734	160.00	264.71	2001.83	1331.27	41.551

25.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	266.38	2018.42	1343.62	41.654	231.00	382.39	3157.05	2188.39	47.537
162.00	268.05	2035.00	1355.97	41.757	232.00	384.03	3172.75	2199.92	47.604
163.00	269.73	2051.60	1368.33	41.859	233.00	385.68	3188.44	2211.44	47.672
164.00	271.40	2068.19	1380.69	41.960	234.00	387.33	3204.11	2222.94	47.739
165.00	273.07	2084.78	1393.05	42.061	235.00	388.97	3219.76	2234.42	47.806
166.00	274.74	2101.38	1405.42	42.161	236.00	390.62	3235.40	2245.89	47.872
167.00	276.41	2117.97	1417.78	42.261	237.00	392.26	3251.02	2257.34	47.938
168.00	278.08	2134.57	1430.15	42.360	238.00	393.91	3266.62	2268.77	48.004
169.00	279.74	2151.16	1442.52	42.459	239.00	395.56	3282.21	2280.19	48.069
170.00	281.41	2167.76	1454.88	42.557	240.00	397.20	3297.78	2291.60	48.134
171.00	283.08	2184.35	1467.25	42.654	241.00	398.84	3313.34	2302.99	48.199
172.00	284.74	2200.94	1479.62	42.751	242.00	400.49	3328.88	2314.36	48.263
173.00	286.41	2217.52	1491.99	42.847	243.00	402.13	3344.40	2325.72	48.327
174.00	288.07	2234.10	1504.35	42.942	244.00	403.78	3359.91	2337.06	48.391
175.00	289.74	2250.67	1516.71	43.037	245.00	405.42	3375.40	2348.39	48.454
176.00	291.40	2267.24	1529.07	43.132	246.00	407.06	3390.88	2359.70	48.517
177.00	293.06	2283.80	1541.41	43.226	247.00	408.71	3406.34	2371.00	48.580
178.00	294.73	2300.36	1553.76	43.319	248.00	410.35	3421.78	2382.29	48.643
179.00	296.39	2316.90	1566.09	43.411	249.00	411.99	3437.21	2393.56	48.705
180.00	298.05	2333.44	1578.42	43.504	250.00	413.63	3452.63	2404.81	48.766
181.00	299.71	2349.97	1590.74	43.595	251.00	415.28	3468.07	2416.09	48.828
182.00	301.37	2366.49	1603.05	43.686	252.00	416.92	3483.49	2427.35	48.889
183.00	303.03	2383.00	1615.35	43.777	253.00	418.56	3498.89	2438.60	48.950
184.00	304.69	2399.50	1627.65	43.867	254.00	420.20	3514.28	2449.83	49.011
185.00	306.35	2415.98	1639.93	43.956	255.00	421.84	3529.66	2461.05	49.071
186.00	308.01	2432.46	1652.20	44.045	256.00	423.48	3545.02	2472.26	49.132
187.00	309.67	2448.92	1664.46	44.133	257.00	425.12	3560.36	2483.45	49.191
188.00	311.33	2465.37	1676.71	44.221	258.00	426.76	3575.70	2494.62	49.251
189.00	312.99	2481.81	1688.95	44.308	259.00	428.40	3591.01	2505.78	49.310
190.00	314.65	2498.24	1701.17	44.395	260.00	430.04	3606.31	2516.93	49.369
191.00	316.31	2514.65	1713.38	44.481	261.00	431.68	3621.60	2528.07	49.428
192.00	317.96	2531.04	1725.58	44.566	262.00	433.32	3636.88	2539.19	49.486
193.00	319.62	2547.42	1737.76	44.651	263.00	434.96	3652.14	2550.29	49.544
194.00	321.28	2563.79	1749.93	44.736	264.00	436.60	3667.38	2561.39	49.602
195.00	322.93	2580.14	1762.09	44.820	265.00	438.24	3682.61	2572.47	49.660
196.00	324.59	2596.48	1774.23	44.904	266.00	439.88	3697.83	2583.53	49.717
197.00	326.25	2612.80	1786.35	44.987	267.00	441.52	3713.04	2594.59	49.774
198.00	327.90	2629.10	1798.46	45.069	268.00	443.16	3728.23	2605.63	49.831
199.00	329.56	2645.39	1810.55	45.151	269.00	444.79	3743.41	2616.66	49.888
200.00	331.21	2661.66	1822.63	45.233	270.00	446.43	3758.57	2627.67	49.944
201.00	332.87	2677.90	1834.68	45.314	271.00	448.07	3773.73	2638.67	50.000
202.00	334.52	2694.13	1846.72	45.394	272.00	449.71	3788.87	2649.67	50.056
203.00	336.18	2710.34	1858.74	45.474	273.00	451.35	3804.00	2660.64	50.111
204.00	337.83	2726.53	1870.74	45.554	274.00	452.99	3819.12	2671.61	50.166
205.00	339.48	2742.70	1882.73	45.633	275.00	454.63	3834.22	2682.57	50.221
206.00	341.14	2758.86	1894.70	45.712	276.00	456.26	3849.32	2693.51	50.276
207.00	342.79	2775.00	1906.65	45.790	277.00	457.90	3864.41	2704.45	50.331
208.00	344.44	2791.12	1918.59	45.868	278.00	459.54	3879.48	2715.37	50.385
209.00	346.09	2807.23	1930.51	45.945	279.00	461.18	3894.55	2726.29	50.439
210.00	347.75	2823.31	1942.41	46.022	280.00	462.82	3909.61	2737.20	50.493
211.00	349.40	2839.38	1954.29	46.098	281.00	464.46	3924.66	2748.09	50.547
212.00	351.05	2855.43	1966.16	46.174	282.00	466.10	3939.70	2758.98	50.600
213.00	352.70	2871.46	1978.01	46.249	283.00	467.74	3954.73	2769.86	50.653
214.00	354.35	2887.48	1989.84	46.324	284.00	469.38	3969.76	2780.73	50.706
215.00	356.00	2903.48	2001.66	46.399	285.00	471.02	3984.77	2791.60	50.759
216.00	357.65	2919.46	2013.45	46.473	286.00	472.66	3999.79	2802.45	50.812
217.00	359.30	2935.42	2025.23	46.547	287.00	474.30	4014.79	2813.31	50.864
218.00	360.95	2951.36	2037.00	46.620	288.00	475.94	4029.79	2824.15	50.916
219.00	362.60	2967.29	2048.74	46.693	289.00	477.58	4044.79	2834.99	50.968
220.00	364.25	2983.20	2060.47	46.765	290.00	479.22	4059.78	2845.82	51.020
221.00	365.90	2999.09	2072.19	46.838	291.00	480.86	4074.77	2856.65	51.072
222.00	367.55	3014.96	2083.88	46.909	292.00	482.50	4089.75	2867.48	51.123
223.00	369.20	3030.82	2095.56	46.980	293.00	484.14	4104.73	2878.30	51.174
224.00	370.85	3046.66	2107.22	47.051	294.00	485.79	4119.70	2889.11	51.225
225.00	372.50	3062.48	2118.87	47.122	295.00	487.43	4134.68	2899.93	51.276
226.00	374.15	3078.28	2130.50	47.192	296.00	489.07	4149.65	2910.74	51.327
227.00	375.80	3094.07	2142.11	47.262	297.00	490.71	4164.61	2921.54	51.377
228.00	377.44	3109.84	2153.70	47.331	298.00	492.36	4179.58	2932.34	51.428
229.00	379.09	3125.59	2165.28	47.400	299.00	494.00	4194.54	2943.14	51.478
230.00	380.74	3141.33	2176.85	47.468	300.00	495.64	4209.49	2953.94	51.528

30.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.43	-229.11	-269.92	7.329					
21.00	13.59	-220.32	-261.64	7.761	91.00	122.08	923.77	552.67	32.051
22.00	13.77	-211.08	-252.95	8.188	92.00	123.60	937.68	561.97	32.203
23.00	13.97	-201.36	-243.82	8.622	93.00	125.11	951.63	571.33	32.354
24.00	14.18	-191.14	-234.24	9.059	94.00	126.62	965.64	580.76	32.504
25.00	14.41	-180.37	-224.17	9.497	95.00	128.12	979.71	590.26	32.652
26.00	14.66	-169.02	-213.58	9.941	96.00	129.62	993.84	599.83	32.800
27.00	14.93	-157.03	-202.43	10.393	97.00	131.12	1008.02	609.46	32.947
28.00	15.24	-144.36	-190.68	10.855	98.00	132.61	1022.26	619.17	33.093
29.00	15.57	-130.93	-178.26	11.324	99.00	134.10	1036.56	628.94	33.239
30.00	15.94	-116.73	-165.20	11.806	100.00	135.58	1050.92	638.78	33.383
31.00	16.37	-101.54	-151.29	12.304	101.00	137.06	1065.32	648.67	33.526
32.00	16.85	-85.30	-136.51	12.822	102.00	138.54	1079.79	658.66	33.669
33.00	17.47	-68.29	-121.39	13.357	103.00	140.01	1094.31	668.71	33.810
34.00	18.12	-49.22	-104.30	13.928	104.00	141.47	1108.89	678.83	33.951
35.00	18.90	-28.35	-85.81	14.532	105.00	142.94	1123.54	689.03	34.091
36.00	19.86	-5.50	-65.87	15.173	106.00	144.40	1138.24	699.29	34.231
37.00	21.05	19.69	-44.31	15.860	107.00	145.86	1153.01	709.62	34.369
38.00	22.58	47.56	-21.07	16.603	108.00	147.32	1167.83	720.02	34.507
39.00	24.51	78.32	3.80	17.402	109.00	148.77	1182.72	730.48	34.645
40.00	26.87	110.43	28.74	18.215	110.00	150.22	1197.65	741.00	34.781
41.00	29.53	142.11	52.33	18.997	111.00	151.67	1212.65	751.59	34.917
42.00	32.30	171.79	73.60	19.712	112.00	153.12	1227.70	762.23	35.052
43.00	35.05	198.99	92.45	20.353	113.00	154.57	1242.81	772.94	35.186
44.00	37.71	223.91	109.28	20.926	114.00	156.02	1257.97	783.70	35.319
45.00	40.28	246.95	124.51	21.444	115.00	157.46	1273.18	794.52	35.452
46.00	42.76	268.47	138.50	21.917	116.00	158.91	1288.45	805.39	35.585
47.00	45.15	288.77	151.54	22.353	117.00	160.35	1303.77	816.32	35.716
48.00	47.46	308.08	163.81	22.760	118.00	161.80	1319.14	827.31	35.847
49.00	49.71	326.58	175.48	23.141	119.00	163.24	1334.56	838.34	35.977
50.00	51.90	344.40	186.64	23.501	120.00	164.68	1350.03	849.43	36.106
51.00	54.03	361.64	197.40	23.843	121.00	166.13	1365.54	860.55	36.235
52.00	56.12	378.40	207.81	24.168	122.00	167.57	1381.10	871.73	36.363
53.00	58.17	394.73	217.92	24.479	123.00	169.01	1396.71	882.95	36.491
54.00	60.17	410.70	227.79	24.778	124.00	170.45	1412.37	894.22	36.617
55.00	62.14	426.34	237.43	25.065	125.00	171.89	1428.07	905.54	36.744
56.00	64.08	441.70	246.90	25.341	126.00	173.32	1443.85	916.98	36.869
57.00	65.99	456.80	256.20	25.609	127.00	174.75	1459.67	928.47	36.994
58.00	67.87	471.68	265.36	25.868	128.00	176.17	1475.54	940.01	37.119
59.00	69.73	486.37	274.40	26.119	129.00	177.60	1491.46	951.59	37.243
60.00	71.57	500.88	283.33	26.363	130.00	179.02	1507.42	963.23	37.366
61.00	73.38	515.22	292.17	26.600	131.00	180.44	1523.43	974.91	37.489
62.00	75.17	529.43	300.93	26.831	132.00	181.86	1539.47	986.64	37.611
63.00	76.94	543.51	309.62	27.056	133.00	183.28	1555.56	998.41	37.732
64.00	78.70	557.48	318.26	27.276	134.00	184.70	1571.69	1010.23	37.853
65.00	80.44	571.35	326.84	27.491	135.00	186.12	1587.86	1022.08	37.973
66.00	82.16	585.14	335.39	27.702	136.00	187.54	1604.07	1033.98	38.093
67.00	83.87	598.84	343.90	27.908	137.00	188.96	1620.32	1045.92	38.212
68.00	85.57	612.48	352.38	28.110	138.00	190.37	1636.60	1057.89	38.330
69.00	87.25	626.07	360.85	28.308	139.00	191.79	1652.91	1069.90	38.448
70.00	88.92	639.60	369.30	28.503	140.00	193.21	1669.26	1081.94	38.565
71.00	90.58	653.10	377.75	28.694	141.00	194.62	1685.64	1094.02	38.682
72.00	92.23	666.56	386.20	28.883	142.00	196.04	1702.05	1106.13	38.798
73.00	93.87	680.00	394.66	29.068	143.00	197.45	1718.49	1118.27	38.913
74.00	95.50	693.42	403.13	29.250	144.00	198.86	1734.96	1130.44	39.028
75.00	97.12	706.82	411.61	29.430	145.00	200.28	1751.45	1142.64	39.142
76.00	98.73	720.23	420.12	29.608	146.00	201.69	1767.96	1154.86	39.255
77.00	100.33	733.63	428.65	29.783	147.00	203.10	1784.50	1167.10	39.368
78.00	101.93	747.04	437.20	29.956	148.00	204.52	1801.06	1179.37	39.481
79.00	103.51	760.45	445.80	30.127	149.00	205.93	1817.64	1191.66	39.592
80.00	105.09	773.88	454.42	30.296	150.00	207.34	1834.24	1203.97	39.703
81.00	106.67	787.34	463.09	30.463	151.00	208.74	1850.79	1216.24	39.813
82.00	108.23	800.81	471.80	30.628	152.00	210.15	1867.35	1228.53	39.923
83.00	109.79	814.32	480.57	30.792	153.00	211.55	1883.92	1240.84	40.031
84.00	111.35	827.85	489.38	30.954	154.00	212.96	1900.51	1253.15	40.139
85.00	112.90	841.42	498.24	31.115	155.00	214.36	1917.10	1265.48	40.247
86.00	114.44	855.03	507.16	31.274	156.00	215.76	1933.70	1277.82	40.353
87.00	115.98	868.69	516.14	31.432	157.00	217.16	1950.31	1290.17	40.460
88.00	117.51	882.38	525.18	31.588	158.00	218.57	1966.93	1302.53	40.565
89.00	119.04	896.13	534.28	31.744	159.00	219.97	1983.55	1314.89	40.670
90.00	120.56	909.93	543.44	31.898	160.00	221.37	2000.18	1327.26	40.774

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	222.77	2016.82	1339.64	40.878	231.00	319.73	3157.85	2185.92	46.773
162.00	224.17	2033.45	1352.03	40.981	232.00	321.11	3173.58	2197.47	46.841
163.00	225.57	2050.09	1364.41	41.083	233.00	322.48	3189.29	2209.00	46.909
164.00	226.96	2066.73	1376.80	41.185	234.00	323.86	3204.98	2220.51	46.976
165.00	228.36	2083.38	1389.20	41.286	235.00	325.23	3220.66	2232.01	47.043
166.00	229.76	2100.02	1401.59	41.387	236.00	326.61	3236.32	2243.49	47.109
167.00	231.16	2116.66	1413.98	41.487	237.00	327.98	3251.96	2254.96	47.175
168.00	232.55	2133.30	1426.38	41.586	238.00	329.35	3267.59	2266.41	47.241
169.00	233.95	2149.94	1438.77	41.685	239.00	330.73	3283.20	2277.85	47.307
170.00	235.35	2166.58	1451.17	41.783	240.00	332.10	3298.80	2289.27	47.372
171.00	236.74	2183.21	1463.56	41.881	241.00	333.47	3314.38	2300.68	47.437
172.00	238.13	2199.84	1475.96	41.978	242.00	334.85	3329.94	2312.07	47.501
173.00	239.53	2216.47	1488.35	42.074	243.00	336.22	3345.49	2323.44	47.565
174.00	240.92	2233.09	1500.74	42.170	244.00	337.59	3361.02	2334.80	47.629
175.00	242.31	2249.71	1513.13	42.265	245.00	338.96	3376.53	2346.14	47.692
176.00	243.70	2266.32	1525.51	42.360	246.00	340.33	3392.03	2357.47	47.755
177.00	245.09	2282.92	1537.88	42.454	247.00	341.71	3407.52	2368.79	47.818
178.00	246.48	2299.51	1550.25	42.547	248.00	343.08	3422.98	2380.09	47.881
179.00	247.87	2316.10	1562.61	42.640	249.00	344.45	3438.44	2391.37	47.943
180.00	249.26	2332.68	1574.96	42.732	250.00	345.82	3453.87	2402.64	48.005
181.00	250.65	2349.24	1587.30	42.824	251.00	347.19	3469.33	2413.93	48.067
182.00	252.04	2365.80	1599.64	42.915	252.00	348.56	3484.77	2425.21	48.128
183.00	253.43	2382.35	1611.97	43.006	253.00	349.93	3500.20	2436.47	48.189
184.00	254.82	2398.88	1624.28	43.096	254.00	351.30	3515.61	2447.72	48.250
185.00	256.21	2415.41	1636.59	43.186	255.00	352.67	3531.00	2458.95	48.310
186.00	257.59	2431.92	1648.88	43.275	256.00	354.04	3546.38	2470.17	48.370
187.00	258.98	2448.42	1661.16	43.363	257.00	355.41	3561.75	2481.37	48.430
188.00	260.37	2464.90	1673.43	43.451	258.00	356.78	3577.10	2492.56	48.490
189.00	261.75	2481.38	1685.69	43.539	259.00	358.15	3592.44	2503.73	48.549
190.00	263.14	2497.84	1697.94	43.625	260.00	359.52	3607.76	2514.89	48.608
191.00	264.53	2514.28	1710.17	43.712	261.00	360.88	3623.06	2526.04	48.667
192.00	265.91	2530.71	1722.39	43.798	262.00	362.25	3638.36	2537.17	48.726
193.00	267.30	2547.12	1734.59	43.883	263.00	363.62	3653.63	2548.29	48.784
194.00	268.68	2563.52	1746.78	43.968	264.00	364.99	3668.90	2559.39	48.842
195.00	270.07	2579.91	1758.95	44.052	265.00	366.36	3684.15	2570.48	48.899
196.00	271.45	2596.28	1771.11	44.135	266.00	367.72	3699.38	2581.56	48.957
197.00	272.83	2612.63	1783.26	44.219	267.00	369.09	3714.60	2592.63	49.014
198.00	274.22	2628.96	1795.39	44.301	268.00	370.46	3729.81	2603.68	49.071
199.00	275.60	2645.28	1807.50	44.384	269.00	371.83	3745.01	2614.71	49.127
200.00	276.98	2661.58	1819.60	44.465	270.00	373.20	3760.19	2625.74	49.184
201.00	278.37	2677.86	1831.67	44.547	271.00	374.56	3775.36	2636.75	49.240
202.00	279.75	2694.12	1843.72	44.627	272.00	375.93	3790.52	2647.75	49.296
203.00	281.13	2710.36	1855.76	44.707	273.00	377.30	3805.66	2658.74	49.351
204.00	282.51	2726.58	1867.79	44.787	274.00	378.67	3820.80	2669.71	49.406
205.00	283.89	2742.78	1879.79	44.866	275.00	380.03	3835.92	2680.68	49.462
206.00	285.28	2758.97	1891.78	44.945	276.00	381.40	3851.03	2691.63	49.516
207.00	286.66	2775.14	1903.75	45.023	277.00	382.77	3866.13	2702.58	49.571
208.00	288.04	2791.29	1915.71	45.101	278.00	384.14	3881.22	2713.51	49.625
209.00	289.42	2807.42	1927.64	45.179	279.00	385.51	3896.31	2724.43	49.680
210.00	290.80	2823.54	1939.56	45.256	280.00	386.87	3911.38	2735.34	49.734
211.00	292.18	2839.64	1951.47	45.332	281.00	388.24	3926.44	2746.25	49.787
212.00	293.56	2855.72	1963.35	45.408	282.00	389.61	3941.49	2757.14	49.841
213.00	294.94	2871.78	1975.22	45.484	283.00	390.98	3956.54	2768.03	49.894
214.00	296.32	2887.82	1987.07	45.559	284.00	392.35	3971.58	2778.91	49.947
215.00	297.70	2903.85	1998.90	45.634	285.00	393.72	3986.61	2789.78	50.000
216.00	299.07	2919.86	2010.72	45.708	286.00	395.08	4001.63	2800.64	50.052
217.00	300.45	2935.84	2022.52	45.782	287.00	396.45	4016.65	2811.50	50.105
218.00	301.83	2951.82	2034.30	45.855	288.00	397.82	4031.66	2822.35	50.157
219.00	303.21	2967.77	2046.06	45.928	289.00	399.19	4046.67	2833.20	50.209
220.00	304.59	2983.71	2057.81	46.001	290.00	400.56	4061.67	2844.04	50.261
221.00	305.97	2999.63	2069.54	46.073	291.00	401.93	4076.67	2854.88	50.313
222.00	307.34	3015.53	2081.25	46.145	292.00	403.30	4091.66	2865.71	50.364
223.00	308.72	3031.41	2092.95	46.216	293.00	404.67	4106.65	2876.54	50.415
224.00	310.10	3047.27	2104.63	46.287	294.00	406.03	4121.64	2887.36	50.466
225.00	311.47	3063.12	2116.29	46.358	295.00	407.40	4136.62	2898.18	50.517
226.00	312.85	3078.95	2127.94	46.428	296.00	408.77	4151.60	2909.00	50.568
227.00	314.23	3094.77	2139.57	46.498	297.00	410.14	4166.58	2919.82	50.618
228.00	315.60	3110.56	2151.18	46.567	298.00	411.51	4181.55	2930.63	50.669
229.00	316.98	3126.34	2162.78	46.636	299.00	412.88	4196.52	2941.44	50.719
230.00	318.36	3142.10	2174.36	46.705	300.00	414.25	4211.48	2952.25	50.769

35.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.34	-223.92	-271.23	7.250					
21.00	13.50	-215.26	-263.13	7.675	91.00	104.66	915.85	544.67	31.335
22.00	13.67	-206.16	-254.64	8.095	92.00	105.98	929.94	554.09	31.489
23.00	13.85	-196.61	-245.74	8.523	93.00	107.29	944.08	563.58	31.642
24.00	14.05	-186.58	-236.41	8.951	94.00	108.60	958.27	573.13	31.794
25.00	14.27	-176.03	-226.63	9.379	95.00	109.91	972.51	582.74	31.945
26.00	14.50	-164.95	-216.37	9.813	96.00	111.21	986.81	592.43	32.094
27.00	14.75	-153.28	-205.60	10.253	97.00	112.51	1001.16	602.17	32.243
28.00	15.03	-140.99	-194.29	10.702	98.00	113.80	1015.57	611.98	32.391
29.00	15.33	-128.02	-182.39	11.154	99.00	115.09	1030.02	621.86	32.537
30.00	15.66	-114.39	-169.94	11.617	100.00	116.38	1044.53	631.80	32.683
31.00	16.04	-99.91	-156.78	12.092	101.00	117.66	1059.10	641.81	32.828
32.00	16.45	-84.59	-142.93	12.581	102.00	118.94	1073.74	651.92	32.972
33.00	16.98	-68.70	-128.93	13.080	103.00	120.21	1088.44	662.10	33.116
34.00	17.52	-51.16	-113.27	13.605	104.00	121.49	1103.20	672.35	33.258
35.00	18.13	-32.32	-96.62	14.150	105.00	122.75	1118.01	682.67	33.400
36.00	18.85	-12.21	-79.05	14.715	106.00	124.02	1132.87	693.04	33.541
37.00	19.69	9.28	-60.56	15.301	107.00	125.28	1147.79	703.48	33.681
38.00	20.70	32.24	-41.17	15.913	108.00	126.54	1162.76	713.98	33.820
39.00	21.91	56.95	-20.74	16.555	109.00	127.80	1177.78	724.54	33.959
40.00	23.34	82.81	.04	17.209	110.00	129.06	1192.85	735.16	34.096
41.00	25.01	109.55	20.87	17.869	111.00	130.31	1207.97	745.82	34.233
42.00	26.88	136.54	41.21	18.520	112.00	131.56	1223.13	756.55	34.369
43.00	28.89	163.03	60.57	19.143	113.00	132.82	1238.35	767.32	34.504
44.00	30.97	188.49	78.65	19.728	114.00	134.07	1255.60	778.14	34.639
45.00	33.07	212.67	95.40	20.272	115.00	135.32	1268.91	789.01	34.773
46.00	35.15	235.58	110.93	20.776	116.00	136.57	1284.25	799.93	34.905
47.00	37.20	257.33	125.41	21.243	117.00	137.81	1299.64	810.89	35.038
48.00	39.20	278.05	139.01	21.680	118.00	139.06	1315.08	821.90	35.169
49.00	41.17	297.88	151.88	22.088	119.00	140.31	1330.56	832.96	35.300
50.00	43.09	316.94	164.14	22.474	120.00	141.56	1346.08	844.06	35.429
51.00	44.97	335.35	175.88	22.838	121.00	142.80	1361.63	855.19	35.559
52.00	46.81	353.18	187.18	23.184	122.00	144.05	1377.23	866.36	35.687
53.00	48.61	370.52	198.12	23.515	123.00	145.30	1392.87	877.58	35.815
54.00	50.39	387.43	208.74	23.831	124.00	146.54	1408.56	888.85	35.942
55.00	52.13	403.95	219.08	24.134	125.00	147.79	1424.28	900.16	36.068
56.00	53.84	420.13	229.18	24.425	126.00	149.02	1440.12	911.62	36.194
57.00	55.53	436.01	239.08	24.707	127.00	150.25	1456.00	923.14	36.320
58.00	57.19	451.62	248.79	24.978	128.00	151.48	1471.93	934.71	36.445
59.00	58.83	466.99	258.35	25.241	129.00	152.71	1487.91	946.32	36.569
60.00	60.45	482.15	267.76	25.496	130.00	153.94	1503.93	957.99	36.693
61.00	62.05	497.11	277.06	25.743	131.00	155.17	1519.99	969.70	36.816
62.00	63.63	511.90	286.25	25.984	132.00	156.39	1536.10	981.46	36.938
63.00	65.19	526.54	295.34	26.218	133.00	157.62	1552.25	993.27	37.060
64.00	66.74	541.04	304.36	26.446	134.00	158.84	1568.44	1005.12	37.181
65.00	68.27	555.42	313.31	26.669	135.00	160.06	1584.68	1017.02	37.302
66.00	69.79	569.68	322.20	26.887	136.00	161.29	1600.95	1028.95	37.422
67.00	71.29	583.85	331.03	27.100	137.00	162.51	1617.26	1040.93	37.542
68.00	72.78	597.93	339.83	27.308	138.00	163.73	1633.61	1052.94	37.661
69.00	74.26	611.94	348.60	27.513	139.00	164.95	1649.99	1065.00	37.779
70.00	75.72	625.88	357.33	27.713	140.00	166.17	1666.41	1077.09	37.897
71.00	77.18	639.76	366.06	27.910	141.00	167.39	1682.86	1089.21	38.014
72.00	78.62	653.59	374.77	28.104	142.00	168.61	1699.34	1101.37	38.130
73.00	80.06	667.39	383.47	28.294	143.00	169.83	1715.86	1113.55	38.246
74.00	81.48	681.15	392.18	28.481	144.00	171.05	1732.40	1125.77	38.361
75.00	82.90	694.89	400.89	28.666	145.00	172.27	1748.96	1138.01	38.476
76.00	84.31	708.61	409.61	28.848	146.00	173.49	1765.55	1150.29	38.590
77.00	85.71	722.32	418.35	29.027	147.00	174.71	1782.17	1162.58	38.703
78.00	87.10	736.02	427.12	29.204	148.00	175.92	1798.80	1174.90	38.816
79.00	88.49	749.72	435.91	29.378	149.00	177.14	1815.46	1187.24	38.928
80.00	89.87	763.43	444.72	29.551	150.00	178.35	1832.13	1199.60	39.040
81.00	91.24	777.15	453.57	29.721	151.00	179.57	1848.74	1211.91	39.150
82.00	92.61	790.88	462.46	29.889	152.00	180.78	1865.35	1224.24	39.260
83.00	93.97	804.64	471.39	30.056	153.00	181.99	1881.98	1236.58	39.369
84.00	95.32	818.42	480.37	30.221	154.00	183.19	1898.62	1248.93	39.477
85.00	96.67	832.23	489.39	30.385	155.00	184.40	1915.27	1261.29	39.585
86.00	98.02	846.07	498.47	30.546	156.00	185.61	1931.93	1273.67	39.692
87.00	99.36	859.94	507.59	30.707	157.00	186.82	1948.59	1286.05	39.799
88.00	100.69	873.85	516.77	30.866	158.00	188.02	1965.26	1298.44	39.904
89.00	102.02	887.81	526.01	31.024	159.00	189.23	1981.94	1310.84	40.010
90.00	103.34	901.80	535.31	31.180	160.00	190.44	1998.62	1323.24	40.114

35.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	191.64	2015.30	1335.65	40.218	231.00	275.00	3158.65	2183.39	46.126
162.00	192.85	2031.99	1348.06	40.321	232.00	276.18	3174.41	2194.95	46.194
163.00	194.05	2048.67	1360.48	40.424	233.00	277.36	3190.14	2206.50	46.261
164.00	195.25	2065.36	1372.90	40.526	234.00	278.54	3205.86	2218.03	46.329
165.00	196.46	2082.05	1385.31	40.628	235.00	279.72	3221.57	2229.55	46.396
166.00	197.66	2098.73	1397.73	40.728	236.00	280.90	3237.25	2241.05	46.462
167.00	198.86	2115.42	1410.16	40.829	237.00	282.08	3252.92	2252.53	46.528
168.00	200.07	2132.10	1422.57	40.928	238.00	283.26	3268.57	2264.00	46.594
169.00	201.27	2148.78	1434.99	41.027	239.00	284.44	3284.20	2275.45	46.660
170.00	202.47	2165.45	1447.41	41.126	240.00	285.62	3299.82	2286.89	46.725
171.00	203.67	2182.13	1459.83	41.223	241.00	286.80	3315.42	2298.31	46.790
172.00	204.87	2198.80	1472.25	41.321	242.00	287.98	3331.01	2309.71	46.855
173.00	206.06	2215.47	1484.67	41.417	243.00	289.15	3346.58	2321.10	46.919
174.00	207.26	2232.13	1497.08	41.513	244.00	290.33	3362.13	2332.48	46.983
175.00	208.46	2248.79	1509.49	41.609	245.00	291.51	3377.67	2343.83	47.046
176.00	209.66	2265.43	1521.89	41.704	246.00	292.69	3393.19	2355.18	47.109
177.00	210.85	2282.07	1534.29	41.798	247.00	293.87	3408.69	2366.51	47.172
178.00	212.05	2298.70	1546.68	41.892	248.00	295.04	3424.18	2377.82	47.235
179.00	213.24	2315.33	1559.06	41.985	249.00	296.22	3439.65	2389.12	47.297
180.00	214.44	2331.94	1571.43	42.077	250.00	297.40	3455.11	2400.40	47.359
181.00	215.63	2348.54	1583.80	42.169	251.00	298.57	3470.58	2411.70	47.421
182.00	216.83	2365.13	1596.15	42.261	252.00	299.75	3486.04	2422.99	47.482
183.00	218.02	2381.71	1608.50	42.352	253.00	300.93	3501.49	2434.26	47.543
184.00	219.22	2398.28	1620.84	42.442	254.00	302.10	3516.92	2445.52	47.604
185.00	220.41	2414.84	1633.16	42.532	255.00	303.28	3532.33	2456.77	47.665
186.00	221.60	2431.38	1645.47	42.621	256.00	304.45	3547.73	2468.00	47.725
187.00	222.80	2447.91	1657.78	42.709	257.00	305.63	3563.11	2479.21	47.785
188.00	223.99	2464.43	1670.06	42.797	258.00	306.80	3578.48	2490.41	47.845
189.00	225.18	2480.94	1682.34	42.885	259.00	307.98	3593.84	2501.60	47.904
190.00	226.37	2497.43	1694.61	42.972	260.00	309.15	3609.18	2512.77	47.963
191.00	227.56	2513.90	1706.86	43.059	261.00	310.33	3624.50	2523.92	48.022
192.00	228.75	2530.36	1719.09	43.145	262.00	311.50	3639.81	2535.07	48.081
193.00	229.95	2546.81	1731.31	43.230	263.00	312.68	3655.10	2546.20	48.139
194.00	231.14	2563.24	1743.52	43.315	264.00	313.85	3670.38	2557.31	48.197
195.00	232.33	2579.65	1755.72	43.399	265.00	315.03	3685.65	2568.41	48.255
196.00	233.52	2596.05	1767.89	43.483	266.00	316.20	3700.90	2579.50	48.312
197.00	234.71	2612.43	1780.06	43.566	267.00	317.38	3716.14	2590.57	48.369
198.00	235.90	2628.80	1792.20	43.649	268.00	318.55	3731.37	2601.63	48.426
199.00	237.08	2645.15	1804.33	43.732	269.00	319.73	3746.58	2612.68	48.483
200.00	238.27	2661.48	1816.45	43.814	270.00	320.90	3761.78	2623.72	48.539
201.00	239.46	2677.78	1828.54	43.895	271.00	322.07	3776.96	2634.74	48.595
202.00	240.65	2694.07	1840.62	43.976	272.00	323.25	3792.14	2645.75	48.651
203.00	241.84	2710.34	1852.68	44.056	273.00	324.42	3807.30	2656.75	48.707
204.00	243.02	2726.60	1864.72	44.136	274.00	325.60	3822.45	2667.73	48.762
205.00	244.21	2742.83	1876.75	44.215	275.00	326.77	3837.59	2678.71	48.817
206.00	245.40	2759.05	1888.75	44.294	276.00	327.95	3852.72	2689.67	48.872
207.00	246.58	2775.25	1900.75	44.373	277.00	329.12	3867.83	2700.62	48.927
208.00	247.77	2791.43	1912.72	44.451	278.00	330.29	3882.94	2711.56	48.982
209.00	248.96	2807.60	1924.68	44.528	279.00	331.47	3898.03	2722.49	49.036
210.00	250.14	2823.74	1936.62	44.605	280.00	332.64	3913.12	2733.42	49.090
211.00	251.33	2839.87	1948.54	44.682	281.00	333.82	3928.20	2744.33	49.143
212.00	252.51	2855.98	1960.45	44.758	282.00	334.99	3943.27	2755.23	49.197
213.00	253.70	2872.07	1972.33	44.834	283.00	336.16	3958.33	2766.13	49.250
214.00	254.88	2888.15	1984.21	44.909	284.00	337.34	3973.38	2777.02	49.303
215.00	256.07	2904.20	1996.06	44.984	285.00	338.51	3988.43	2787.90	49.356
216.00	257.25	2920.24	2007.90	45.058	286.00	339.69	4003.46	2798.77	49.409
217.00	258.44	2936.26	2019.71	45.132	287.00	340.86	4018.50	2809.64	49.461
218.00	259.62	2952.26	2031.52	45.206	288.00	342.04	4033.52	2820.50	49.514
219.00	260.81	2968.24	2043.30	45.279	289.00	343.21	4048.54	2831.35	49.566
220.00	261.99	2984.21	2055.07	45.352	290.00	344.39	4063.55	2842.20	49.618
221.00	263.17	3000.15	2066.82	45.424	291.00	345.56	4078.56	2853.05	49.669
222.00	264.36	3016.08	2078.55	45.496	292.00	346.73	4093.57	2863.89	49.721
223.00	265.54	3032.00	2090.27	45.568	293.00	347.91	4108.57	2874.72	49.772
224.00	266.72	3047.89	2101.97	45.639	294.00	349.08	4123.56	2885.55	49.823
225.00	267.91	3063.77	2113.65	45.709	295.00	350.26	4138.55	2896.38	49.874
226.00	269.09	3079.62	2125.31	45.780	296.00	351.43	4153.54	2907.21	49.925
227.00	270.27	3095.47	2136.96	45.850	297.00	352.60	4168.53	2918.03	49.975
228.00	271.45	3111.29	2148.59	45.919	298.00	353.78	4183.51	2928.85	50.026
229.00	272.63	3127.09	2160.21	45.988	299.00	354.95	4198.48	2939.66	50.076
230.00	273.82	3142.88	2171.80	46.057	300.00	356.12	4213.45	2950.48	50.126

40.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.26	-218.71	-272.44	7.174					
21.00	13.41	-210.16	-264.50	7.593	91.00	91.66	908.25	536.77	30.707
22.00	13.57	-201.19	-256.20	8.008	92.00	92.82	922.53	546.32	30.863
23.00	13.75	-191.79	-247.50	8.428	93.00	93.99	936.85	555.93	31.018
24.00	13.93	-181.92	-238.40	8.850	94.00	95.14	951.21	565.60	31.171
25.00	14.14	-171.58	-228.88	9.270	95.00	96.30	965.63	575.33	31.324
26.00	14.35	-160.72	-218.90	9.695	96.00	97.45	980.09	585.12	31.475
27.00	14.59	-149.32	-208.46	10.125	97.00	98.60	994.60	594.97	31.626
28.00	14.84	-137.35	-197.51	10.562	98.00	99.75	1009.16	604.89	31.775
29.00	15.12	-124.75	-186.04	11.001	99.00	100.89	1023.77	614.87	31.923
30.00	15.42	-111.58	-174.09	11.448	100.00	102.03	1038.42	624.91	32.071
31.00	15.76	-97.66	-161.52	11.905	101.00	103.16	1053.14	635.01	32.217
32.00	16.12	-83.02	-148.36	12.372	102.00	104.29	1067.91	645.21	32.362
33.00	16.59	-67.93	-135.18	12.846	103.00	105.42	1082.74	655.48	32.507
34.00	17.04	-51.44	-120.53	13.340	104.00	106.54	1097.62	665.81	32.651
35.00	17.56	-33.93	-105.09	13.846	105.00	107.66	1112.55	676.20	32.794
36.00	18.14	-15.48	-88.99	14.364	106.00	108.78	1127.54	686.65	32.936
37.00	18.80	3.92	-72.28	14.893	107.00	109.89	1142.57	697.17	33.077
38.00	19.56	24.27	-55.02	15.435	108.00	111.01	1157.66	707.74	33.217
39.00	20.44	45.79	-37.05	15.994	109.00	112.12	1172.79	718.36	33.357
40.00	21.45	67.99	-18.94	16.556	110.00	113.23	1187.96	729.05	33.495
41.00	22.60	90.92	-.69	17.122	111.00	114.33	1203.19	739.78	33.633
42.00	23.90	114.46	17.58	17.689	112.00	115.44	1218.45	750.56	33.770
43.00	25.34	138.31	35.61	18.251	113.00	116.54	1233.77	761.40	33.906
44.00	26.89	162.13	53.15	18.798	114.00	117.65	1249.12	772.28	34.041
45.00	28.51	185.57	70.01	19.325	115.00	118.75	1264.52	783.21	34.176
46.00	30.18	208.38	86.05	19.826	116.00	119.85	1279.96	794.18	34.310
47.00	31.87	230.45	101.27	20.301	117.00	120.95	1295.44	805.20	34.443
48.00	33.56	251.75	115.72	20.750	118.00	122.05	1310.96	816.27	34.575
49.00	35.24	272.29	129.45	21.173	119.00	123.15	1326.53	827.38	34.706
50.00	36.91	292.14	142.55	21.574	120.00	124.25	1342.13	838.53	34.837
51.00	38.55	311.35	155.11	21.955	121.00	125.35	1357.77	849.71	34.966
52.00	40.17	329.99	167.18	22.316	122.00	126.45	1373.45	860.94	35.095
53.00	41.76	348.11	178.85	22.662	123.00	127.55	1389.17	872.21	35.224
54.00	43.33	365.77	190.14	22.992	124.00	128.64	1404.93	883.52	35.351
55.00	44.88	383.02	201.12	23.308	125.00	129.74	1420.74	894.88	35.478
56.00	46.41	399.90	211.82	23.612	126.00	130.83	1436.65	906.39	35.605
57.00	47.91	416.45	222.27	23.905	127.00	131.91	1452.61	917.96	35.731
58.00	49.39	432.70	232.51	24.188	128.00	132.99	1468.61	929.57	35.857
59.00	50.86	448.68	242.56	24.461	129.00	134.08	1484.66	941.24	35.982
60.00	52.30	464.42	252.45	24.726	130.00	135.16	1500.76	952.95	36.106
61.00	53.73	479.94	262.18	24.982	131.00	136.24	1516.90	964.72	36.230
62.00	55.14	495.26	271.78	25.232	132.00	137.32	1533.08	976.52	36.353
63.00	56.53	510.41	281.27	25.474	133.00	138.39	1549.30	988.38	36.475
64.00	57.92	525.40	290.66	25.710	134.00	139.47	1565.56	1000.27	36.597
65.00	59.28	540.24	299.96	25.940	135.00	140.55	1581.87	1012.21	36.718
66.00	60.64	554.95	309.19	26.165	136.00	141.62	1598.21	1024.19	36.839
67.00	61.98	569.54	318.35	26.384	137.00	142.70	1614.59	1036.21	36.959
68.00	63.31	584.04	327.45	26.599	138.00	143.77	1631.00	1048.27	37.078
69.00	64.63	598.44	336.51	26.809	139.00	144.85	1647.46	1060.37	37.197
70.00	65.93	612.76	345.53	27.015	140.00	145.92	1663.94	1072.50	37.315
71.00	67.23	627.00	354.51	27.217	141.00	147.00	1680.46	1084.67	37.433
72.00	68.52	641.19	363.48	27.416	142.00	148.07	1697.01	1096.86	37.550
73.00	69.80	655.32	372.43	27.610	143.00	149.14	1713.58	1109.09	37.666
74.00	71.07	669.41	381.37	27.802	144.00	150.22	1730.19	1121.35	37.782
75.00	72.33	683.46	390.31	27.991	145.00	151.29	1746.82	1133.63	37.897
76.00	73.58	697.49	399.25	28.177	146.00	152.36	1763.47	1145.94	38.011
77.00	74.83	711.49	408.20	28.360	147.00	153.43	1780.14	1158.27	38.125
78.00	76.07	725.47	417.16	28.540	148.00	154.50	1796.84	1170.63	38.238
79.00	77.30	739.45	426.14	28.718	149.00	155.57	1813.55	1183.00	38.351
80.00	78.53	753.42	435.14	28.894	150.00	156.64	1830.28	1195.40	38.463
81.00	79.75	767.40	444.18	29.067	151.00	157.71	1846.95	1207.75	38.573
82.00	80.96	781.38	453.24	29.239	152.00	158.77	1863.62	1220.11	38.683
83.00	82.17	795.37	462.34	29.409	153.00	159.83	1880.30	1232.48	38.793
84.00	83.37	809.39	471.47	29.576	154.00	160.90	1896.99	1244.86	38.902
85.00	84.57	823.42	480.65	29.743	155.00	161.96	1913.69	1257.26	39.010
86.00	85.76	837.47	489.88	29.907	156.00	163.02	1930.40	1269.66	39.117
87.00	86.95	851.56	499.15	30.070	157.00	164.08	1947.11	1282.08	39.224
88.00	88.13	865.68	508.47	30.231	158.00	165.14	1963.83	1294.50	39.330
89.00	89.31	879.83	517.85	30.391	159.00	166.20	1980.55	1306.92	39.436
90.00	90.49	894.02	527.28	30.550	160.00	167.26	1997.28	1319.36	39.540

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	168.32	2014.01	1331.79	39.645	231.00	241.46	3159.61	2180.96	45.564
162.00	169.38	2030.74	1344.23	39.748	232.00	242.49	3175.38	2192.54	45.632
163.00	170.44	2047.47	1356.68	39.851	233.00	243.53	3191.14	2204.10	45.700
164.00	171.49	2064.20	1369.12	39.953	234.00	244.56	3206.89	2215.65	45.767
165.00	172.55	2080.93	1381.56	40.055	235.00	245.60	3222.61	2227.18	45.834
166.00	173.61	2097.65	1394.01	40.156	236.00	246.63	3238.32	2238.70	45.901
167.00	174.66	2114.38	1406.46	40.257	237.00	247.67	3254.01	2250.20	45.967
168.00	175.72	2131.10	1418.90	40.357	238.00	248.70	3269.68	2261.68	46.033
169.00	176.77	2147.82	1431.34	40.456	239.00	249.73	3285.34	2273.15	46.099
170.00	177.83	2164.54	1443.78	40.554	240.00	250.77	3300.98	2284.60	46.164
171.00	178.88	2181.26	1456.23	40.652	241.00	251.80	3316.61	2296.03	46.229
172.00	179.93	2197.97	1468.67	40.750	242.00	252.83	3332.21	2307.45	46.294
173.00	180.99	2214.67	1481.12	40.847	243.00	253.87	3347.80	2318.86	46.358
174.00	182.04	2231.37	1493.55	40.943	244.00	254.90	3363.38	2330.25	46.422
175.00	183.09	2248.07	1505.98	41.039	245.00	255.93	3378.94	2341.62	46.486
176.00	184.14	2264.75	1518.41	41.134	246.00	256.96	3394.48	2352.98	46.549
177.00	185.19	2281.43	1530.83	41.228	247.00	258.00	3410.00	2364.32	46.612
178.00	186.24	2298.10	1543.24	41.322	248.00	259.03	3425.51	2375.65	46.675
179.00	187.29	2314.76	1555.65	41.415	249.00	260.06	3441.01	2386.96	46.737
180.00	188.34	2331.41	1568.05	41.508	250.00	261.09	3456.48	2398.26	46.799
181.00	189.39	2348.04	1580.43	41.600	251.00	262.12	3471.98	2409.57	46.861
182.00	190.44	2364.67	1592.81	41.692	252.00	263.15	3487.46	2420.88	46.922
183.00	191.48	2381.29	1605.18	41.783	253.00	264.18	3502.93	2432.16	46.984
184.00	192.53	2397.89	1617.54	41.874	254.00	265.21	3518.38	2443.44	47.045
185.00	193.58	2414.49	1629.89	41.963	255.00	266.24	3533.81	2454.69	47.105
186.00	194.63	2431.07	1642.22	42.053	256.00	267.27	3549.23	2465.94	47.166
187.00	195.67	2447.63	1654.55	42.142	257.00	268.30	3564.63	2477.16	47.226
188.00	196.72	2464.18	1666.86	42.230	258.00	269.33	3580.02	2488.38	47.285
189.00	197.77	2480.72	1679.16	42.318	259.00	270.36	3595.39	2499.58	47.345
190.00	198.81	2497.25	1691.44	42.405	260.00	271.39	3610.75	2510.76	47.404
191.00	199.86	2513.76	1703.71	42.492	261.00	272.42	3626.09	2521.93	47.463
192.00	200.90	2530.25	1715.97	42.578	262.00	273.45	3641.42	2533.08	47.522
193.00	201.95	2546.73	1728.21	42.663	263.00	274.48	3656.73	2544.22	47.580
194.00	202.99	2563.19	1740.44	42.748	264.00	275.51	3672.03	2555.35	47.638
195.00	204.04	2579.64	1752.66	42.833	265.00	276.54	3687.32	2566.46	47.696
196.00	205.08	2596.07	1764.86	42.917	266.00	277.57	3702.59	2577.56	47.753
197.00	206.12	2612.48	1777.04	43.000	267.00	278.60	3717.84	2588.65	47.811
198.00	207.17	2628.88	1789.21	43.084	268.00	279.63	3733.08	2599.72	47.868
199.00	208.21	2645.26	1801.36	43.166	269.00	280.66	3748.31	2610.77	47.924
200.00	209.25	2661.62	1813.49	43.248	270.00	281.69	3763.53	2621.82	47.981
201.00	210.30	2677.96	1825.60	43.330	271.00	282.72	3778.73	2632.85	48.037
202.00	211.34	2694.27	1837.70	43.411	272.00	283.74	3793.92	2643.87	48.093
203.00	212.38	2710.57	1849.78	43.491	273.00	284.77	3809.09	2654.88	48.149
204.00	213.42	2726.86	1861.84	43.571	274.00	285.80	3824.26	2665.87	48.204
205.00	214.46	2743.12	1873.88	43.651	275.00	286.83	3839.41	2676.85	48.259
206.00	215.50	2759.37	1885.91	43.730	276.00	287.86	3854.55	2687.83	48.314
207.00	216.54	2775.60	1897.92	43.808	277.00	288.89	3869.68	2698.79	48.369
208.00	217.58	2791.80	1909.91	43.886	278.00	289.92	3884.80	2709.74	48.423
209.00	218.63	2808.00	1921.88	43.964	279.00	290.95	3899.91	2720.68	48.478
210.00	219.67	2824.17	1933.84	44.041	280.00	291.98	3915.01	2731.61	48.532
211.00	220.71	2840.32	1945.78	44.118	281.00	293.00	3930.10	2742.53	48.585
212.00	221.74	2856.46	1957.71	44.194	282.00	294.03	3945.18	2753.44	48.639
213.00	222.78	2872.58	1969.61	44.270	283.00	295.06	3960.26	2764.34	48.692
214.00	223.82	2888.68	1981.50	44.345	284.00	296.09	3975.32	2775.24	48.746
215.00	224.86	2904.76	1993.37	44.420	285.00	297.12	3990.38	2786.12	48.798
216.00	225.90	2920.82	2005.22	44.495	286.00	298.15	4005.43	2797.01	48.851
217.00	226.94	2936.87	2017.06	44.569	287.00	299.18	4020.47	2807.88	48.904
218.00	227.98	2952.89	2028.88	44.643	288.00	300.20	4035.51	2818.75	48.956
219.00	229.02	2968.90	2040.68	44.716	289.00	301.23	4050.54	2829.61	49.008
220.00	230.05	2984.89	2052.46	44.789	290.00	302.26	4065.56	2840.47	49.060
221.00	231.09	3000.87	2064.23	44.861	291.00	303.29	4080.58	2851.32	49.112
222.00	232.13	3016.82	2075.98	44.933	292.00	304.32	4095.60	2862.17	49.163
223.00	233.17	3032.76	2087.71	45.005	293.00	305.35	4110.61	2873.01	49.215
224.00	234.20	3048.67	2099.42	45.076	294.00	306.37	4125.62	2883.85	49.266
225.00	235.24	3064.58	2111.12	45.147	295.00	307.40	4140.62	2894.69	49.317
226.00	236.28	3080.46	2122.80	45.217	296.00	308.43	4155.62	2905.52	49.367
227.00	237.31	3096.32	2134.47	45.287	297.00	309.46	4170.61	2916.35	49.418
228.00	238.35	3112.17	2146.11	45.357	298.00	310.48	4185.60	2927.18	49.468
229.00	239.39	3128.00	2157.74	45.426	299.00	311.51	4200.59	2938.01	49.519
230.00	240.42	3143.81	2169.36	45.495	300.00	312.54	4215.58	2948.83	49.569

45.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.18	-213.48	-273.56	7.101					
21.00	13.32	-205.02	-265.78	7.515	91.00	81.59	901.01	528.99	30.146
22.00	13.48	-196.18	-257.64	7.924	92.00	82.64	915.46	538.66	30.304
23.00	13.65	-186.91	-249.13	8.339	93.00	83.68	929.95	548.39	30.461
24.00	13.82	-177.20	-240.23	8.754	94.00	84.72	944.48	558.17	30.616
25.00	14.02	-167.03	-230.93	9.167	95.00	85.76	959.06	568.02	30.770
26.00	14.22	-156.37	-221.21	9.584	96.00	86.80	973.68	577.92	30.923
27.00	14.44	-145.20	-211.05	10.005	97.00	87.83	988.34	587.88	31.075
28.00	14.68	-133.50	-200.42	10.432	98.00	88.86	1003.05	597.90	31.226
29.00	14.93	-121.22	-189.32	10.860	99.00	89.88	1017.80	607.98	31.376
30.00	15.21	-108.42	-177.78	11.295	100.00	90.90	1032.60	618.11	31.525
31.00	15.51	-94.95	-165.68	11.737	101.00	91.92	1047.43	628.29	31.672
32.00	15.84	-80.84	-153.08	12.188	102.00	92.93	1062.28	638.52	31.819
33.00	16.26	-66.36	-140.51	12.641	103.00	93.95	1077.19	648.82	31.964
34.00	16.66	-50.66	-126.61	13.112	104.00	94.95	1092.15	659.19	32.109
35.00	17.10	-34.09	-112.06	13.591	105.00	95.96	1107.16	669.61	32.252
36.00	17.59	-16.77	-96.99	14.077	106.00	96.96	1122.23	680.10	32.395
37.00	18.14	1.25	-81.47	14.568	107.00	97.96	1137.34	690.64	32.537
38.00	18.76	19.95	-65.58	15.066	108.00	98.96	1152.50	701.25	32.678
39.00	19.45	39.51	-49.19	15.574	109.00	99.96	1167.71	711.92	32.818
40.00	20.23	59.44	-32.81	16.079	110.00	100.96	1182.97	722.64	32.958
41.00	21.11	79.89	-16.35	16.584	111.00	101.95	1198.28	733.43	33.096
42.00	22.08	100.86	.18	17.089	112.00	102.94	1213.64	744.26	33.234
43.00	23.16	122.29	16.70	17.593	113.00	103.93	1229.05	755.16	33.371
44.00	24.33	144.03	33.10	18.093	114.00	104.92	1244.50	766.10	33.507
45.00	25.58	165.88	49.23	18.584	115.00	105.91	1260.01	777.10	33.642
46.00	26.90	187.62	64.96	19.062	116.00	106.89	1275.55	788.16	33.777
47.00	28.27	209.08	80.18	19.523	117.00	107.88	1291.15	799.26	33.911
48.00	29.67	230.13	94.86	19.967	118.00	108.86	1306.79	810.41	34.044
49.00	31.08	250.71	108.99	20.391	119.00	109.84	1322.48	821.62	34.176
50.00	32.50	270.77	122.58	20.796	120.00	110.83	1338.21	832.87	34.308
51.00	33.92	290.33	135.67	21.184	121.00	111.81	1353.98	844.16	34.439
52.00	35.33	309.40	148.30	21.554	122.00	112.79	1369.79	855.49	34.569
53.00	36.73	328.00	160.52	21.908	123.00	113.77	1385.65	866.88	34.698
54.00	38.12	346.17	172.36	22.248	124.00	114.75	1401.55	878.31	34.827
55.00	39.49	363.94	183.87	22.574	125.00	115.73	1417.49	889.78	34.955
56.00	40.85	381.35	195.08	22.888	126.00	116.70	1433.50	901.37	35.083
57.00	42.19	398.41	206.02	23.190	127.00	117.67	1449.56	913.01	35.210
58.00	43.52	415.18	216.74	23.481	128.00	118.64	1465.66	924.69	35.336
59.00	44.83	431.66	227.23	23.763	129.00	119.61	1481.80	936.43	35.462
60.00	46.13	447.89	237.54	24.036	130.00	120.57	1497.98	948.21	35.587
61.00	47.42	463.88	247.68	24.300	131.00	121.54	1514.21	960.03	35.711
62.00	48.69	479.67	257.67	24.557	132.00	122.50	1530.47	971.90	35.835
63.00	49.95	495.26	267.52	24.806	133.00	123.46	1546.77	983.81	35.958
64.00	51.19	510.67	277.27	25.049	134.00	124.43	1563.11	995.76	36.080
65.00	52.42	525.93	286.90	25.286	135.00	125.39	1579.49	1007.75	36.202
66.00	53.64	541.04	296.45	25.516	136.00	126.35	1595.90	1019.78	36.323
67.00	54.85	556.02	305.91	25.742	137.00	127.31	1612.35	1031.85	36.443
68.00	56.05	570.89	315.31	25.962	138.00	128.27	1628.83	1043.95	36.563
69.00	57.24	585.65	324.64	26.177	139.00	129.23	1645.34	1056.08	36.683
70.00	58.42	600.32	333.93	26.388	140.00	130.19	1661.89	1068.25	36.801
71.00	59.59	614.90	343.18	26.595	141.00	131.15	1678.46	1080.44	36.919
72.00	60.75	629.41	352.39	26.798	142.00	132.11	1695.06	1092.67	37.036
73.00	61.91	643.86	361.58	26.998	143.00	133.07	1711.69	1104.92	37.153
74.00	63.05	658.25	370.75	27.193	144.00	134.03	1728.34	1117.20	37.269
75.00	64.19	672.59	379.90	27.386	145.00	134.99	1745.01	1129.51	37.384
76.00	65.32	686.90	389.05	27.575	146.00	135.94	1761.71	1141.83	37.499
77.00	66.45	701.18	398.21	27.762	147.00	136.90	1778.42	1154.18	37.613
78.00	67.56	715.43	407.37	27.946	148.00	137.86	1795.16	1166.55	37.727
79.00	68.67	729.66	416.53	28.127	149.00	138.82	1811.91	1178.94	37.840
80.00	69.78	743.88	425.72	28.306	150.00	139.77	1828.68	1191.35	37.952
81.00	70.88	758.10	434.93	28.483	151.00	140.72	1845.39	1203.73	38.063
82.00	71.97	772.32	444.16	28.657	152.00	141.67	1862.11	1216.12	38.173
83.00	73.06	786.54	453.42	28.830	153.00	142.62	1878.84	1228.52	38.283
84.00	74.14	800.77	462.72	29.000	154.00	143.57	1895.58	1240.93	38.392
85.00	75.22	815.01	472.05	29.169	155.00	144.52	1912.33	1253.36	38.500
86.00	76.29	829.28	481.42	29.335	156.00	145.47	1929.08	1265.79	38.608
87.00	77.36	843.57	490.84	29.501	157.00	146.41	1945.84	1278.23	38.715
88.00	78.42	857.88	500.30	29.664	158.00	147.36	1962.60	1290.68	38.822
89.00	79.48	872.22	509.81	29.826	159.00	148.31	1979.37	1303.14	38.927
90.00	80.54	886.60	519.37	29.987	160.00	149.25	1996.14	1315.60	39.033

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	150.20	2012.91	1328.06	39.137	231.00	215.38	3160.75	2178.68	45.068
162.00	151.14	2029.69	1340.53	39.241	232.00	216.30	3176.54	2190.27	45.136
163.00	152.08	2046.46	1353.00	39.344	233.00	217.22	3192.32	2201.85	45.204
164.00	153.03	2063.24	1365.47	39.447	234.00	218.14	3208.09	2213.41	45.272
165.00	153.97	2080.01	1377.95	39.549	235.00	219.06	3223.83	2224.95	45.339
166.00	154.91	2096.78	1390.42	39.650	236.00	219.99	3239.56	2236.48	45.406
167.00	155.86	2113.55	1402.89	39.751	237.00	220.91	3255.27	2247.99	45.472
168.00	156.80	2130.32	1415.37	39.851	238.00	221.83	3270.97	2259.49	45.538
169.00	157.74	2147.08	1427.84	39.950	239.00	222.75	3286.64	2270.97	45.604
170.00	158.68	2163.84	1440.31	40.049	240.00	223.67	3302.31	2282.44	45.669
171.00	159.62	2180.60	1452.78	40.148	241.00	224.59	3317.95	2293.89	45.734
172.00	160.56	2197.36	1465.26	40.245	242.00	225.51	3333.58	2305.32	45.799
173.00	161.50	2214.11	1477.73	40.342	243.00	226.43	3349.19	2316.74	45.863
174.00	162.43	2230.85	1490.19	40.439	244.00	227.35	3364.79	2328.15	45.928
175.00	163.37	2247.59	1502.65	40.535	245.00	228.27	3380.37	2339.53	45.991
176.00	164.31	2264.31	1515.11	40.630	246.00	229.18	3395.93	2350.91	46.055
177.00	165.25	2281.03	1527.56	40.725	247.00	230.10	3411.48	2362.26	46.118
178.00	166.18	2297.74	1540.00	40.819	248.00	231.02	3427.01	2373.61	46.180
179.00	167.12	2314.44	1552.43	40.912	249.00	231.94	3442.52	2384.94	46.243
180.00	168.05	2331.13	1564.86	41.005	250.00	232.86	3458.02	2396.25	46.305
181.00	168.99	2347.81	1577.27	41.098	251.00	233.78	3473.54	2407.58	46.367
182.00	169.92	2364.48	1589.68	41.190	252.00	234.69	3489.04	2418.90	46.429
183.00	170.86	2381.14	1602.07	41.281	253.00	235.61	3504.53	2430.20	46.490
184.00	171.79	2397.78	1614.46	41.372	254.00	236.53	3520.00	2441.49	46.551
185.00	172.72	2414.41	1626.83	41.462	255.00	237.45	3535.46	2452.76	46.612
186.00	173.66	2431.03	1639.20	41.551	256.00	238.36	3550.90	2464.02	46.672
187.00	174.59	2447.64	1651.55	41.640	257.00	239.28	3566.32	2475.26	46.732
188.00	175.52	2464.23	1663.89	41.729	258.00	240.20	3581.73	2486.49	46.792
189.00	176.46	2480.81	1676.21	41.817	259.00	241.12	3597.12	2497.70	46.852
190.00	177.39	2497.37	1688.52	41.904	260.00	242.03	3612.50	2508.90	46.911
191.00	178.32	2513.91	1700.82	41.991	261.00	242.95	3627.86	2520.08	46.970
192.00	179.25	2530.44	1713.10	42.077	262.00	243.86	3643.21	2531.25	47.029
193.00	180.18	2546.96	1725.37	42.163	263.00	244.78	3658.54	2542.40	47.087
194.00	181.11	2563.46	1737.62	42.248	264.00	245.70	3673.86	2553.54	47.145
195.00	182.04	2579.94	1749.86	42.333	265.00	246.61	3689.16	2564.66	47.203
196.00	182.97	2596.40	1762.08	42.417	266.00	247.53	3704.45	2575.77	47.261
197.00	183.91	2612.85	1774.29	42.501	267.00	248.45	3719.72	2586.87	47.318
198.00	184.84	2629.28	1786.48	42.584	268.00	249.36	3734.98	2597.95	47.375
199.00	185.76	2645.69	1798.65	42.667	269.00	250.28	3750.22	2609.02	47.432
200.00	186.69	2662.09	1810.81	42.749	270.00	251.19	3765.45	2620.07	47.488
201.00	187.62	2678.45	1822.94	42.831	271.00	252.11	3780.67	2631.11	47.544
202.00	188.55	2694.80	1835.05	42.912	272.00	253.03	3795.87	2642.14	47.600
203.00	189.48	2711.12	1847.14	42.993	273.00	253.94	3811.06	2653.16	47.656
204.00	190.41	2727.43	1859.22	43.073	274.00	254.86	3826.24	2664.16	47.712
205.00	191.34	2743.72	1871.28	43.152	275.00	255.77	3841.41	2675.15	47.767
206.00	192.26	2759.99	1883.32	43.232	276.00	256.69	3856.56	2686.13	47.822
207.00	193.19	2776.25	1895.35	43.310	277.00	257.60	3871.70	2697.10	47.877
208.00	194.12	2792.48	1907.36	43.388	278.00	258.52	3886.84	2708.05	47.931
209.00	195.04	2808.69	1919.34	43.466	279.00	259.43	3901.96	2719.00	47.985
210.00	195.97	2824.89	1931.32	43.544	280.00	260.35	3917.07	2729.93	48.040
211.00	196.90	2841.07	1943.27	43.620	281.00	261.27	3932.17	2740.86	48.093
212.00	197.82	2857.23	1955.20	43.697	282.00	262.18	3947.26	2751.78	48.147
213.00	198.75	2873.37	1967.12	43.773	283.00	263.10	3962.34	2762.69	48.200
214.00	199.67	2889.49	1979.02	43.848	284.00	264.01	3977.42	2773.59	48.254
215.00	200.60	2905.59	1990.91	43.923	285.00	264.93	3992.48	2784.48	48.307
216.00	201.52	2921.67	2002.77	43.998	286.00	265.84	4007.54	2795.37	48.359
217.00	202.45	2937.74	2014.62	44.072	287.00	266.76	4022.60	2806.25	48.412
218.00	203.37	2953.78	2026.45	44.146	288.00	267.67	4037.64	2817.12	48.464
219.00	204.30	2969.81	2038.26	44.219	289.00	268.59	4052.68	2827.99	48.516
220.00	205.22	2985.82	2050.06	44.292	290.00	269.50	4067.72	2838.85	48.568
221.00	206.15	3001.81	2061.83	44.365	291.00	270.42	4082.75	2849.71	48.620
222.00	207.07	3017.79	2073.59	44.437	292.00	271.33	4097.78	2860.57	48.672
223.00	208.00	3033.74	2085.34	44.509	293.00	272.25	4112.80	2871.42	48.723
224.00	208.92	3049.68	2097.06	44.580	294.00	273.16	4127.82	2882.27	48.774
225.00	209.84	3065.60	2108.77	44.651	295.00	274.08	4142.83	2893.12	48.825
226.00	210.77	3081.50	2120.46	44.721	296.00	274.99	4157.85	2903.96	48.876
227.00	211.69	3097.39	2132.14	44.791	297.00	275.90	4172.85	2914.81	48.926
228.00	212.61	3113.25	2143.80	44.861	298.00	276.82	4187.86	2925.65	48.977
229.00	213.53	3129.10	2155.44	44.931	299.00	277.73	4202.86	2936.49	49.027
230.00	214.46	3144.93	2167.07	45.000	300.00	278.64	4217.86	2947.32	49.077

50.00 ATMOSPHERE ISO8AR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	13.10	-208.22	-274.60	7.031					
21.00	13.24	-199.87	-266.96	7.441	91.00	73.58	894.12	521.33	29.639
22.00	13.39	-191.13	-258.97	7.844	92.00	74.54	908.74	531.13	29.799
23.00	13.55	-181.98	-250.63	8.253	93.00	75.48	923.39	540.97	29.957
24.00	13.72	-172.41	-241.92	8.662	94.00	76.43	938.08	550.87	30.115
25.00	13.90	-162.40	-232.83	9.069	95.00	77.37	952.81	560.82	30.270
26.00	14.10	-151.92	-223.33	9.479	96.00	78.31	967.58	570.83	30.425
27.00	14.30	-140.95	-213.42	9.893	97.00	79.25	982.39	580.90	30.578
28.00	14.53	-129.48	-203.07	10.312	98.00	80.18	997.24	591.02	30.731
29.00	14.76	-117.47	-192.28	10.730	99.00	81.11	1012.13	601.20	30.882
30.00	15.02	-104.98	-181.09	11.154	100.00	82.04	1027.06	611.43	31.032
31.00	15.30	-91.88	-169.39	11.584	101.00	82.96	1042.03	621.70	31.181
32.00	15.60	-78.21	-157.25	12.021	102.00	83.89	1057.04	632.04	31.329
33.00	15.98	-64.21	-145.16	12.459	103.00	84.80	1072.09	642.44	31.476
34.00	16.33	-49.12	-131.86	12.911	104.00	85.72	1087.19	652.90	31.622
35.00	16.72	-33.26	-117.98	13.370	105.00	86.63	1102.34	663.43	31.767
36.00	17.15	-16.80	-103.68	13.832	106.00	87.54	1117.54	674.01	31.911
37.00	17.62	.25	-89.03	14.296	107.00	88.45	1132.79	684.65	32.054
38.00	18.14	17.79	-74.14	14.763	108.00	89.36	1148.08	695.35	32.196
39.00	18.72	36.00	-58.84	15.237	109.00	90.26	1163.42	706.11	32.337
40.00	19.36	54.41	-43.67	15.703	110.00	91.17	1178.81	716.92	32.478
41.00	20.06	73.16	-28.49	16.165	111.00	92.07	1194.24	727.79	32.618
42.00	20.84	92.31	-13.27	16.627	112.00	92.97	1209.71	738.71	32.756
43.00	21.69	111.89	2.00	17.088	113.00	93.86	1225.23	749.68	32.894
44.00	22.61	131.85	17.28	17.547	114.00	94.76	1240.79	760.70	33.031
45.00	23.61	152.09	32.49	18.001	115.00	95.65	1256.40	771.77	33.168
46.00	24.66	172.49	47.54	18.450	116.00	96.55	1272.04	782.89	33.303
47.00	25.77	192.90	62.34	18.889	117.00	97.44	1287.73	794.06	33.438
48.00	26.92	213.21	76.82	19.316	118.00	98.33	1303.46	805.27	33.572
49.00	28.10	233.31	90.93	19.731	119.00	99.22	1319.23	816.53	33.705
50.00	29.31	253.12	104.65	20.131	120.00	100.11	1335.04	827.84	33.837
51.00	30.52	272.60	117.97	20.517	121.00	101.00	1350.88	839.18	33.969
52.00	31.75	291.73	130.90	20.888	122.00	101.89	1366.76	850.56	34.099
53.00	32.97	310.50	143.47	21.246	123.00	102.77	1382.68	861.99	34.229
54.00	34.19	328.91	155.69	21.590	124.00	103.66	1398.64	873.46	34.358
55.00	35.41	346.97	167.59	21.921	125.00	104.55	1414.64	884.97	34.487
56.00	36.62	364.70	179.20	22.241	126.00	105.42	1430.72	896.61	34.615
57.00	37.82	382.12	190.54	22.549	127.00	106.30	1446.85	908.29	34.743
58.00	39.01	399.25	201.63	22.847	128.00	107.18	1463.01	920.02	34.869
59.00	40.19	416.11	212.51	23.135	129.00	108.05	1479.22	931.79	34.996
60.00	41.36	432.71	223.18	23.414	130.00	108.92	1495.46	943.61	35.121
61.00	42.52	449.09	233.68	23.685	131.00	109.80	1511.75	955.48	35.246
62.00	43.67	465.24	244.02	23.948	132.00	110.67	1528.07	967.38	35.370
63.00	44.81	481.20	254.20	24.203	133.00	111.54	1544.43	979.32	35.493
64.00	45.93	496.98	264.27	24.452	134.00	112.41	1560.83	991.31	35.616
65.00	47.05	512.59	274.21	24.694	135.00	113.28	1577.26	1003.33	35.738
66.00	48.16	528.05	284.05	24.930	136.00	114.15	1593.72	1015.39	35.860
67.00	49.26	543.36	293.80	25.160	137.00	115.02	1610.22	1027.48	35.981
68.00	50.35	558.56	303.47	25.385	138.00	115.89	1626.75	1039.61	36.101
69.00	51.43	573.64	313.07	25.605	139.00	116.76	1643.31	1051.77	36.220
70.00	52.51	588.62	322.61	25.821	140.00	117.63	1659.90	1063.96	36.339
71.00	53.57	603.50	332.10	26.032	141.00	118.49	1676.52	1076.19	36.458
72.00	54.63	618.31	341.54	26.239	142.00	119.36	1693.17	1088.44	36.575
73.00	55.68	633.04	350.96	26.442	143.00	120.23	1709.84	1100.72	36.692
74.00	56.72	647.71	360.35	26.642	144.00	121.10	1726.54	1113.02	36.809
75.00	57.76	662.32	369.71	26.838	145.00	121.96	1743.26	1125.35	36.924
76.00	58.79	676.89	379.07	27.031	146.00	122.83	1760.00	1137.70	37.039
77.00	59.81	691.42	388.41	27.221	147.00	123.70	1776.76	1150.07	37.154
78.00	60.83	705.91	397.76	27.408	148.00	124.56	1793.54	1162.47	37.268
79.00	61.84	720.38	407.11	27.592	149.00	125.43	1810.34	1174.88	37.381
80.00	62.84	734.84	416.47	27.774	150.00	126.29	1827.15	1187.31	37.493
81.00	63.84	749.28	425.85	27.953	151.00	127.15	1843.91	1199.71	37.605
82.00	64.84	763.71	435.24	28.130	152.00	128.01	1860.67	1212.13	37.715
83.00	65.82	778.15	444.66	28.305	153.00	128.87	1877.45	1224.56	37.825
84.00	66.81	792.59	454.11	28.478	154.00	129.72	1894.23	1237.00	37.935
85.00	67.79	807.04	463.60	28.649	155.00	130.58	1911.03	1249.45	38.043
86.00	68.77	821.49	473.11	28.818	156.00	131.44	1927.83	1261.91	38.151
87.00	69.74	835.97	482.67	28.986	157.00	132.29	1944.63	1274.38	38.259
88.00	70.70	850.47	492.26	29.151	158.00	133.15	1961.44	1286.86	38.365
89.00	71.67	864.99	501.91	29.316	159.00	134.00	1978.26	1299.35	38.472
90.00	72.63	879.54	511.60	29.478	160.00	134.86	1995.08	1311.84	38.577

50.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	135.71	2011.90	1324.34	38.682	231.00	194.52	3161.99	2176.47	44.625
162.00	136.56	2028.73	1336.84	38.786	232.00	195.35	3177.79	2188.06	44.694
163.00	137.42	2045.55	1349.35	38.890	233.00	196.18	3193.58	2199.64	44.762
164.00	138.27	2062.38	1361.86	38.992	234.00	197.01	3209.36	2211.21	44.829
165.00	139.12	2079.20	1374.37	39.095	235.00	197.84	3225.12	2222.76	44.896
166.00	139.97	2096.03	1386.88	39.196	236.00	198.67	3240.86	2234.30	44.963
167.00	140.82	2112.85	1399.40	39.297	237.00	199.50	3256.59	2245.82	45.030
168.00	141.67	2129.67	1411.91	39.398	238.00	200.33	3272.30	2257.33	45.096
169.00	142.52	2146.49	1424.42	39.498	239.00	201.16	3288.00	2268.82	45.162
170.00	143.37	2163.31	1436.93	39.597	240.00	201.99	3303.68	2280.30	45.227
171.00	144.22	2180.13	1449.45	39.696	241.00	202.82	3319.35	2291.77	45.292
172.00	145.07	2196.94	1461.97	39.794	242.00	203.65	3335.00	2303.22	45.357
173.00	145.91	2213.75	1474.49	39.891	243.00	204.48	3350.64	2314.66	45.422
174.00	146.76	2230.55	1487.00	39.988	244.00	205.31	3366.26	2326.08	45.486
175.00	147.61	2247.35	1499.51	40.084	245.00	206.14	3381.86	2337.49	45.550
176.00	148.45	2264.13	1512.01	40.180	246.00	206.97	3397.45	2348.88	45.613
177.00	149.30	2280.91	1524.50	40.275	247.00	207.80	3413.03	2360.26	45.676
178.00	150.14	2297.68	1536.99	40.369	248.00	208.62	3428.59	2371.62	45.739
179.00	150.99	2314.44	1549.47	40.463	249.00	209.45	3444.13	2382.97	45.802
180.00	151.83	2331.19	1561.95	40.556	250.00	210.28	3459.66	2394.31	45.864
181.00	152.68	2347.93	1574.41	40.649	251.00	211.11	3475.21	2405.66	45.926
182.00	153.52	2364.66	1586.87	40.741	252.00	211.93	3490.74	2417.00	45.988
183.00	154.36	2381.38	1599.31	40.833	253.00	212.76	3506.26	2428.33	46.049
184.00	155.21	2398.08	1611.74	40.924	254.00	213.59	3521.76	2439.64	46.110
185.00	156.05	2414.77	1624.16	41.014	255.00	214.41	3537.24	2450.94	46.171
186.00	156.89	2431.44	1636.57	41.104	256.00	215.24	3552.71	2462.22	46.232
187.00	157.73	2448.10	1648.96	41.194	257.00	216.07	3568.16	2473.48	46.292
188.00	158.58	2464.75	1661.34	41.282	258.00	216.89	3583.60	2484.73	46.352
189.00	159.42	2481.38	1673.71	41.371	259.00	217.72	3599.02	2495.96	46.411
190.00	160.26	2497.99	1686.06	41.458	260.00	218.55	3614.42	2507.18	46.471
191.00	161.10	2514.58	1698.40	41.545	261.00	219.37	3629.81	2518.38	46.530
192.00	161.94	2531.16	1710.72	41.632	262.00	220.20	3645.18	2529.57	46.589
193.00	162.78	2547.72	1723.02	41.718	263.00	221.02	3660.53	2540.74	46.647
194.00	163.62	2564.27	1735.31	41.804	264.00	221.85	3675.87	2551.89	46.705
195.00	164.46	2580.79	1747.57	41.889	265.00	222.68	3691.19	2563.03	46.763
196.00	165.30	2597.30	1759.83	41.973	266.00	223.50	3706.50	2574.15	46.821
197.00	166.14	2613.78	1772.06	42.057	267.00	224.33	3721.79	2585.26	46.878
198.00	166.98	2630.25	1784.28	42.140	268.00	225.15	3737.06	2596.35	46.935
199.00	167.82	2646.69	1796.47	42.223	269.00	225.98	3752.32	2607.43	46.992
200.00	168.65	2663.12	1808.65	42.305	270.00	226.80	3767.56	2618.49	47.049
201.00	169.49	2679.51	1820.79	42.387	271.00	227.63	3782.79	2629.53	47.105
202.00	170.33	2695.87	1832.92	42.468	272.00	228.45	3798.00	2640.57	47.161
203.00	171.17	2712.22	1845.02	42.549	273.00	229.28	3813.20	2651.58	47.217
204.00	172.00	2728.54	1857.10	42.629	274.00	230.10	3828.38	2662.59	47.272
205.00	172.84	2744.85	1869.17	42.709	275.00	230.93	3843.55	2673.57	47.328
206.00	173.68	2761.13	1881.21	42.788	276.00	231.75	3858.71	2684.55	47.383
207.00	174.51	2777.39	1893.24	42.867	277.00	232.58	3873.85	2695.52	47.437
208.00	175.35	2793.64	1905.25	42.945	278.00	233.40	3888.98	2706.47	47.492
209.00	176.19	2809.86	1917.24	43.023	279.00	234.23	3904.10	2717.41	47.546
210.00	177.02	2826.06	1929.20	43.100	280.00	235.05	3919.21	2728.34	47.600
211.00	177.86	2842.24	1941.15	43.177	281.00	235.88	3934.31	2739.26	47.654
212.00	178.69	2858.41	1953.09	43.254	282.00	236.70	3949.40	2750.17	47.708
213.00	179.53	2874.55	1965.00	43.330	283.00	237.53	3964.48	2761.07	47.761
214.00	180.36	2890.67	1976.89	43.405	284.00	238.35	3979.56	2771.97	47.814
215.00	181.20	2906.78	1988.77	43.480	285.00	239.18	3994.62	2782.86	47.867
216.00	182.03	2922.86	2000.63	43.555	286.00	240.00	4009.68	2793.74	47.920
217.00	182.86	2938.93	2012.47	43.629	287.00	240.83	4024.74	2804.62	47.973
218.00	183.70	2954.98	2024.29	43.703	288.00	241.65	4039.79	2815.49	48.025
219.00	184.53	2971.01	2036.09	43.776	289.00	242.48	4054.83	2826.36	48.077
220.00	185.37	2987.02	2047.88	43.849	290.00	243.30	4069.87	2837.22	48.129
221.00	186.20	3003.01	2059.65	43.922	291.00	244.12	4084.91	2848.09	48.181
222.00	187.03	3018.98	2071.41	43.994	292.00	244.95	4099.95	2858.95	48.232
223.00	187.87	3034.94	2083.14	44.066	293.00	245.77	4114.99	2869.82	48.284
224.00	188.70	3050.88	2094.86	44.137	294.00	246.59	4130.02	2880.68	48.335
225.00	189.53	3066.80	2106.57	44.208	295.00	247.42	4145.06	2891.54	48.386
226.00	190.36	3082.71	2118.26	44.278	296.00	248.24	4160.09	2902.41	48.437
227.00	191.19	3098.60	2129.93	44.349	297.00	249.06	4175.13	2913.28	48.488
228.00	192.03	3114.47	2141.59	44.418	298.00	249.89	4190.17	2924.15	48.538
229.00	192.86	3130.32	2153.23	44.488	299.00	250.71	4205.20	2935.02	48.589
230.00	193.69	3146.16	2164.85	44.557	300.00	251.53	4220.24	2945.89	48.639

60.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	12.96	-197.66	-276.47	6.898					
21.00	13.09	-189.48	-269.08	7.300	91.00	61.68	881.45	506.46	28.751
22.00	13.23	-180.93	-261.37	7.695	92.00	62.49	896.37	516.48	28.914
23.00	13.38	-172.00	-253.33	8.094	93.00	63.29	911.31	526.54	29.076
24.00	13.53	-162.67	-244.95	8.493	94.00	64.09	926.29	536.66	29.236
25.00	13.70	-152.93	-236.21	8.888	95.00	64.89	941.30	546.82	29.395
26.00	13.87	-142.76	-227.10	9.287	96.00	65.68	956.34	557.03	29.552
27.00	14.06	-132.13	-217.61	9.687	97.00	66.47	971.42	567.30	29.708
28.00	14.26	-121.05	-207.73	10.092	98.00	67.26	986.53	577.61	29.864
29.00	14.47	-109.49	-197.45	10.495	99.00	68.05	1001.68	587.98	30.017
30.00	14.69	-97.50	-186.83	10.902	100.00	68.83	1016.87	598.40	30.170
31.00	14.93	-84.98	-175.77	11.313	101.00	69.61	1032.10	608.87	30.322
32.00	15.19	-71.99	-164.34	11.728	102.00	70.39	1047.38	619.41	30.472
33.00	15.51	-58.68	-152.95	12.143	103.00	71.17	1062.70	630.02	30.622
34.00	15.80	-44.49	-140.56	12.569	104.00	71.94	1078.07	640.68	30.770
35.00	16.12	-29.68	-127.68	12.997	105.00	72.72	1093.48	651.39	30.917
36.00	16.46	-14.39	-114.49	13.426	106.00	73.49	1108.93	662.15	31.064
37.00	16.84	1.30	-101.05	13.853	107.00	74.25	1124.41	672.97	31.209
38.00	17.24	17.31	-87.50	14.280	108.00	75.02	1139.94	683.84	31.354
39.00	17.68	33.77	-73.68	14.708	109.00	75.79	1155.50	694.75	31.497
40.00	18.15	50.22	-60.11	15.124	110.00	76.55	1171.10	705.71	31.640
41.00	18.66	66.81	-46.63	15.533	111.00	77.31	1186.73	716.72	31.781
42.00	19.21	83.63	-33.17	15.939	112.00	78.07	1202.40	727.77	31.922
43.00	19.81	100.74	-19.67	16.341	113.00	78.83	1218.10	738.87	32.061
44.00	20.45	118.19	-6.12	16.742	114.00	79.58	1233.84	750.00	32.200
45.00	21.13	135.95	7.48	17.142	115.00	80.34	1249.61	761.18	32.338
46.00	21.86	154.00	21.11	17.538	116.00	81.09	1265.40	772.40	32.474
47.00	22.63	172.30	34.72	17.932	117.00	81.84	1281.24	783.65	32.610
48.00	23.44	190.77	48.28	18.321	118.00	82.60	1297.10	794.95	32.745
49.00	24.28	209.35	61.74	18.704	119.00	83.35	1312.99	806.28	32.879
50.00	25.15	227.97	75.06	19.080	120.00	84.09	1328.92	817.66	33.013
51.00	26.05	246.55	88.19	19.448	121.00	84.84	1344.87	829.06	33.145
52.00	26.97	265.06	101.12	19.807	122.00	85.59	1360.85	840.50	33.276
53.00	27.90	283.43	113.83	20.157	123.00	86.34	1376.86	851.97	33.407
54.00	28.84	301.65	126.32	20.498	124.00	87.08	1392.91	863.49	33.537
55.00	29.79	319.69	138.57	20.829	125.00	87.82	1408.99	875.05	33.666
56.00	30.75	337.52	150.59	21.150	126.00	88.56	1425.19	886.75	33.795
57.00	31.71	355.15	162.39	21.462	127.00	89.30	1441.42	898.49	33.924
58.00	32.66	372.57	173.98	21.765	128.00	90.04	1457.69	910.28	34.051
59.00	33.62	389.78	185.37	22.059	129.00	90.78	1474.00	922.11	34.178
60.00	34.58	406.79	196.57	22.345	130.00	91.51	1490.35	933.99	34.304
61.00	35.53	423.60	207.60	22.623	131.00	92.25	1506.74	945.91	34.430
62.00	36.48	440.22	218.46	22.893	132.00	92.98	1523.16	957.87	34.555
63.00	37.42	456.66	229.18	23.157	133.00	93.71	1539.62	969.87	34.679
64.00	38.36	472.93	239.75	23.413	134.00	94.45	1556.12	981.91	34.803
65.00	39.29	489.05	250.20	23.663	135.00	95.18	1572.65	993.99	34.926
66.00	40.21	505.02	260.54	23.906	136.00	95.91	1589.21	1006.11	35.048
67.00	41.13	520.85	270.77	24.144	137.00	96.64	1605.81	1018.26	35.169
68.00	42.05	536.54	280.91	24.377	138.00	97.37	1622.44	1030.45	35.290
69.00	42.96	552.12	290.97	24.605	139.00	98.10	1639.10	1042.67	35.411
70.00	43.86	567.60	300.96	24.827	140.00	98.83	1655.79	1054.92	35.530
71.00	44.76	582.97	310.88	25.045	141.00	99.56	1672.51	1067.21	35.649
72.00	45.65	598.26	320.74	25.259	142.00	100.29	1689.26	1079.52	35.768
73.00	46.53	613.46	330.56	25.469	143.00	101.02	1706.04	1091.87	35.885
74.00	47.41	628.59	340.34	25.675	144.00	101.75	1722.84	1104.24	36.003
75.00	48.29	643.66	350.09	25.877	145.00	102.48	1739.66	1116.63	36.119
76.00	49.16	658.67	359.81	26.076	146.00	103.21	1756.50	1129.05	36.235
77.00	50.02	673.63	369.52	26.271	147.00	103.93	1773.37	1141.49	36.350
78.00	50.88	688.56	379.21	26.464	148.00	104.66	1790.25	1153.96	36.464
79.00	51.74	703.44	388.90	26.653	149.00	105.39	1807.15	1166.44	36.578
80.00	52.59	718.30	398.58	26.840	150.00	106.11	1824.07	1178.94	36.691
81.00	53.44	733.14	408.28	27.025	151.00	106.83	1840.92	1191.40	36.803
82.00	54.28	747.96	417.98	27.207	152.00	107.55	1857.78	1203.88	36.914
83.00	55.11	762.77	427.70	27.386	153.00	108.27	1874.64	1216.37	37.025
84.00	55.95	777.58	437.44	27.563	154.00	108.99	1891.52	1228.87	37.135
85.00	56.78	792.38	447.20	27.739	155.00	109.71	1908.40	1241.38	37.244
86.00	57.60	807.19	456.98	27.912	156.00	110.43	1925.30	1253.91	37.353
87.00	58.43	822.01	466.80	28.083	157.00	111.15	1942.20	1266.44	37.461
88.00	59.25	836.84	476.66	28.253	158.00	111.87	1959.10	1278.98	37.568
89.00	60.06	851.69	486.55	28.420	159.00	112.58	1976.01	1291.53	37.675
90.00	60.87	866.56	496.48	28.587	160.00	113.30	1992.92	1304.09	37.781

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	114.02	2009.84	1316.65	37.886	231.00	163.26	3164.16	2171.63	43.853
162.00	114.73	2026.76	1329.22	37.991	232.00	163.95	3179.99	2183.23	43.922
163.00	115.45	2043.68	1341.80	38.095	233.00	164.64	3195.80	2194.82	43.990
164.00	116.16	2060.61	1354.37	38.199	234.00	165.34	3211.60	2206.40	44.057
165.00	116.88	2077.53	1366.96	38.302	235.00	166.03	3227.39	2217.96	44.125
166.00	117.59	2094.46	1379.54	38.404	236.00	166.73	3243.16	2229.52	44.192
167.00	118.31	2111.38	1392.12	38.506	237.00	167.42	3258.92	2241.06	44.258
168.00	119.02	2128.30	1404.71	38.607	238.00	168.12	3274.67	2252.59	44.325
169.00	119.73	2145.22	1417.30	38.707	239.00	168.81	3290.41	2264.11	44.391
170.00	120.44	2162.14	1429.88	38.807	240.00	169.50	3306.13	2275.62	44.456
171.00	121.15	2179.07	1442.49	38.906	241.00	170.20	3321.84	2287.11	44.522
172.00	121.87	2195.99	1455.09	39.005	242.00	170.89	3337.54	2298.59	44.587
173.00	122.58	2212.91	1467.69	39.103	243.00	171.58	3353.22	2310.07	44.651
174.00	123.28	2229.82	1480.29	39.200	244.00	172.27	3368.89	2321.52	44.716
175.00	123.99	2246.73	1492.89	39.297	245.00	172.97	3384.54	2332.97	44.780
176.00	124.70	2263.63	1505.48	39.394	246.00	173.66	3400.19	2344.40	44.843
177.00	125.41	2280.53	1518.07	39.489	247.00	174.35	3415.81	2355.83	44.907
178.00	126.12	2297.41	1530.65	39.584	248.00	175.04	3431.43	2367.23	44.970
179.00	126.83	2314.29	1543.22	39.679	249.00	175.73	3447.03	2378.63	45.033
180.00	127.53	2331.15	1555.78	39.773	250.00	176.43	3462.61	2390.01	45.095
181.00	128.24	2348.00	1568.34	39.866	251.00	177.12	3478.22	2401.41	45.157
182.00	128.95	2364.84	1580.88	39.959	252.00	177.81	3493.81	2412.80	45.219
183.00	129.65	2381.67	1593.41	40.051	253.00	178.50	3509.38	2424.17	45.281
184.00	130.36	2398.48	1605.93	40.143	254.00	179.19	3524.94	2435.52	45.342
185.00	131.07	2415.27	1618.43	40.234	255.00	179.88	3540.48	2446.86	45.403
186.00	131.77	2432.05	1630.93	40.324	256.00	180.57	3556.00	2458.19	45.464
187.00	132.48	2448.82	1643.40	40.414	257.00	181.26	3571.51	2469.50	45.525
188.00	133.18	2465.56	1655.86	40.504	258.00	181.95	3587.00	2480.79	45.585
189.00	133.89	2482.29	1668.31	40.592	259.00	182.64	3602.47	2492.06	45.645
190.00	134.59	2499.00	1680.74	40.680	260.00	183.33	3617.92	2503.32	45.704
191.00	135.29	2515.69	1693.15	40.768	261.00	184.02	3633.35	2514.56	45.763
192.00	136.00	2532.36	1705.54	40.855	262.00	184.71	3648.77	2525.78	45.822
193.00	136.70	2549.01	1717.91	40.942	263.00	185.40	3664.17	2536.98	45.881
194.00	137.40	2565.63	1730.26	41.028	264.00	186.09	3679.54	2548.16	45.939
195.00	138.11	2582.24	1742.59	41.113	265.00	186.78	3694.90	2559.33	45.997
196.00	138.81	2598.82	1754.90	41.198	266.00	187.47	3710.24	2570.47	46.055
197.00	139.51	2615.38	1767.19	41.282	267.00	188.16	3725.56	2581.60	46.113
198.00	140.22	2631.91	1779.45	41.366	268.00	188.85	3740.86	2592.71	46.170
199.00	140.92	2648.42	1791.69	41.449	269.00	189.54	3756.15	2603.80	46.227
200.00	141.62	2664.91	1803.91	41.532	270.00	190.23	3771.41	2614.87	46.283
201.00	142.32	2681.34	1816.08	41.613	271.00	190.92	3786.66	2625.93	46.340
202.00	143.02	2697.74	1828.22	41.695	272.00	191.61	3801.88	2636.96	46.396
203.00	143.72	2714.12	1840.34	41.776	273.00	192.30	3817.09	2647.98	46.452
204.00	144.42	2730.48	1852.44	41.856	274.00	192.99	3832.29	2658.99	46.507
205.00	145.12	2746.81	1864.51	41.936	275.00	193.68	3847.46	2669.97	46.563
206.00	145.82	2763.11	1876.56	42.015	276.00	194.37	3862.63	2680.95	46.618
207.00	146.52	2779.40	1888.59	42.094	277.00	195.06	3877.77	2691.90	46.672
208.00	147.22	2795.66	1900.60	42.173	278.00	195.74	3892.91	2702.85	46.727
209.00	147.92	2811.89	1912.59	42.250	279.00	196.43	3908.03	2713.78	46.781
210.00	148.62	2828.11	1924.55	42.328	280.00	197.12	3923.13	2724.70	46.835
211.00	149.32	2844.30	1936.49	42.405	281.00	197.81	3938.23	2735.61	46.889
212.00	150.02	2860.47	1948.42	42.481	282.00	198.50	3953.32	2746.51	46.943
213.00	150.72	2876.62	1960.32	42.557	283.00	199.19	3968.40	2757.40	46.996
214.00	151.41	2892.75	1972.20	42.633	284.00	199.88	3983.47	2768.28	47.049
215.00	152.11	2908.85	1984.06	42.708	285.00	200.57	3998.53	2779.16	47.102
216.00	152.81	2924.94	1995.91	42.782	286.00	201.25	4013.59	2790.03	47.155
217.00	153.51	2941.01	2007.73	42.857	287.00	201.94	4028.65	2800.91	47.207
218.00	154.21	2957.06	2019.54	42.930	288.00	202.63	4043.71	2811.78	47.260
219.00	154.90	2973.09	2031.33	43.004	289.00	203.32	4058.76	2822.65	47.312
220.00	155.60	2989.10	2043.11	43.077	290.00	204.01	4073.81	2833.52	47.364
221.00	156.30	3005.09	2054.86	43.149	291.00	204.69	4088.87	2844.40	47.416
222.00	156.99	3021.07	2066.61	43.221	292.00	205.38	4103.93	2855.28	47.468
223.00	157.69	3037.03	2078.33	43.293	293.00	206.07	4119.00	2866.16	47.519
224.00	158.39	3052.98	2090.04	43.365	294.00	206.76	4134.07	2877.05	47.570
225.00	159.08	3068.90	2101.74	43.435	295.00	207.44	4149.14	2887.95	47.622
226.00	159.78	3084.82	2113.42	43.506	296.00	208.13	4164.22	2898.86	47.673
227.00	160.47	3100.72	2125.09	43.576	297.00	208.82	4179.31	2909.77	47.724
228.00	161.17	3116.60	2136.74	43.646	298.00	209.50	4194.41	2920.70	47.774
229.00	161.87	3132.47	2148.38	43.715	299.00	210.19	4209.52	2931.63	47.825
230.00	162.56	3148.32	2160.01	43.785	300.00	210.88	4224.63	2942.58	47.875

70.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	12.83	-187.07	-278.10	6.774					
21.00	12.96	-179.03	-270.93	7.169	91.00	53.30	870.25	492.20	27.990
22.00	13.08	-170.65	-263.45	7.556	92.00	54.00	885.43	502.43	28.156
23.00	13.22	-161.90	-255.67	7.947	93.00	54.69	900.63	512.70	28.321
24.00	13.36	-152.78	-247.57	8.337	94.00	55.39	915.86	523.02	28.484
25.00	13.51	-143.27	-239.13	8.724	95.00	56.08	931.11	533.37	28.645
26.00	13.68	-133.35	-230.35	9.112	96.00	56.77	946.40	543.77	28.805
27.00	13.84	-123.01	-221.20	9.502	97.00	57.45	961.71	554.23	28.964
28.00	14.02	-112.23	-211.71	9.895	98.00	58.13	977.06	564.72	29.121
29.00	14.21	-101.02	-201.84	10.286	99.00	58.82	992.43	575.26	29.277
30.00	14.42	-89.42	-191.67	10.680	100.00	59.50	1007.84	585.85	29.432
31.00	14.63	-77.34	-181.10	11.076	101.00	60.17	1023.26	596.45	29.585
32.00	14.86	-64.85	-170.22	11.475	102.00	60.85	1038.69	607.09	29.737
33.00	15.13	-52.04	-159.32	11.875	103.00	61.52	1054.16	617.78	29.888
34.00	15.38	-38.51	-147.59	12.280	104.00	62.20	1069.68	628.53	30.038
35.00	15.65	-24.42	-135.43	12.688	105.00	62.87	1085.24	639.33	30.187
36.00	15.94	-9.94	-123.00	13.094	106.00	63.54	1100.84	650.18	30.335
37.00	16.25	4.86	-110.40	13.497	107.00	64.20	1116.48	661.09	30.482
38.00	16.58	19.88	-97.73	13.897	108.00	64.87	1132.17	672.05	30.628
39.00	16.94	35.23	-84.90	14.296	109.00	65.53	1147.89	683.06	30.773
40.00	17.31	50.45	-72.35	14.681	110.00	66.20	1163.65	694.12	30.917
41.00	17.72	65.70	-59.97	15.058	111.00	66.86	1179.44	705.24	31.060
42.00	18.15	81.08	-47.65	15.428	112.00	67.52	1195.28	716.40	31.202
43.00	18.61	96.67	-35.33	15.795	113.00	68.17	1211.15	727.61	31.343
44.00	19.10	112.51	-22.95	16.159	114.00	68.83	1227.05	738.86	31.483
45.00	19.62	128.62	-10.51	16.521	115.00	69.48	1242.99	750.17	31.622
46.00	20.17	145.03	2.00	16.882	116.00	70.13	1258.97	761.52	31.760
47.00	20.74	161.69	14.56	17.240	117.00	70.78	1274.98	772.91	31.898
48.00	21.35	178.61	27.18	17.596	118.00	71.43	1291.02	784.35	32.034
49.00	21.99	195.74	39.81	17.950	119.00	72.08	1307.10	795.84	32.170
50.00	22.64	213.04	52.42	18.299	120.00	72.73	1323.21	807.37	32.305
51.00	23.33	230.46	65.00	18.644	121.00	73.37	1339.34	818.93	32.439
52.00	24.03	247.96	77.51	18.984	122.00	74.01	1355.50	830.53	32.572
53.00	24.75	265.50	89.93	19.318	123.00	74.65	1371.70	842.18	32.704
54.00	25.49	283.05	102.23	19.646	124.00	75.29	1387.93	853.87	32.835
55.00	26.24	300.55	114.41	19.967	125.00	75.93	1404.19	865.61	32.966
56.00	27.01	317.99	126.45	20.281	126.00	76.57	1420.55	877.43	33.096
57.00	27.78	335.35	138.35	20.589	127.00	77.21	1436.95	889.30	33.226
58.00	28.55	352.60	150.09	20.889	128.00	77.85	1453.38	901.21	33.355
59.00	29.33	369.74	161.69	21.182	129.00	78.48	1469.85	913.17	33.483
60.00	30.12	386.75	173.14	21.468	130.00	79.12	1486.35	925.16	33.610
61.00	30.90	403.63	184.44	21.747	131.00	79.75	1502.89	937.19	33.737
62.00	31.69	420.38	195.61	22.019	132.00	80.39	1519.46	949.26	33.863
63.00	32.48	437.00	206.64	22.285	133.00	81.02	1536.06	961.37	33.988
64.00	33.26	453.48	217.56	22.544	134.00	81.66	1552.69	973.51	34.113
65.00	34.05	469.84	228.35	22.798	135.00	82.29	1569.36	985.69	34.237
66.00	34.83	486.07	239.03	23.046	136.00	82.92	1586.05	997.90	34.360
67.00	35.61	502.18	249.62	23.288	137.00	83.55	1602.77	1010.15	34.483
68.00	36.39	518.18	260.11	23.525	138.00	84.18	1619.53	1022.42	34.605
69.00	37.16	534.08	270.52	23.757	139.00	84.81	1636.31	1034.73	34.726
70.00	37.93	549.87	280.85	23.985	140.00	85.44	1653.11	1047.06	34.846
71.00	38.70	565.58	291.11	24.207	141.00	86.07	1669.94	1059.42	34.966
72.00	39.46	581.20	301.31	24.426	142.00	86.70	1686.80	1071.81	35.085
73.00	40.22	596.73	311.47	24.640	143.00	87.33	1703.67	1084.22	35.203
74.00	40.98	612.20	321.57	24.850	144.00	87.96	1720.57	1096.66	35.321
75.00	41.73	627.60	331.64	25.057	145.00	88.59	1737.49	1109.11	35.438
76.00	42.48	642.95	341.68	25.261	146.00	89.22	1754.43	1121.60	35.555
77.00	43.22	658.24	351.69	25.460	147.00	89.85	1771.38	1134.10	35.670
78.00	43.96	673.49	361.68	25.657	148.00	90.48	1788.35	1146.62	35.786
79.00	44.70	688.71	371.66	25.851	149.00	91.10	1805.34	1159.15	35.900
80.00	45.43	703.89	381.64	26.042	150.00	91.73	1822.34	1171.71	36.014
81.00	46.17	719.04	391.61	26.230	151.00	92.35	1839.29	1184.24	36.126
82.00	46.89	734.17	401.58	26.416	152.00	92.97	1856.24	1196.78	36.238
83.00	47.62	749.30	411.56	26.599	153.00	93.60	1873.21	1209.34	36.349
84.00	48.34	764.40	421.55	26.780	154.00	94.22	1890.18	1221.90	36.460
85.00	49.06	779.50	431.57	26.959	155.00	94.84	1907.16	1234.48	36.570
86.00	49.77	794.61	441.60	27.135	156.00	95.46	1924.14	1247.07	36.679
87.00	50.48	809.71	451.66	27.310	157.00	96.08	1941.13	1259.66	36.788
88.00	51.19	824.83	461.74	27.483	158.00	96.70	1958.12	1272.26	36.896
89.00	51.90	839.95	471.86	27.654	159.00	97.31	1975.12	1284.87	37.003
90.00	52.60	855.09	482.01	27.823	160.00	97.93	1992.12	1297.49	37.109

70.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	98.55	2009.12	1310.11	37.215	231.00	140.93	3167.25	2167.63	43.202
162.00	99.17	2026.12	1322.73	37.321	232.00	141.53	3183.13	2179.28	43.270
163.00	99.78	2043.12	1335.36	37.425	233.00	142.13	3199.00	2190.91	43.338
164.00	100.40	2060.12	1347.99	37.529	234.00	142.72	3214.85	2202.53	43.406
165.00	101.02	2077.12	1360.62	37.632	235.00	143.32	3230.68	2214.13	43.474
166.00	101.63	2094.12	1373.25	37.735	236.00	143.92	3246.51	2225.72	43.541
167.00	102.25	2111.11	1385.88	37.837	237.00	144.51	3262.31	2237.30	43.608
168.00	102.86	2128.10	1398.51	37.939	238.00	145.11	3278.10	2248.86	43.674
169.00	103.48	2145.09	1411.14	38.039	239.00	145.70	3293.88	2260.41	43.740
170.00	104.09	2162.07	1423.77	38.140	240.00	146.30	3309.64	2271.94	43.806
171.00	104.70	2179.05	1436.40	38.239	241.00	146.90	3325.38	2283.46	43.872
172.00	105.31	2196.02	1449.03	38.338	242.00	147.49	3341.12	2294.97	43.937
173.00	105.93	2212.99	1461.66	38.437	243.00	148.09	3356.83	2306.46	44.002
174.00	106.54	2229.94	1474.28	38.534	244.00	148.68	3372.53	2317.94	44.066
175.00	107.15	2246.89	1486.90	38.631	245.00	149.28	3388.21	2329.40	44.130
176.00	107.76	2263.83	1499.51	38.728	246.00	149.87	3403.88	2340.85	44.194
177.00	108.37	2280.76	1512.11	38.824	247.00	150.47	3419.54	2352.28	44.258
178.00	108.98	2297.68	1524.70	38.919	248.00	151.06	3435.18	2363.71	44.321
179.00	109.59	2314.59	1537.29	39.014	249.00	151.66	3450.80	2375.11	44.384
180.00	110.20	2331.49	1549.86	39.108	250.00	152.25	3466.40	2386.50	44.446
181.00	110.81	2348.37	1562.42	39.202	251.00	152.84	3482.03	2397.92	44.509
182.00	111.42	2365.24	1574.98	39.295	252.00	153.44	3497.64	2409.31	44.571
183.00	112.02	2382.09	1587.52	39.387	253.00	154.03	3513.23	2420.69	44.632
184.00	112.63	2398.93	1600.04	39.479	254.00	154.63	3528.81	2432.06	44.694
185.00	113.24	2415.75	1612.56	39.570	255.00	155.22	3544.37	2443.41	44.755
186.00	113.85	2432.56	1625.06	39.660	256.00	155.81	3559.91	2454.74	44.816
187.00	114.45	2449.35	1637.54	39.750	257.00	156.41	3575.44	2466.06	44.876
188.00	115.06	2466.13	1650.01	39.840	258.00	157.00	3590.94	2477.36	44.937
189.00	115.67	2482.88	1662.46	39.929	259.00	157.59	3606.44	2488.65	44.997
190.00	116.27	2499.62	1674.90	40.017	260.00	158.18	3621.91	2499.91	45.056
191.00	116.88	2516.33	1687.32	40.105	261.00	158.78	3637.37	2511.16	45.116
192.00	117.48	2533.03	1699.72	40.192	262.00	159.37	3652.00	2522.40	45.175
193.00	118.09	2549.71	1712.10	40.279	263.00	159.96	3668.22	2533.62	45.233
194.00	118.70	2566.37	1724.47	40.365	264.00	160.56	3683.63	2544.81	45.292
195.00	119.30	2583.00	1736.81	40.450	265.00	161.15	3699.01	2556.00	45.350
196.00	119.90	2599.62	1749.14	40.535	266.00	161.74	3714.38	2567.16	45.408
197.00	120.51	2616.21	1761.45	40.620	267.00	162.33	3729.73	2578.31	45.465
198.00	121.11	2632.79	1773.73	40.704	268.00	162.93	3745.06	2589.44	45.523
199.00	121.72	2649.34	1786.00	40.787	269.00	163.52	3760.38	2600.56	45.580
200.00	122.32	2665.86	1798.25	40.870	270.00	164.11	3775.68	2611.66	45.637
201.00	122.92	2682.35	1810.45	40.952	271.00	164.70	3790.96	2622.74	45.693
202.00	123.53	2698.81	1822.64	41.034	272.00	165.29	3806.23	2633.80	45.749
203.00	124.13	2715.25	1834.80	41.115	273.00	165.89	3821.48	2644.85	45.805
204.00	124.73	2731.67	1846.94	41.196	274.00	166.48	3836.71	2655.89	45.861
205.00	125.34	2748.06	1859.07	41.276	275.00	167.07	3851.93	2666.91	45.916
206.00	125.94	2764.43	1871.17	41.356	276.00	167.66	3867.13	2677.92	45.972
207.00	126.54	2780.79	1883.25	41.435	277.00	168.25	3882.33	2688.91	46.026
208.00	127.14	2797.11	1895.31	41.513	278.00	168.85	3897.50	2699.89	46.081
209.00	127.74	2813.42	1907.35	41.592	279.00	169.44	3912.67	2710.86	46.136
210.00	128.34	2829.71	1919.37	41.669	280.00	170.03	3927.82	2721.82	46.190
211.00	128.95	2845.97	1931.37	41.747	281.00	170.62	3942.97	2732.76	46.244
212.00	129.55	2862.22	1943.35	41.823	282.00	171.21	3958.10	2743.70	46.298
213.00	130.15	2878.44	1955.31	41.900	283.00	171.80	3973.22	2754.63	46.351
214.00	130.75	2894.64	1967.26	41.976	284.00	172.40	3988.34	2765.55	46.404
215.00	131.35	2910.82	1979.18	42.051	285.00	172.99	4003.45	2776.46	46.458
216.00	131.95	2926.99	1991.08	42.126	286.00	173.58	4018.55	2787.37	46.510
217.00	132.55	2943.13	2002.97	42.201	287.00	174.17	4033.65	2798.28	46.563
218.00	133.15	2959.25	2014.84	42.275	288.00	174.76	4048.74	2809.18	46.616
219.00	133.75	2975.36	2026.69	42.348	289.00	175.35	4063.83	2820.07	46.668
220.00	134.35	2991.45	2038.53	42.422	290.00	175.94	4078.91	2830.97	46.720
221.00	134.95	3007.51	2050.34	42.495	291.00	176.53	4094.00	2841.87	46.772
222.00	135.55	3023.56	2062.14	42.567	292.00	177.12	4109.08	2852.76	46.824
223.00	136.15	3039.60	2073.93	42.639	293.00	177.71	4124.16	2863.66	46.875
224.00	136.74	3055.61	2085.69	42.711	294.00	178.30	4139.24	2874.56	46.927
225.00	137.34	3071.61	2097.45	42.782	295.00	178.89	4154.33	2885.46	46.978
226.00	137.94	3087.59	2109.18	42.853	296.00	179.48	4169.41	2896.36	47.029
227.00	138.54	3103.55	2120.90	42.923	297.00	180.07	4184.50	2907.27	47.080
228.00	139.14	3119.50	2132.61	42.994	298.00	180.66	4199.59	2918.19	47.131
229.00	139.74	3135.43	2144.30	43.063	299.00	181.25	4214.69	2929.10	47.181
230.00	140.33	3151.35	2155.97	43.133	300.00	181.84	4229.78	2940.02	47.232

80.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	12.72	-176.44	-279.52	6.658					
21.00	12.83	-168.54	-272.53	7.047	91.00	47.11	860.52	478.62	27.326
22.00	12.95	-160.31	-265.27	7.427	92.00	47.73	875.92	489.04	27.494
23.00	13.08	-151.72	-257.72	7.811	93.00	48.34	891.33	499.49	27.661
24.00	13.21	-142.78	-249.86	8.193	94.00	48.95	906.77	509.99	27.826
25.00	13.35	-133.46	-241.68	8.572	95.00	49.56	922.24	520.52	27.990
26.00	13.50	-123.75	-233.17	8.952	96.00	50.16	937.73	531.10	28.152
27.00	13.65	-113.64	-224.33	9.333	97.00	50.77	953.24	541.71	28.313
28.00	13.82	-103.13	-215.15	9.717	98.00	51.37	968.78	552.37	28.472
29.00	13.99	-92.20	-205.62	10.097	99.00	51.97	984.36	563.08	28.630
30.00	14.17	-80.92	-195.82	10.480	100.00	52.57	999.96	573.82	28.787
31.00	14.37	-69.19	-185.65	10.865	101.00	53.17	1015.58	584.58	28.942
32.00	14.57	-57.10	-175.20	11.252	102.00	53.77	1031.21	595.38	29.097
33.00	14.81	-44.65	-164.66	11.639	103.00	54.36	1046.89	606.23	29.249
34.00	15.03	-31.62	-153.44	12.030	104.00	54.95	1062.60	617.13	29.401
35.00	15.27	-18.08	-141.84	12.422	105.00	55.55	1078.36	628.08	29.552
36.00	15.52	-4.20	-130.00	12.811	106.00	56.14	1094.15	639.08	29.702
37.00	15.79	9.95	-118.01	13.196	107.00	56.73	1109.98	650.12	29.850
38.00	16.07	24.26	-106.00	13.577	108.00	57.32	1125.85	661.22	29.998
39.00	16.37	38.82	-93.86	13.956	109.00	57.90	1141.75	672.36	30.145
40.00	16.69	53.20	-82.06	14.319	110.00	58.49	1157.68	683.55	30.290
41.00	17.02	67.53	-70.46	14.673	111.00	59.07	1173.64	694.78	30.434
42.00	17.38	81.93	-58.95	15.020	112.00	59.66	1189.64	706.06	30.578
43.00	17.76	96.47	-47.45	15.362	113.00	60.24	1205.66	717.38	30.720
44.00	18.15	111.21	-35.93	15.701	114.00	60.81	1221.71	728.74	30.862
45.00	18.57	126.19	-24.34	16.038	115.00	61.39	1237.79	740.14	31.002
46.00	19.01	141.42	-12.67	16.373	116.00	61.97	1253.90	751.59	31.142
47.00	19.47	156.90	-.92	16.706	117.00	62.54	1270.03	763.08	31.280
48.00	19.95	172.64	10.91	17.037	118.00	63.11	1286.19	774.61	31.418
49.00	20.46	188.61	22.80	17.366	119.00	63.68	1302.38	786.18	31.554
50.00	20.98	204.80	34.75	17.693	120.00	64.25	1318.59	797.79	31.690
51.00	21.52	221.18	46.73	18.018	121.00	64.81	1334.82	809.43	31.825
52.00	22.08	237.71	58.71	18.339	122.00	65.38	1351.08	821.11	31.958
53.00	22.66	254.37	70.69	18.656	123.00	65.94	1367.36	832.83	32.091
54.00	23.25	271.11	82.64	18.969	124.00	66.50	1383.67	844.60	32.223
55.00	23.86	287.93	94.54	19.277	125.00	67.06	1400.02	856.40	32.355
56.00	24.48	304.78	106.38	19.581	126.00	67.63	1416.49	868.31	32.486
57.00	25.10	321.63	118.14	19.879	127.00	68.19	1433.00	880.25	32.617
58.00	25.74	338.47	129.81	20.172	128.00	68.75	1449.54	892.24	32.746
59.00	26.39	355.28	141.39	20.460	129.00	69.31	1466.12	904.27	32.875
60.00	27.04	372.04	152.88	20.741	130.00	69.87	1482.73	916.34	33.004
61.00	27.69	388.74	164.26	21.017	131.00	70.43	1499.37	928.45	33.131
62.00	28.35	405.37	175.54	21.288	132.00	70.99	1516.05	940.60	33.258
63.00	29.02	421.92	186.72	21.552	133.00	71.55	1532.76	952.78	33.384
64.00	29.68	438.38	197.80	21.812	134.00	72.10	1549.50	965.00	33.509
65.00	30.35	454.77	208.79	22.066	135.00	72.66	1566.27	977.26	33.634
66.00	31.01	471.06	219.68	22.315	136.00	73.22	1583.07	989.55	33.758
67.00	31.68	487.27	230.48	22.558	137.00	73.77	1599.91	1001.87	33.881
68.00	32.34	503.39	241.21	22.797	138.00	74.33	1616.76	1014.22	34.004
69.00	33.01	519.43	251.86	23.031	139.00	74.89	1633.65	1026.61	34.126
70.00	33.67	535.39	262.43	23.261	140.00	75.44	1650.56	1039.02	34.247
71.00	34.34	551.28	272.95	23.486	141.00	76.00	1667.50	1051.46	34.368
72.00	35.00	567.09	283.40	23.707	142.00	76.55	1684.46	1063.93	34.488
73.00	35.66	582.83	293.81	23.925	143.00	77.10	1701.45	1076.42	34.607
74.00	36.31	598.51	304.16	24.138	144.00	77.66	1718.45	1088.94	34.725
75.00	36.97	614.14	314.49	24.348	145.00	78.21	1735.48	1101.48	34.843
76.00	37.62	629.71	324.77	24.554	146.00	78.76	1752.52	1114.04	34.960
77.00	38.27	645.24	335.03	24.757	147.00	79.32	1769.58	1126.62	35.077
78.00	38.92	660.73	345.27	24.957	148.00	79.87	1786.66	1139.22	35.192
79.00	39.56	676.18	355.49	25.154	149.00	80.42	1803.75	1151.84	35.308
80.00	40.20	691.60	365.70	25.348	150.00	80.97	1820.85	1164.47	35.422
81.00	40.84	706.99	375.91	25.539	151.00	81.52	1837.90	1177.07	35.535
82.00	41.48	722.36	386.11	25.727	152.00	82.07	1854.95	1189.69	35.648
83.00	42.12	737.72	396.32	25.914	153.00	82.62	1872.01	1202.32	35.760
84.00	42.75	753.07	406.54	26.097	154.00	83.16	1889.08	1214.95	35.871
85.00	43.38	768.41	416.77	26.279	155.00	83.71	1906.15	1227.60	35.981
86.00	44.01	783.74	427.01	26.458	156.00	84.25	1923.23	1240.25	36.091
87.00	44.63	799.08	437.28	26.636	157.00	84.80	1940.30	1252.91	36.200
88.00	45.26	814.42	447.58	26.811	158.00	85.34	1957.39	1265.58	36.309
89.00	45.88	829.78	457.89	26.984	159.00	85.89	1974.47	1278.25	36.417
90.00	46.50	845.14	468.24	27.156	160.00	86.43	1991.55	1290.92	36.524

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	86.97	2008.63	1303.60	36.630	231.00	124.20	3170.35	2163.58	42.634
162.00	87.52	2025.71	1316.28	36.736	232.00	124.72	3186.29	2175.28	42.703
163.00	88.06	2042.79	1328.96	36.841	233.00	125.24	3202.21	2186.95	42.772
164.00	88.60	2059.86	1341.64	36.945	234.00	125.77	3218.12	2198.61	42.840
165.00	89.14	2076.93	1354.32	37.049	235.00	126.29	3234.01	2210.25	42.908
166.00	89.68	2094.00	1367.00	37.152	236.00	126.82	3249.88	2221.88	42.975
167.00	90.22	2111.06	1379.68	37.255	237.00	127.34	3265.73	2233.49	43.042
168.00	90.77	2128.11	1392.35	37.356	238.00	127.86	3281.56	2245.08	43.109
169.00	91.31	2145.16	1405.02	37.458	239.00	128.38	3297.37	2256.66	43.175
170.00	91.84	2162.20	1417.68	37.558	240.00	128.91	3313.17	2268.22	43.241
171.00	92.38	2179.22	1430.34	37.658	241.00	129.43	3328.95	2279.76	43.307
172.00	92.92	2196.24	1442.99	37.757	242.00	129.95	3344.71	2291.28	43.372
173.00	93.46	2213.24	1455.63	37.856	243.00	130.47	3360.45	2302.79	43.437
174.00	94.00	2230.23	1468.27	37.954	244.00	131.00	3376.18	2314.29	43.501
175.00	94.53	2247.22	1480.90	38.051	245.00	131.52	3391.88	2325.76	43.566
176.00	95.07	2264.18	1493.51	38.148	246.00	132.04	3407.57	2337.23	43.630
177.00	95.61	2281.14	1506.12	38.244	247.00	132.56	3423.25	2348.67	43.693
178.00	96.14	2298.08	1518.72	38.339	248.00	133.08	3438.90	2360.10	43.756
179.00	96.68	2315.01	1531.31	38.434	249.00	133.60	3454.54	2371.51	43.819
180.00	97.22	2331.93	1543.88	38.528	250.00	134.13	3470.16	2382.91	43.882
181.00	97.75	2348.83	1556.45	38.622	251.00	134.65	3485.80	2394.32	43.944
182.00	98.28	2365.71	1569.00	38.715	252.00	135.17	3501.42	2405.72	44.006
183.00	98.82	2382.58	1581.53	38.807	253.00	135.69	3517.03	2417.11	44.068
184.00	99.35	2399.44	1594.06	38.899	254.00	136.21	3532.62	2428.48	44.130
185.00	99.89	2416.27	1606.57	38.991	255.00	136.73	3548.19	2439.83	44.191
186.00	100.42	2433.09	1619.06	39.081	256.00	137.25	3563.74	2451.17	44.252
187.00	100.95	2449.90	1631.54	39.171	257.00	137.77	3579.28	2462.49	44.312
188.00	101.49	2466.68	1644.01	39.261	258.00	138.29	3594.80	2473.79	44.373
189.00	102.02	2483.45	1656.46	39.350	259.00	138.81	3610.31	2485.08	44.433
190.00	102.55	2500.20	1668.89	39.438	260.00	139.33	3625.80	2496.36	44.492
191.00	103.08	2516.93	1681.31	39.526	261.00	139.85	3641.27	2507.62	44.552
192.00	103.62	2533.65	1693.71	39.613	262.00	140.37	3656.72	2518.86	44.611
193.00	104.15	2550.34	1706.10	39.700	263.00	140.89	3672.16	2530.09	44.670
194.00	104.68	2567.02	1718.47	39.786	264.00	141.41	3687.59	2541.30	44.728
195.00	105.21	2583.68	1730.82	39.872	265.00	141.93	3703.00	2552.50	44.786
196.00	105.74	2600.32	1743.16	39.957	266.00	142.45	3718.39	2563.68	44.844
197.00	106.27	2616.94	1755.47	40.042	267.00	142.97	3733.77	2574.85	44.902
198.00	106.80	2633.54	1767.78	40.126	268.00	143.49	3749.13	2586.00	44.960
199.00	107.33	2650.12	1780.06	40.209	269.00	144.01	3764.48	2597.14	45.017
200.00	107.86	2666.68	1792.32	40.292	270.00	144.52	3779.82	2608.27	45.074
201.00	108.39	2683.22	1804.57	40.375	271.00	145.04	3795.14	2619.38	45.130
202.00	108.92	2699.74	1816.80	40.457	272.00	145.56	3810.44	2630.48	45.187
203.00	109.45	2716.24	1829.01	40.538	273.00	146.08	3825.74	2641.56	45.243
204.00	109.98	2732.72	1841.20	40.619	274.00	146.60	3841.01	2652.64	45.299
205.00	110.51	2749.18	1853.37	40.700	275.00	147.12	3856.28	2663.70	45.354
206.00	111.04	2765.63	1865.53	40.780	276.00	147.64	3871.53	2674.74	45.410
207.00	111.57	2782.05	1877.67	40.859	277.00	148.16	3886.78	2685.78	45.465
208.00	112.09	2798.45	1889.79	40.938	278.00	148.68	3902.01	2696.80	45.520
209.00	112.62	2814.83	1901.89	41.017	279.00	149.20	3917.22	2707.81	45.574
210.00	113.15	2831.19	1913.97	41.095	280.00	149.71	3932.43	2718.82	45.629
211.00	113.68	2847.54	1926.04	41.172	281.00	150.23	3947.63	2729.81	45.683
212.00	114.21	2863.86	1938.08	41.250	282.00	150.75	3962.81	2740.79	45.737
213.00	114.73	2880.17	1950.11	41.326	283.00	151.27	3977.99	2751.76	45.790
214.00	115.26	2896.45	1962.12	41.403	284.00	151.79	3993.16	2762.73	45.844
215.00	115.79	2912.71	1974.12	41.479	285.00	152.31	4008.31	2773.68	45.897
216.00	116.31	2928.96	1986.09	41.554	286.00	152.82	4023.46	2784.63	45.950
217.00	116.84	2945.19	1998.05	41.629	287.00	153.34	4038.60	2795.57	46.003
218.00	117.37	2961.39	2009.99	41.703	288.00	153.86	4053.74	2806.51	46.056
219.00	117.89	2977.58	2021.91	41.777	289.00	154.38	4068.86	2817.44	46.108
220.00	118.42	2993.75	2033.81	41.851	290.00	154.90	4083.98	2828.36	46.160
221.00	118.95	3009.90	2045.70	41.924	291.00	155.41	4099.09	2839.27	46.212
222.00	119.47	3026.03	2057.56	41.997	292.00	155.93	4114.20	2850.19	46.264
223.00	120.00	3042.14	2069.41	42.070	293.00	156.45	4129.30	2861.09	46.316
224.00	120.52	3058.23	2081.25	42.142	294.00	156.96	4144.39	2872.00	46.367
225.00	121.05	3074.31	2093.06	42.213	295.00	157.48	4159.48	2882.90	46.419
226.00	121.57	3090.36	2104.86	42.284	296.00	158.00	4174.56	2893.79	46.470
227.00	122.10	3106.39	2116.64	42.355	297.00	158.51	4189.64	2904.69	46.520
228.00	122.62	3122.41	2128.40	42.426	298.00	159.03	4204.71	2915.58	46.571
229.00	123.15	3138.41	2140.14	42.496	299.00	159.55	4219.78	2926.46	46.622
230.00	123.67	3154.39	2151.87	42.565	300.00	160.06	4234.84	2937.35	46.672

90.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	12.60	-165.80	-280.75	6.549					
21.00	12.71	-158.01	-273.94	6.932	91.00	42.38	852.22	465.74	26.738
22.00	12.83	-149.91	-266.87	7.306	92.00	42.93	867.79	476.32	26.908
23.00	12.94	-141.47	-259.51	7.683	93.00	43.47	883.38	486.94	27.076
24.00	13.07	-132.69	-251.87	8.059	94.00	44.02	899.00	497.59	27.243
25.00	13.20	-123.54	-243.91	8.430	95.00	44.56	914.63	508.28	27.409
26.00	13.34	-114.02	-235.65	8.803	96.00	45.10	930.29	519.01	27.573
27.00	13.48	-104.11	-227.06	9.177	97.00	45.64	945.98	529.78	27.735
28.00	13.63	-93.82	-218.15	9.553	98.00	46.18	961.69	540.59	27.897
29.00	13.79	-83.13	-208.92	9.925	99.00	46.71	977.43	551.44	28.056
30.00	13.96	-72.11	-199.43	10.299	100.00	47.25	993.19	562.33	28.215
31.00	14.14	-60.67	-189.59	10.674	101.00	47.78	1008.93	573.19	28.371
32.00	14.32	-48.90	-179.50	11.051	102.00	48.31	1024.64	584.04	28.526
33.00	14.53	-36.73	-169.24	11.429	103.00	48.85	1040.39	594.94	28.680
34.00	14.73	-24.10	-158.44	11.808	104.00	49.38	1056.18	605.89	28.832
35.00	14.94	-11.00	-147.27	12.187	105.00	49.91	1072.02	616.90	28.984
36.00	15.17	2.41	-135.90	12.563	106.00	50.43	1087.89	627.95	29.134
37.00	15.40	16.06	-124.40	12.934	107.00	50.96	1103.80	639.06	29.284
38.00	15.65	29.84	-112.88	13.301	108.00	51.49	1119.75	650.22	29.432
39.00	15.91	43.81	-101.30	13.664	109.00	52.01	1135.75	661.43	29.580
40.00	16.19	57.55	-90.07	14.012	110.00	52.53	1151.78	672.69	29.726
41.00	16.48	71.20	-79.05	14.349	111.00	53.06	1167.86	684.01	29.872
42.00	16.78	84.88	-68.15	14.679	112.00	53.58	1183.97	695.38	30.016
43.00	17.10	98.66	-57.28	15.003	113.00	54.10	1200.13	706.81	30.160
44.00	17.44	112.60	-46.40	15.323	114.00	54.61	1216.32	718.28	30.302
45.00	17.79	126.74	-35.46	15.641	115.00	55.13	1232.55	729.81	30.444
46.00	18.15	141.10	-24.43	15.957	116.00	55.64	1248.82	741.39	30.585
47.00	18.54	155.71	-13.33	16.271	117.00	56.15	1265.13	753.02	30.725
48.00	18.94	170.55	-2.12	16.583	118.00	56.67	1281.47	764.71	30.864
49.00	19.35	185.63	9.17	16.894	119.00	57.18	1297.85	776.44	31.002
50.00	19.78	200.93	20.54	17.204	120.00	57.68	1314.26	788.22	31.140
51.00	20.23	216.45	31.97	17.511	121.00	58.19	1330.70	800.04	31.276
52.00	20.69	232.15	43.46	17.816	122.00	58.69	1347.17	811.91	31.412
53.00	21.17	248.01	54.99	18.118	123.00	59.20	1363.67	823.82	31.546
54.00	21.66	264.02	66.54	18.417	124.00	59.70	1380.20	835.77	31.680
55.00	22.16	280.15	78.10	18.713	125.00	60.20	1396.77	847.77	31.813
56.00	22.67	296.37	89.64	19.005	126.00	60.70	1413.39	859.79	31.946
57.00	23.19	312.67	101.16	19.294	127.00	61.21	1430.04	871.85	32.077
58.00	23.73	329.00	112.65	19.578	128.00	61.71	1446.72	883.95	32.208
59.00	24.27	345.38	124.09	19.858	129.00	62.21	1463.43	896.08	32.338
60.00	24.81	361.76	135.48	20.133	130.00	62.71	1480.17	908.25	32.467
61.00	25.37	378.14	146.80	20.404	131.00	63.21	1496.94	920.46	32.596
62.00	25.93	394.51	158.07	20.670	132.00	63.71	1513.73	932.69	32.724
63.00	26.49	410.84	169.26	20.931	133.00	64.21	1530.55	944.96	32.851
64.00	27.06	427.15	180.39	21.188	134.00	64.71	1547.40	957.26	32.977
65.00	27.63	443.41	191.44	21.440	135.00	65.21	1564.27	969.59	33.102
66.00	28.20	459.62	202.43	21.688	136.00	65.71	1581.17	981.94	33.227
67.00	28.78	475.78	213.35	21.931	137.00	66.21	1598.09	994.33	33.351
68.00	29.35	491.89	224.20	22.169	138.00	66.70	1615.03	1006.74	33.474
69.00	29.93	507.94	234.99	22.404	139.00	67.20	1631.99	1019.18	33.596
70.00	30.51	523.94	245.73	22.634	140.00	67.69	1648.97	1031.64	33.718
71.00	31.09	539.88	256.40	22.860	141.00	68.19	1665.98	1044.13	33.839
72.00	31.66	555.77	267.03	23.082	142.00	68.68	1683.00	1056.63	33.960
73.00	32.24	571.61	277.61	23.301	143.00	69.18	1700.04	1069.17	34.079
74.00	32.81	587.40	288.16	23.516	144.00	69.67	1717.10	1081.72	34.198
75.00	33.39	603.15	298.66	23.727	145.00	70.17	1734.17	1094.29	34.316
76.00	33.96	618.86	309.14	23.935	146.00	70.66	1751.26	1106.88	34.434
77.00	34.54	634.53	319.59	24.140	147.00	71.15	1768.37	1119.49	34.550
78.00	35.11	650.16	330.02	24.342	148.00	71.64	1785.49	1132.12	34.666
79.00	35.68	665.77	340.43	24.541	149.00	72.14	1802.62	1144.77	34.782
80.00	36.24	681.36	350.83	24.737	150.00	72.63	1819.77	1157.43	34.896
81.00	36.81	696.92	361.23	24.930	151.00	73.12	1836.88	1170.00	35.010
82.00	37.38	712.46	371.62	25.121	152.00	73.61	1854.01	1182.75	35.123
83.00	37.94	727.99	382.02	25.309	153.00	74.10	1871.15	1195.43	35.236
84.00	38.50	743.51	392.43	25.495	154.00	74.58	1888.29	1208.12	35.347
85.00	39.06	759.03	402.84	25.678	155.00	75.07	1905.44	1220.82	35.458
86.00	39.62	774.55	413.27	25.860	156.00	75.56	1922.59	1233.53	35.569
87.00	40.17	790.06	423.71	26.039	157.00	76.05	1939.74	1246.24	35.678
88.00	40.73	805.59	434.18	26.217	158.00	76.53	1956.90	1258.56	35.787
89.00	41.28	821.12	444.67	26.392	159.00	77.02	1974.06	1271.69	35.895
90.00	41.83	836.66	455.19	26.566	160.00	77.50	1991.22	1284.42	36.003

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	77.99	2008.38	1297.16	36.110	231.00	111.19	3173.62	2159.63	42.133
162.00	78.47	2025.54	1309.89	36.216	232.00	111.66	3189.60	2171.35	42.202
163.00	78.96	2042.69	1322.63	36.322	233.00	112.12	3205.56	2183.06	42.271
164.00	79.44	2059.85	1335.37	36.427	234.00	112.59	3221.50	2194.74	42.339
165.00	79.93	2077.00	1348.11	36.531	235.00	113.06	3237.42	2206.41	42.407
166.00	80.41	2094.14	1360.84	36.635	236.00	113.52	3253.32	2218.06	42.474
167.00	80.89	2111.28	1373.58	36.737	237.00	113.99	3269.21	2229.69	42.541
168.00	81.38	2128.41	1386.31	36.840	238.00	114.45	3285.07	2241.31	42.608
169.00	81.86	2145.53	1399.03	36.941	239.00	114.92	3300.92	2252.91	42.675
170.00	82.34	2162.65	1411.75	37.042	240.00	115.39	3316.75	2264.49	42.741
171.00	82.82	2179.74	1424.46	37.143	241.00	115.85	3332.56	2276.06	42.807
172.00	83.30	2196.82	1437.16	37.242	242.00	116.32	3348.35	2287.60	42.872
173.00	83.78	2213.89	1449.84	37.341	243.00	116.78	3364.13	2299.14	42.937
174.00	84.26	2230.94	1462.52	37.439	244.00	117.25	3379.88	2310.65	43.002
175.00	84.74	2247.99	1475.19	37.537	245.00	117.71	3395.62	2322.15	43.066
176.00	85.22	2265.02	1487.85	37.634	246.00	118.18	3411.34	2333.63	43.130
177.00	85.70	2282.03	1500.50	37.731	247.00	118.64	3427.04	2345.10	43.194
178.00	86.18	2299.03	1513.14	37.826	248.00	119.11	3442.73	2356.55	43.257
179.00	86.66	2316.02	1525.77	37.921	249.00	119.57	3458.39	2367.98	43.320
180.00	87.13	2332.99	1538.38	38.016	250.00	120.03	3474.04	2379.40	43.383
181.00	87.61	2349.94	1550.98	38.110	251.00	120.50	3489.71	2390.83	43.445
182.00	88.09	2366.88	1563.57	38.203	252.00	120.96	3505.36	2402.25	43.508
183.00	88.56	2383.80	1576.14	38.296	253.00	121.43	3520.99	2413.66	43.570
184.00	89.04	2400.71	1588.70	38.388	254.00	121.89	3536.61	2425.04	43.631
185.00	89.52	2417.59	1601.24	38.480	255.00	122.35	3552.21	2436.42	43.693
186.00	89.99	2434.46	1613.77	38.571	256.00	122.82	3567.79	2447.77	43.753
187.00	90.47	2451.31	1626.28	38.661	257.00	123.28	3583.35	2459.11	43.814
188.00	90.94	2468.15	1638.78	38.751	258.00	123.74	3598.90	2470.44	43.875
189.00	91.42	2484.96	1651.26	38.840	259.00	124.21	3614.43	2481.75	43.935
190.00	91.89	2501.75	1663.73	38.928	260.00	124.67	3629.95	2493.04	43.994
191.00	92.37	2518.53	1676.18	39.017	261.00	125.13	3645.45	2504.32	44.054
192.00	92.84	2535.29	1688.61	39.104	262.00	125.59	3660.93	2515.58	44.113
193.00	93.32	2552.03	1701.02	39.191	263.00	126.06	3676.40	2526.83	44.172
194.00	93.79	2568.75	1713.42	39.277	264.00	126.52	3691.85	2538.06	44.231
195.00	94.26	2585.45	1725.80	39.363	265.00	126.98	3707.28	2549.27	44.289
196.00	94.74	2602.13	1738.17	39.449	266.00	127.44	3722.70	2560.48	44.347
197.00	95.21	2618.79	1750.51	39.533	267.00	127.91	3738.11	2571.66	44.405
198.00	95.68	2635.43	1762.84	39.618	268.00	128.37	3753.50	2582.84	44.462
199.00	96.16	2652.05	1775.15	39.701	269.00	128.83	3768.87	2593.99	44.520
200.00	96.63	2668.65	1787.45	39.785	270.00	129.29	3784.24	2605.14	44.577
201.00	97.10	2685.24	1799.72	39.867	271.00	129.76	3799.58	2616.27	44.633
202.00	97.57	2701.80	1811.98	39.950	272.00	130.22	3814.92	2627.39	44.690
203.00	98.05	2718.35	1824.22	40.031	273.00	130.68	3830.24	2638.49	44.746
204.00	98.52	2734.87	1836.45	40.112	274.00	131.14	3845.54	2649.58	44.802
205.00	98.99	2751.37	1848.65	40.193	275.00	131.61	3860.84	2660.66	44.858
206.00	99.46	2767.86	1860.84	40.273	276.00	132.07	3876.12	2671.73	44.913
207.00	99.93	2784.33	1873.01	40.353	277.00	132.53	3891.38	2682.78	44.969
208.00	100.40	2800.77	1885.16	40.432	278.00	132.99	3906.64	2693.82	45.023
209.00	100.87	2817.20	1897.29	40.511	279.00	133.45	3921.89	2704.86	45.078
210.00	101.34	2833.60	1909.41	40.589	280.00	133.92	3937.12	2715.88	45.133
211.00	101.81	2849.99	1921.50	40.667	281.00	134.38	3952.34	2726.89	45.187
212.00	102.28	2866.36	1933.58	40.745	282.00	134.84	3967.56	2737.89	45.241
213.00	102.75	2882.70	1945.64	40.822	283.00	135.30	3982.76	2748.88	45.295
214.00	103.22	2899.03	1957.68	40.898	284.00	135.76	3997.95	2759.86	45.348
215.00	103.69	2915.34	1969.70	40.974	285.00	136.22	4013.14	2770.84	45.402
216.00	104.16	2931.63	1981.71	41.050	286.00	136.69	4028.31	2781.81	45.455
217.00	104.63	2947.89	1993.70	41.125	287.00	137.15	4043.48	2792.76	45.508
218.00	105.10	2964.14	2005.67	41.200	288.00	137.61	4058.63	2803.72	45.561
219.00	105.57	2980.37	2017.62	41.274	289.00	138.07	4073.78	2814.66	45.613
220.00	106.04	2996.58	2029.55	41.348	290.00	138.53	4088.92	2825.60	45.665
221.00	106.51	3012.77	2041.46	41.421	291.00	138.99	4104.06	2836.53	45.718
222.00	106.98	3028.94	2053.36	41.494	292.00	139.45	4119.18	2847.46	45.769
223.00	107.45	3045.10	2065.24	41.567	293.00	139.91	4134.30	2858.38	45.821
224.00	107.91	3061.23	2077.10	41.639	294.00	140.37	4149.42	2869.30	45.873
225.00	108.38	3077.34	2088.95	41.711	295.00	140.83	4164.53	2880.21	45.924
226.00	108.85	3093.44	2100.77	41.782	296.00	141.29	4179.63	2891.12	45.975
227.00	109.32	3109.51	2112.58	41.853	297.00	141.75	4194.72	2902.03	46.026
228.00	109.79	3125.57	2124.37	41.924	298.00	142.21	4209.81	2912.93	46.077
229.00	110.25	3141.60	2136.14	41.994	299.00	142.67	4224.89	2923.83	46.127
230.00	110.72	3157.62	2147.90	42.064	300.00	143.13	4239.97	2934.73	46.178

100.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	12.50	-155.16	-281.83	6.445					
21.00	12.60	-147.47	-275.17	6.823	91.00	38.66	845.28	453.57	26.211
22.00	12.71	-139.49	-268.27	7.192	92.00	39.15	860.99	464.30	26.383
23.00	12.82	-131.17	-261.09	7.564	93.00	39.64	876.72	475.06	26.553
24.00	12.94	-122.53	-253.64	7.933	94.00	40.13	892.48	485.85	26.721
25.00	13.06	-113.53	-245.89	8.299	95.00	40.62	908.25	496.67	26.888
26.00	13.19	-104.17	-237.84	8.665	96.00	41.11	924.05	507.54	27.054
27.00	13.33	-94.44	-229.48	9.032	97.00	41.59	939.88	518.44	27.218
28.00	13.47	-84.34	-220.81	9.401	98.00	42.08	955.73	529.38	27.380
29.00	13.62	-73.86	-211.82	9.766	99.00	42.56	971.60	540.36	27.541
30.00	13.77	-63.07	-202.59	10.133	100.00	43.04	987.50	551.38	27.701
31.00	13.93	-51.87	-193.04	10.500	101.00	43.52	1003.37	562.36	27.859
32.00	14.10	-40.37	-183.25	10.868	102.00	44.00	1019.21	573.34	28.015
33.00	14.29	-28.42	-173.21	11.238	103.00	44.48	1035.09	584.37	28.170
34.00	14.47	-16.12	-162.76	11.607	104.00	44.96	1051.01	595.45	28.324
35.00	14.66	-3.38	-151.97	11.976	105.00	45.44	1066.97	606.58	28.477
36.00	14.87	9.65	-140.97	12.341	106.00	45.91	1082.98	617.77	28.628
37.00	15.08	22.91	-129.86	12.702	107.00	46.39	1099.02	629.00	28.779
38.00	15.30	36.26	-118.76	13.058	108.00	46.86	1115.10	640.28	28.929
39.00	15.53	49.76	-107.61	13.409	109.00	47.33	1131.23	651.62	29.077
40.00	15.78	63.01	-96.83	13.744	110.00	47.80	1147.39	663.00	29.225
41.00	16.03	76.13	-86.29	14.068	111.00	48.28	1163.60	674.44	29.372
42.00	16.30	89.25	-75.87	14.384	112.00	48.74	1179.84	685.92	29.517
43.00	16.57	102.45	-65.50	14.694	113.00	49.21	1196.12	697.45	29.662
44.00	16.86	115.77	-55.11	15.001	114.00	49.68	1212.44	709.03	29.806
45.00	17.17	129.27	-44.68	15.304	115.00	50.15	1228.79	720.66	29.949
46.00	17.48	142.97	-34.17	15.605	116.00	50.61	1245.18	732.33	30.090
47.00	17.81	156.89	-23.58	15.905	117.00	51.08	1261.60	744.06	30.231
48.00	18.15	171.04	-12.88	16.203	118.00	51.54	1278.05	755.82	30.371
49.00	18.51	185.42	-2.09	16.499	119.00	52.00	1294.54	767.63	30.511
50.00	18.87	200.02	8.79	16.794	120.00	52.46	1311.06	779.49	30.649
51.00	19.25	214.84	19.77	17.087	121.00	52.92	1327.60	791.38	30.786
52.00	19.64	229.85	30.82	17.379	122.00	53.38	1344.18	803.31	30.922
53.00	20.05	245.04	41.94	17.668	123.00	53.84	1360.78	815.28	31.058
54.00	20.46	260.41	53.11	17.956	124.00	54.29	1377.41	827.29	31.193
55.00	20.88	275.92	64.32	18.240	125.00	54.75	1394.07	839.34	31.326
56.00	21.32	291.56	75.55	18.522	126.00	55.20	1410.79	851.43	31.460
57.00	21.76	307.31	86.80	18.801	127.00	55.66	1427.54	863.56	31.592
58.00	22.22	323.15	98.05	19.076	128.00	56.11	1444.32	875.73	31.724
59.00	22.68	339.06	109.29	19.348	129.00	56.57	1461.13	887.93	31.855
60.00	23.14	355.03	120.52	19.617	130.00	57.02	1477.96	900.16	31.985
61.00	23.62	371.04	131.71	19.881	131.00	57.48	1494.82	912.43	32.114
62.00	24.10	387.07	142.88	20.142	132.00	57.93	1511.71	924.73	32.242
63.00	24.59	403.13	154.01	20.399	133.00	58.38	1528.62	937.06	32.370
64.00	25.08	419.18	165.09	20.652	134.00	58.83	1545.55	949.42	32.497
65.00	25.57	435.23	176.14	20.901	135.00	59.28	1562.51	961.81	32.623
66.00	26.07	451.27	187.13	21.145	136.00	59.73	1579.49	974.23	32.748
67.00	26.57	467.29	198.08	21.386	137.00	60.18	1596.49	986.68	32.873
68.00	27.07	483.29	208.98	21.623	138.00	60.63	1613.51	999.15	32.996
69.00	27.58	499.26	219.84	21.856	139.00	61.08	1630.55	1011.65	33.119
70.00	28.08	515.20	230.66	22.086	140.00	61.53	1647.62	1024.17	33.242
71.00	28.59	531.11	241.43	22.312	141.00	61.97	1664.70	1036.72	33.363
72.00	29.10	546.99	252.16	22.534	142.00	62.42	1681.79	1049.30	33.484
73.00	29.61	562.84	262.86	22.752	143.00	62.87	1698.91	1061.89	33.604
74.00	30.12	578.66	273.52	22.967	144.00	63.31	1716.04	1074.51	33.724
75.00	30.62	594.45	284.15	23.179	145.00	63.76	1733.19	1087.15	33.842
76.00	31.13	610.21	294.76	23.388	146.00	64.20	1750.35	1099.81	33.960
77.00	31.64	625.95	305.35	23.594	147.00	64.65	1767.53	1112.49	34.077
78.00	32.15	641.67	315.92	23.797	148.00	65.09	1784.72	1125.18	34.194
79.00	32.66	657.36	326.48	23.997	149.00	65.53	1801.93	1137.90	34.310
80.00	33.16	673.04	337.03	24.194	150.00	65.98	1819.15	1150.63	34.425
81.00	33.67	688.71	347.58	24.388	151.00	66.42	1836.34	1163.34	34.539
82.00	34.17	704.36	358.12	24.581	152.00	66.86	1855.55	1176.07	34.653
83.00	34.67	720.01	368.67	24.770	153.00	67.30	1870.76	1188.81	34.766
84.00	35.18	735.65	379.22	24.958	154.00	67.74	1887.98	1201.56	34.878
85.00	35.68	751.29	389.79	25.143	155.00	68.18	1905.20	1214.32	34.989
86.00	36.18	766.94	400.36	25.326	156.00	68.62	1922.43	1227.08	35.100
87.00	36.68	782.58	410.96	25.507	157.00	69.06	1939.66	1239.86	35.210
88.00	37.17	798.24	421.58	25.685	158.00	69.50	1956.89	1252.64	35.320
89.00	37.67	813.91	432.22	25.863	159.00	69.94	1974.13	1265.42	35.428
90.00	38.16	829.59	442.88	26.038	160.00	70.38	1991.37	1278.21	35.537

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
161.00	70.82	2008.60	1291.00	35.644	231.00	100.79	3177.17	2155.88	41.685
162.00	71.26	2025.84	1303.80	35.751	232.00	101.21	3193.18	2167.62	41.754
163.00	71.70	2043.07	1316.59	35.857	233.00	101.63	3209.17	2179.35	41.822
164.00	72.13	2060.29	1329.38	35.962	234.00	102.05	3225.15	2191.05	41.891
165.00	72.57	2077.52	1342.17	36.067	235.00	102.48	3241.10	2202.74	41.959
166.00	73.01	2094.74	1354.96	36.171	236.00	102.90	3257.03	2214.41	42.027
167.00	73.44	2111.95	1367.75	36.274	237.00	103.32	3272.94	2226.07	42.094
168.00	73.88	2129.15	1380.53	36.377	238.00	103.74	3288.84	2237.70	42.161
169.00	74.32	2146.35	1393.31	36.479	239.00	104.16	3304.71	2249.32	42.227
170.00	74.75	2163.53	1406.08	36.580	240.00	104.58	3320.57	2260.92	42.294
171.00	75.19	2180.69	1418.83	36.681	241.00	105.00	3336.41	2272.51	42.359
172.00	75.62	2197.83	1431.57	36.781	242.00	105.42	3352.23	2284.07	42.425
173.00	76.06	2214.96	1444.30	36.880	243.00	105.84	3368.03	2295.62	42.490
174.00	76.49	2232.08	1457.03	36.979	244.00	106.25	3383.81	2307.16	42.555
175.00	76.92	2249.18	1469.74	37.077	245.00	106.67	3399.57	2318.67	42.619
176.00	77.36	2266.27	1482.44	37.174	246.00	107.09	3415.32	2330.17	42.683
177.00	77.79	2283.34	1495.13	37.271	247.00	107.51	3431.05	2341.66	42.747
178.00	78.22	2300.40	1507.81	37.367	248.00	107.93	3446.75	2353.12	42.811
179.00	78.65	2317.44	1520.47	37.463	249.00	108.35	3462.45	2364.57	42.874
180.00	79.08	2334.46	1533.13	37.557	250.00	108.77	3478.12	2376.01	42.937
181.00	79.52	2351.47	1545.76	37.652	251.00	109.19	3493.81	2387.46	42.999
182.00	79.95	2368.46	1558.39	37.745	252.00	109.60	3509.48	2398.90	43.062
183.00	80.38	2385.43	1570.99	37.838	253.00	110.02	3525.14	2410.32	43.124
184.00	80.81	2402.38	1583.59	37.931	254.00	110.44	3540.78	2421.72	43.185
185.00	81.24	2419.32	1596.17	38.022	255.00	110.86	3556.40	2433.11	43.247
186.00	81.67	2436.23	1608.73	38.114	256.00	111.27	3572.01	2444.48	43.308
187.00	82.10	2453.13	1621.27	38.204	257.00	111.69	3587.60	2455.84	43.369
188.00	82.52	2470.01	1633.80	38.294	258.00	112.11	3603.17	2467.18	43.429
189.00	82.95	2486.87	1646.32	38.384	259.00	112.53	3618.72	2478.51	43.489
190.00	83.38	2503.70	1658.82	38.472	260.00	112.94	3634.26	2489.82	43.549
191.00	83.81	2520.52	1671.30	38.561	261.00	113.36	3649.79	2501.12	43.609
192.00	84.24	2537.32	1683.76	38.648	262.00	113.78	3665.30	2512.40	43.668
193.00	84.67	2554.10	1696.20	38.736	263.00	114.20	3680.79	2523.66	43.727
194.00	85.09	2570.86	1708.63	38.822	264.00	114.61	3696.26	2534.91	43.786
195.00	85.52	2587.60	1721.04	38.908	265.00	115.03	3711.72	2546.15	43.844
196.00	85.95	2604.33	1733.44	38.994	266.00	115.45	3727.17	2557.37	43.902
197.00	86.37	2621.03	1745.81	39.079	267.00	115.86	3742.60	2568.58	43.960
198.00	86.80	2637.71	1758.17	39.163	268.00	116.28	3758.02	2579.77	44.018
199.00	87.23	2654.37	1770.51	39.247	269.00	116.70	3773.42	2590.95	44.075
200.00	87.65	2671.01	1782.84	39.331	270.00	117.11	3788.81	2602.11	44.132
201.00	88.08	2687.64	1795.14	39.414	271.00	117.53	3804.19	2613.26	44.189
202.00	88.51	2704.24	1807.43	39.496	272.00	117.95	3819.55	2624.40	44.246
203.00	88.93	2720.83	1819.71	39.578	273.00	118.37	3834.89	2635.53	44.302
204.00	89.36	2737.40	1831.96	39.659	274.00	118.78	3850.23	2646.64	44.358
205.00	89.78	2753.94	1844.20	39.740	275.00	119.20	3865.55	2657.74	44.414
206.00	90.21	2770.47	1856.41	39.821	276.00	119.62	3880.86	2668.82	44.470
207.00	90.63	2786.98	1868.61	39.901	277.00	120.03	3896.16	2679.90	44.525
208.00	91.06	2803.46	1880.79	39.980	278.00	120.45	3911.45	2690.96	44.580
209.00	91.48	2819.93	1892.96	40.059	279.00	120.87	3926.72	2702.02	44.635
210.00	91.91	2836.38	1905.10	40.138	280.00	121.28	3941.98	2713.06	44.689
211.00	92.33	2852.81	1917.23	40.216	281.00	121.70	3957.23	2724.09	44.744
212.00	92.76	2869.21	1929.33	40.293	282.00	122.12	3972.48	2735.11	44.798
213.00	93.18	2885.60	1941.42	40.370	283.00	122.53	3987.71	2746.12	44.852
214.00	93.60	2901.97	1953.49	40.447	284.00	122.95	4002.93	2757.13	44.906
215.00	94.03	2918.31	1965.54	40.523	285.00	123.36	4018.14	2768.12	44.959
216.00	94.45	2934.64	1977.58	40.599	286.00	123.78	4033.34	2779.11	45.012
217.00	94.88	2950.95	1989.59	40.674	287.00	124.20	4048.53	2790.08	45.065
218.00	95.30	2967.24	2001.59	40.749	288.00	124.61	4063.71	2801.05	45.118
219.00	95.72	2983.51	2013.57	40.824	289.00	125.03	4078.89	2812.01	45.171
220.00	96.15	2999.75	2025.53	40.898	290.00	125.44	4094.05	2822.97	45.223
221.00	96.57	3015.98	2037.47	40.971	291.00	125.86	4109.21	2833.92	45.275
222.00	96.99	3032.19	2049.39	41.044	292.00	126.27	4124.36	2844.86	45.327
223.00	97.41	3048.38	2061.30	41.117	293.00	126.69	4139.50	2855.80	45.379
224.00	97.84	3064.55	2073.18	41.189	294.00	127.10	4154.63	2866.73	45.431
225.00	98.26	3080.69	2085.05	41.261	295.00	127.52	4169.76	2877.66	45.482
226.00	98.68	3096.82	2096.90	41.333	296.00	127.93	4184.87	2888.58	45.533
227.00	99.10	3112.93	2108.73	41.404	297.00	128.34	4199.98	2899.50	45.584
228.00	99.53	3129.02	2120.55	41.475	298.00	128.76	4215.08	2910.41	45.635
229.00	99.95	3145.09	2132.34	41.545	299.00	129.17	4230.18	2921.32	45.685
230.00	100.37	3161.14	2144.12	41.615	300.00	129.58	4245.27	2932.22	45.736

120.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPER- ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	12.31	-133.87	-283.57	6.253	20.00	12.14	-112.62	-284.86	6.077
21.00	12.40	-126.36	-277.18	6.622	21.00	12.23	-105.25	-278.69	6.439
22.00	12.50	-118.57	-270.57	6.981	22.00	12.31	-97.63	-272.33	6.790
23.00	12.60	-110.48	-263.70	7.343	23.00	12.41	-89.73	-265.73	7.144
24.00	12.71	-102.08	-256.58	7.703	24.00	12.50	-81.52	-258.88	7.495
25.00	12.82	-93.34	-249.18	8.058	25.00	12.60	-73.00	-251.76	7.841
26.00	12.93	-84.26	-241.49	8.413	26.00	12.71	-64.14	-244.37	8.188
27.00	13.05	-74.82	-233.51	8.769	27.00	12.81	-54.94	-236.71	8.534
28.00	13.18	-65.03	-225.24	9.126	28.00	12.92	-45.41	-228.76	8.883
29.00	13.31	-54.89	-216.66	9.480	29.00	13.04	-35.53	-220.52	9.227
30.00	13.44	-44.46	-207.88	9.834	30.00	13.16	-25.39	-212.08	9.571
31.00	13.58	-33.65	-198.78	10.188	31.00	13.29	-14.89	-203.35	9.916
32.00	13.73	-22.58	-189.48	10.543	32.00	13.41	-4.15	-194.44	10.260
33.00	13.88	-10.99	-179.79	10.902	33.00	13.55	7.16	-185.01	10.610
34.00	14.04	.78	-169.90	11.255	34.00	13.68	18.53	-175.56	10.952
35.00	14.20	12.96	-159.70	11.608	35.00	13.82	30.29	-165.81	11.292
36.00	14.37	25.42	-149.30	11.957	36.00	13.97	42.31	-155.88	11.629
37.00	14.55	38.07	-138.80	12.301	37.00	14.12	54.53	-145.83	11.961
38.00	14.73	50.79	-128.31	12.640	38.00	14.28	66.80	-135.81	12.288
39.00	14.92	63.59	-117.84	12.973	39.00	14.45	79.09	-125.84	12.607
40.00	15.12	76.10	-107.76	13.289	40.00	14.62	91.07	-116.27	12.911
41.00	15.33	88.45	-97.92	13.594	41.00	14.79	102.87	-106.96	13.202
42.00	15.54	100.76	-88.23	13.891	42.00	14.97	114.60	-97.79	13.485
43.00	15.77	113.10	-78.60	14.181	43.00	15.16	126.35	-88.69	13.761
44.00	16.00	125.54	-68.96	14.467	44.00	15.35	138.18	-79.60	14.033
45.00	16.24	138.12	-59.30	14.750	45.00	15.55	150.12	-70.48	14.302
46.00	16.48	150.87	-49.56	15.030	46.00	15.76	162.21	-61.30	14.567
47.00	16.74	163.81	-39.73	15.308	47.00	15.97	174.47	-52.03	14.831
48.00	17.00	176.95	-29.81	15.585	48.00	16.18	186.92	-42.66	15.093
49.00	17.28	190.31	-19.77	15.860	49.00	16.41	199.57	-33.18	15.354
50.00	17.56	203.87	-9.64	16.135	50.00	16.64	212.41	-23.59	15.613
51.00	17.85	217.64	.61	16.407	51.00	16.87	225.45	-13.89	15.871
52.00	18.15	231.61	10.95	16.679	52.00	17.11	238.68	-4.08	16.128
53.00	18.45	245.78	21.39	16.948	53.00	17.36	252.11	5.83	16.384
54.00	18.77	260.13	31.91	17.217	54.00	17.61	265.71	15.84	16.639
55.00	19.09	274.65	42.51	17.483	55.00	17.87	279.50	25.95	16.891
56.00	19.42	289.32	53.17	17.747	56.00	18.14	293.44	36.14	17.143
57.00	19.76	304.15	63.89	18.010	57.00	18.41	307.55	46.41	17.392
58.00	20.10	319.10	74.66	18.270	58.00	18.68	321.80	56.75	17.640
59.00	20.45	334.17	85.46	18.527	59.00	18.97	336.19	67.15	17.886
60.00	20.81	349.35	96.29	18.783	60.00	19.25	350.71	77.61	18.130
61.00	21.18	364.62	107.15	19.035	61.00	19.54	365.34	88.12	18.372
62.00	21.54	379.97	118.02	19.285	62.00	19.84	380.08	98.67	18.612
63.00	21.92	395.39	128.90	19.531	63.00	20.14	394.92	109.25	18.849
64.00	22.30	410.87	139.77	19.775	64.00	20.44	409.85	119.87	19.084
65.00	22.68	426.40	150.65	20.016	65.00	20.75	424.86	130.51	19.317
66.00	23.07	441.97	161.52	20.254	66.00	21.06	439.94	141.17	19.547
67.00	23.46	457.57	172.38	20.488	67.00	21.38	455.09	151.85	19.775
68.00	23.85	473.21	183.23	20.720	68.00	21.69	470.30	162.55	20.000
69.00	24.24	488.86	194.07	20.948	69.00	22.02	485.56	173.26	20.223
70.00	24.64	504.53	204.89	21.174	70.00	22.34	500.88	183.97	20.443
71.00	25.04	520.21	215.70	21.396	71.00	22.67	516.23	194.70	20.661
72.00	25.45	535.90	226.49	21.616	72.00	22.99	531.63	205.43	20.877
73.00	25.85	551.60	237.27	21.832	73.00	23.33	547.06	216.17	21.089
74.00	26.26	567.30	248.04	22.046	74.00	23.66	562.52	226.92	21.300
75.00	26.66	583.01	258.79	22.257	75.00	23.99	578.02	237.68	21.508
76.00	27.07	598.72	269.54	22.465	76.00	24.33	593.55	248.44	21.714
77.00	27.48	614.43	280.27	22.670	77.00	24.67	609.10	259.21	21.917
78.00	27.89	630.14	291.01	22.873	78.00	25.00	624.68	269.99	22.118
79.00	28.30	645.86	301.74	23.073	79.00	25.34	640.28	280.78	22.317
80.00	28.71	661.58	312.47	23.271	80.00	25.68	655.91	291.58	22.513
81.00	29.12	677.31	323.21	23.466	81.00	26.02	671.57	302.39	22.708
82.00	29.53	693.04	333.95	23.659	82.00	26.37	687.25	313.23	22.900
83.00	29.94	708.78	344.70	23.850	83.00	26.71	702.95	324.08	23.091
84.00	30.35	724.53	355.46	24.039	84.00	27.05	718.68	334.95	23.279
85.00	30.76	740.29	366.23	24.225	85.00	27.39	734.44	345.84	23.465
86.00	31.17	756.07	377.03	24.410	86.00	27.74	750.22	356.75	23.650
87.00	31.58	771.85	387.84	24.592	87.00	28.08	766.04	367.69	23.833
88.00	31.99	787.66	398.68	24.773	88.00	28.42	781.87	378.66	24.014
89.00	32.40	803.48	409.53	24.952	89.00	28.77	797.74	389.65	24.193
90.00	32.81	819.33	420.42	25.129	90.00	29.11	813.64	400.68	24.371
91.00	33.22	835.20	431.33	25.304	91.00	29.46	829.57	411.73	24.547
92.00	33.62	851.08	442.28	25.478	92.00	29.80	845.53	422.83	24.721
93.00	34.03	867.00	453.26	25.650	93.00	30.14	861.52	433.95	24.894
94.00	34.43	882.94	464.27	25.820	94.00	30.48	877.55	445.11	25.065
95.00	34.84	898.90	475.31	25.989	95.00	30.83	893.60	456.31	25.235
96.00	35.24	914.89	486.39	26.157	96.00	31.17	909.69	467.54	25.404
97.00	35.64	930.91	497.51	26.323	97.00	31.51	925.81	478.81	25.571
98.00	36.05	946.96	508.66	26.487	98.00	31.85	941.97	490.11	25.737
99.00	36.45	963.03	519.85	26.650	99.00	32.19	958.15	501.46	25.901
100.00	36.85	979.13	531.08	26.812	100.00	32.54	974.37	512.84	26.064

160.00 ATMOSPHERE ISOBAR

180.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	11.99	-91.42	-285.77	5.914	20.00	11.85	-70.30	-286.37	5.763
21.00	12.07	-84.18	-279.80	6.270	21.00	11.92	-63.16	-280.57	6.114
22.00	12.15	-76.70	-273.64	6.615	22.00	12.00	-55.80	-274.59	6.453
23.00	12.23	-68.95	-267.27	6.962	23.00	12.07	-48.19	-268.41	6.794
24.00	12.32	-60.92	-260.65	7.306	24.00	12.16	-40.30	-262.00	7.132
25.00	12.41	-52.57	-253.78	7.645	25.00	12.24	-32.12	-255.35	7.464
26.00	12.51	-43.91	-246.65	7.984	26.00	12.33	-23.61	-248.44	7.796
27.00	12.60	-34.91	-239.25	8.323	27.00	12.42	-14.79	-241.26	8.129
28.00	12.71	-25.59	-231.57	8.663	28.00	12.51	-5.65	-233.81	8.463
29.00	12.81	-15.93	-223.61	8.999	29.00	12.61	3.82	-226.09	8.793
30.00	12.92	-6.02	-215.46	9.336	30.00	12.71	13.54	-218.19	9.123
31.00	13.03	4.23	-207.03	9.672	31.00	12.81	23.57	-210.02	9.452
32.00	13.15	14.70	-198.43	10.008	32.00	12.91	33.82	-201.68	9.781
33.00	13.26	25.77	-189.23	10.351	33.00	13.02	44.69	-192.69	10.118
34.00	13.38	36.83	-180.15	10.683	34.00	13.13	55.48	-183.91	10.442
35.00	13.51	48.25	-170.77	11.014	35.00	13.24	66.63	-174.84	10.765
36.00	13.64	59.94	-161.20	11.341	36.00	13.36	78.04	-165.57	11.085
37.00	13.77	71.81	-151.51	11.664	37.00	13.48	89.64	-156.17	11.400
38.00	13.91	83.73	-141.85	11.982	38.00	13.60	101.29	-146.81	11.711
39.00	14.06	95.64	-132.28	12.291	39.00	13.73	112.88	-137.56	12.012
40.00	14.21	107.21	-123.11	12.584	40.00	13.86	124.14	-128.72	12.297
41.00	14.36	118.60	-114.20	12.866	41.00	14.00	135.19	-120.14	12.570
42.00	14.52	129.90	-105.45	13.138	42.00	14.14	146.16	-111.72	12.834
43.00	14.68	141.21	-96.76	13.404	43.00	14.28	157.12	-103.37	13.092
44.00	14.84	152.57	-88.09	13.665	44.00	14.43	168.13	-95.03	13.345
45.00	15.02	164.04	-79.39	13.923	45.00	14.58	179.23	-86.67	13.595
46.00	15.19	175.65	-70.63	14.178	46.00	14.73	190.46	-78.24	13.841
47.00	15.37	187.41	-61.79	14.431	47.00	14.89	201.84	-69.73	14.086
48.00	15.56	199.35	-52.84	14.683	48.00	15.05	213.39	-61.12	14.329
49.00	15.75	211.48	-43.79	14.933	49.00	15.22	225.11	-52.41	14.571
50.00	15.94	223.79	-34.62	15.181	50.00	15.38	237.01	-43.58	14.811
51.00	16.14	236.28	-25.34	15.429	51.00	15.56	249.09	-34.63	15.051
52.00	16.34	248.97	-15.94	15.675	52.00	15.73	261.36	-25.57	15.289
53.00	16.55	261.84	-6.43	15.920	53.00	15.91	273.80	-16.39	15.526
54.00	16.76	274.89	3.18	16.164	54.00	16.09	286.42	-7.10	15.762
55.00	16.98	288.12	12.89	16.407	55.00	16.28	299.21	2.29	15.996
56.00	17.20	301.51	22.70	16.448	56.00	16.47	312.16	11.79	16.230
57.00	17.42	315.06	32.59	16.888	57.00	16.66	325.28	21.38	16.462
58.00	17.65	328.76	42.58	17.126	58.00	16.86	338.54	31.06	16.693
59.00	17.89	342.61	52.63	17.363	59.00	17.06	351.96	40.83	16.922
60.00	18.12	356.59	62.76	17.598	60.00	17.26	365.51	50.68	17.150
61.00	18.37	370.70	72.96	17.831	61.00	17.47	379.19	60.60	17.376
62.00	18.61	384.93	83.21	18.063	62.00	17.68	393.00	70.60	17.600
63.00	18.86	399.27	93.52	18.292	63.00	17.89	406.94	80.65	17.823
64.00	19.11	413.72	103.88	18.520	64.00	18.11	420.98	90.77	18.044
65.00	19.37	428.27	114.27	18.745	65.00	18.32	435.13	100.95	18.264
66.00	19.63	442.91	124.72	18.969	66.00	18.54	449.39	111.17	18.481
67.00	19.89	457.64	135.19	19.190	67.00	18.77	463.74	121.45	18.697
68.00	20.15	472.44	145.70	19.409	68.00	18.99	478.19	131.78	18.911
69.00	20.42	487.32	156.24	19.627	69.00	19.22	492.72	142.14	19.123
70.00	20.69	502.27	166.81	19.842	70.00	19.45	507.33	152.55	19.334
71.00	20.96	517.29	177.41	20.055	71.00	19.69	522.03	163.00	19.542
72.00	21.24	532.36	188.02	20.266	72.00	19.92	536.79	173.48	19.749
73.00	21.52	547.50	198.67	20.474	73.00	20.16	551.64	184.00	19.953
74.00	21.80	562.69	209.33	20.681	74.00	20.40	566.55	194.56	20.156
75.00	22.08	577.93	220.02	20.886	75.00	20.64	581.53	205.15	20.357
76.00	22.36	593.22	230.73	21.088	76.00	20.88	596.57	215.77	20.557
77.00	22.64	608.55	241.46	21.289	77.00	21.12	611.68	226.43	20.754
78.00	22.93	623.94	252.22	21.487	78.00	21.37	626.84	237.12	20.950
79.00	23.22	639.37	263.00	21.684	79.00	21.61	642.06	247.85	21.144
80.00	23.50	654.83	273.80	21.878	80.00	21.86	657.34	258.60	21.336
81.00	23.79	670.35	284.62	22.071	81.00	22.11	672.68	269.40	21.526
82.00	24.08	685.90	295.48	22.262	82.00	22.36	688.07	280.23	21.715
83.00	24.37	701.49	306.36	22.451	83.00	22.61	703.51	291.09	21.902
84.00	24.66	717.13	317.27	22.638	84.00	22.86	719.01	302.00	22.088
85.00	24.96	732.80	328.21	22.824	85.00	23.12	734.56	312.93	22.272
86.00	25.25	748.52	339.17	23.007	86.00	23.37	750.17	323.91	22.455
87.00	25.54	764.27	350.17	23.189	87.00	23.63	765.82	334.93	22.636
88.00	25.84	780.07	361.20	23.370	88.00	23.88	781.53	345.98	22.815
89.00	26.13	795.91	372.28	23.549	89.00	24.14	797.28	357.08	22.993
90.00	26.43	811.78	383.38	23.726	90.00	24.39	813.09	368.21	23.170
91.00	26.72	827.70	394.52	23.902	91.00	24.65	828.95	379.39	23.345
92.00	27.01	843.66	405.69	24.077	92.00	24.91	844.85	390.61	23.519
93.00	27.31	859.66	416.91	24.250	93.00	25.16	860.81	401.88	23.691
94.00	27.60	875.69	428.17	24.421	94.00	25.42	876.81	413.18	23.862
95.00	27.90	891.77	439.46	24.591	95.00	25.68	892.86	424.53	24.032
96.00	28.20	907.89	450.79	24.760	96.00	25.94	908.96	435.92	24.201
97.00	28.49	924.05	462.16	24.927	97.00	26.19	925.10	447.36	24.368
98.00	28.79	940.24	473.57	25.094	98.00	26.45	941.29	458.83	24.534
99.00	29.08	956.47	485.02	25.258	99.00	26.71	957.52	470.35	24.699
100.00	29.38	972.74	496.51	25.422	100.00	26.97	973.80	481.91	24.863

200.00 ATMOSPHERE ISOBAR

220.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
20.00	11.72	-49.26	-286.72	5.621	20.00	11.60	-28.31	-286.83	5.488
21.00	11.79	-42.20	-281.05	5.968	21.00	11.66	-21.32	-281.28	5.831
22.00	11.86	-34.95	-275.23	6.303	22.00	11.73	-14.16	-275.60	6.161
23.00	11.93	-27.46	-269.22	6.638	23.00	11.80	-6.77	-269.75	6.492
24.00	12.01	-19.70	-262.99	6.970	24.00	11.87	.87	-263.68	6.819
25.00	12.08	-11.65	-256.53	7.297	25.00	11.94	8.79	-257.39	7.141
26.00	12.16	-3.30	-249.81	7.624	26.00	12.02	17.02	-250.84	7.463
27.00	12.25	5.38	-242.83	7.951	27.00	12.09	25.56	-244.04	7.785
28.00	12.33	14.36	-235.59	8.279	28.00	12.17	34.41	-236.98	8.108
29.00	12.42	23.67	-228.08	8.603	29.00	12.26	43.58	-229.66	8.427
30.00	12.51	33.22	-220.39	8.927	30.00	12.34	52.97	-222.15	8.746
31.00	12.61	43.08	-212.43	9.251	31.00	12.43	62.68	-214.38	9.065
32.00	12.71	53.14	-204.33	9.573	32.00	12.52	72.58	-206.48	9.382
33.00	12.80	63.81	-195.55	9.904	33.00	12.60	83.05	-197.91	9.708
34.00	12.90	74.37	-187.02	10.222	34.00	12.70	93.42	-189.61	10.020
35.00	13.00	85.29	-178.21	10.539	35.00	12.79	104.15	-181.03	10.331
36.00	13.11	96.47	-169.20	10.852	36.00	12.89	115.14	-172.24	10.639
37.00	13.22	107.86	-160.05	11.162	37.00	12.99	126.34	-163.30	10.943
38.00	13.33	119.29	-150.93	11.466	38.00	13.10	137.58	-154.38	11.243
39.00	13.45	130.62	-141.96	11.761	39.00	13.20	148.70	-145.65	11.532
40.00	13.57	141.61	-133.39	12.039	40.00	13.31	159.46	-137.31	11.804
41.00	13.69	152.39	-125.08	12.305	41.00	13.43	170.03	-129.24	12.065
42.00	13.82	163.09	-116.94	12.563	42.00	13.54	180.49	-121.33	12.317
43.00	13.95	173.77	-108.86	12.814	43.00	13.66	190.94	-113.49	12.563
44.00	14.08	184.49	-100.81	13.061	44.00	13.78	201.43	-105.66	12.804
45.00	14.21	195.30	-92.72	13.304	45.00	13.90	211.99	-97.81	13.042
46.00	14.35	206.23	-84.57	13.544	46.00	14.02	222.68	-89.89	13.277
47.00	14.49	217.30	-76.34	13.782	47.00	14.15	233.50	-81.89	13.509
48.00	14.63	228.54	-68.00	14.018	48.00	14.28	244.48	-73.79	13.740
49.00	14.78	239.94	-59.56	14.254	49.00	14.41	255.62	-65.58	13.970
50.00	14.93	251.51	-51.01	14.487	50.00	14.54	266.93	-57.26	14.199
51.00	15.08	263.27	-42.33	14.720	51.00	14.68	278.41	-48.81	14.426
52.00	15.24	275.19	-33.54	14.952	52.00	14.82	290.06	-40.25	14.652
53.00	15.39	287.30	-24.64	15.182	53.00	14.96	301.89	-31.57	14.878
54.00	15.55	299.57	-15.62	15.412	54.00	15.10	313.88	-22.78	15.102
55.00	15.72	312.01	-6.49	15.640	55.00	15.25	326.04	-13.87	15.325
56.00	15.88	324.62	2.75	15.867	56.00	15.40	338.36	-4.85	15.547
57.00	16.05	337.38	12.08	16.093	57.00	15.55	350.83	4.26	15.767
58.00	16.22	350.29	21.52	16.318	58.00	15.70	363.45	13.49	15.987
59.00	16.40	363.35	31.04	16.541	59.00	15.85	376.22	22.80	16.205
60.00	16.58	376.55	40.65	16.763	60.00	16.01	389.13	32.20	16.422
61.00	16.76	389.89	50.34	16.983	61.00	16.17	402.17	41.69	16.638
62.00	16.94	403.35	60.11	17.202	62.00	16.33	415.34	51.26	16.852
63.00	17.12	416.94	69.94	17.419	63.00	16.50	428.64	60.91	17.065
64.00	17.31	430.64	79.85	17.635	64.00	16.66	442.06	70.63	17.276
65.00	17.50	444.46	89.83	17.849	65.00	16.83	455.59	80.42	17.486
66.00	17.69	458.38	99.86	18.062	66.00	17.00	469.23	90.28	17.694
67.00	17.89	472.41	109.95	18.273	67.00	17.17	482.98	100.21	17.901
68.00	18.08	486.54	120.10	18.482	68.00	17.35	496.84	110.19	18.106
69.00	18.28	500.77	130.30	18.690	69.00	17.52	510.80	120.24	18.310
70.00	18.48	515.08	140.55	18.896	70.00	17.70	524.85	130.34	18.512
71.00	18.68	529.49	150.85	19.100	71.00	17.88	539.00	140.50	18.713
72.00	18.89	543.97	161.20	19.303	72.00	18.06	553.23	150.71	18.912
73.00	19.10	558.55	171.59	19.504	73.00	18.24	567.56	160.98	19.110
74.00	19.30	573.20	182.02	19.703	74.00	18.42	581.97	171.29	19.306
75.00	19.51	587.93	192.51	19.901	75.00	18.61	596.47	181.66	19.500
76.00	19.72	602.73	203.03	20.097	76.00	18.80	611.05	192.08	19.693
77.00	19.94	617.60	213.59	20.291	77.00	18.98	625.71	202.55	19.885
78.00	20.15	632.55	224.20	20.484	78.00	19.17	640.45	213.07	20.075
79.00	20.37	647.57	234.85	20.676	79.00	19.36	655.26	223.63	20.264
80.00	20.58	662.65	245.55	20.865	80.00	19.55	670.16	234.25	20.451
81.00	20.80	677.80	256.28	21.054	81.00	19.75	685.12	244.91	20.637
82.00	21.02	693.02	267.06	21.240	82.00	19.94	700.16	255.63	20.822
83.00	21.24	708.30	277.88	21.425	83.00	20.14	715.27	266.40	21.005
84.00	21.46	723.64	288.75	21.609	84.00	20.33	730.46	277.21	21.187
85.00	21.68	739.05	299.66	21.791	85.00	20.53	745.71	288.07	21.367
86.00	21.90	754.51	310.62	21.972	86.00	20.73	761.04	298.99	21.546
87.00	22.13	770.04	321.62	22.152	87.00	20.93	776.43	309.95	21.724
88.00	22.35	785.63	332.66	22.330	88.00	21.13	791.89	320.97	21.901
89.00	22.58	801.28	343.75	22.507	89.00	21.33	807.42	332.04	22.077
90.00	22.80	816.99	354.90	22.682	90.00	21.53	823.01	343.16	22.251
91.00	23.03	832.75	366.08	22.857	91.00	21.73	838.67	354.33	22.424
92.00	23.26	848.58	377.31	23.030	92.00	21.93	854.40	365.56	22.596
93.00	23.48	864.46	388.59	23.201	93.00	22.13	870.19	376.83	22.766
94.00	23.71	880.40	399.92	23.372	94.00	22.33	886.04	388.16	22.936
95.00	23.94	906.39	411.30	23.541	95.00	22.54	901.95	399.54	23.104
96.00	24.17	912.43	422.72	23.709	96.00	22.74	917.93	410.97	23.272
97.00	24.39	928.53	434.19	23.876	97.00	22.95	933.96	422.44	23.438
98.00	24.62	944.68	445.70	24.041	98.00	23.15	950.04	433.97	23.603
99.00	24.85	960.88	457.25	24.206	99.00	23.36	966.19	445.54	23.767
100.00	25.08	977.13	468.85	24.369	100.00	23.56	982.38	457.16	23.929

240.00 ATMOSPHERE ISOBAR

260.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
21.00	11.55	-.51	-281.30	5.702	21.00	11.44	20.20	-281.14	5.580
22.00	11.61	6.56	-275.75	6.029	22.00	11.50	27.21	-275.70	5.903
23.00	11.67	13.85	-270.03	6.355	23.00	11.56	34.42	-270.10	6.226
24.00	11.74	21.39	-264.12	6.678	24.00	11.62	41.87	-264.32	6.545
25.00	11.81	29.21	-257.97	6.995	25.00	11.69	49.58	-258.31	6.858
26.00	11.88	37.32	-251.58	7.312	26.00	11.75	57.59	-252.06	7.171
27.00	11.95	45.74	-244.94	7.630	27.00	11.82	65.90	-245.56	7.484
28.00	12.03	54.47	-238.04	7.949	28.00	11.89	74.52	-238.81	7.799
29.00	12.11	63.50	-230.87	8.263	29.00	11.97	83.44	-231.79	8.109
30.00	12.18	72.78	-223.53	8.578	30.00	12.04	92.59	-224.60	8.421
31.00	12.27	82.34	-215.94	8.892	31.00	12.12	102.04	-217.16	8.730
32.00	12.35	92.09	-208.22	9.204	32.00	12.19	111.66	-209.60	9.039
33.00	12.43	102.38	-199.88	9.525	33.00	12.27	121.75	-201.49	9.354
34.00	12.52	112.59	-191.77	9.832	34.00	12.35	131.82	-193.56	9.657
35.00	12.60	123.14	-183.39	10.138	35.00	12.43	142.22	-185.35	9.959
36.00	12.70	133.96	-174.79	10.442	36.00	12.52	152.90	-176.93	10.258
37.00	12.79	145.01	-166.03	10.742	37.00	12.61	163.81	-168.33	10.555
38.00	12.89	156.10	-157.28	11.038	38.00	12.70	174.77	-159.73	10.847
39.00	12.99	167.03	-148.76	11.321	39.00	12.79	185.54	-151.39	11.127
40.00	13.09	177.61	-140.63	11.589	40.00	12.88	195.95	-143.44	11.390
41.00	13.19	187.98	-132.76	11.845	41.00	12.98	206.16	-135.75	11.642
42.00	13.29	198.25	-125.05	12.093	42.00	13.08	216.26	-128.22	11.886
43.00	13.40	208.50	-117.41	12.334	43.00	13.18	226.34	-120.76	12.123
44.00	13.51	218.79	-109.79	12.571	44.00	13.28	236.46	-113.31	12.355
45.00	13.62	229.15	-102.13	12.804	45.00	13.38	246.65	-105.83	12.585
46.00	13.74	239.63	-94.42	13.034	46.00	13.48	256.95	-98.29	12.811
47.00	13.85	250.24	-86.62	13.262	47.00	13.59	267.39	-90.66	13.035
48.00	13.97	261.00	-78.71	13.489	48.00	13.70	277.97	-82.93	13.258
49.00	14.09	271.93	-70.70	13.714	49.00	13.81	288.70	-75.09	13.479
50.00	14.21	283.01	-62.58	13.938	50.00	13.92	299.61	-67.13	13.700
51.00	14.34	294.27	-54.33	14.161	51.00	14.03	310.67	-59.05	13.919
52.00	14.46	305.70	-45.96	14.383	52.00	14.15	321.90	-50.85	14.137
53.00	14.59	317.29	-37.47	14.603	53.00	14.27	333.30	-42.53	14.354
54.00	14.72	329.05	-28.87	14.823	54.00	14.38	344.87	-34.10	14.570
55.00	14.85	340.97	-20.15	15.042	55.00	14.51	356.59	-25.54	14.785
56.00	14.98	353.05	-11.33	15.260	56.00	14.63	368.46	-16.88	14.999
57.00	15.12	365.28	-2.39	15.476	57.00	14.75	380.48	-8.11	15.212
58.00	15.26	377.66	6.64	15.691	58.00	14.88	392.66	.77	15.424
59.00	15.40	390.18	15.77	15.905	59.00	15.00	404.97	9.74	15.634
60.00	15.54	402.84	25.00	16.118	60.00	15.13	417.43	18.81	15.844
61.00	15.68	415.64	34.31	16.330	61.00	15.26	430.01	27.97	16.052
62.00	15.83	428.57	43.71	16.540	62.00	15.39	442.73	37.22	16.258
63.00	15.97	441.62	53.19	16.749	63.00	15.53	455.57	46.55	16.464
64.00	16.12	454.79	62.75	16.956	64.00	15.66	468.53	55.96	16.668
65.00	16.27	468.08	72.38	17.162	65.00	15.80	481.61	65.45	16.871
66.00	16.42	481.48	82.09	17.367	66.00	15.93	494.80	75.01	17.072
67.00	16.58	494.99	91.86	17.570	67.00	16.07	508.10	84.65	17.272
68.00	16.73	508.61	101.70	17.772	68.00	16.21	521.52	94.36	17.471
69.00	16.89	522.33	111.60	17.972	69.00	16.36	535.03	104.14	17.668
70.00	17.05	536.15	121.57	18.171	70.00	16.50	548.65	113.98	17.864
71.00	17.21	550.07	131.60	18.368	71.00	16.64	562.37	123.08	18.059
72.00	17.37	564.09	141.69	18.564	72.00	16.79	576.19	133.05	18.252
73.00	17.53	578.20	151.83	18.759	73.00	16.94	590.10	143.89	18.444
74.00	17.70	592.40	162.03	18.952	74.00	17.09	604.11	153.98	18.634
75.00	17.86	606.68	172.29	19.144	75.00	17.24	618.20	164.13	18.824
76.00	18.03	621.06	182.61	19.334	76.00	17.39	632.39	174.35	19.012
77.00	18.20	635.52	192.97	19.523	77.00	17.54	646.67	184.62	19.198
78.00	18.37	650.06	203.40	19.711	78.00	17.69	661.04	194.96	19.384
79.00	18.54	664.69	213.88	19.897	79.00	17.85	675.49	205.35	19.568
80.00	18.71	679.40	224.41	20.082	80.00	18.00	690.04	215.80	19.751
81.00	18.88	694.19	235.00	20.266	81.00	18.16	704.66	226.31	19.932
82.00	19.06	709.06	245.65	20.449	82.00	18.31	719.37	236.89	20.113
83.00	19.23	724.01	256.35	20.630	83.00	18.47	734.17	247.51	20.292
84.00	19.41	739.04	267.10	20.810	84.00	18.63	749.04	258.20	20.470
85.00	19.58	754.14	277.91	20.989	85.00	18.79	764.00	268.95	20.647
86.00	19.76	769.32	288.77	21.166	86.00	18.95	779.04	279.76	20.823
87.00	19.94	784.58	299.69	21.342	87.00	19.11	794.16	290.63	20.998
88.00	20.12	799.91	310.67	21.518	88.00	19.28	805.36	301.55	21.172
89.00	20.30	815.31	321.70	21.692	89.00	19.44	824.64	312.54	21.344
90.00	20.48	830.78	332.79	21.865	90.00	19.60	839.99	323.59	21.516
91.00	20.66	846.33	343.93	22.036	91.00	19.77	855.42	334.70	21.686
92.00	20.84	861.95	355.13	22.207	92.00	19.93	870.93	345.86	21.856
93.00	21.02	877.64	366.39	22.377	93.00	20.10	886.51	357.09	22.024
94.00	21.21	893.39	377.70	22.545	94.00	20.26	902.17	368.37	22.192
95.00	21.39	909.21	389.07	22.713	95.00	20.43	917.89	379.71	22.358
96.00	21.57	925.10	400.48	22.879	96.00	20.60	933.69	391.12	22.524
97.00	21.76	941.05	411.96	23.044	97.00	20.76	949.55	402.57	22.688
98.00	21.94	957.06	423.48	23.209	98.00	20.93	965.48	414.08	22.851
99.00	22.13	973.14	435.06	23.372	99.00	21.10	981.48	425.64	23.014
100.00	22.31	989.27	446.68	23.534	100.00	21.27	997.54	437.26	23.175

280.00 ATMOSPHERE ISOBAR

300.00 ATMOSPHERE ISOBAR

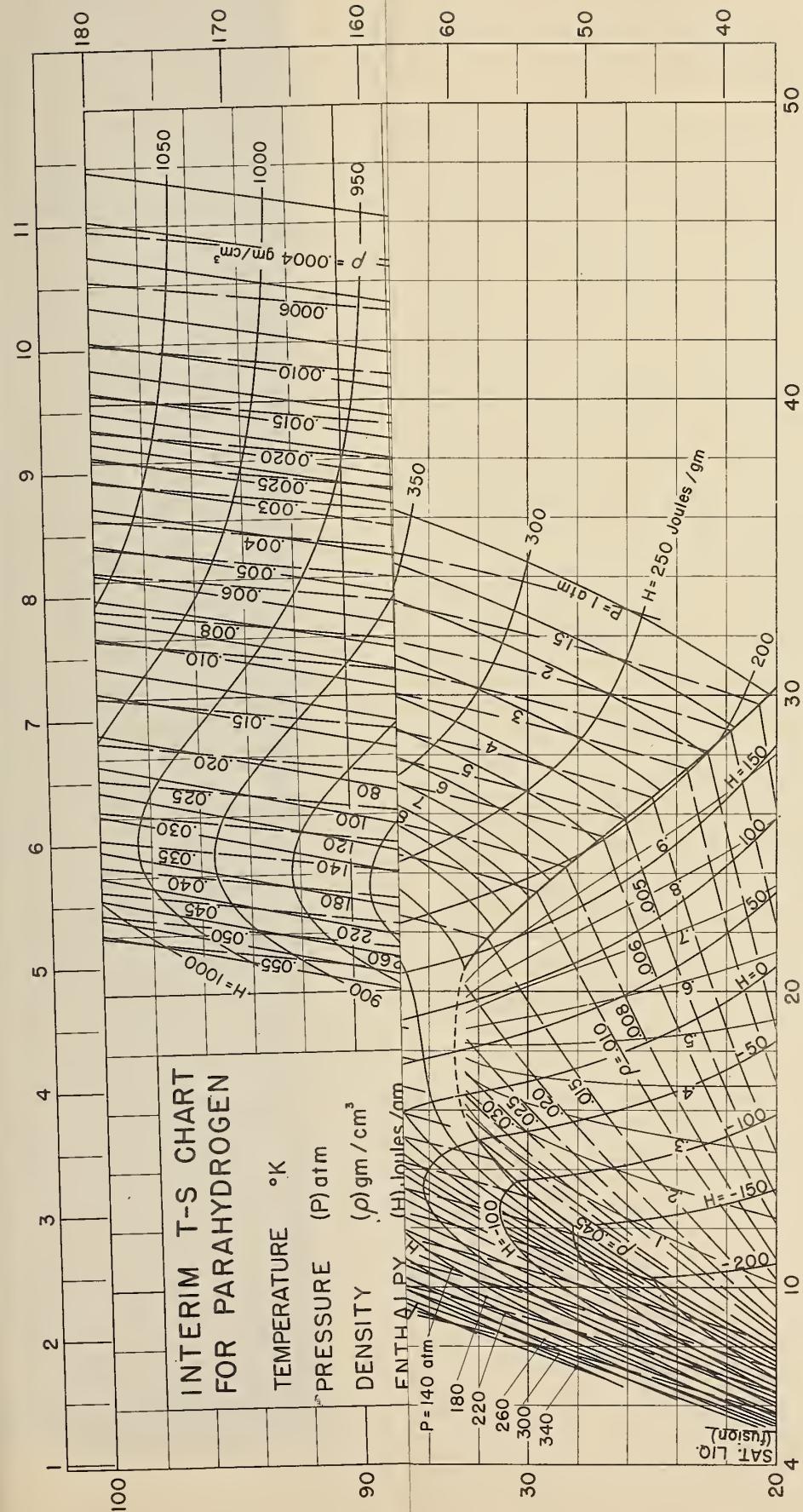
TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
22.00	11.39	47.79	-275.47	5.784	22.00	11.30	68.29	-275.08	5.671
23.00	11.45	54.92	-269.98	6.104	23.00	11.35	75.35	-269.70	5.987
24.00	11.51	62.28	-264.32	6.418	24.00	11.41	82.63	-264.14	6.299
25.00	11.57	69.90	-258.43	6.728	25.00	11.47	90.17	-258.37	6.605
26.00	11.64	77.81	-252.32	7.037	26.00	11.53	97.99	-252.37	6.911
27.00	11.70	86.03	-245.95	7.347	27.00	11.59	106.11	-246.13	7.217
28.00	11.77	94.54	-239.33	7.658	28.00	11.65	114.54	-239.63	7.525
29.00	11.84	103.36	-232.45	7.965	29.00	11.72	123.26	-232.88	7.828
30.00	11.91	112.41	-225.39	8.272	30.00	11.78	132.21	-225.94	8.132
31.00	11.98	121.75	-218.10	8.579	31.00	11.85	141.45	-218.77	8.435
32.00	12.05	131.24	-210.68	8.883	32.00	11.92	150.84	-211.50	8.736
33.00	12.12	141.16	-202.81	9.193	33.00	11.99	160.57	-203.87	9.041
34.00	12.20	151.10	-195.03	9.492	34.00	12.06	170.39	-196.24	9.337
35.00	12.28	161.36	-186.99	9.790	35.00	12.14	180.54	-188.34	9.631
36.00	12.36	171.92	-178.72	10.086	36.00	12.21	190.98	-180.21	9.924
37.00	12.44	182.72	-170.25	10.380	37.00	12.29	201.68	-171.87	10.215
38.00	12.53	193.56	-161.79	10.669	38.00	12.37	212.43	-163.52	10.502
39.00	12.61	204.18	-153.61	10.945	39.00	12.45	222.92	-155.49	10.774
40.00	12.70	214.45	-145.83	11.205	40.00	12.53	233.06	-147.85	11.031
41.00	12.79	224.51	-138.30	11.453	41.00	12.61	242.99	-140.47	11.276
42.00	12.88	234.47	-130.93	11.693	42.00	12.70	252.83	-133.23	11.513
43.00	12.97	244.40	-123.62	11.927	43.00	12.79	262.63	-126.07	11.744
44.00	13.07	254.37	-116.32	12.156	44.00	12.88	272.46	-118.91	11.970
45.00	13.16	264.41	-109.00	12.382	45.00	12.96	282.37	-111.72	12.193
46.00	13.26	274.56	-101.61	12.605	46.00	13.06	292.39	-104.47	12.413
47.00	13.36	284.84	-94.13	12.826	47.00	13.15	302.54	-97.13	12.631
48.00	13.46	295.26	-86.55	13.045	48.00	13.24	312.83	-89.68	12.848
49.00	13.56	305.85	-78.86	13.263	49.00	13.34	323.26	-82.13	13.063
50.00	13.66	316.59	-71.06	13.480	50.00	13.43	333.87	-74.45	13.277
51.00	13.77	327.49	-63.13	13.696	51.00	13.53	344.63	-66.66	13.490
52.00	13.87	338.56	-55.07	13.911	52.00	13.63	355.55	-58.73	13.702
53.00	13.98	349.79	-46.90	14.125	53.00	13.73	366.64	-50.69	13.913
54.00	14.09	361.18	-38.61	14.338	54.00	13.83	377.88	-42.53	14.123
55.00	14.20	372.72	-30.20	14.550	55.00	13.93	389.28	-34.25	14.333
56.00	14.31	384.43	-21.68	14.761	56.00	14.04	400.83	-25.86	14.541
57.00	14.43	396.28	-13.05	14.970	57.00	14.14	412.53	-17.35	14.748
58.00	14.54	408.27	-4.32	15.179	58.00	14.25	424.37	-8.74	14.954
59.00	14.66	420.41	4.51	15.387	59.00	14.36	436.35	-0.03	15.159
60.00	14.78	432.68	13.45	15.593	60.00	14.46	448.47	8.78	15.362
61.00	14.90	445.09	22.47	15.798	61.00	14.57	460.71	17.68	15.565
62.00	15.02	457.62	31.59	16.002	62.00	14.69	473.09	26.67	15.766
63.00	15.14	470.28	40.79	16.204	63.00	14.80	485.59	35.76	15.966
64.00	15.26	483.06	50.07	16.405	64.00	14.91	498.21	44.92	16.165
65.00	15.39	495.95	59.43	16.605	65.00	15.03	510.94	54.17	16.362
66.00	15.51	508.97	68.87	16.804	66.00	15.14	523.79	63.50	16.558
67.00	15.64	522.09	78.39	17.001	67.00	15.26	536.75	72.91	16.753
68.00	15.77	535.32	87.97	17.197	68.00	15.38	549.82	82.38	16.947
69.00	15.90	548.65	97.63	17.392	69.00	15.50	563.00	91.94	17.139
70.00	16.03	562.09	107.36	17.585	70.00	15.62	576.28	101.56	17.330
71.00	16.16	575.63	117.16	17.777	71.00	15.74	589.66	111.26	17.520
72.00	16.29	589.27	127.02	17.968	72.00	15.86	603.14	121.02	17.709
73.00	16.43	603.01	136.95	18.158	73.00	15.98	616.73	130.85	17.896
74.00	16.56	616.84	146.94	18.346	74.00	16.11	630.40	140.75	18.082
75.00	16.70	630.77	157.00	18.533	75.00	16.23	644.18	150.71	18.267
76.00	16.84	644.79	167.12	18.719	76.00	16.36	658.05	160.75	18.451
77.00	16.98	658.91	177.30	18.903	77.00	16.49	672.02	170.84	18.633
78.00	17.11	673.11	187.54	19.086	78.00	16.62	686.07	181.00	18.815
79.00	17.26	687.41	197.85	19.269	79.00	16.74	700.22	191.23	18.995
80.00	17.40	701.79	208.23	19.449	80.00	16.87	714.46	201.53	19.174
81.00	17.54	716.27	218.66	19.629	81.00	17.01	728.80	211.89	19.352
82.00	17.68	730.83	229.16	19.808	82.00	17.14	743.22	222.31	19.529
83.00	17.83	745.48	239.72	19.986	83.00	17.27	757.73	232.80	19.705
84.00	17.97	760.21	250.34	20.162	84.00	17.40	772.34	243.36	19.880
85.00	18.12	775.03	261.02	20.337	85.00	17.54	787.03	253.98	20.054
86.00	18.26	789.94	271.77	20.512	86.00	17.67	801.81	264.67	20.227
87.00	18.41	804.93	282.58	20.685	87.00	17.81	816.67	275.43	20.398
88.00	18.56	820.00	293.46	20.857	88.00	17.94	831.62	286.25	20.569
89.00	18.71	835.16	304.40	21.028	89.00	18.08	846.67	297.14	20.739
90.00	18.86	850.39	315.40	21.199	90.00	18.22	861.79	308.09	20.908
91.00	19.01	865.71	326.46	21.368	91.00	18.35	877.00	319.11	21.076
92.00	19.16	881.11	337.59	21.536	92.00	18.49	892.28	330.19	21.243
93.00	19.31	896.58	348.78	21.704	93.00	18.63	907.66	341.34	21.409
94.00	19.46	912.14	360.03	21.870	94.00	18.77	923.11	352.55	21.575
95.00	19.61	927.76	371.34	22.035	95.00	18.91	938.64	363.83	21.739
96.00	19.76	943.47	382.71	22.200	96.00	19.05	954.25	375.17	21.903
97.00	19.92	959.24	394.15	22.363	97.00	19.19	969.93	386.56	22.065
98.00	20.07	975.09	405.63	22.526	98.00	19.33	985.69	398.02	22.227
99.00	20.23	991.00	417.17	22.687	99.00	19.47	1001.52	409.54	22.387
100.00	20.38	1006.98	428.77	22.848	100.00	19.62	1017.41	421.12	22.547

320.00 ATMOSPHERE ISOBAR

340.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
23.00	11.26	95.70	-269.26	5.876	23.00	11.17	115.99	-268.69	5.770
24.00	11.31	102.91	-263.81	6.185	24.00	11.22	123.13	-263.33	6.076
25.00	11.37	110.38	-258.15	6.488	25.00	11.27	130.52	-257.77	6.376
26.00	11.42	118.12	-252.26	6.790	26.00	11.33	138.18	-251.99	6.676
27.00	11.48	126.16	-246.12	7.093	27.00	11.38	146.15	-245.95	6.976
28.00	11.54	134.49	-239.74	7.398	28.00	11.44	154.40	-239.68	7.278
29.00	11.60	143.13	-233.10	7.698	29.00	11.50	162.96	-233.15	7.575
30.00	11.67	151.99	-226.28	8.000	30.00	11.56	171.74	-226.43	7.874
31.00	11.73	161.14	-219.23	8.300	31.00	11.62	180.80	-219.49	8.171
32.00	11.80	170.42	-212.08	8.598	32.00	11.68	189.99	-212.45	8.466
33.00	11.86	179.97	-204.71	8.896	33.00	11.75	199.35	-205.35	8.759
34.00	11.93	189.69	-197.21	9.190	34.00	11.81	208.98	-197.97	9.049
35.00	12.00	199.73	-189.44	9.481	35.00	11.88	218.93	-190.33	9.338
36.00	12.07	210.08	-181.43	9.771	36.00	11.95	229.18	-182.43	9.626
37.00	12.15	220.69	-173.20	10.060	37.00	12.02	239.71	-174.30	9.912
38.00	12.22	231.35	-164.96	10.344	38.00	12.09	250.31	-166.15	10.195
39.00	12.30	241.73	-157.07	10.613	39.00	12.16	260.58	-158.38	10.461
40.00	12.38	251.75	-149.56	10.867	40.00	12.23	270.50	-150.99	10.713
41.00	12.46	261.57	-142.31	11.110	41.00	12.31	280.22	-143.86	10.953
42.00	12.54	271.29	-135.20	11.344	42.00	12.39	289.83	-136.87	11.184
43.00	12.62	280.98	-128.16	11.572	43.00	12.46	299.42	-129.94	11.410
44.00	12.70	290.70	-121.13	11.795	44.00	12.54	309.03	-123.03	11.631
45.00	12.79	300.49	-114.06	12.015	45.00	12.62	318.72	-116.07	11.849
46.00	12.87	310.39	-106.93	12.233	46.00	12.70	328.52	-109.05	12.064
47.00	12.96	320.41	-99.71	12.449	47.00	12.78	338.44	-101.94	12.277
48.00	13.05	330.58	-92.39	12.663	48.00	12.87	348.50	-94.73	12.489
49.00	13.13	340.90	-84.95	12.876	49.00	12.95	358.71	-87.40	12.700
50.00	13.22	351.38	-77.40	13.087	50.00	13.03	369.08	-79.95	12.909
51.00	13.32	362.02	-69.71	13.298	51.00	13.12	379.61	-72.37	13.118
52.00	13.41	372.82	-61.91	13.507	52.00	13.21	390.30	-64.68	13.325
53.00	13.50	383.77	-53.99	13.716	53.00	13.29	401.14	-56.85	13.532
54.00	13.60	394.89	-45.94	13.924	54.00	13.38	412.14	-48.91	13.737
55.00	13.69	406.15	-37.77	14.131	55.00	13.47	423.29	-40.85	13.942
56.00	13.79	417.57	-29.49	14.336	56.00	13.56	434.59	-32.67	14.146
57.00	13.89	429.14	-21.10	14.541	57.00	13.66	446.04	-24.38	14.348
58.00	13.99	440.85	-12.61	14.745	58.00	13.75	457.63	-15.99	14.550
59.00	14.09	452.69	-4.00	14.967	59.00	13.84	469.35	-7.49	14.750
60.00	14.19	464.67	4.69	15.149	60.00	13.94	481.21	1.12	14.949
61.00	14.29	476.78	13.49	15.349	61.00	14.03	493.20	9.81	15.147
62.00	14.39	489.01	22.38	15.548	62.00	14.13	505.31	18.60	15.344
63.00	14.50	501.37	31.35	15.745	63.00	14.23	517.54	27.48	15.540
64.00	14.60	513.85	40.41	15.942	64.00	14.32	529.90	36.45	15.735
65.00	14.71	526.45	49.56	16.137	65.00	14.42	542.37	45.50	15.928
66.00	14.82	539.15	58.79	16.331	66.00	14.52	554.95	54.63	16.120
67.00	14.92	551.97	68.09	16.524	67.00	14.62	567.64	63.85	16.311
68.00	15.03	564.90	77.47	16.715	68.00	14.73	580.44	73.14	16.501
69.00	15.14	577.94	86.93	16.906	69.00	14.83	593.35	82.50	16.689
70.00	15.25	591.07	96.46	17.095	70.00	14.93	606.36	91.95	16.876
71.00	15.37	604.31	106.06	17.283	71.00	15.04	619.47	101.46	17.062
72.00	15.48	617.65	115.73	17.469	72.00	15.14	632.69	111.05	17.247
73.00	15.59	631.10	125.47	17.655	73.00	15.25	646.01	120.71	17.431
74.00	15.71	644.64	135.28	17.839	74.00	15.35	659.42	130.44	17.613
75.00	15.83	658.27	145.16	18.022	75.00	15.46	672.93	140.24	17.795
76.00	15.94	672.01	155.11	18.204	76.00	15.57	686.54	150.11	17.975
77.00	16.06	685.84	165.13	18.384	77.00	15.68	700.24	160.05	18.154
78.00	16.18	699.76	175.21	18.564	78.00	15.79	714.05	170.07	18.332
79.00	16.30	713.78	185.36	18.743	79.00	15.90	727.94	180.15	18.509
80.00	16.42	727.89	195.59	18.920	80.00	16.01	741.93	190.30	18.685
81.00	16.54	742.09	205.87	19.097	81.00	16.12	756.02	200.52	18.860
82.00	16.66	756.39	216.23	19.272	82.00	16.24	770.19	210.81	19.034
83.00	16.78	770.78	226.66	19.446	83.00	16.35	784.47	221.17	19.207
84.00	16.90	785.26	237.14	19.620	84.00	16.47	798.83	231.60	19.379
85.00	17.03	799.83	247.71	19.792	85.00	16.58	813.29	242.10	19.550
86.00	17.15	814.49	258.34	19.964	86.00	16.70	827.84	252.67	19.720
87.00	17.28	829.24	269.04	20.134	87.00	16.81	842.48	263.31	19.890
88.00	17.40	844.08	279.80	20.304	88.00	16.93	857.21	274.02	20.058
89.00	17.53	859.00	290.64	20.473	89.00	17.05	872.03	284.80	20.225
90.00	17.66	874.02	301.54	20.640	90.00	17.16	886.95	295.66	20.392
91.00	17.78	889.12	312.51	20.807	91.00	17.28	901.94	306.58	20.558
92.00	17.91	904.30	323.55	20.973	92.00	17.40	917.04	317.57	20.723
93.00	18.04	919.58	334.65	21.138	93.00	17.52	932.21	328.64	20.887
94.00	18.17	934.93	345.82	21.302	94.00	17.64	947.47	339.77	21.050
95.00	18.30	950.37	357.06	21.466	95.00	17.76	962.81	350.96	21.212
96.00	18.43	965.88	368.36	21.628	96.00	17.88	978.24	362.23	21.374
97.00	18.56	981.47	379.73	21.790	97.00	18.00	993.75	373.56	21.535
98.00	18.69	997.15	391.16	21.951	98.00	18.12	1009.33	384.95	21.694
99.00	18.82	1012.89	402.65	22.110	99.00	18.25	1025.00	396.40	21.853
100.00	18.95	1028.71	414.19	22.269	100.00	18.37	1040.73	407.92	22.012

ENTROPY, Cal/gm°K or BTU/lb°R



ENTROPY, Joules / gm °K

The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

D-20A T-S Chart 20 to 100°K 1 to 340 atm.

D-21A T-S Chart 80 to 300°K 1 to 100 atm.

D-22A H-S Chart 20 to 60°K 1 to 340 atm.

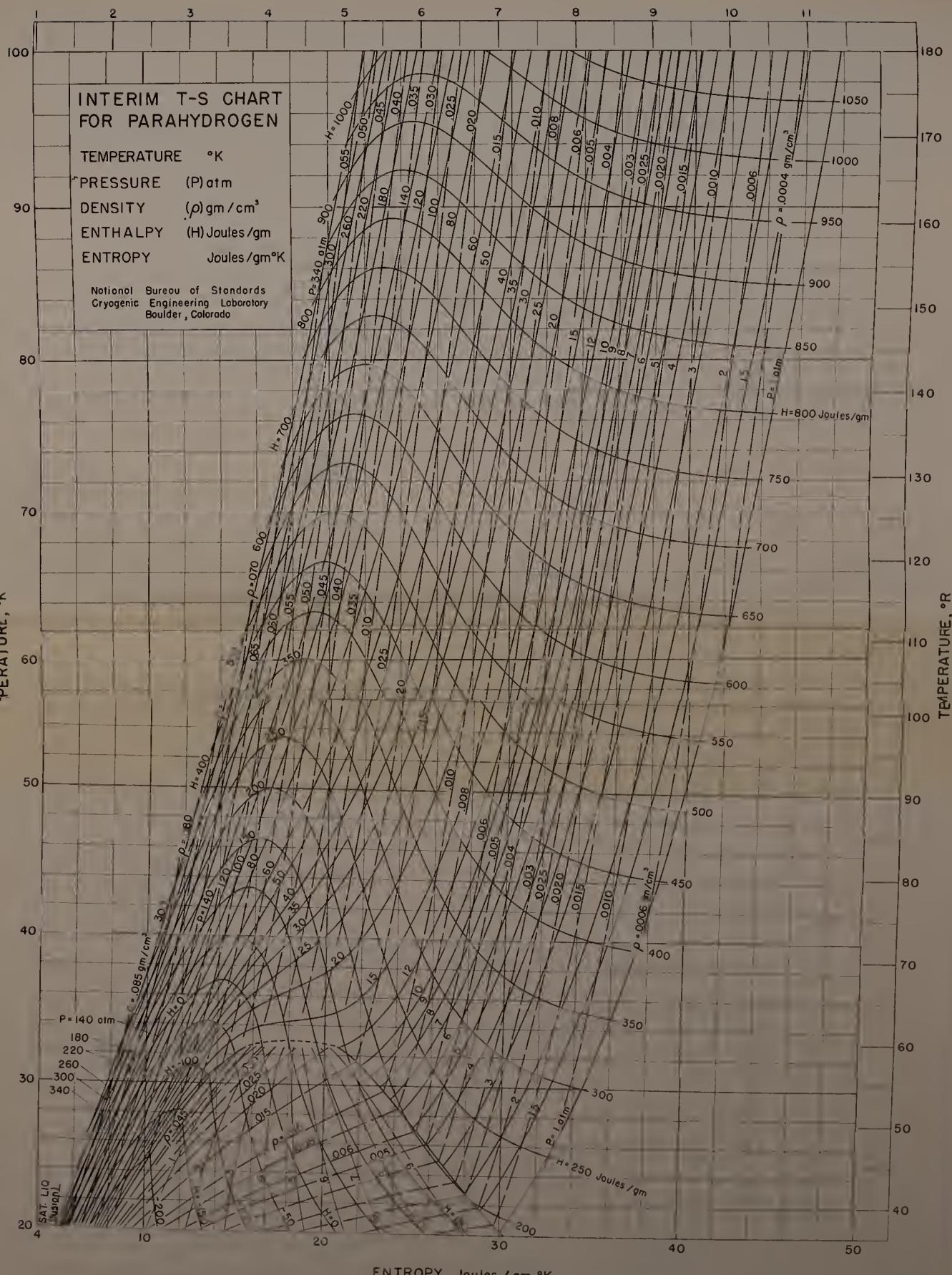
Prepared for National Bureau of Standards, Technical Note TN 130 (PB 61-631) December 1961, "Provisional Thermodynamic Functions for Parahydrogen," H. M. Rode and R. D. Goodby; by the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado, from property functions reported in NBS TN 130. These functions were used to calculate temperature and entropy for all intersections of isobars and isenthalps and for intersections of isobars and isentropic lines. Additional points were also calculated as necessary to complete the precise definition of the property lines.

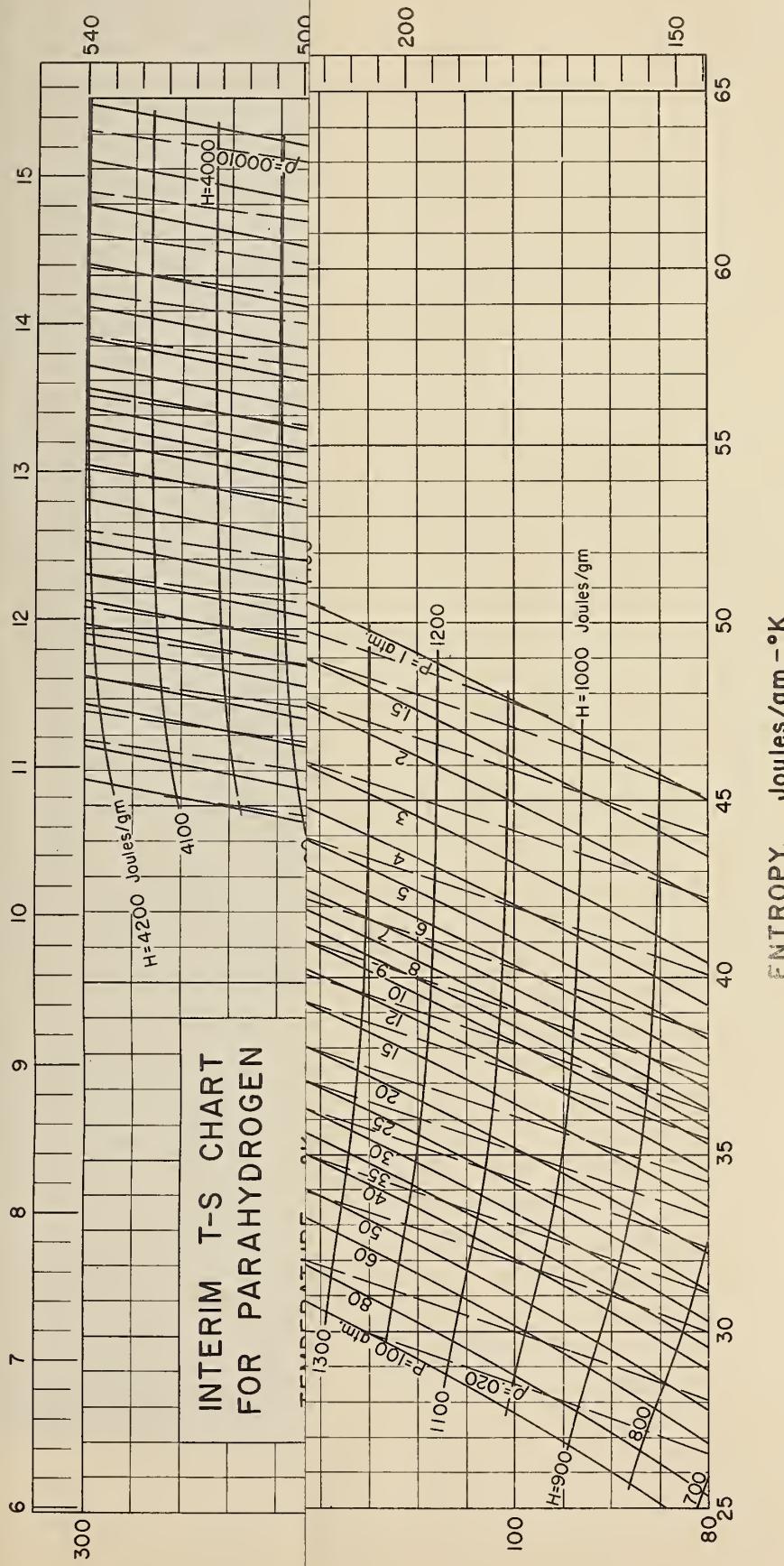
R. H. Stewart, R. D. McCarty, R. D. Weekley (December 1961)

D-20B T-S Chart 36 to 100°R 10 to 5000 atm.

D-21B T-S Chart 140 to 340°R 10 to 1500 psia.

D-22B H-S Chart 36 to 100°R 10 to 50°C psia.





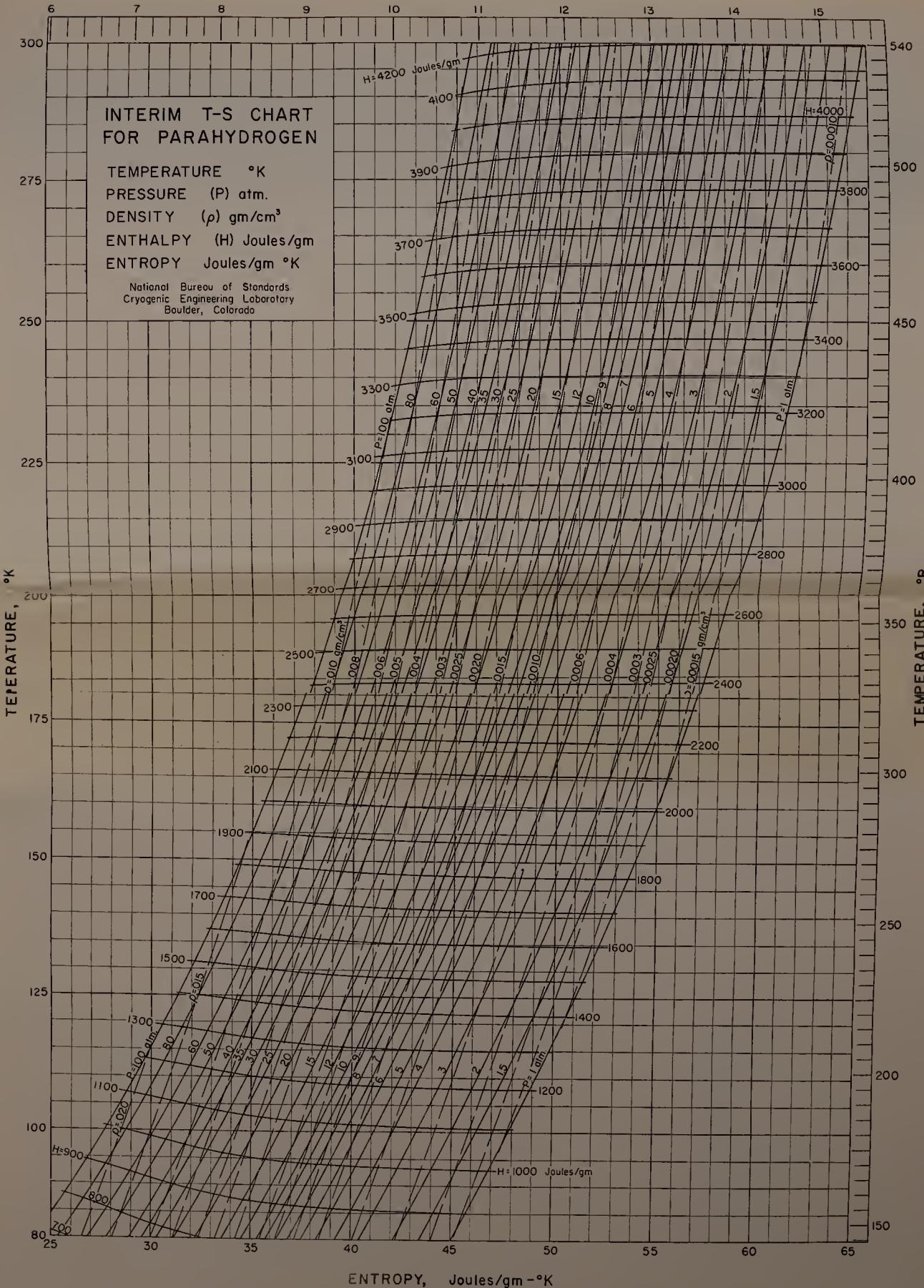
The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center,

National Bureau of Standards, Boulder, Colorado:

In Metric Units	In British Units
D-20A T-S Chart	20 to 100% 1 to 310 atm.
D-21A T-S Chart	80 to 300% 1 to 100 atm.
D-22A H-S Chart	20 to 60% 1 to 310 atm.
D-20B T-S Chart	36 to 180% R 10 to 1000 psia.
D-21B T-S Chart	110 to 540% R 10 to 1500 psia.
D-22B H-S Chart	36 to 100% R 10 to 5000 psia.

Prepared for: National Bureau of Standards, "Technical Note, TN 130 (PB161631) December 1961,
 "Provisional Thermodynamic Functions for Parahydrogen", H. M. Rose and R. D. Goodwin; By the
 Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado, from property functions
 reported in NBS TN 130. These functions were used to calculate temperature and entropy for all
 intersections of isobars and isenthalps and for intersections of isobars and isometric lines.
 Additional points were also calculated as necessary to complete the precise definition of the
 property lines.

R. B. Stewart, R. D. McCarty, T. W. Griffith (December 1961)



The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center,
National Bureau of Standards, Boulder, Colorado.

In Metric Units

D-20A T-S Chart 20 to 100°K 1 to 310 atm.

D-21A T-S Chart 60 to 300°K 1 to 100 atm.

D-22A T-S Chart 20 to 60°K 1 to 310 atm.

In British Units

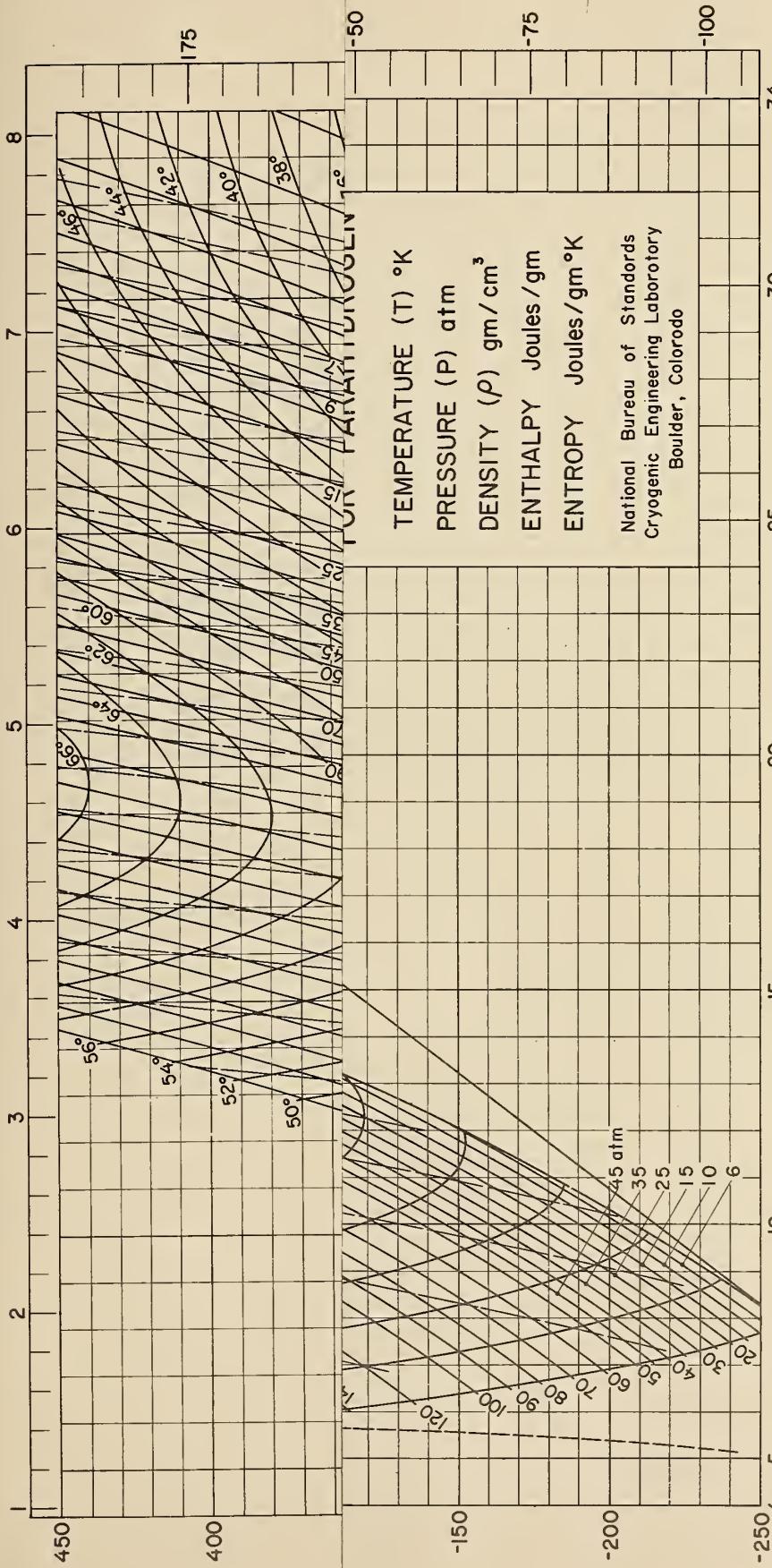
D-20B T-S Chart 36 to 150°R 10 to 120 psi.

D-21B T-S Chart 10 to 340°R 10 to 1500 psi.

D-22B T-S Chart 36 to 100°R 10 to 500 psi.

Prepared for: National Bureau of Standards, Technical Note TN 539 (NBSG(51) December 1961).
"Provisional Thermodynamic Functions for Parahydrogen," E. M. Foder and F. D. Gochberg by the
Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado, from property functions
reported in NBS TN 130. These functions were used to calculate temperature and entropy for all
intersections of isobars and isenthalps and for intersections of isobars and isometric lines.
Additional points were also calculated as necessary to complete the precise definition of the
property lines.

R. B. Stewart, P. D. McCarty, T. W. Griffith (December 1961)



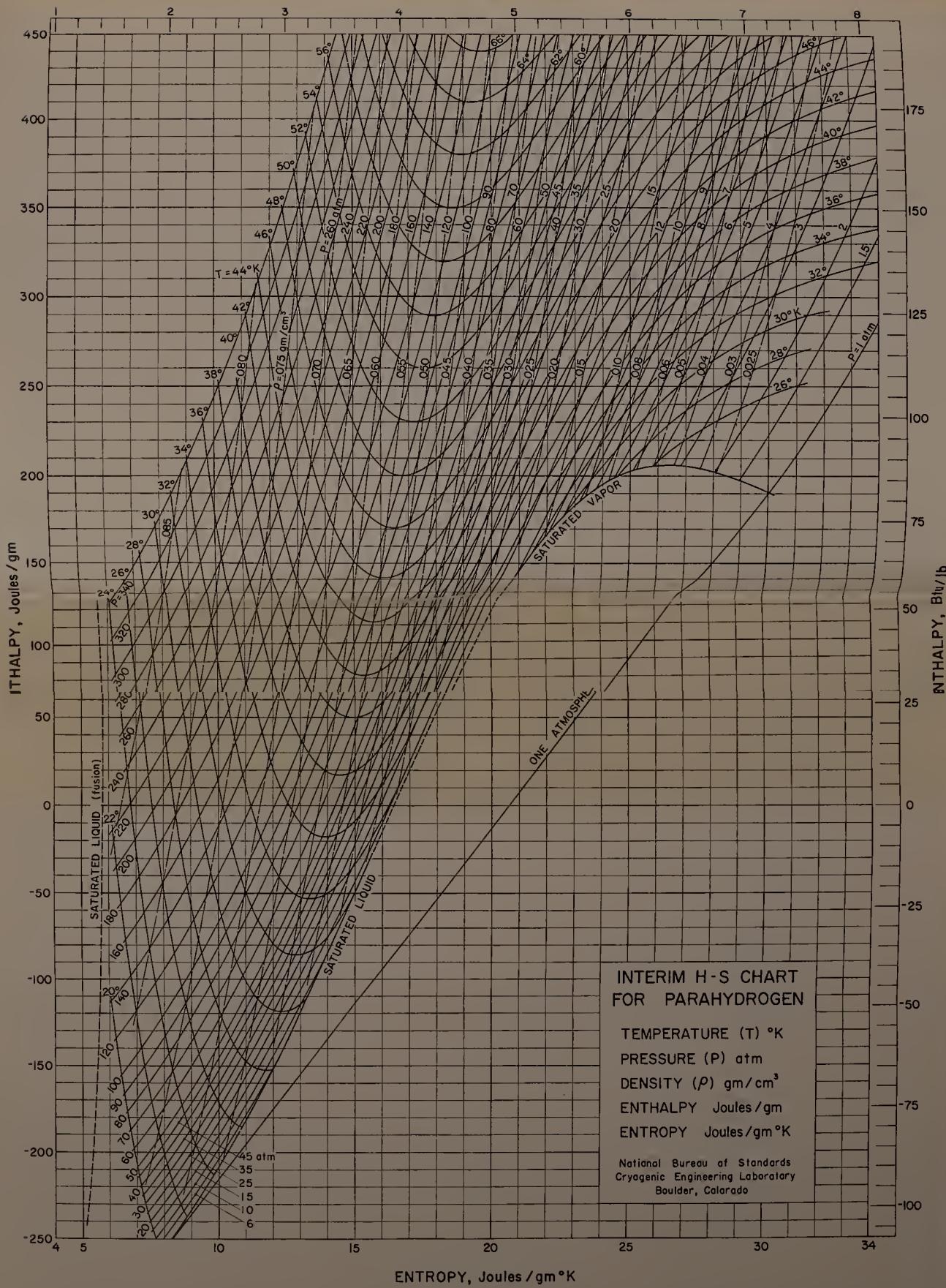
The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

In Metric Units

D-20A	T-S Chart	20 to 100%	1 to 30 atm.	D-20B	T-S Chart	36 to 180°K	10 to 500 psia.
D-21A	T-S Chart	80 to 300°K	1 to 100 atm.	D-21B	T-S Chart	110 to 500°K	10 to 500 psia.
D-22A	H-S Chart	20 to 60°K	1 to 300 atm.	D-22B	H-S Chart	36 to 100°K	10 to 500 psia.

Prepared for: National Bureau of Standards, Technical Note, TN 130 (PB161631) December 1961,
"Properties of Thermodynamic Functions for Parahydrogen", H. M. Roder and R. D. Goodwin, by the
Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado, from property functions
reported in NBS TN 130. These functions were used to calculate temperature and entropy for all
intersections of isobars and isentropes and for intersections of isobaric and isometric lines.
Additional points were also calculated as necessary to complete the precise definition of the
property lines.

R. B. Stewart, R. D. McCarthy, L. J. Bricks (December 1961)



The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

In Metric Units

In British Units

D-204 T-S Chart 20 to 100°K 1 to 340 atm.

D-208 T-S Chart 35 to 160°R 10 to 5000 psia.

D-211 I-S Chart 40 to 300°K 1 to 100 atm.

D-218 T-S Chart 110 to 340°R 10 to 1500 psia.

D-214 M-F Chart 40 to 50°K 1 to 340 atm.

D-222 H-S Chart 35 to 100°R 10 to 1500 psia.

Prepared for: National Bureau of Standards, Technical Note, TN 150 (FD-2513) December 3, 1961.
"Proprietary Thermodynamic Functions for Parahydrogen," R. W. Bader and R. D. Goodwin by the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado. From property functions reported in NBS TN 150. These functions were used to calculate temperature and entropy for all intersections of isobars and isentropes and for intersections of isobars and isometric lines. Additional points were also calculated as necessary to complete the precise definition of the property lines.

R. B. Stewart, P. D. McCarty, L. J. Ericks (December 1961)

SUPPLEMENT A (British units)**CONTENTS**

Preface

Conversion factors used

Table 2A Adjustments in entropy and enthalpy 56-66°R

Table 3A Adjustments in specific volume and enthalpy
at 182°R

The tables of provisional thermodynamic functions for
parahydrogen (British units)

Figure D-20B T-S Chart 36-180°R 10-5000 psia

Figure D-21B T-S Chart 140-540°R 10-1500 psia

Figure D-22B H-S Chart 36-100°R 10-5000 psia

Preface

At the request of the sponsor the tables and charts were recomputed in units commonly used in engineering applications. Changes in existing computer programs were held to a minimum. If the input to all programs is in those fractional metric units which correspond to the desired output, the entire computational procedure remains exactly as described in the Technical Note. Conversion of units is accomplished after all computations are completed and just prior to print-out. Conversion factors used and tables of adjustments are given below.

Conversion factors used

degree K	times 1.8	equals degree R
atm	14.696	psia
g/cm ³	62.428227	pounds/cu ft
cal/g	1.798823	BTU/pound
cal/g°K	0.999346	BTU/pound °R

Table 2A

Adjustments in entropy and enthalpy 56-66°R

T°R	In entropy		In enthalpy	
	A ₁	B ₁	A ₂	(B ₂ · T)
56	0.00261	+ 0.0160 × 10 ⁻⁵	.1342	+ .896 × 10 ⁻⁵
58	0.03426	+ 0.0187 × 10 ⁻⁵	1.929	+ 1.082 × 10 ⁻⁵
60	0.09432	- 0.2125 × 10 ⁻⁵	5.919	- 12.75 × 10 ⁻⁵
62	0.0474	- 0.1093 × 10 ⁻⁵	3.021	- 6.777 × 10 ⁻⁵
64	0.0201	- 0.0429 × 10 ⁻⁵	1.262	- 2.746 × 10 ⁻⁵
66	0.00566	- 0.0080 × 10 ⁻⁵	.346	- .528 × 10 ⁻⁵

Table 3A

Adjustments in specific volume and enthalpy at 182°R

Pressure psia	Delta H BTU/pound	Delta V Cu Ft/pound
10.	.439	.02279
15.	.428	.01748
20.	.415	.01213
30.	.385	.00687
40.	.358	.00428
50.	.330	.00274
60.	.304	.00176
70.	.278	.00106
80.	.252	.00056
90.	.226	.00015
100.	.202	-.00021
120.	.151	-.00118
140.	.102	-.00222
160.	.048	-.00309
180.	-.002	-.00374
200.	-.049	-.00417
250.	-.159	-.00337
300.	-.257	-.00200
350.	-.340	-.00135
400.	-.419	-.00125
450.	-.504	-.00115
500.	-.596	-.00097
600.	-.720	-.00062
700.	-.741	-.00027
800.	-.820	+.00004
900.	-.916	.00033
1000.	-.837	.00051
1250.	-.828	.00078
1500.	-.831	.00091

10.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)
122.00	64.8323	302.41	182.44	10.684	124.00	65.9036	307.68	185.72	10.727
126.00	66.9746	312.97	189.03	10.769	128.00	68.0455	318.29	192.37	10.811
130.00	69.1161	323.64	195.74	10.853	132.00	70.1866	329.02	199.14	10.894
134.00	71.2568	334.44	202.58	10.935	136.00	72.3269	339.88	206.04	10.975
138.00	73.3968	345.37	209.54	11.015	140.00	74.4666	350.88	213.08	11.055
142.00	75.5362	356.44	216.66	11.094	144.00	76.6057	362.03	220.27	11.133
146.00	77.6750	367.67	223.93	11.172	148.00	78.7442	373.34	227.62	11.211
150.00	79.8133	379.05	231.36	11.249	152.00	80.8822	384.81	235.14	11.287
154.00	81.9510	390.61	238.96	11.325	156.00	83.0198	396.46	242.83	11.363
158.00	84.0884	402.35	246.74	11.400	160.00	85.1569	408.28	250.70	11.437
162.00	86.2253	414.26	254.70	11.475	164.00	87.2936	420.29	258.75	11.512
166.00	88.3618	426.36	262.84	11.548	168.00	89.4300	432.48	266.99	11.585
170.00	90.4980	438.64	271.18	11.622	172.00	91.5660	444.86	275.41	11.658
* 34.260	.2221	-115.02	-115.85	1.777	* 34.260	16.8879	78.51	47.26	7.424
36.00	17.9374	83.55	50.35	7.568	38.00	19.1125	89.09	53.72	7.717
40.00	20.2660	94.46	56.95	7.855					
42.00	21.4049	99.72	60.11	7.984	178.00	94.7695	172.00	91.5660	444.86
44.00	22.5337	104.92	63.22	8.104	174.00	92.6339	174.00	92.6339	451.11
46.00	23.6547	110.07	66.29	8.219	186.00	99.0392	186.00	99.0392	489.58
48.00	24.7699	115.18	69.35	8.328	188.00	100.1063	188.00	100.1063	496.15
50.00	25.8803	120.28	72.38	8.432	190.00	101.1733	190.00	101.1733	502.76
52.00	26.9868	125.35	75.41	8.531	192.00	102.2403	192.00	102.2403	509.41
54.00	28.0899	130.41	78.43	8.627	194.00	103.3072	194.00	103.3072	516.11
56.00	29.1902	135.46	81.45	8.719	196.00	104.3740	196.00	104.3740	522.85
58.00	30.2879	140.51	84.46	8.807	198.00	105.4407	198.00	105.4407	529.63
60.00	31.3833	145.54	87.46	8.892	200.00	106.5074	200.00	106.5074	536.46
62.00	32.4768	150.57	90.47	8.975	202.00	107.5739	202.00	107.5739	543.32
64.00	33.5684	155.59	93.47	9.055	204.00	108.6405	204.00	108.6405	550.23
66.00	34.6584	160.60	96.47	9.132	206.00	109.7069	206.00	109.7069	557.17
68.00	35.7468	165.61	99.46	9.207	208.00	110.7733	208.00	110.7733	564.15
70.00	36.8339	170.62	102.46	9.279	210.00	111.8397	210.00	111.8397	571.18
72.00	37.9197	175.63	105.46	9.350	212.00	112.9060	212.00	112.9060	578.23
74.00	39.0043	180.63	108.45	9.418	214.00	113.9723	214.00	113.9723	585.33
76.00	40.0878	185.63	111.45	9.485	216.00	115.0385	216.00	115.0385	592.46
78.00	41.1704	190.63	114.45	9.550	218.00	116.1048	218.00	116.1048	599.62
80.00	42.2520	195.64	117.45	9.613	220.00	117.1709	220.00	117.1709	606.81
82.00	43.3328	200.64	120.45	9.675	222.00	118.2371	222.00	118.2371	614.04
84.00	44.4127	205.64	123.46	9.735	224.00	119.3032	224.00	119.3032	621.30
86.00	45.4919	210.65	126.46	9.794	226.00	120.3693	226.00	120.3693	628.59
88.00	46.5704	215.66	129.48	9.852	228.00	121.4354	228.00	121.4354	635.91
90.00	47.6483	220.67	132.50	9.908	230.00	122.5015	230.00	122.5015	643.26
92.00	48.7256	225.69	135.53	9.963	232.00	123.5676	232.00	123.5676	650.64
94.00	49.8023	230.72	138.56	10.017	234.00	124.6336	234.00	124.6336	658.04
96.00	50.8784	235.75	141.60	10.070	236.00	125.6997	236.00	125.6997	665.47
98.00	51.9541	240.80	144.65	10.122	238.00	126.7657	238.00	126.7657	672.93
100.00	53.0293	245.85	147.72	10.173	240.00	127.8317	240.00	127.8317	680.41
102.00	54.1041	250.91	150.79	10.223	242.00	128.8978	242.00	128.8978	687.92
104.00	55.1784	255.99	153.88	10.273	244.00	129.9638	244.00	129.9638	695.45
106.00	56.2523	261.07	156.98	10.321	246.00	131.0298	246.00	131.0298	703.00
108.00	57.3259	266.18	160.09	10.369	248.00	132.0957	248.00	132.0957	710.58
110.00	58.3992	271.29	163.23	10.416	250.00	133.1617	250.00	133.1617	718.17
112.00	59.4721	276.43	166.38	10.462	252.00	134.2277	252.00	134.2277	725.79
114.00	60.5447	281.58	169.54	10.508	254.00	135.2937	254.00	135.2937	733.42
116.00	61.6170	286.76	172.73	10.553	256.00	136.3596	256.00	136.3596	741.07
118.00	62.6890	291.95	175.95	10.597	258.00	137.4255	258.00	137.4255	748.74
120.00	63.7608	297.17	179.18	10.641	260.00	138.4915	260.00	138.4915	756.42

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	139.5574	764.12	505.87	13.140	402.00	214.1317	1304.63	908.37	14.794
264.00	140.6232	771.84	511.61	13.169	404.00	215.1970	1312.13	913.90	14.813
266.00	141.6891	779.57	517.37	13.198	406.00	216.2624	1319.62	919.42	14.831
268.00	142.7549	787.31	523.14	13.227	408.00	217.3278	1327.11	924.94	14.850
270.00	143.8208	795.06	528.92	13.256	410.00	218.3932	1334.58	930.44	14.868
272.00	144.8866	802.80	534.69	13.284	412.00	219.4586	1342.05	935.93	14.886
274.00	145.9524	810.55	540.46	13.313	414.00	220.5241	1349.51	941.42	14.904
276.00	147.0181	818.31	546.25	13.341	416.00	221.5901	1356.96	946.90	14.922
278.00	148.0839	826.08	552.04	13.369	418.00	222.6560	1364.41	952.37	14.940
280.00	149.1496	833.85	557.84	13.397	420.00	223.7219	1371.84	957.84	14.958
282.00	150.2153	841.63	563.65	13.425	422.00	224.7877	1379.27	963.29	14.975
284.00	151.2809	849.42	569.47	13.452	424.00	225.8535	1386.69	968.74	14.993
286.00	152.3466	857.21	575.29	13.479	426.00	226.9192	1394.10	974.17	15.010
288.00	153.4122	865.00	581.11	13.507	428.00	227.9848	1401.50	979.60	15.028
290.00	154.4778	872.80	586.94	13.534	430.00	229.0502	1408.89	985.02	15.045
292.00	155.5434	880.61	592.77	13.560	432.00	230.1155	1416.27	990.43	15.062
294.00	156.6089	888.42	598.61	13.587	434.00	231.1807	1423.64	995.84	15.079
296.00	157.6745	896.23	604.45	13.614	436.00	232.2457	1431.01	1001.23	15.096
298.00	158.7400	904.04	610.29	13.640	438.00	233.3105	1438.37	1006.62	15.113
300.00	159.8055	911.86	616.13	13.666	440.00	234.3751	1445.71	1012.00	15.130
302.00	160.8710	919.67	621.98	13.692	442.00	235.4395	1453.05	1017.37	15.146
304.00	161.9364	927.49	627.82	13.718	444.00	236.5037	1460.39	1022.73	15.163
306.00	163.0019	935.31	633.67	13.743	446.00	237.5677	1467.71	1028.08	15.179
308.00	164.0673	943.12	639.51	13.769	448.00	238.6314	1475.02	1033.43	15.196
310.00	165.1327	950.94	645.36	13.794	450.00	239.6950	1482.33	1038.77	15.212
312.00	166.1981	958.75	651.20	13.819	452.00	240.7582	1489.65	1044.12	15.228
314.00	167.2635	966.57	657.04	13.844	454.00	241.8213	1496.95	1049.46	15.244
316.00	168.3289	974.38	662.88	13.869	456.00	242.8841	1504.25	1054.79	15.260
318.00	169.3942	982.19	668.72	13.894	458.00	243.9467	1511.54	1060.11	15.276
320.00	170.4596	990.00	674.56	13.918	460.00	245.0091	1518.83	1065.43	15.292
322.00	171.5249	997.80	680.39	13.942	462.00	246.0713	1526.11	1070.74	15.308
324.00	172.5903	1005.60	686.22	13.967	464.00	247.1333	1533.37	1076.05	15.324
326.00	173.6556	1013.40	692.04	13.991	466.00	248.1951	1540.64	1081.34	15.339
328.00	174.7210	1021.19	697.87	14.014	468.00	249.2568	1547.89	1086.64	15.355
330.00	175.7863	1028.98	703.68	14.038	470.00	250.3184	1555.14	1091.92	15.370
332.00	176.8516	1036.76	709.50	14.062	472.00	251.3798	1562.38	1097.20	15.386
334.00	177.9170	1044.54	715.30	14.085	474.00	252.4411	1569.62	1102.47	15.401
336.00	178.9823	1052.32	721.11	14.108	476.00	253.5024	1576.85	1107.73	15.416
338.00	180.0476	1060.09	726.90	14.131	478.00	254.5637	1584.07	1112.99	15.431
340.00	181.1130	1067.85	732.69	14.154	480.00	255.6249	1591.29	1118.25	15.446
342.00	182.1783	1075.61	738.48	14.177	482.00	256.6862	1598.50	1123.50	15.461
344.00	183.2436	1083.36	744.26	14.200	484.00	257.7476	1605.71	1128.74	15.476
346.00	184.3089	1091.10	750.03	14.222	486.00	258.8091	1612.91	1133.98	15.491
348.00	185.3743	1098.84	755.80	14.244	488.00	259.8708	1620.11	1139.21	15.506
350.00	186.4396	1106.57	761.55	14.266	490.00	260.9326	1627.30	1144.43	15.521
352.00	187.5049	1114.29	767.31	14.288	492.00	261.9947	1634.49	1149.66	15.535
354.00	188.5702	1122.01	773.05	14.310	494.00	263.0570	1641.67	1154.87	15.550
356.00	189.6355	1129.71	778.79	14.332	496.00	264.1197	1648.85	1160.09	15.564
358.00	190.7008	1137.41	784.52	14.354	498.00	265.1827	1656.02	1165.29	15.579
360.00	191.7661	1145.11	790.24	14.375	500.00	266.2460	1663.19	1170.50	15.593
362.00	192.8310	1152.79	795.95	14.396	502.00	267.3098	1670.36	1175.70	15.607
364.00	193.8960	1160.46	801.65	14.417	504.00	268.3741	1677.53	1180.89	15.622
366.00	194.9609	1168.12	807.34	14.438	506.00	269.4388	1684.69	1186.09	15.636
368.00	196.0258	1175.78	813.03	14.459	508.00	270.5040	1691.85	1191.27	15.650
370.00	197.0907	1183.43	818.71	14.480	510.00	271.5698	1699.00	1196.46	15.664
372.00	198.1556	1191.07	824.38	14.501	512.00	272.6361	1706.16	1201.64	15.678
374.00	199.2205	1198.70	830.04	14.521	514.00	273.7029	1713.31	1206.81	15.692
376.00	200.2854	1206.32	835.69	14.541	516.00	274.7704	1720.46	1211.99	15.706
378.00	201.3504	1213.94	841.33	14.562	518.00	275.8384	1727.60	1217.15	15.720
380.00	202.4153	1221.54	846.97	14.582	520.00	276.9069	1734.74	1222.32	15.733
382.00	203.4803	1229.14	852.59	14.602	522.00	277.9760	1741.88	1227.48	15.747
384.00	204.5453	1236.73	858.21	14.621	524.00	279.0456	1749.02	1232.64	15.761
386.00	205.6103	1244.30	863.82	14.641	526.00	280.1158	1756.16	1237.79	15.774
388.00	206.6754	1251.88	869.42	14.661	528.00	281.1863	1763.29	1242.95	15.788
390.00	207.7405	1259.44	875.01	14.680	530.00	282.2573	1770.42	1248.09	15.801
392.00	208.8056	1266.99	880.59	14.699	532.00	283.3287	1777.55	1253.24	15.815
394.00	209.8707	1274.54	886.16	14.719	534.00	284.4004	1784.67	1258.38	15.828
396.00	210.9359	1282.07	891.73	14.738	536.00	285.4722	1791.79	1263.52	15.841
398.00	212.0012	1289.60	897.29	14.757	538.00	286.5443	1798.91	1268.65	15.855
400.00	213.0664	1297.12	902.83	14.775	540.00	287.6163	1806.02	1273.78	15.868

15.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)
36.00	.2252	-111.01	-111.64	1.885	122.00	43.1759	301.93	182.08	10.282
* 36.603	.2266	-109.62	-110.89	1.923	124.00	43.8922	307.21	185.37	10.325
* 36.603	11.7299	81.93	49.37	7.155	126.00	44.6082	312.51	188.69	10.367
38.00	12.3162	86.14	51.96	7.268	128.00	45.3240	317.85	192.04	10.409
40.00	13.1300	91.89	55.44	7.416	130.00	46.0397	323.21	195.41	10.451
					132.00	46.7551	328.60	198.82	10.492
					134.00	47.4703	334.03	202.26	10.533
					136.00	48.1854	339.48	205.73	10.573
					138.00	48.9003	344.98	209.24	10.613
					140.00	49.6150	350.50	212.78	10.653
					142.00	50.3296	356.07	216.36	10.692
					144.00	51.0440	361.67	219.98	10.731
					146.00	51.7583	367.31	223.64	10.770
					148.00	52.4725	373.00	227.34	10.809
					150.00	53.1865	378.72	231.08	10.847
					152.00	53.9005	384.48	234.87	10.886
					154.00	54.6143	390.29	238.70	10.924
					156.00	55.3280	396.15	242.57	10.961
					158.00	56.0415	402.04	246.48	10.999
					160.00	56.7550	407.98	250.44	11.036
					162.00	57.4684	413.97	254.45	11.074
					164.00	58.1817	420.01	258.51	11.111
					166.00	58.8949	426.09	262.61	11.147
					168.00	59.6080	432.21	266.75	11.184
					170.00	60.3210	438.38	270.94	11.221
					172.00	61.0340	444.60	275.18	11.257
						61.7469	450.86	279.47	11.293
						62.4597	457.17	283.80	11.329
						63.1724	463.52	288.17	11.365
						63.8850	469.92	292.59	11.401
42.00	13.9239	97.42	58.77	7.551	182.00	64.5975	476.36	297.05	11.436
44.00	14.7041	102.81	62.00	7.576	184.00	65.3099	482.84	301.55	11.472
46.00	15.4747	108.12	65.16	7.794	186.00	66.0221	489.36	306.10	11.507
48.00	16.2381	113.36	68.29	7.906	188.00	66.7343	495.94	310.69	11.542
50.00	16.9959	118.56	71.38	8.012	190.00	67.4465	502.55	315.33	11.577
52.00	17.7491	123.72	74.46	8.113	192.00	68.1585	509.21	320.01	11.612
54.00	18.4985	128.87	77.52	8.210	194.00	68.8705	515.91	324.74	11.647
56.00	19.2448	133.99	80.57	8.303	196.00	69.5824	522.65	329.51	11.681
58.00	19.9883	139.10	83.61	8.393	198.00	70.2943	529.44	334.32	11.716
60.00	20.7294	144.19	86.65	8.479	200.00	71.0061	536.27	339.17	11.750
62.00	21.4684	149.27	89.68	8.562	202.00	71.7178	543.14	344.06	11.784
64.00	22.2054	154.34	92.71	8.643	204.00	72.4295	550.05	349.00	11.818
66.00	22.9407	159.41	95.73	8.721	206.00	73.1411	557.00	353.97	11.852
68.00	23.6744	164.47	98.75	8.796	208.00	73.8527	563.98	358.98	11.886
70.00	24.4067	169.52	101.77	8.870	210.00	74.5642	571.01	364.03	11.920
72.00	25.1377	174.56	104.79	8.941	212.00	75.2757	578.07	369.12	11.953
74.00	25.8675	179.60	107.80	9.010	214.00	75.9871	585.17	374.25	11.986
76.00	26.5962	184.64	110.82	9.077	216.00	76.6985	592.30	379.41	12.020
78.00	27.3238	189.68	113.83	9.142	218.00	77.4099	599.47	384.59	12.053
80.00	28.0505	194.71	116.85	9.206	220.00	78.1212	606.67	389.82	12.085
82.00	28.7764	199.75	119.87	9.268	222.00	78.8325	613.90	395.07	12.118
84.00	29.5014	204.78	122.89	9.329	224.00	79.5437	621.16	400.36	12.151
86.00	30.2256	209.82	125.92	9.388	226.00	80.2550	628.45	405.68	12.183
88.00	30.9492	214.85	128.94	9.446	228.00	80.9662	635.77	411.03	12.215
90.00	31.6721	219.89	131.98	9.503	230.00	81.6774	643.12	416.41	12.248
92.00	32.3944	224.94	135.02	9.558	232.00	82.3886	650.51	421.81	12.279
94.00	33.1161	229.99	138.06	9.612	234.00	83.0997	657.91	427.25	12.311
96.00	33.8372	235.04	141.12	9.666	236.00	83.8108	665.35	432.71	12.343
98.00	34.5579	240.11	144.18	9.718	238.00	84.5220	672.81	438.19	12.374
100.00	35.2781	245.18	147.26	9.769	240.00	85.2330	680.29	443.70	12.406
102.00	35.9979	250.26	150.34	9.819	242.00	85.9441	687.80	449.24	12.437
104.00	36.7172	255.36	153.44	9.869	244.00	86.6552	695.34	454.80	12.468
106.00	37.4361	260.47	156.55	9.917	246.00	87.3662	702.89	460.38	12.499
108.00	38.1547	265.59	159.68	9.965	248.00	88.0773	710.47	465.98	12.529
110.00	38.8729	270.72	162.82	10.012	250.00	88.7883	718.06	471.61	12.560
112.00	39.5908	275.87	165.98	10.059	252.00	89.4993	725.68	477.25	12.590
114.00	40.3084	281.04	169.16	10.105	254.00	90.2103	733.32	482.91	12.620
116.00	41.0257	286.23	172.35	10.150	256.00	90.9212	740.97	488.59	12.650
118.00	41.7427	291.44	175.57	10.194	258.00	91.6322	748.64	494.29	12.680
120.00	42.4594	296.67	178.81	10.238	260.00	92.3431	756.33	500.00	12.710

*PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	93.0541	764.03	505.73	12.739	402.00	142.7858	1304.63	908.29	14.394
264.00	93.7650	771.75	511.48	12.769	404.00	143.4961	1312.14	913.82	14.413
266.00	94.4758	779.48	517.23	12.798	406.00	144.2065	1319.63	919.34	14.432
268.00	95.1867	787.22	523.00	12.827	408.00	144.9168	1327.12	924.86	14.450
270.00	95.8975	794.98	528.79	12.856	410.00	145.6272	1334.59	930.36	14.468
272.00	96.6084	802.72	534.56	12.884	412.00	146.3377	1342.06	935.86	14.486
274.00	97.3192	810.47	540.33	12.913	414.00	147.0481	1349.52	941.34	14.504
276.00	98.0300	818.23	546.12	12.941	416.00	147.7589	1356.97	946.83	14.522
278.00	98.7407	826.00	551.92	12.969	418.00	148.4696	1364.42	952.30	14.540
280.00	99.4515	833.77	557.72	12.997	420.00	149.1803	1371.86	957.76	14.558
282.00	100.1622	841.56	563.53	13.025	422.00	149.8910	1379.28	963.22	14.576
284.00	100.8729	849.34	569.34	13.052	424.00	150.6017	1386.70	968.66	14.593
286.00	101.5836	857.14	575.16	13.079	426.00	151.3123	1394.11	974.10	14.611
288.00	102.2943	864.93	580.99	13.107	428.00	152.0228	1401.51	979.53	14.628
290.00	103.0050	872.74	586.82	13.134	430.00	152.7332	1408.91	984.95	14.645
292.00	103.7156	880.54	592.65	13.160	432.00	153.4435	1416.29	990.36	14.662
294.00	104.4262	888.35	598.49	13.187	434.00	154.1537	1423.67	995.77	14.679
296.00	105.1369	896.17	604.33	13.214	436.00	154.8638	1431.03	1001.16	14.696
298.00	105.8475	903.98	610.17	13.240	438.00	155.5738	1438.39	1006.55	14.713
300.00	106.5580	911.80	616.01	13.266	440.00	156.2836	1445.74	1011.93	14.730
302.00	107.2686	919.61	621.86	13.292	442.00	156.9933	1453.08	1017.30	14.746
304.00	107.9792	927.43	627.70	13.318	444.00	157.7029	1460.41	1022.66	14.763
306.00	108.6897	935.25	633.55	13.343	446.00	158.4123	1467.74	1028.02	14.779
308.00	109.4002	943.07	639.40	13.369	448.00	159.1216	1475.05	1033.36	14.796
310.00	110.1108	950.89	645.24	13.394	450.00	159.8307	1482.36	1038.70	14.812
312.00	110.8213	958.70	651.09	13.419	452.00	160.5396	1489.67	1044.05	14.828
314.00	111.5318	966.52	656.93	13.444	454.00	161.2484	1496.98	1049.39	14.844
316.00	112.2423	974.33	662.77	13.469	456.00	161.9570	1504.28	1054.72	14.861
318.00	112.9528	982.14	668.61	13.494	458.00	162.6655	1511.58	1060.05	14.876
320.00	113.6633	989.95	674.45	13.518	460.00	163.3738	1518.86	1065.37	14.892
322.00	114.3737	997.76	680.28	13.543	462.00	164.0820	1526.14	1070.68	14.908
324.00	115.0842	1005.56	686.11	13.567	464.00	164.7901	1533.41	1075.98	14.924
326.00	115.7947	1013.36	691.94	13.591	466.00	165.4980	1540.67	1081.28	14.939
328.00	116.5051	1021.15	697.76	13.615	468.00	166.2058	1547.93	1086.57	14.955
330.00	117.2156	1028.94	703.58	13.638	470.00	166.9136	1555.18	1091.86	14.970
332.00	117.9261	1036.73	709.39	13.662	472.00	167.6213	1562.42	1097.14	14.986
334.00	118.6365	1044.51	715.20	13.685	474.00	168.3289	1569.66	1102.41	15.001
336.00	119.3470	1052.28	721.00	13.708	476.00	169.0364	1576.89	1107.68	15.016
338.00	120.0574	1060.05	726.80	13.731	478.00	169.7440	1584.11	1112.94	15.031
340.00	120.7679	1067.82	732.59	13.754	480.00	170.4516	1591.33	1118.19	15.047
342.00	121.4783	1075.58	738.38	13.777	482.00	171.1592	1598.54	1123.44	15.062
344.00	122.1888	1083.33	744.16	13.800	484.00	171.8668	1605.75	1128.68	15.076
346.00	122.8992	1091.07	749.93	13.822	486.00	172.5745	1612.95	1133.92	15.091
348.00	123.6096	1098.81	755.70	13.844	488.00	173.2824	1620.15	1139.15	15.106
350.00	124.3201	1106.54	761.46	13.867	490.00	173.9903	1627.34	1144.38	15.121
352.00	125.0305	1114.27	767.21	13.889	492.00	174.6985	1634.53	1149.60	15.135
354.00	125.7409	1121.98	772.95	13.910	494.00	175.4068	1641.71	1154.82	15.150
356.00	126.4513	1129.69	778.69	13.932	496.00	176.1153	1648.89	1160.03	15.165
358.00	127.1617	1137.40	784.42	13.954	498.00	176.8240	1656.07	1165.24	15.179
360.00	127.8721	1145.09	790.14	13.975	500.00	177.5331	1663.24	1170.44	15.193
362.00	128.5823	1152.77	795.85	13.996	502.00	178.2424	1670.41	1175.64	15.208
364.00	129.2924	1160.45	801.56	14.018	504.00	178.9520	1677.57	1180.84	15.222
366.00	130.0025	1168.11	807.25	14.039	506.00	179.6619	1684.73	1186.03	15.236
368.00	130.7126	1175.77	812.94	14.059	508.00	180.3722	1691.89	1191.22	15.250
370.00	131.4227	1183.42	818.62	14.080	510.00	181.0828	1699.05	1196.40	15.264
372.00	132.1328	1191.06	824.28	14.101	512.00	181.7939	1706.20	1201.58	15.278
374.00	132.8429	1198.69	829.95	14.121	514.00	182.5053	1713.35	1206.76	15.292
376.00	133.5530	1206.31	835.60	14.142	516.00	183.2170	1720.50	1211.93	15.306
378.00	134.2632	1213.93	841.24	14.162	518.00	183.9292	1727.65	1217.10	15.320
380.00	134.9733	1221.54	846.88	14.182	520.00	184.6418	1734.79	1222.26	15.334
382.00	135.6834	1229.13	852.50	14.202	522.00	185.3547	1741.93	1227.43	15.347
384.00	136.3936	1236.72	858.12	14.222	524.00	186.0680	1749.07	1232.58	15.361
386.00	137.1037	1244.30	863.73	14.241	526.00	186.7816	1756.21	1237.74	15.375
388.00	137.8139	1251.87	869.33	14.261	528.00	187.4955	1763.34	1242.89	15.388
390.00	138.5241	1259.44	874.92	14.280	530.00	188.2097	1770.47	1248.04	15.402
392.00	139.2343	1266.99	880.51	14.300	532.00	188.9241	1777.60	1253.18	15.415
394.00	139.9446	1274.54	886.08	14.319	534.00	189.6388	1784.72	1258.32	15.428
396.00	140.6548	1282.08	891.65	14.338	536.00	190.3536	1791.84	1263.46	15.442
398.00	141.3651	1289.60	897.20	14.357	538.00	191.0684	1798.96	1268.59	15.455
400.00	142.0754	1297.12	902.75	14.376	540.00	191.7834	1806.07	1273.72	15.468

20.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00		32.3479	301.44	181.72	9.995				
124.00		32.8866	306.74	185.02	10.038				
126.00		33.4252	312.06	188.35	10.081				
128.00		33.9635	317.40	191.70	10.123				
130.00		34.5016	322.78	195.08	10.165				
132.00		35.0395	328.18	198.50	10.206				
134.00		35.5772	333.62	201.94	10.247				
136.00		36.1148	339.08	205.42	10.287				
138.00		36.6521	344.59	208.93	10.327				
140.00		37.1894	350.12	212.48	10.367				
142.00		37.7264	355.70	216.07	10.407				
144.00		38.2633	361.31	219.70	10.446				
146.00		38.8001	366.96	223.36	10.485				
148.00		39.3368	372.65	227.06	10.524				
150.00		39.8733	378.38	230.81	10.562				
152.00		40.4097	384.16	234.60	10.600				
154.00		40.9460	389.97	238.43	10.638				
156.00		41.4822	395.84	242.31	10.676				
158.00		42.0182	401.74	246.23	10.714				
160.00		42.5542	407.69	250.19	10.751				
162.00		43.0901	413.68	254.21	10.788				
164.00		43.6259	419.72	258.26	10.826				
166.00		44.1615	425.81	262.37	10.862				
168.00		44.6971	431.94	266.52	10.899				
170.00		45.2327	438.12	270.71	10.936				
172.00		45.7681	444.34	274.95	10.972				
174.00		46.3034	450.61	279.24	11.008				
* 38.436	.2305	-105.06	-106.78	2.039	176.00	46.8387	456.93	283.57	11.044
* 38.436	9.0293	84.17	50.75	6.962	178.00	47.3739	463.28	287.95	11.080
40.00	9.5393	89.04	53.73	7.086	180.00	47.9091	469.68	292.37	11.116
42.00	10.1676	94.92	57.29	7.230	182.00	48.4441	476.13	296.83	11.152
44.00	10.7781	100.57	60.68	7.361	184.00	48.9789	482.62	301.34	11.187
46.00	11.3764	106.07	63.96	7.483	186.00	49.5137	489.15	305.89	11.222
48.00	11.9659	111.46	67.17	7.598	188.00	50.0484	495.72	310.49	11.258
50.00	12.5487	116.78	70.34	7.707	190.00	50.5831	502.34	315.13	11.293
52.00	13.1264	122.05	73.47	7.810	192.00	51.1177	509.01	319.82	11.328
54.00	13.6998	127.28	75.58	7.909	194.00	51.6522	515.71	324.55	11.362
56.00	14.2697	132.48	79.67	8.003	196.00	52.1866	522.46	329.32	11.397
58.00	14.8366	137.66	82.75	8.094	198.00	52.7210	529.25	334.13	11.431
60.00	15.4008	142.82	85.82	8.182	200.00	53.2554	536.09	338.99	11.466
62.00	15.9628	147.96	88.88	8.266	202.00	53.7896	542.96	343.88	11.500
64.00	16.5228	153.09	91.93	8.347	204.00	54.3239	549.87	348.82	11.534
66.00	17.0810	158.20	94.98	8.426	206.00	54.8580	556.82	353.79	11.568
68.00	17.6375	163.31	98.03	8.502	208.00	55.3921	563.82	358.81	11.602
70.00	18.1925	168.40	101.07	8.576	210.00	55.9262	570.84	363.86	11.635
72.00	18.7462	173.49	104.11	8.648	212.00	56.4602	577.91	368.95	11.669
74.00	19.2987	178.57	107.15	8.717	214.00	56.9942	585.01	374.07	11.702
76.00	19.8500	183.65	110.18	8.785	216.00	57.5282	592.15	379.24	11.735
78.00	20.4003	188.72	113.22	8.851	218.00	58.0621	599.32	384.43	11.768
80.00	20.9496	193.79	116.25	8.915	220.00	58.5959	606.52	389.65	11.801
82.00	21.4980	198.85	119.29	8.978	222.00	59.1298	613.75	394.91	11.834
84.00	22.0456	203.92	122.32	9.039	224.00	59.6636	621.01	400.20	11.866
86.00	22.5924	208.98	125.36	9.098	226.00	60.1974	628.31	405.52	11.899
88.00	23.1385	214.04	128.41	9.156	228.00	60.7311	635.64	410.87	11.931
90.00	23.6839	219.11	131.46	9.213	230.00	61.2649	642.99	416.25	11.963
92.00	24.2288	224.18	134.51	9.269	232.00	61.7986	650.37	421.65	11.995
94.00	24.7730	229.25	137.57	9.324	234.00	62.3323	657.78	427.09	12.027
96.00	25.3167	234.33	140.64	9.377	236.00	62.8660	665.22	432.55	12.059
98.00	25.8599	239.42	143.71	9.430	238.00	63.3996	672.68	438.04	12.090
100.00	26.4026	244.51	146.80	9.481	240.00	63.9333	680.17	443.55	12.122
102.00	26.9448	249.62	149.89	9.532	242.00	64.4669	687.68	449.09	12.153
104.00	27.4867	254.73	153.00	9.581	244.00	65.0005	695.22	454.65	12.184
106.00	28.0281	259.86	156.12	9.630	246.00	65.5341	702.78	460.23	12.215
108.00	28.5692	264.99	159.26	9.678	248.00	66.0677	710.35	465.83	12.245
110.00	29.1099	270.15	162.41	9.725	250.00	66.6013	717.95	471.46	12.276
112.00	29.6503	275.32	165.58	9.772	252.00	67.1348	725.57	477.10	12.306
114.00	30.1904	280.50	168.77	9.818	254.00	67.6683	733.21	482.77	12.336
116.00	30.7302	285.71	171.97	9.863	256.00	68.2019	740.87	488.45	12.366
118.00	31.2697	290.93	175.20	9.908	258.00	68.7354	748.54	494.15	12.396
120.00	31.8089	296.18	178.45	9.952	260.00	69.2689	756.23	499.86	12.426

*PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
262.00	69.8023	763.93	505.59	12.455	402.00	107.1129	1304.64	908.21	14.111
264.00	70.3358	771.65	511.34	12.485	404.00	107.6458	1312.14	913.74	14.129
266.00	70.8692	779.39	517.10	12.514	406.00	108.1787	1319.64	919.26	14.148
268.00	71.4027	787.13	522.87	12.543	408.00	108.7116	1327.12	924.78	14.166
270.00	71.9361	794.89	528.65	12.572	410.00	109.2445	1334.60	930.28	14.184
272.00	72.4694	802.63	534.42	12.600	412.00	109.7775	1342.07	935.78	14.203
274.00	73.0028	810.39	540.20	12.629	414.00	110.3104	1349.53	941.26	14.221
276.00	73.5362	818.15	545.99	12.657	416.00	110.8436	1356.98	946.75	14.239
278.00	74.0695	825.92	551.78	12.685	418.00	111.3767	1364.43	952.22	14.257
280.00	74.6028	833.70	557.59	12.713	420.00	111.9098	1371.87	957.68	14.274
282.00	75.1361	841.48	563.40	12.741	422.00	112.4429	1379.30	963.14	14.292
284.00	75.6694	849.27	569.21	12.768	424.00	112.9760	1386.72	968.59	14.309
286.00	76.2027	857.06	575.03	12.795	426.00	113.5090	1394.13	974.02	14.327
288.00	76.7359	864.86	580.86	12.823	428.00	114.0419	1401.53	979.45	14.344
290.00	77.2692	872.67	586.69	12.850	430.00	114.5748	1408.92	984.88	14.361
292.00	77.8024	880.48	592.53	12.876	432.00	115.1076	1416.31	990.29	14.379
294.00	78.3356	888.29	598.36	12.903	434.00	115.6404	1423.68	995.69	14.396
296.00	78.8687	896.10	604.20	12.930	436.00	116.1730	1431.05	1001.09	14.413
298.00	79.4019	903.92	610.05	12.956	438.00	116.7056	1438.41	1006.48	14.429
300.00	79.9351	911.74	615.89	12.982	440.00	117.2380	1445.76	1011.85	14.446
302.00	80.4682	919.56	621.74	13.008	442.00	117.7704	1453.10	1017.23	14.463
304.00	81.0013	927.38	627.59	13.034	444.00	118.3026	1460.43	1022.59	14.479
306.00	81.5344	935.20	633.43	13.060	446.00	118.8347	1467.76	1027.94	14.496
308.00	82.0675	943.02	639.28	13.085	448.00	119.3667	1475.07	1033.29	14.512
310.00	82.6006	950.84	645.13	13.110	450.00	119.8986	1482.38	1038.63	14.528
312.00	83.1336	958.65	650.97	13.135	452.00	120.4304	1489.70	1043.98	14.545
314.00	83.6667	966.47	656.82	13.160	454.00	120.9621	1497.01	1049.32	14.561
316.00	84.1997	974.29	662.66	13.185	456.00	121.4936	1504.31	1054.65	14.577
318.00	84.7328	982.10	668.50	13.210	458.00	122.0250	1511.60	1059.98	14.593
320.00	85.2658	989.91	674.34	13.234	460.00	122.5563	1518.89	1065.30	14.609
322.00	85.7988	997.72	680.17	13.259	462.00	123.0876	1526.17	1070.61	14.624
324.00	86.3318	1005.52	686.00	13.283	464.00	123.6187	1533.44	1075.92	14.640
326.00	86.8648	1013.32	691.83	13.307	466.00	124.1497	1540.70	1081.22	14.656
328.00	87.3978	1021.12	697.65	13.331	468.00	124.6807	1547.96	1086.51	14.671
330.00	87.9308	1028.91	703.47	13.354	470.00	125.2116	1555.21	1091.79	14.687
332.00	88.4638	1036.69	709.28	13.378	472.00	125.7424	1562.45	1097.07	14.702
334.00	88.9967	1044.48	715.09	13.401	474.00	126.2732	1569.69	1102.34	14.717
336.00	89.5297	1052.25	720.90	13.424	476.00	126.8039	1576.92	1107.61	14.733
338.00	90.0627	1060.02	726.70	13.448	478.00	127.3347	1584.14	1112.87	14.748
340.00	90.5956	1067.79	732.49	13.470	480.00	127.8654	1591.36	1118.13	14.763
342.00	91.1286	1075.55	738.28	13.493	482.00	128.3962	1598.58	1123.37	14.778
344.00	91.6615	1083.30	744.06	13.516	484.00	128.9270	1605.78	1128.62	14.793
346.00	92.1945	1091.05	749.83	13.538	486.00	129.4579	1612.19	1133.86	14.808
348.00	92.7274	1098.79	755.60	13.561	488.00	129.9888	1620.18	1139.09	14.822
350.00	93.2603	1106.52	761.36	13.583	490.00	130.5199	1627.38	1144.32	14.837
352.00	93.7933	1114.24	767.11	13.605	492.00	131.0510	1634.57	1149.54	14.852
354.00	94.3262	1121.96	772.86	13.627	494.00	131.5823	1641.75	1154.76	14.866
356.00	94.8591	1129.67	778.59	13.648	496.00	132.1138	1648.93	1159.97	14.881
358.00	95.3920	1137.38	784.33	13.670	498.00	132.6454	1656.11	1165.18	14.895
360.00	95.9249	1145.07	790.05	13.691	500.00	133.1772	1663.28	1170.38	14.910
362.00	96.4577	1152.75	795.76	13.713	502.00	133.7092	1670.45	1175.58	14.924
364.00	96.9904	1160.43	801.46	13.734	504.00	134.2415	1677.61	1180.78	14.938
366.00	97.5231	1168.10	807.16	13.755	506.00	134.7740	1684.78	1185.97	14.952
368.00	98.0558	1175.75	812.84	13.776	508.00	135.3067	1691.94	1191.16	14.967
370.00	98.5885	1183.40	818.52	13.796	510.00	135.8397	1699.09	1196.34	14.981
372.00	99.1212	1191.05	824.19	13.817	512.00	136.3730	1706.25	1201.52	14.995
374.00	99.6540	1198.68	829.85	13.837	514.00	136.9065	1713.40	1206.70	15.009
376.00	100.1867	1206.30	835.51	13.858	516.00	137.4404	1720.55	1211.87	15.022
378.00	100.7194	1213.92	841.15	13.878	518.00	137.9745	1727.69	1217.04	15.036
380.00	101.2521	1221.53	846.79	13.898	520.00	138.5089	1734.84	1222.21	15.050
382.00	101.7849	1229.13	852.42	13.918	522.00	139.0435	1741.98	1227.37	15.064
384.00	102.3176	1236.72	858.03	13.938	524.00	139.5784	1749.12	1232.53	15.077
386.00	102.8504	1244.30	863.64	13.957	526.00	140.1136	1756.25	1237.68	15.091
388.00	103.3831	1251.87	869.24	13.977	528.00	140.6490	1763.39	1242.84	15.105
390.00	103.9159	1259.44	874.84	13.996	530.00	141.1846	1770.52	1247.98	15.118
392.00	104.4487	1266.99	880.42	14.016	532.00	141.7204	1777.64	1253.13	15.131
394.00	104.9815	1274.54	886.00	14.035	534.00	142.2563	1784.77	1258.27	15.145
396.00	105.5144	1282.08	891.56	14.054	536.00	142.7923	1791.89	1263.41	15.158
398.00	106.0472	1289.61	897.12	14.073	538.00	143.3284	1799.01	1268.54	15.171
400.00	106.5801	1297.13	902.67	14.092	540.00	143.8645	1806.12	1273.67	15.185

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (8TU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (8TU/LB-R)
122.00	21.5201	300.48	181.01	9.590	122.00	21.5201	300.48	181.01	9.590
124.00	21.8813	305.80	184.32	9.633	124.00	21.8813	305.80	184.32	9.633
126.00	22.2423	311.14	187.66	9.676	126.00	22.2423	311.14	187.66	9.676
128.00	22.6031	316.51	191.03	9.718	128.00	22.6031	316.51	191.03	9.718
130.00	22.9637	321.91	194.42	9.760	130.00	22.9637	321.91	194.42	9.760
132.00	23.3241	327.34	197.85	9.801	132.00	23.3241	327.34	197.85	9.801
134.00	23.6843	332.79	201.31	9.842	134.00	23.6843	332.79	201.31	9.842
136.00	24.0444	338.28	204.80	9.883	136.00	24.0444	338.28	204.80	9.883
138.00	24.4042	343.81	208.32	9.923	138.00	24.4042	343.81	208.32	9.923
140.00	24.7639	349.36	211.89	9.963	140.00	24.7639	349.36	211.89	9.963
					142.00	25.1235	354.96	215.48	10.003
					144.00	25.4829	360.59	219.12	10.042
					146.00	25.8422	366.26	222.79	10.082
					148.00	26.2013	371.97	226.51	10.120
					150.00	26.5603	377.72	230.26	10.159
					152.00	26.9192	383.51	234.06	10.197
					154.00	27.2780	389.34	237.90	10.235
					156.00	27.6366	395.22	241.79	10.273
					158.00	27.9952	401.14	245.72	10.311
					160.00	28.3536	407.10	249.69	10.349
					162.00	28.7120	413.11	253.71	10.386
					164.00	29.0702	419.16	257.78	10.423
					166.00	29.4284	425.26	261.89	10.460
					168.00	29.7865	431.41	266.05	10.497
					170.00	30.1445	437.60	270.25	10.533
36.00	.2248	-110.59	-111.84	1.879	172.00	30.5024	443.83	274.50	10.570
38.00	.2291	-105.88	-107.15	2.006	174.00	30.8602	450.12	278.79	10.606
40.00	.2339	-100.81	-102.10	2.136	176.00	31.2180	456.44	283.13	10.642
* 41.291	.2374	-97.32	-99.97	2.222	178.00	31.5757	462.81	287.52	10.678
* 41.291	6.2031	86.78	52.34	6.682	180.00	31.9333	469.22	291.94	10.714
42.00	6.3707	89.18	53.82	6.740	182.00	32.2908	475.68	296.41	10.750
44.00	6.8244	95.59	57.70	6.889	184.00	32.4681	482.17	300.93	10.785
46.00	7.2584	101.61	61.32	7.023	186.00	33.0054	488.72	305.48	10.821
48.00	7.6792	107.40	64.77	7.146	188.00	33.3626	495.30	310.09	10.856
50.00	8.0906	113.04	68.12	7.261	190.00	33.7198	501.93	314.73	10.891
52.00	8.4952	118.56	71.39	7.369	192.00	34.0769	508.60	319.42	10.926
54.00	8.8944	124.00	74.62	7.472	194.00	34.4339	515.32	324.16	10.961
56.00	9.2892	129.38	77.81	7.570	196.00	34.7909	522.08	328.93	10.995
58.00	9.6805	134.72	80.97	7.663	198.00	35.1478	528.88	333.75	11.030
60.00	10.0688	140.01	84.12	7.753	200.00	35.5047	535.72	338.61	11.064
62.00	10.4545	145.28	87.25	7.840	202.00	35.8615	542.60	343.51	11.098
64.00	10.8379	150.53	90.36	7.923	204.00	36.2183	549.52	348.45	11.133
66.00	11.2193	155.75	93.47	8.003	206.00	36.5750	556.48	353.43	11.167
68.00	11.5990	160.96	96.56	8.081	208.00	36.9316	563.48	358.45	11.200
70.00	11.9771	166.15	99.65	8.156	210.00	37.2883	570.51	363.50	11.234
72.00	12.3537	171.32	102.74	8.229	212.00	37.6448	577.58	368.59	11.267
74.00	12.7290	176.48	105.82	8.300	214.00	38.0014	584.69	373.72	11.301
76.00	13.1031	181.64	108.89	8.368	216.00	38.3579	591.84	378.89	11.334
78.00	13.4762	186.78	111.97	8.435	218.00	38.7144	599.01	384.08	11.367
80.00	13.8482	191.92	115.04	8.500	220.00	39.0708	606.21	389.31	11.400
82.00	14.2193	197.05	118.11	8.564	222.00	39.4272	613.45	394.57	11.433
84.00	14.5895	202.18	121.18	8.625	224.00	39.7836	620.72	399.86	11.465
86.00	14.9590	207.30	124.25	8.686	226.00	40.1399	628.02	405.18	11.498
88.00	15.3277	212.42	127.33	8.745	228.00	40.4963	635.36	410.54	11.530
90.00	15.6957	217.54	130.40	8.802	230.00	40.8526	642.72	415.92	11.562
92.00	16.0631	222.66	133.49	8.858	232.00	41.2088	650.10	421.33	11.594
94.00	16.4299	227.78	136.57	8.913	234.00	41.5651	657.52	426.77	11.626
96.00	16.7962	232.91	139.66	8.967	236.00	41.9213	664.96	432.23	11.658
98.00	17.1619	238.04	142.77	9.020	238.00	42.2775	672.43	437.72	11.689
100.00	17.5272	243.18	145.88	9.072	240.00	42.6337	679.92	443.24	11.721
102.00	17.8920	248.32	148.99	9.123	242.00	42.9899	687.44	448.78	11.752
104.00	18.2563	253.47	152.12	9.173	244.00	43.3461	694.98	454.34	11.783
106.00	18.6203	258.64	155.26	9.222	246.00	43.7022	702.54	459.92	11.814
108.00	18.9839	263.81	158.42	9.271	248.00	44.0584	710.12	465.53	11.844
110.00	19.3471	269.00	161.59	9.318	250.00	44.4145	717.73	471.16	11.875
112.00	19.7100	274.20	164.78	9.365	252.00	44.7706	725.35	476.80	11.905
114.00	20.0726	279.42	167.98	9.411	254.00	45.1266	732.99	482.47	11.936
116.00	20.4349	284.65	171.21	9.457	256.00	45.4827	740.66	488.15	11.966
118.00	20.7969	289.91	174.45	9.502	258.00	45.8387	748.33	493.86	11.995
120.00	21.1586	295.18	177.72	9.546	260.00	46.1947	756.03	499.57	12.025

*PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/L8-R)	ENTROPY (BTU/L8)
262.00	46.5508	763.74	505.31	12.055	402.00	71.4398	1304.64	908.04	13.711
264.00	46.9067	771.46	511.05	12.084	404.00	71.7951	1312.15	913.57	13.729
266.00	47.2627	779.20	516.81	12.113	406.00	72.1505	1319.65	919.10	13.748
268.00	47.6187	786.95	522.59	12.142	408.00	72.5059	1327.13	924.61	13.766
270.00	47.9746	794.71	528.37	12.171	410.00	72.8613	1334.61	930.12	13.784
272.00	48.3305	802.46	534.15	12.200	412.00	73.2167	1342.08	935.61	13.803
274.00	48.6864	810.22	539.93	12.228	414.00	73.5721	1349.55	941.10	13.821
276.00	49.0423	817.98	545.72	12.256	416.00	73.9277	1357.00	946.59	13.839
278.00	49.3982	825.76	551.52	12.284	418.00	74.2832	1364.45	952.06	13.856
280.00	49.7540	833.54	557.32	12.312	420.00	74.6388	1371.89	957.53	13.874
282.00	50.1099	841.32	563.13	12.340	422.00	74.9943	1379.32	962.98	13.892
284.00	50.4657	849.12	568.95	12.368	424.00	75.3498	1386.74	968.43	13.909
286.00	50.8215	856.92	574.78	12.395	426.00	75.7052	1394.15	973.87	13.927
288.00	51.1773	864.72	580.61	12.422	428.00	76.0606	1401.56	979.30	13.944
290.00	51.5330	872.53	586.44	12.449	430.00	76.4160	1408.95	984.72	13.961
292.00	51.8888	880.34	592.28	12.476	432.00	76.7713	1416.34	990.14	13.979
294.00	52.2445	888.16	598.12	12.503	434.00	77.1265	1423.72	995.54	13.996
296.00	52.6002	895.98	603.96	12.529	436.00	77.4817	1431.09	1000.94	14.013
298.00	52.9559	903.80	609.81	12.556	438.00	77.8368	1438.45	1006.33	14.029
300.00	53.3116	911.62	615.65	12.582	440.00	78.1919	1445.80	1011.71	14.046
302.00	53.6673	919.44	621.50	12.608	442.00	78.5469	1453.14	1017.08	14.063
304.00	54.0229	927.26	627.35	12.634	444.00	78.9018	1460.47	1022.44	14.079
306.00	54.3786	935.09	633.20	12.659	446.00	79.2567	1467.80	1027.80	14.096
308.00	54.7342	942.91	639.05	12.685	448.00	79.6114	1475.12	1033.15	14.112
310.00	55.0898	950.73	644.90	12.710	450.00	79.9661	1482.43	1038.49	14.128
312.00	55.4454	958.56	650.75	12.735	452.00	80.3207	1489.75	1043.84	14.145
314.00	55.8010	966.38	656.59	12.760	454.00	80.6753	1497.06	1049.18	14.161
316.00	56.1566	974.19	662.44	12.785	456.00	81.0297	1504.36	1054.52	14.177
318.00	56.5122	982.01	668.28	12.810	458.00	81.3841	1511.66	1059.84	14.193
320.00	56.8678	989.82	674.12	12.834	460.00	81.7384	1518.94	1065.17	14.209
322.00	57.2233	997.63	679.95	12.858	462.00	82.0926	1526.22	1070.48	14.225
324.00	57.5789	1005.44	685.79	12.883	464.00	82.4468	1533.50	1075.78	14.240
326.00	57.9344	1013.24	691.61	12.907	466.00	82.8009	1540.76	1081.08	14.256
328.00	58.2900	1021.04	697.44	12.930	468.00	83.1550	1548.02	1086.38	14.271
330.00	58.6455	1028.84	703.26	12.954	470.00	83.5090	1555.27	1091.66	14.287
332.00	59.0010	1036.63	709.08	12.978	472.00	83.8630	1562.52	1096.94	14.302
334.00	59.3566	1044.41	714.89	13.001	474.00	84.2170	1569.75	1102.22	14.318
336.00	59.7121	1052.19	720.69	13.024	476.00	84.5709	1576.99	1107.48	14.333
338.00	60.0676	1059.96	726.49	13.047	478.00	84.9248	1584.21	1112.74	14.348
340.00	60.4231	1067.73	732.29	13.070	480.00	85.2788	1591.43	1118.00	14.363
342.00	60.7786	1075.49	738.07	13.093	482.00	85.6327	1598.65	1123.25	14.378
344.00	61.1341	1083.25	743.86	13.116	484.00	85.9867	1605.86	1128.49	14.393
346.00	61.4896	1091.00	749.63	13.138	486.00	86.3407	1613.06	1133.73	14.408
348.00	61.8450	1098.74	755.40	13.160	488.00	86.6948	1620.26	1138.97	14.423
350.00	62.2005	1106.47	761.16	13.183	490.00	87.0489	1627.45	1144.19	14.437
352.00	62.5560	1114.20	766.92	13.205	492.00	87.4031	1634.64	1149.42	14.452
354.00	62.9115	1121.92	772.66	13.226	494.00	87.7574	1641.83	1154.64	14.466
356.00	63.2669	1129.63	778.40	13.248	496.00	88.1118	1649.01	1159.85	14.481
358.00	63.6224	1137.34	784.13	13.270	498.00	88.4663	1656.19	1165.06	14.495
360.00	63.9778	1145.04	789.86	13.291	500.00	88.8209	1663.36	1170.26	14.510
362.00	64.3332	1152.72	795.57	13.312	502.00	89.1757	1670.53	1175.46	14.524
364.00	64.6885	1160.40	801.27	13.334	504.00	89.5306	1677.70	1180.66	14.538
366.00	65.0438	1168.07	806.97	13.355	506.00	89.8857	1684.86	1185.85	14.553
368.00	65.3991	1175.73	812.66	13.375	508.00	90.2409	1692.02	1191.04	14.567
370.00	65.7544	1183.38	818.34	13.396	510.00	90.5964	1699.18	1196.23	14.581
372.00	66.1097	1191.02	824.01	13.417	512.00	90.9520	1706.34	1201.41	14.595
374.00	66.4651	1198.66	829.67	13.437	514.00	91.3077	1713.49	1206.58	14.609
376.00	66.8204	1206.29	835.33	13.458	516.00	91.6637	1720.64	1211.76	14.623
378.00	67.1757	1213.90	840.97	13.478	518.00	92.0199	1727.78	1216.93	14.636
380.00	67.5310	1221.51	846.61	13.498	520.00	92.3762	1734.93	1222.09	14.650
382.00	67.8863	1229.11	852.24	13.518	522.00	92.7327	1742.07	1227.26	14.664
384.00	68.2416	1236.71	857.86	13.538	524.00	93.0894	1749.21	1232.41	14.678
386.00	68.5969	1244.29	863.47	13.557	526.00	93.4462	1756.35	1237.57	14.691
388.00	68.9523	1251.86	869.07	13.577	528.00	93.8032	1763.48	1242.72	14.705
390.00	69.3076	1259.43	874.66	13.596	530.00	94.1604	1770.61	1247.87	14.718
392.00	69.6629	1266.99	880.25	13.616	532.00	94.5176	1777.74	1253.02	14.732
394.00	70.0183	1274.54	885.82	13.635	534.00	94.8749	1784.86	1258.16	14.745
396.00	70.3736	1282.08	891.39	13.654	536.00	95.2323	1791.98	1263.29	14.758
398.00	70.7290	1289.61	896.95	13.673	538.00	95.5898	1799.10	1268.43	14.771
400.00	71.0844	1297.13	902.50	13.692	540.00	95.9472	1806.22	1273.56	14.785

40.00 PSIA ISO8AR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	16.1064	299.51	180.29	9.300	122.00	16.1064	299.51	180.29	9.300
124.00	16.3789	304.86	183.62	9.344	124.00	16.3789	304.86	183.62	9.344
126.00	16.6512	310.22	186.97	9.387	126.00	16.6512	310.22	186.97	9.387
128.00	16.9232	315.62	190.35	9.429	128.00	16.9232	315.62	190.35	9.429
130.00	17.1951	321.04	193.76	9.471	130.00	17.1951	321.04	193.76	9.471
132.00	17.4667	326.49	197.20	9.513	132.00	17.4667	326.49	197.20	9.513
134.00	17.7382	331.97	200.67	9.554	134.00	17.7382	331.97	200.67	9.554
136.00	18.0094	337.48	204.18	9.595	136.00	18.0094	337.48	204.18	9.595
138.00	18.2805	343.03	207.71	9.635	138.00	18.2805	343.03	207.71	9.635
140.00	18.5515	348.61	211.29	9.676	140.00	18.5515	348.61	211.29	9.676
142.00	18.8223	354.22	214.89	9.715	142.00	18.8223	354.22	214.89	9.715
144.00	19.0929	359.87	218.54	9.755	144.00	19.0929	359.87	218.54	9.755
146.00	19.3634	365.56	222.23	9.794	146.00	19.3634	365.56	222.23	9.794
148.00	19.6338	371.28	225.95	9.833	148.00	19.6338	371.28	225.95	9.833
150.00	19.9041	377.05	229.72	9.872	150.00	19.9041	377.05	229.72	9.872
152.00	20.1742	382.86	233.53	9.910	152.00	20.1742	382.86	233.53	9.910
154.00	20.4442	388.71	237.38	9.949	154.00	20.4442	388.71	237.38	9.949
156.00	20.7141	394.60	241.27	9.987	156.00	20.7141	394.60	241.27	9.987
158.00	20.9839	400.53	245.21	10.024	158.00	20.9839	400.53	245.21	10.024
160.00	21.2536	406.51	249.19	10.062	160.00	21.2536	406.51	249.19	10.062
162.00	21.5232	412.53	253.22	10.099	162.00	21.5232	412.53	253.22	10.099
164.00	21.7926	418.60	257.29	10.137	164.00	21.7926	418.60	257.29	10.137
166.00	22.0620	424.72	261.41	10.174	166.00	22.0620	424.72	261.41	10.174
168.00	22.3314	430.88	265.58	10.210	168.00	22.3314	430.88	265.58	10.210
170.00	22.6006	437.08	269.79	10.247	170.00	22.6006	437.08	269.79	10.247
172.00	22.8697	443.33	274.04	10.284	172.00	22.8697	443.33	274.04	10.284
174.00	23.1388	449.62	278.34	10.320	174.00	23.1388	449.62	278.34	10.320
36.00	.2245	-110.31	-111.97	1.875	176.00	23.4078	455.96	282.69	10.356
38.00	.2287	-105.61	-107.31	2.002	178.00	23.6767	462.34	287.08	10.392
40.00	.2335	-100.56	-102.29	2.132	180.00	23.9456	468.76	291.51	10.428
42.00	.2390	-95.11	-96.88	2.265					
* 43.529	.2437	-90.61	-94.25	2.370	182.00	24.2143	475.23	295.99	10.464*
* 43.529	4.7201	87.97	53.03	6.475	184.00	24.4830	481.73	300.51	10.500
44.00	4.8101	89.69	54.09	6.514	186.00	24.7515	488.28	305.07	10.535
46.00	5.1743	96.56	58.26	6.667	188.00	25.0200	494.88	309.68	10.570
48.00	5.5182	102.93	62.08	6.802	190.00	25.2884	501.52	314.33	10.605
50.00	5.8487	108.98	65.69	6.926	192.00	25.5568	508.20	319.02	10.640
52.00	6.1699	114.83	69.16	7.041	194.00	25.8251	514.92	323.76	10.675
54.00	6.4842	120.53	72.54	7.148	196.00	26.0933	521.69	328.54	10.710
56.00	6.7932	126.14	75.85	7.250	198.00	26.3615	528.49	333.36	10.744
58.00	7.0978	131.66	79.12	7.347	200.00	26.6297	535.34	338.23	10.779
60.00	7.3990	137.12	82.35	7.440					
62.00	7.6973	142.53	85.56	7.528	202.00	26.8977	542.23	343.13	10.813
64.00	7.9930	147.91	88.74	7.614	204.00	27.1658	549.16	348.08	10.847
66.00	8.2865	153.25	91.91	7.696	206.00	27.4338	556.13	353.06	10.881
68.00	8.5781	158.56	95.07	7.775	208.00	27.7017	563.13	358.08	10.915
70.00	8.8680	163.85	98.21	7.852	210.00	27.9696	570.17	363.14	10.949
72.00	9.1564	169.12	101.34	7.926	212.00	28.2375	577.25	368.24	10.982
74.00	9.4433	174.37	104.47	7.998	214.00	28.5053	584.37	373.37	11.016
76.00	9.7290	179.60	107.59	8.068	216.00	28.7730	591.52	378.54	11.049
78.00	10.0136	184.82	110.70	8.135	218.00	29.0408	598.70	383.74	11.082
80.00	10.2971	190.03	113.81	8.201	220.00	29.3085	605.91	388.97	11.115
82.00	10.5796	195.23	116.92	8.266	222.00	29.5762	613.16	394.23	11.148
84.00	10.8613	200.42	120.03	8.328	224.00	29.8438	620.43	399.53	11.180
86.00	11.1421	205.61	123.13	8.389	226.00	30.1115	627.74	404.85	11.213
88.00	11.4222	210.79	126.24	8.449	228.00	30.3791	635.08	410.21	11.245
90.00	11.7016	215.96	129.34	8.507	230.00	30.6466	642.44	415.59	11.277
92.00	11.9803	221.13	132.45	8.564	232.00	30.9142	649.84	421.01	11.309
94.00	12.2585	226.31	135.57	8.619	234.00	31.1817	657.26	426.45	11.341
96.00	12.5360	231.48	138.69	8.674	236.00	31.4492	664.71	431.92	11.373
98.00	12.8131	236.66	141.81	8.727	238.00	31.7167	672.18	437.41	11.404
100.00	13.0896	241.84	144.95	8.779	240.00	31.9841	679.68	442.93	11.436
102.00	13.3657	247.02	148.09	8.831	242.00	32.2516	687.20	448.47	11.467
104.00	13.6413	252.21	151.24	8.881	244.00	32.5190	694.75	454.04	11.498
106.00	13.9166	257.42	154.40	8.931	246.00	32.7864	702.31	459.62	11.529
108.00	14.1914	262.63	157.58	8.979	248.00	33.0538	709.90	465.23	11.560
110.00	14.4659	267.85	160.77	9.027	250.00	33.3212	717.51	470.86	11.590
112.00	14.7401	273.08	163.98	9.074	252.00	33.5885	725.14	476.51	11.621
114.00	15.0139	278.33	167.20	9.121	254.00	33.8559	732.79	482.18	11.651
116.00	15.2875	283.60	170.44	9.167	256.00	34.1232	740.45	487.87	11.681
118.00	15.5607	288.88	173.70	9.212	258.00	34.3905	748.13	493.57	11.711
120.00	15.8337	294.19	176.98	9.256	260.00	34.6578	755.83	499.29	11.741

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	34.9250	763.55	505.03	11.770	402.00	53.6031	1304.65	907.88	13.427
264.00	35.1923	771.27	510.78	11.799	404.00	53.8698	1312.16	913.41	13.445
266.00	35.4595	779.02	516.54	11.829	406.00	54.1364	1319.66	918.93	13.464
268.00	35.7268	786.77	522.32	11.858	408.00	54.4031	1327.15	924.45	13.482
270.00	35.9940	794.54	528.11	11.887	410.00	54.6697	1334.63	929.96	13.500
272.00	36.2612	802.29	533.88	11.915	412.00	54.9364	1342.10	935.46	13.519
274.00	36.5283	810.05	539.66	11.944	414.00	55.2030	1349.57	940.95	13.537
276.00	36.7955	817.82	545.46	11.972	416.00	55.4698	1357.02	946.43	13.555
278.00	37.0626	825.60	551.26	12.000	418.00	55.7365	1364.47	951.90	13.573
280.00	37.3297	833.38	557.06	12.028	420.00	56.0033	1371.91	957.37	13.590
282.00	37.5969	841.17	562.88	12.056	422.00	56.2700	1379.34	962.83	13.608
284.00	37.8639	848.97	568.70	12.083	424.00	56.5367	1386.77	968.28	13.626
286.00	38.1310	856.77	574.52	12.111	426.00	56.8033	1394.18	973.72	13.643
288.00	38.3981	864.58	580.36	12.138	428.00	57.0700	1401.59	979.15	13.660
290.00	38.6651	872.39	586.19	12.165	430.00	57.3366	1408.98	984.57	13.678
292.00	38.9322	880.21	592.03	12.192	432.00	57.6032	1416.37	989.99	13.695
294.00	39.1992	888.03	597.87	12.218	434.00	57.8697	1423.75	995.39	13.712
296.00	39.4662	895.85	603.72	12.245	436.00	58.1362	1431.12	1000.79	13.729
298.00	39.7331	903.67	609.56	12.271	438.00	58.4026	1438.48	1006.18	13.746
300.00	40.0001	911.50	615.41	12.297	440.00	58.6690	1445.83	1011.56	13.762
302.00	40.2671	919.32	621.26	12.323	442.00	58.9353	1453.18	1016.93	13.779
304.00	40.5340	927.15	627.11	12.349	444.00	59.2016	1460.52	1022.30	13.795
306.00	40.8009	934.98	632.96	12.375	446.00	59.4678	1467.84	1027.66	13.812
308.00	41.0678	942.80	638.82	12.400	448.00	59.7340	1475.16	1033.00	13.828
310.00	41.3347	950.63	644.67	12.426	450.00	60.0001	1482.47	1038.35	13.845
312.00	41.6016	958.46	650.52	12.451	452.00	60.2661	1489.79	1043.70	13.861
314.00	41.8685	966.28	656.36	12.476	454.00	60.5321	1497.11	1049.04	13.877
316.00	42.1354	974.10	662.21	12.501	456.00	60.7980	1504.41	1054.38	13.893
318.00	42.4022	981.92	668.05	12.525	458.00	61.0639	1511.71	1059.70	13.909
320.00	42.6691	989.73	673.89	12.550	460.00	61.3297	1519.00	1065.03	13.925
322.00	42.9359	997.55	679.73	12.574	462.00	61.5955	1526.28	1070.34	13.941
324.00	43.2027	1005.36	685.57	12.598	464.00	61.8612	1533.55	1075.65	13.956
326.00	43.4696	1013.16	691.40	12.622	466.00	62.1269	1540.82	1080.95	13.972
328.00	43.7364	1020.96	697.22	12.646	468.00	62.3925	1548.08	1086.24	13.988
330.00	44.0032	1028.76	703.05	12.670	470.00	62.6581	1555.33	1091.53	14.003
332.00	44.2700	1036.55	708.86	12.693	472.00	62.9237	1562.58	1096.81	14.018
334.00	44.5367	1044.34	714.68	12.717	474.00	63.1892	1569.82	1102.08	14.034
336.00	44.8035	1052.12	720.48	12.740	476.00	63.4548	1577.05	1107.35	14.049
338.00	45.0703	1059.90	726.28	12.763	478.00	63.7203	1584.28	1112.61	14.064
340.00	45.3371	1067.67	732.08	12.786	480.00	63.9858	1591.50	1117.87	14.079
342.00	45.6038	1075.43	737.87	12.809	482.00	64.2514	1598.72	1123.12	14.094
344.00	45.8706	1083.19	743.65	12.831	484.00	64.5169	1605.93	1128.37	14.109
346.00	46.1373	1090.94	749.43	12.854	486.00	64.7825	1613.13	1133.61	14.124
348.00	46.4040	1098.69	755.20	12.876	488.00	65.0481	1620.33	1138.84	14.139
350.00	46.6708	1106.43	760.96	12.898	490.00	65.3138	1627.53	1144.07	14.153
352.00	46.9375	1114.16	766.72	12.920	492.00	65.5795	1634.72	1149.29	14.168
354.00	47.2042	1121.88	772.47	12.942	494.00	65.8453	1641.91	1154.51	14.183
356.00	47.4709	1129.60	778.21	12.964	496.00	66.1112	1649.09	1159.73	14.197
358.00	47.7377	1137.30	783.94	12.986	498.00	66.3771	1656.27	1164.94	14.212
360.00	48.0044	1145.00	789.67	13.007	500.00	66.6432	1663.45	1170.14	14.226
362.00	48.2710	1152.69	795.38	13.028	502.00	66.9093	1670.62	1175.35	14.240
364.00	48.5376	1160.37	801.09	13.050	504.00	67.1755	1677.78	1180.54	14.255
366.00	48.8042	1168.04	806.79	13.071	506.00	67.4419	1684.95	1185.74	14.269
368.00	49.0708	1175.70	812.48	13.091	508.00	67.7084	1692.11	1190.93	14.283
370.00	49.3374	1183.36	818.16	13.112	510.00	67.9750	1699.27	1196.11	14.297
372.00	49.6040	1191.00	823.83	13.133	512.00	68.2417	1706.43	1201.29	14.311
374.00	49.8706	1198.64	829.49	13.153	514.00	68.5086	1713.58	1206.47	14.325
376.00	50.1372	1206.27	835.15	13.174	516.00	68.7756	1720.73	1211.64	14.339
378.00	50.4038	1213.89	840.80	13.194	518.00	69.0427	1727.88	1216.81	14.353
380.00	50.6704	1221.50	846.43	13.214	520.00	69.3100	1735.02	1221.98	14.366
382.00	50.9370	1229.10	852.06	13.234	522.00	69.5774	1742.16	1227.14	14.380
384.00	51.2036	1236.70	857.68	13.254	524.00	69.8449	1749.30	1232.30	14.394
386.00	51.4702	1244.28	863.30	13.273	526.00	70.1126	1756.44	1237.46	14.407
388.00	51.7368	1251.86	868.90	13.293	528.00	70.3803	1763.57	1242.61	14.421
390.00	52.0034	1259.43	874.49	13.312	530.00	70.6482	1770.71	1247.76	14.434
392.00	52.2700	1266.99	880.08	13.332	532.00	70.9161	1777.83	1252.90	14.448
394.00	52.5366	1274.54	885.66	13.351	534.00	71.1841	1784.96	1258.05	14.461
396.00	52.8032	1282.08	891.23	13.370	536.00	71.4522	1792.08	1263.18	14.474
398.00	53.0699	1289.61	896.78	13.389	538.00	71.7202	1799.20	1268.32	14.488
400.00	53.3365	1297.14	902.34	13.408	540.00	71.9883	1806.31	1273.45	14.501

50.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	12.8585	298.54	179.57	9.075	124.00	13.0777	303.92	182.91	9.118
126.00	13.2967	309.31	186.28	9.162	128.00	13.5155	314.73	189.68	9.204
130.00	13.7341	320.18	193.10	9.246	132.00	13.9525	325.65	196.55	9.288
134.00	14.1707	331.15	200.04	9.330	136.00	14.3887	336.69	203.55	9.371
138.00	14.6065	342.25	207.10	9.411	140.00	14.8242	347.85	210.69	9.451
142.00	15.0418	353.48	214.31	9.491	144.00	15.2591	359.15	217.96	9.531
146.00	15.4764	364.86	221.66	9.570	148.00	15.6935	370.60	225.39	9.609
150.00	15.9105	376.38	229.17	9.648	152.00	16.1274	382.21	232.99	9.687
154.00	16.3441	388.07	236.85	9.725	156.00	16.5608	393.98	240.75	9.763
158.00	16.7773	399.93	244.70	9.801	160.00	16.9937	405.92	248.69	9.839
36.00	.2242	-110.03	-112.10	1.872	176.00	18.7219	455.48	282.25	10.134
38.00	.2284	-105.35	-107.46	1.998	178.00	18.9376	461.87	286.65	10.170
40.00	.2331	-100.32	-102.48	2.127	180.00	19.1532	468.30	291.08	10.206
42.00	.2385	-94.89	-97.10	2.259	182.00	19.3686	474.78	295.57	10.242
44.00	.2449	-88.99	-91.26	2.397	184.00	19.5840	481.29	300.09	10.277
* 45.400	.2498	-84.51	-89.17	2.497	186.00	19.7993	487.85	304.66	10.313
* 45.400	3.7977	88.30	53.17	6.306	188.00	20.0145	494.46	309.27	10.348
46.00	3.8957	90.65	54.61	6.358	190.00	20.2297	501.10	313.93	10.383
48.00	4.2032	97.90	59.01	6.512	192.00	20.4448	507.79	318.62	10.418
50.00	4.4908	104.55	63.00	6.648	194.00	20.6599	514.53	323.37	10.453
52.00	4.7655	110.83	66.74	6.771	196.00	20.8749	521.30	328.15	10.488
54.00	5.0312	116.87	70.31	6.885	198.00	21.0898	528.12	332.98	10.523
56.00	5.2903	122.73	73.78	6.991	200.00	21.3047	534.97	337.85	10.557
58.00	5.5442	128.48	77.18	7.092					
60.00	5.7940	134.13	80.52	7.188					
62.00	6.0404	139.70	83.81	7.279	202.00	21.5196	541.87	342.75	10.591
64.00	6.2840	145.22	87.08	7.367	204.00	21.7344	548.80	347.70	10.626
66.00	6.5252	150.69	90.32	7.451	206.00	21.9491	555.78	352.69	10.660
68.00	6.7643	156.12	93.53	7.532	208.00	22.1638	562.79	357.72	10.693
70.00	7.0015	161.52	96.74	7.610	210.00	22.3785	569.84	362.78	10.727
72.00	7.2371	166.89	99.92	7.686	212.00	22.5931	576.93	367.88	10.761
74.00	7.4712	172.23	103.10	7.759	214.00	22.8077	584.05	373.02	10.794
76.00	7.7040	177.55	106.26	7.830	216.00	23.0223	591.21	378.19	10.827
78.00	7.9356	182.85	109.42	7.899	218.00	23.2368	598.39	383.39	10.861
80.00	8.1661	188.13	112.57	7.966	220.00	23.4512	605.61	388.63	10.894
82.00	8.3956	193.40	115.72	8.031	222.00	23.6657	612.87	393.90	10.926
84.00	8.6242	198.66	118.86	8.094	224.00	23.8801	620.15	399.19	10.959
86.00	8.8519	203.90	122.00	8.156	226.00	24.0945	627.46	404.52	10.992
88.00	9.0789	209.14	125.14	8.216	228.00	24.3088	634.80	409.88	11.024
90.00	9.3051	214.37	128.28	8.275	230.00	24.5232	642.18	415.27	11.056
92.00	9.5307	219.60	131.42	8.332	232.00	24.7375	649.58	420.69	11.088
94.00	9.7556	224.82	134.56	8.389	234.00	24.9518	657.00	426.13	11.120
96.00	9.9800	230.05	137.70	8.446	236.00	25.1660	664.46	431.61	11.152
98.00	10.2039	235.27	140.86	8.497	238.00	25.3803	671.94	437.10	11.183
100.00	10.4272	240.49	144.01	8.550	240.00	25.5945	679.44	442.62	11.215
102.00	10.6501	245.72	147.18	8.602	242.00	25.8087	686.97	448.17	11.246
104.00	10.8725	250.95	150.35	8.653	244.00	26.0229	694.52	453.74	11.277
106.00	11.0945	256.19	153.54	8.703	246.00	26.2370	702.09	459.33	11.308
108.00	11.3161	261.44	156.73	8.752	248.00	26.4512	709.68	464.94	11.339
110.00	11.5374	266.70	159.95	8.800	250.00	26.6653	717.30	470.57	11.369
112.00	11.7583	271.97	163.17	8.847	252.00	26.8794	724.93	476.22	11.400
114.00	11.9789	277.25	166.41	8.894	254.00	27.0935	732.58	481.90	11.430
116.00	12.1992	282.55	169.67	8.940	256.00	27.3076	740.25	487.58	11.460
118.00	12.4192	287.86	172.95	8.986	258.00	27.5217	747.94	493.29	11.490
120.00	12.6390	293.19	176.25	9.030	260.00	27.7357	755.64	499.01	11.520

*PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	27.9497	763.36	504.75	11.549	402.00	42.9013	1304.66	907.71	13.206
264.00	28.1637	771.09	510.50	11.579	404.00	43.1147	1312.17	913.25	13.225
266.00	28.3777	778.84	516.27	11.608	406.00	43.3281	1319.67	918.77	13.243
268.00	28.5917	786.60	522.05	11.637	408.00	43.5415	1327.16	924.29	13.262
270.00	28.8057	794.37	527.84	11.666	410.00	43.7549	1334.65	929.80	13.280
272.00	29.0196	802.12	533.61	11.694	412.00	43.9683	1342.12	935.30	13.298
274.00	29.2335	809.89	539.40	11.723	414.00	44.1817	1349.58	940.79	13.316
276.00	29.4474	817.66	545.19	11.751	416.00	44.3952	1357.04	946.27	13.334
278.00	29.6613	825.44	551.00	11.779	418.00	44.6086	1364.49	951.75	13.352
280.00	29.8752	833.23	556.80	11.807	420.00	44.8221	1371.94	957.21	13.370
282.00	30.0891	841.02	562.62	11.835	422.00	45.0355	1379.37	962.67	13.388
284.00	30.3029	848.83	568.44	11.862	424.00	45.2490	1386.79	968.12	13.405
286.00	30.5168	856.63	574.27	11.890	426.00	45.4624	1394.21	973.56	13.423
288.00	30.7306	864.44	580.10	11.917	428.00	45.6757	1401.62	979.00	13.440
290.00	30.9444	872.26	585.94	11.944	430.00	45.8891	1409.01	984.42	13.457
292.00	31.1582	880.08	591.78	11.971	432.00	46.1024	1416.40	989.83	13.474
294.00	31.3719	887.90	597.62	11.998	434.00	46.3157	1423.78	995.24	13.491
296.00	31.5857	895.72	603.47	12.024	436.00	46.5289	1431.16	1000.64	13.508
298.00	31.7995	903.55	609.32	12.050	438.00	46.7422	1438.52	1006.03	13.525
300.00	32.0132	911.38	615.17	12.077	440.00	46.9553	1445.87	1011.41	13.542
302.00	32.2269	919.21	621.02	12.103	442.00	47.1685	1453.22	1016.79	13.559
304.00	32.4406	927.04	626.87	12.128	444.00	47.3815	1460.56	1022.15	13.575
306.00	32.6543	934.87	632.73	12.154	446.00	47.5946	1467.89	1027.51	13.592
308.00	32.8680	942.70	638.58	12.180	448.00	47.8076	1475.21	1032.86	13.608
310.00	33.0816	950.52	644.43	12.205	450.00	48.0205	1482.52	1038.20	13.624
312.00	33.2953	958.35	650.28	12.230	452.00	48.2334	1489.84	1043.55	13.641
314.00	33.5089	966.18	656.13	12.255	454.00	48.4463	1497.16	1048.90	13.657
316.00	33.7226	974.00	661.98	12.280	456.00	48.6591	1504.46	1054.24	13.673
318.00	33.9362	981.82	667.82	12.305	458.00	48.8718	1511.76	1059.57	13.689
320.00	34.1498	989.64	673.67	12.329	460.00	49.0846	1519.05	1064.89	13.705
322.00	34.3634	997.46	679.51	12.354	462.00	49.2972	1526.33	1070.20	13.720
324.00	34.5770	1005.27	685.34	12.378	464.00	49.5099	1533.61	1075.51	13.736
326.00	34.7906	1013.08	691.18	12.402	466.00	49.7225	1540.88	1080.81	13.752
328.00	35.0042	1020.88	697.00	12.426	468.00	49.9350	1548.14	1086.11	13.767
330.00	35.2177	1028.68	702.83	12.449	470.00	50.1476	1555.39	1091.40	13.783
332.00	35.4313	1036.48	708.65	12.473	472.00	50.3601	1562.64	1096.68	13.798
334.00	35.6448	1044.27	714.46	12.496	474.00	50.5726	1569.88	1101.95	13.813
336.00	35.8584	1052.05	720.27	12.519	476.00	50.7851	1577.12	1107.22	13.829
338.00	36.0719	1059.83	726.07	12.543	478.00	50.9976	1584.35	1112.49	13.844
340.00	36.2854	1067.61	731.87	12.565	480.00	51.2101	1591.57	1117.74	13.859
342.00	36.4990	1075.37	737.66	12.588	482.00	51.4225	1598.79	1122.99	13.874
344.00	36.7125	1083.14	743.45	12.611	484.00	51.6350	1606.00	1128.24	13.889
346.00	36.9260	1090.89	749.23	12.633	486.00	51.8476	1613.21	1133.48	13.904
348.00	37.1395	1098.64	755.00	12.656	488.00	52.0601	1620.41	1138.72	13.919
350.00	37.3530	1106.38	760.76	12.678	490.00	52.2727	1627.61	1143.95	13.933
352.00	37.5665	1114.11	766.52	12.700	492.00	52.4853	1634.80	1149.17	13.948
354.00	37.7800	1121.84	772.27	12.722	494.00	52.6980	1641.99	1154.39	13.962
356.00	37.9935	1129.55	778.01	12.744	496.00	52.9108	1649.17	1159.61	13.977
358.00	38.2069	1137.26	783.75	12.765	498.00	53.1236	1656.35	1164.82	13.991
360.00	38.4204	1144.97	789.48	12.787	500.00	53.3364	1663.53	1170.03	14.006
362.00	38.6338	1152.66	795.19	12.808	502.00	53.5494	1670.70	1175.23	14.020
364.00	38.8472	1160.34	800.90	12.829	504.00	53.7624	1677.87	1180.43	14.034
366.00	39.0606	1168.01	806.60	12.850	506.00	53.9755	1685.04	1185.62	14.049
368.00	39.2740	1175.68	812.29	12.871	508.00	54.1888	1692.20	1190.81	14.063
370.00	39.4873	1183.33	817.97	12.892	510.00	54.4021	1699.36	1196.00	14.077
372.00	39.7007	1190.98	823.65	12.912	512.00	54.6155	1706.52	1201.18	14.091
374.00	39.9141	1198.62	829.31	12.933	514.00	54.8291	1713.67	1206.36	14.105
376.00	40.1274	1206.25	834.97	12.953	516.00	55.0427	1720.82	1211.53	14.119
378.00	40.3408	1213.88	840.62	12.973	518.00	55.2564	1727.97	1216.70	14.132
380.00	40.5542	1221.49	846.26	12.993	520.00	55.4703	1735.11	1221.87	14.146
382.00	40.7675	1229.09	851.89	13.013	522.00	55.6842	1742.26	1227.03	14.160
384.00	40.9809	1236.69	857.51	13.033	524.00	55.8983	1749.40	1232.19	14.174
386.00	41.1943	1244.28	863.12	13.053	526.00	56.1124	1756.54	1237.35	14.187
388.00	41.4076	1251.86	868.73	13.073	528.00	56.3266	1763.67	1242.50	14.201
390.00	41.6210	1259.43	874.32	13.092	530.00	56.5409	1770.80	1247.65	14.214
392.00	41.8344	1266.99	879.91	13.111	532.00	56.7553	1777.93	1252.79	14.228
394.00	42.0478	1274.54	885.49	13.131	534.00	56.9697	1785.06	1257.94	14.241
396.00	42.2612	1282.08	891.06	13.150	536.00	57.1842	1792.18	1263.07	14.254
398.00	42.4745	1289.62	896.62	13.169	538.00	57.3986	1799.30	1268.21	14.268
400.00	42.6879	1297.15	902.17	13.188	540.00	57.6131	1806.41	1273.34	14.281

60.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	10.6933	297.58	178.85	8.889	122.00	10.6933	297.58	178.85	8.889
124.00	10.8771	302.98	182.21	8.933	124.00	10.8771	302.98	182.21	8.933
126.00	11.0606	308.40	185.59	8.976	126.00	11.0606	308.40	185.59	8.976
128.00	11.2439	313.84	189.00	9.019	128.00	11.2439	313.84	189.00	9.019
130.00	11.4269	319.31	192.44	9.062	130.00	11.4269	319.31	192.44	9.062
132.00	11.6098	324.81	195.90	9.104	132.00	11.6098	324.81	195.90	9.104
134.00	11.7925	330.33	199.40	9.145	134.00	11.7925	330.33	199.40	9.145
136.00	11.9750	335.89	202.93	9.186	136.00	11.9750	335.89	202.93	9.186
138.00	12.1574	341.48	206.49	9.227	138.00	12.1574	341.48	206.49	9.227
140.00	12.3396	347.09	210.09	9.268	140.00	12.3396	347.09	210.09	9.268
					142.00	12.5216	352.75	213.72	9.308
					144.00	12.7035	358.43	217.39	9.347
					146.00	12.8852	364.16	221.09	9.387
					148.00	13.0668	369.92	224.84	9.426
					150.00	13.2483	375.72	228.62	9.465
					152.00	13.4296	381.56	232.45	9.504
					154.00	13.6109	387.44	236.32	9.542
					156.00	13.7920	393.37	240.23	9.580
					158.00	13.9730	399.33	244.19	9.618
					160.00	14.1540	405.34	248.19	9.656
					162.00	14.3348	411.39	252.23	9.694
					164.00	14.5155	417.49	256.32	9.731
					166.00	14.6961	423.63	260.46	9.768
					168.00	14.8767	429.81	264.64	9.805
					170.00	15.0571	436.04	268.86	9.842
					172.00	15.2375	442.32	273.13	9.879
					174.00	15.4178	448.63	277.45	9.915
36.00	.2239	-109.74	-112.23	1.868	176.00	15.5981	454.99	281.81	9.952
38.00	.2281	-105.08	-107.61	1.994	178.00	15.7782	461.40	286.21	9.988
40.00	.2327	-100.08	-102.66	2.122	180.00	15.9583	467.84	290.66	10.024
42.00	.2381	-94.68	-97.32	2.254					
44.00	.2443	-88.81	-91.53	2.390	182.00	16.1383	474.33	295.14	10.060
46.00	.2517	-82.37	-85.17	2.533	184.00	16.3182	480.86	299.67	10.095
* 47.022	.2559	-78.80	-84.53	2.610	186.00	16.4980	487.43	304.25	10.131
* 47.022	3.1644	88.04	52.91	6.162	188.00	16.6777	494.04	308.86	10.166
48.00	3.3052	92.10	55.40	6.247	190.00	16.8574	500.69	313.52	10.202
50.00	3.5718	99.62	59.96	6.401	192.00	17.0370	507.39	318.23	10.237
52.00	3.8198	106.49	64.08	6.536	194.00	17.2166	514.13	322.97	10.272
54.00	4.0558	112.95	67.92	6.658	196.00	17.3961	520.92	327.76	10.306
56.00	4.2833	119.15	71.59	6.770	198.00	17.5755	527.74	332.59	10.341
58.00	4.5046	125.15	75.14	6.876	200.00	17.7549	534.60	337.47	10.375
60.00	4.7210	131.02	78.60	6.975					
62.00	4.9335	136.78	82.01	7.070	202.00	17.9343	541.51	342.38	10.410
64.00	5.1429	142.46	85.36	7.160	204.00	18.1136	548.45	347.33	10.444
66.00	5.3495	148.08	88.68	7.246	206.00	18.2928	555.43	352.32	10.478
68.00	5.5539	153.63	91.97	7.329	208.00	18.4721	562.45	357.35	10.512
70.00	5.7563	159.14	95.23	7.409	210.00	18.6512	569.51	362.42	10.546
72.00	5.9569	164.62	98.48	7.486	212.00	18.8304	576.60	367.53	10.579
74.00	6.1559	170.06	101.71	7.560	214.00	19.0094	583.73	372.67	10.613
76.00	6.3535	175.46	104.92	7.633	216.00	19.1885	590.90	377.84	10.646
78.00	6.5499	180.85	108.12	7.703	218.00	19.3675	598.09	383.05	10.679
80.00	6.7452	186.21	111.32	7.770	220.00	19.5465	605.32	388.29	10.712
82.00	6.9394	191.55	114.50	7.836	222.00	19.7255	612.57	393.56	10.745
84.00	7.1326	196.88	117.68	7.901	224.00	19.9044	619.86	398.86	10.778
86.00	7.3250	202.19	120.86	7.963	226.00	20.0833	627.18	404.19	10.810
88.00	7.5166	207.49	124.03	8.024	228.00	20.2622	634.53	409.56	10.843
90.00	7.7074	212.78	127.20	8.083	230.00	20.4410	641.91	414.95	10.875
92.00	7.8976	218.06	130.37	8.141	232.00	20.6198	649.32	420.37	10.907
94.00	8.0871	223.33	133.54	8.198	234.00	20.7986	656.75	425.82	10.939
96.00	8.2761	228.61	136.71	8.254	236.00	20.9774	664.21	431.29	10.971
98.00	8.4645	233.88	139.89	8.308	238.00	21.1561	671.69	436.79	11.002
100.00	8.6524	239.14	143.07	8.361	240.00	21.3349	679.20	442.32	11.034
102.00	8.8398	244.41	146.26	8.413	242.00	21.5136	686.73	447.87	11.065
104.00	9.0267	249.69	149.46	8.465	244.00	21.6923	694.29	453.44	11.096
106.00	9.2133	254.97	152.67	8.515	246.00	21.8709	701.87	459.03	11.127
108.00	9.3994	260.25	155.89	8.564	248.00	22.0496	709.47	464.64	11.158
110.00	9.5852	265.54	159.12	8.613	250.00	22.2282	717.08	470.28	11.188
112.00	9.7707	270.85	162.36	8.661	252.00	22.4068	724.72	475.94	11.219
114.00	9.9558	276.16	165.62	8.708	254.00	22.5854	732.38	481.61	11.249
116.00	10.1406	281.49	168.90	8.754	256.00	22.7640	740.05	487.30	11.279
118.00	10.3251	286.84	172.19	8.800	258.00	22.9426	747.74	493.01	11.309
120.00	10.5093	292.20	175.51	8.845	260.00	23.1211	755.45	498.73	11.339

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
262.00	23.2996	763.17	504.47	11.368	402.00	35.7668	1304.67	907.55	13.026
264.00	23.4782	770.91	510.23	11.398	404.00	35.9447	1312.18	913.08	13.045
266.00	23.6567	778.66	515.99	11.427	406.00	36.1226	1319.69	918.61	13.063
268.00	23.8351	786.42	521.78	11.456	408.00	36.3005	1327.18	924.13	13.082
270.00	24.0136	794.20	527.57	11.485	410.00	36.4784	1334.66	929.64	13.100
272.00	24.1921	801.96	533.35	11.514	412.00	36.6562	1342.14	935.14	13.118
274.00	24.3705	809.72	539.13	11.542	414.00	36.8341	1349.60	940.63	13.136
276.00	24.5489	817.50	544.93	11.570	416.00	37.0121	1357.07	946.11	13.154
278.00	24.7273	825.29	550.73	11.598	418.00	37.1900	1364.52	951.59	13.172
280.00	24.9057	833.08	556.55	11.626	420.00	37.3679	1371.96	957.06	13.190
282.00	25.0841	840.88	562.36	11.654	422.00	37.5459	1379.40	962.52	13.208
284.00	25.2624	848.68	568.19	11.682	424.00	37.7238	1386.82	967.97	13.225
286.00	25.4408	856.49	574.02	11.709	426.00	37.9016	1394.24	973.41	13.243
288.00	25.6191	864.30	579.85	11.736	428.00	38.0795	1401.65	978.84	13.260
290.00	25.7974	872.12	585.69	11.763	430.00	38.2573	1409.05	984.27	13.277
292.00	25.9757	879.94	591.53	11.790	432.00	38.4352	1416.44	989.69	13.294
294.00	26.1540	887.77	597.38	11.817	434.00	38.6130	1423.82	995.09	13.311
296.00	26.3322	895.60	603.23	11.844	436.00	38.7907	1431.19	1000.49	13.328
298.00	26.5105	903.43	609.08	11.870	438.00	38.9684	1438.56	1005.89	13.345
300.00	26.6887	911.26	614.93	11.896	440.00	39.1461	1445.91	1011.27	13.362
302.00	26.8670	919.09	620.78	11.922	442.00	39.3238	1453.26	1016.64	13.379
304.00	27.0452	926.92	626.64	11.948	444.00	39.5014	1460.60	1022.01	13.395
306.00	27.2234	934.76	632.49	11.974	446.00	39.6790	1467.93	1027.37	13.412
308.00	27.4016	942.59	638.35	11.999	448.00	39.8565	1475.25	1032.72	13.428
310.00	27.5797	950.42	644.20	12.025	450.00	40.0340	1482.57	1038.06	13.444
312.00	27.7579	958.25	650.05	12.050	452.00	40.2115	1489.89	1043.42	13.461
314.00	27.9361	966.08	655.90	12.075	454.00	40.3889	1497.21	1048.76	13.477
316.00	28.1142	973.91	661.75	12.100	456.00	40.5663	1504.51	1054.10	13.493
318.00	28.2923	981.73	667.60	12.124	458.00	40.7437	1511.81	1059.43	13.509
320.00	28.4704	989.55	673.44	12.149	460.00	40.9210	1519.11	1064.75	13.525
322.00	28.6486	997.37	679.28	12.173	462.00	41.0983	1526.39	1070.07	13.540
324.00	28.8267	1005.19	685.12	12.197	464.00	41.2756	1533.67	1075.38	13.556
326.00	29.0048	1013.00	690.96	12.221	466.00	41.4528	1540.94	1080.68	13.572
328.00	29.1828	1020.81	696.79	12.245	468.00	41.6300	1548.20	1085.98	13.587
330.00	29.3609	1028.61	702.61	12.269	470.00	41.8072	1555.46	1091.27	13.603
332.00	29.5390	1036.41	708.43	12.292	472.00	41.9843	1562.71	1096.55	13.618
334.00	29.7170	1044.20	714.25	12.316	474.00	42.1615	1569.95	1101.83	13.633
336.00	29.8951	1051.99	720.06	12.339	476.00	42.3386	1577.19	1107.10	13.649
338.00	30.0731	1059.77	725.86	12.362	478.00	42.5157	1584.42	1112.36	13.664
340.00	30.2512	1067.55	731.66	12.385	480.00	42.6929	1591.64	1117.62	13.679
342.00	30.4292	1075.32	737.46	12.408	482.00	42.8700	1598.86	1122.87	13.694
344.00	30.6072	1083.08	743.24	12.431	484.00	43.0472	1606.08	1128.12	13.709
346.00	30.7852	1090.84	749.02	12.453	486.00	43.2243	1613.28	1133.36	13.724
348.00	30.9633	1098.59	754.80	12.475	488.00	43.4015	1620.49	1138.59	13.739
350.00	31.1413	1106.33	760.56	12.498	490.00	43.5787	1627.69	1143.82	13.753
352.00	31.3193	1114.07	766.32	12.520	492.00	43.7560	1634.88	1149.05	13.768
354.00	31.4972	1121.79	772.07	12.542	494.00	43.9332	1642.07	1154.27	13.782
356.00	31.6752	1129.51	777.82	12.563	496.00	44.1106	1649.26	1159.49	13.797
358.00	31.8532	1137.23	783.56	12.585	498.00	44.2880	1656.44	1164.70	13.811
360.00	32.0312	1144.93	789.28	12.606	500.00	44.4654	1663.61	1169.91	13.826
362.00	32.2091	1152.62	795.00	12.628	502.00	44.6429	1670.79	1175.11	13.840
364.00	32.3870	1160.31	800.71	12.649	504.00	44.8205	1677.96	1180.31	13.854
366.00	32.5649	1167.98	806.41	12.670	506.00	44.9981	1685.12	1185.50	13.869
368.00	32.7428	1175.65	812.10	12.691	508.00	45.1759	1692.29	1190.69	13.883
370.00	32.9207	1183.31	817.79	12.711	510.00	45.3537	1699.45	1195.88	13.897
372.00	33.0986	1190.96	823.46	12.732	512.00	45.5315	1706.61	1201.06	13.911
374.00	33.2765	1198.60	829.13	12.753	514.00	45.7095	1713.76	1206.24	13.925
376.00	33.4544	1206.24	834.79	12.773	516.00	45.8876	1720.91	1211.41	13.939
378.00	33.6322	1213.86	840.44	12.793	518.00	46.0657	1728.06	1216.59	13.952
380.00	33.8101	1221.48	846.08	12.813	520.00	46.2439	1735.21	1221.75	13.966
382.00	33.9880	1229.09	851.71	12.833	522.00	46.4222	1742.35	1226.92	13.980
384.00	34.1659	1236.68	857.33	12.853	524.00	46.6006	1749.49	1232.08	13.994
386.00	34.3438	1244.27	862.95	12.873	526.00	46.7791	1756.63	1237.23	14.007
388.00	34.5216	1251.85	868.55	12.892	528.00	46.9576	1763.76	1242.39	14.021
390.00	34.6995	1259.43	874.15	12.912	530.00	47.1362	1770.90	1247.54	14.034
392.00	34.8774	1266.99	879.74	12.931	532.00	47.3148	1778.03	1252.68	14.048
394.00	35.0553	1274.54	885.32	12.950	534.00	47.4935	1785.15	1257.82	14.061
396.00	35.2332	1282.09	890.89	12.970	536.00	47.6722	1792.28	1262.96	14.074
398.00	35.4110	1289.63	896.45	12.989	538.00	47.8509	1799.40	1268.10	14.088
400.00	35.5889	1297.15	902.00	13.007	540.00	48.0296	1806.51	1273.23	14.101

70.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	9.1469	296.61	178.12	8.731	122.00	9.1469	296.61	178.12	8.731
124.00	9.3053	302.04	181.50	8.775	124.00	9.3053	302.04	181.50	8.775
126.00	9.4635	307.48	184.90	8.819	126.00	9.4635	307.48	184.90	8.819
128.00	9.6214	312.96	188.32	8.862	128.00	9.6214	312.96	188.32	8.862
130.00	9.7791	318.45	191.77	8.905	130.00	9.7791	318.45	191.77	8.905
132.00	9.9366	323.97	195.25	8.947	132.00	9.9366	323.97	195.25	8.947
134.00	10.0940	329.52	198.76	8.989	134.00	10.0940	329.52	198.76	8.989
136.00	10.2511	335.09	202.30	9.030	136.00	10.2511	335.09	202.30	9.030
138.00	10.4081	340.70	205.88	9.071	138.00	10.4081	340.70	205.88	9.071
140.00	10.5649	346.34	209.49	9.111	140.00	10.5649	346.34	209.49	9.111
					142.00	10.7216	352.01	213.13	9.152
					144.00	10.8781	357.72	216.81	9.192
					146.00	11.0345	363.46	220.52	9.231
					148.00	11.1907	369.24	224.28	9.270
					150.00	11.3469	375.06	228.08	9.309
					152.00	11.5028	380.92	231.91	9.348
					154.00	11.6587	386.81	235.79	9.387
					156.00	11.8145	392.75	239.71	9.425
					158.00	11.9701	398.73	243.68	9.463
					160.00	12.1257	404.76	247.69	9.501
					162.00	12.2811	410.82	251.74	9.539
					164.00	12.4365	416.93	255.84	9.576
					166.00	12.5918	423.09	259.98	9.614
					168.00	12.7470	429.29	264.17	9.651
					170.00	12.9021	435.53	268.40	9.688
					172.00	13.0571	441.81	272.68	9.724
					174.00	13.2120	448.14	277.00	9.761
36.00	.2237	-109.46	-112.35	1.864	176.00	13.3669	454.52	281.37	9.797
38.00	.2277	-104.81	-107.76	1.990	178.00	13.5217	460.93	285.78	9.834
40.00	.2324	-99.83	-102.84	2.118	180.00	13.6764	467.39	290.23	9.870
42.00	.2376	-94.46	-97.54	2.249					
44.00	.2437	-88.63	-91.79	2.384	182.00	13.8310	473.88	294.72	9.906
46.00	.2509	-82.25	-85.50	2.526	184.00	13.9855	480.42	299.26	9.941
48.00	.2598	-75.13	-78.50	2.677	186.00	14.1399	487.00	303.84	9.977
* 48.464	.2620	-73.35	-80.19	2.714	188.00	14.2943	493.62	308.46	10.012
* 48.464	2.7007	87.34	52.35	6.034	190.00	14.4486	500.29	313.12	10.048
50.00	2.8995	94.02	56.46	6.170	192.00	14.6029	507.00	317.83	10.083
52.00	3.1342	101.72	61.12	6.321	194.00	14.7571	513.74	322.59	10.118
54.00	3.3521	108.74	65.32	6.453	196.00	14.9112	520.54	327.38	10.152
56.00	3.5591	115.35	69.25	6.573	198.00	15.0653	527.37	332.22	10.187
58.00	3.7583	121.67	72.99	6.684	200.00	15.2194	534.24	337.09	10.222
60.00	3.9518	127.79	76.60	6.788					
62.00	4.1408	133.77	80.13	6.886	202.00	15.3734	541.15	342.01	10.256
64.00	4.3261	139.63	83.59	6.979	204.00	15.5273	548.10	346.97	10.290
66.00	4.5085	145.40	87.00	7.068	206.00	15.6813	555.09	351.96	10.324
68.00	4.6883	151.09	90.36	7.153	208.00	15.8351	562.12	357.00	10.358
70.00	4.8660	156.73	93.70	7.235	210.00	15.9889	569.18	362.07	10.392
72.00	5.0418	162.31	97.00	7.313	212.00	16.1427	576.28	367.18	10.426
74.00	5.2159	167.85	100.29	7.389	214.00	16.2965	583.42	372.32	10.459
76.00	5.3885	173.36	103.56	7.463	216.00	16.4502	590.59	377.50	10.493
78.00	5.5599	178.83	106.81	7.534	218.00	16.6038	597.79	382.71	10.526
80.00	5.7300	184.27	110.05	7.602	220.00	16.7575	605.02	387.95	10.559
82.00	5.8991	189.69	113.27	7.669	222.00	16.9111	612.29	393.23	10.592
84.00	6.0671	195.08	116.49	7.734	224.00	17.0647	619.58	398.53	10.624
86.00	6.2343	200.46	119.70	7.798	226.00	17.2182	626.91	403.87	10.657
88.00	6.4007	205.82	122.91	7.859	228.00	17.3717	634.26	409.23	10.689
90.00	6.5663	211.17	126.11	7.919	230.00	17.5252	641.65	414.63	10.722
92.00	6.7312	216.51	129.32	7.978	232.00	17.6787	649.06	420.05	10.754
94.00	6.8954	221.84	132.52	8.035	234.00	17.8321	656.50	425.50	10.786
96.00	7.0591	227.16	135.72	8.091	236.00	17.9856	663.96	430.98	10.817
98.00	7.2222	232.48	138.92	8.146	238.00	18.1390	671.45	436.48	10.849
100.00	7.3847	237.79	142.13	8.200	240.00	18.2923	678.96	442.01	10.880
102.00	7.5468	243.10	145.35	8.252	242.00	18.4457	686.50	447.56	10.912
104.00	7.7085	248.42	148.57	8.304	244.00	18.5990	694.06	453.14	10.943
106.00	7.8697	253.74	151.80	8.355	246.00	18.7524	701.64	458.73	10.974
108.00	8.0305	259.06	155.04	8.404	248.00	18.9057	709.25	464.35	11.005
110.00	8.1909	264.39	158.29	8.453	250.00	19.0589	716.87	469.99	11.035
112.00	8.3510	269.73	161.55	8.501	252.00	19.2122	724.51	475.64	11.066
114.00	8.5108	275.08	164.83	8.549	254.00	19.3654	732.17	481.32	11.096
116.00	8.6703	280.44	168.13	8.595	256.00	19.5187	739.85	487.01	11.126
118.00	8.8294	285.81	171.44	8.641	258.00	19.6719	747.55	492.73	11.156
120.00	8.9883	291.20	174.77	8.687	260.00	19.8251	755.26	498.45	11.186

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8-R)	ENTROPY (8TU/L8)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8-R)	ENTROPY (8TU/L8)
262.00	19.9782	762.99	504.19	11.215	402.00	30.6707	1304.68	907.38	12.874
264.00	20.1314	770.73	509.95	11.245	404.00	30.8232	1312.20	912.92	12.892
266.00	20.2845	778.48	515.72	11.274	406.00	30.9758	1319.70	918.45	12.911
268.00	20.4377	786.25	521.50	11.303	408.00	31.1283	1327.19	923.97	12.929
270.00	20.5908	794.03	527.30	11.332	410.00	31.2808	1334.68	929.48	12.948
272.00	20.7439	801.79	533.08	11.361	412.00	31.4334	1342.16	934.98	12.966
274.00	20.8970	809.56	538.87	11.389	414.00	31.5859	1349.63	940.47	12.984
276.00	21.0500	817.34	544.67	11.417	416.00	31.7385	1357.09	945.96	13.002
278.00	21.2031	825.13	550.47	11.446	418.00	31.8910	1364.54	951.44	13.020
280.00	21.3561	832.93	556.29	11.474	420.00	32.0436	1371.99	956.91	13.038
282.00	21.5091	840.73	562.11	11.501	422.00	32.1961	1379.42	962.37	13.055
284.00	21.6621	848.54	567.93	11.529	424.00	32.3487	1386.85	967.82	13.073
286.00	21.8151	856.35	573.76	11.556	426.00	32.5012	1394.27	973.26	13.090
288.00	21.9681	864.17	579.60	11.584	428.00	32.6537	1401.68	978.70	13.108
290.00	22.1210	871.99	585.44	11.611	430.00	32.8062	1409.08	984.12	13.125
292.00	22.2740	879.82	591.29	11.638	432.00	32.9586	1416.48	989.54	13.142
294.00	22.4269	887.65	597.13	11.664	434.00	33.1111	1423.86	994.95	13.159
296.00	22.5798	895.48	602.98	11.691	436.00	33.2635	1431.23	1000.35	13.176
298.00	22.7327	903.31	608.84	11.717	438.00	33.4159	1438.60	1005.74	13.193
300.00	22.8856	911.14	614.69	11.743	440.00	33.5682	1445.96	1011.13	13.210
302.00	23.0385	918.98	620.55	11.769	442.00	33.7206	1453.31	1016.50	13.226
304.00	23.1913	926.82	626.40	11.795	444.00	33.8729	1460.65	1021.87	13.243
306.00	23.3442	934.65	632.26	11.821	446.00	34.0251	1467.98	1027.23	13.259
308.00	23.4970	942.49	638.11	11.846	448.00	34.1774	1475.30	1032.58	13.276
310.00	23.6498	950.32	643.97	11.872	450.00	34.3296	1482.62	1037.93	13.292
312.00	23.8026	958.16	649.82	11.897	452.00	34.4817	1489.95	1043.28	13.308
314.00	23.9554	965.99	655.68	11.922	454.00	34.6338	1497.26	1048.63	13.324
316.00	24.1082	973.82	661.53	11.947	456.00	34.7859	1504.57	1053.96	13.340
318.00	24.2610	981.65	667.38	11.972	458.00	34.9380	1511.87	1059.30	13.356
320.00	24.4138	989.47	673.22	11.996	460.00	35.0900	1519.17	1064.62	13.372
322.00	24.5665	997.29	679.07	12.020	462.00	35.2421	1526.45	1069.94	13.388
324.00	24.7193	1005.11	684.90	12.045	464.00	35.3940	1533.73	1075.25	13.404
326.00	24.8720	1012.93	690.74	12.069	466.00	35.5460	1541.00	1080.55	13.419
328.00	25.0248	1020.74	696.57	12.093	468.00	35.6979	1548.27	1085.85	13.435
330.00	25.1775	1028.54	702.40	12.116	470.00	35.8498	1555.53	1091.14	13.451
332.00	25.3302	1036.34	708.22	12.140	472.00	36.0017	1562.78	1096.42	13.466
334.00	25.4829	1044.14	714.04	12.163	474.00	36.1536	1570.02	1101.70	13.481
336.00	25.6356	1051.93	719.85	12.187	476.00	36.3055	1577.26	1106.97	13.496
338.00	25.7883	1059.71	725.66	12.210	478.00	36.4574	1584.49	1112.23	13.512
340.00	25.9410	1067.49	731.46	12.233	480.00	36.6092	1591.72	1117.49	13.527
342.00	26.0937	1075.26	737.25	12.255	482.00	36.7611	1598.94	1122.75	13.542
344.00	26.2463	1083.03	743.04	12.278	484.00	36.9130	1606.15	1127.99	13.557
346.00	26.3990	1090.79	748.82	12.301	486.00	37.0649	1613.36	1133.24	13.572
348.00	26.5517	1098.54	754.60	12.323	488.00	37.2168	1620.57	1138.47	13.586
350.00	26.7043	1106.29	760.37	12.345	490.00	37.3687	1627.77	1143.70	13.601
352.00	26.8570	1114.02	766.13	12.367	492.00	37.5207	1634.96	1148.93	13.616
354.00	27.0096	1121.75	771.88	12.389	494.00	37.6726	1642.15	1154.15	13.630
356.00	27.1622	1129.48	777.63	12.411	496.00	37.8247	1649.34	1159.37	13.645
358.00	27.3149	1137.19	783.36	12.432	498.00	37.9768	1656.52	1164.58	13.659
360.00	27.4675	1144.90	789.09	12.454	500.00	38.1289	1663.70	1169.79	13.674
362.00	27.6201	1152.59	794.81	12.475	502.00	38.2810	1670.87	1174.99	13.688
364.00	27.7726	1160.28	800.52	12.496	504.00	38.4333	1678.04	1180.19	13.702
366.00	27.9252	1167.96	806.22	12.517	506.00	38.5856	1685.21	1185.39	13.716
368.00	28.0777	1175.63	811.92	12.538	508.00	38.7379	1692.38	1190.58	13.731
370.00	28.2303	1183.29	817.60	12.559	510.00	38.8903	1699.54	1195.76	13.745
372.00	28.3828	1190.94	823.28	12.580	512.00	39.0428	1706.70	1200.95	13.759
374.00	28.5353	1198.59	828.95	12.600	514.00	39.1954	1713.85	1206.13	13.773
376.00	28.6879	1206.22	834.61	12.621	516.00	39.3480	1721.00	1211.30	13.786
378.00	28.8404	1213.85	840.26	12.641	518.00	39.5007	1728.15	1216.47	13.800
380.00	28.9929	1221.47	845.90	12.661	520.00	39.6535	1735.30	1221.64	13.814
382.00	29.1455	1229.08	851.53	12.681	522.00	39.8064	1742.44	1226.81	13.828
384.00	29.2980	1236.68	857.16	12.701	524.00	39.9593	1749.59	1231.97	13.841
386.00	29.4505	1244.27	862.77	12.720	526.00	40.1122	1756.72	1237.12	13.855
388.00	29.6030	1251.85	868.38	12.740	528.00	40.2653	1763.86	1242.28	13.869
390.00	29.7556	1259.42	873.98	12.759	530.00	40.4183	1770.99	1247.43	13.882
392.00	29.9081	1266.99	879.57	12.779	532.00	40.5715	1778.12	1252.57	13.895
394.00	30.0606	1274.55	885.15	12.798	534.00	40.7246	1785.25	1257.72	13.909
396.00	30.2131	1282.09	890.72	12.817	536.00	40.8778	1792.37	1262.85	13.922
398.00	30.3657	1289.63	896.28	12.836	538.00	41.0310	1799.49	1267.99	13.935
400.00	30.5182	1297.16	901.84	12.855	540.00	41.1842	1806.61	1273.12	13.949

80.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)
122.00	7.9873	295.64	177.40	8.594	122.00	9.3717	351.28	212.54	9.016
124.00	8.1267	301.10	180.79	8.638	124.00	9.5092	357.01	216.23	9.056
126.00	8.2658	306.57	184.20	8.682	126.00	9.6466	362.77	219.96	9.096
128.00	8.4047	312.07	187.64	8.725	128.00	9.7838	368.56	223.72	9.135
130.00	8.5434	317.59	191.11	8.768	130.00	9.9209	374.40	227.53	9.174
132.00	8.6819	323.13	194.60	8.810	132.00	10.0579	380.27	231.38	9.213
134.00	8.8202	328.70	198.13	8.852	134.00	10.1947	386.19	235.26	9.252
136.00	8.9583	334.30	201.68	8.894	136.00	10.3315	392.14	239.19	9.290
138.00	9.0963	339.93	205.26	8.935	138.00	10.4681	398.14	243.17	9.328
140.00	9.2341	345.59	208.88	8.976	140.00	10.6046	404.18	247.18	9.366
36.00	.2234	-109.17	-112.48	1.861	176.00	11.6936	454.04	280.92	9.663
38.00	.2274	-104.54	-107.91	1.986	178.00	11.8294	460.47	285.34	9.700
40.00	.2320	-99.58	-103.01	2.113	180.00	11.9651	466.93	289.80	9.736
42.00	.2372	-94.24	-97.75	2.243	182.00	12.1007	473.44	294.30	9.772
44.00	.2432	-88.45	-92.05	2.378	184.00	12.2361	479.99	298.84	9.807
46.00	.2502	-82.12	-85.82	2.519	186.00	12.3715	486.58	303.42	9.843
48.00	.2588	-75.09	-78.92	2.668	188.00	12.5069	493.21	308.05	9.879
* 49.768	.2683	-68.06	-76.06	2.812	190.00	12.6422	499.88	312.72	9.914
* 49.768	2.3452	86.26	51.54	5.917	192.00	12.7774	506.60	317.44	9.949
50.00	2.3747	87.42	52.26	5.940	194.00	12.9126	513.36	322.20	9.984
52.00	2.6082	96.38	57.76	6.116	196.00	13.0477	520.16	326.99	10.019
54.00	2.8169	104.17	62.47	6.263	198.00	13.1828	527.00	331.83	10.054
56.00	3.0108	111.30	66.73	6.393	200.00	13.3179	533.88	336.72	10.088
58.00	3.1950	118.01	70.71	6.511	60.00	3.3722	124.43	74.51	6.620
62.00	3.5442	130.65	78.18	6.721	202.00	13.4528	540.80	341.64	10.123
64.00	3.7120	136.71	81.76	6.818	204.00	13.5878	547.75	346.60	10.157
66.00	3.8765	142.65	85.26	6.909	206.00	13.7227	554.75	351.60	10.191
68.00	4.0382	148.50	88.72	6.996	208.00	13.8575	561.79	356.64	10.225
70.00	4.1975	154.27	92.13	7.080	210.00	13.9923	568.86	361.71	10.259
72.00	4.3549	159.97	95.50	7.160	212.00	14.1271	575.97	366.82	10.293
74.00	4.5104	165.62	98.85	7.238	214.00	14.2618	583.11	371.97	10.326
76.00	4.6644	171.22	102.17	7.312	216.00	14.3965	590.29	377.16	10.359
78.00	4.8170	176.78	105.47	7.385	218.00	14.5312	597.49	382.37	10.393
80.00	4.9684	182.31	108.76	7.455	220.00	14.6658	604.73	387.61	10.426
82.00	5.1187	187.81	112.03	7.523	222.00	14.8004	612.00	392.89	10.459
84.00	5.2679	193.28	115.29	7.588	224.00	14.9350	619.30	398.20	10.491
86.00	5.4162	198.72	118.54	7.653	226.00	15.0695	626.63	403.54	10.524
88.00	5.5637	204.15	121.78	7.715	228.00	15.2040	633.99	408.91	10.556
90.00	5.7104	209.56	125.02	7.776	230.00	15.3385	641.38	414.31	10.589
92.00	5.8564	214.95	128.25	7.835	232.00	15.4729	648.80	419.74	10.621
94.00	6.0017	220.34	131.49	7.893	234.00	15.6074	656.24	425.19	10.653
96.00	6.1464	225.71	134.72	7.949	236.00	15.7418	663.71	430.67	10.685
98.00	6.2905	231.08	137.95	8.005	238.00	15.8762	671.21	436.17	10.716
100.00	6.4341	236.44	141.18	8.059	240.00	16.0105	678.73	441.70	10.748
102.00	6.5772	241.79	144.42	8.112	242.00	16.1449	686.27	447.26	10.779
104.00	6.7199	247.15	147.67	8.164	244.00	16.2792	693.84	452.83	10.810
106.00	6.8621	252.51	150.92	8.215	246.00	16.4135	701.42	458.43	10.841
108.00	7.0039	257.87	154.18	8.265	248.00	16.5478	709.03	464.05	10.872
110.00	7.1453	263.24	157.45	8.314	250.00	16.6821	716.66	469.69	10.902
112.00	7.2864	268.61	160.74	8.363	252.00	16.8163	724.31	475.35	10.933
114.00	7.4272	273.99	164.04	8.410	254.00	16.9505	731.97	481.03	10.963
116.00	7.5677	279.38	167.35	8.457	256.00	17.0847	739.66	486.73	10.993
118.00	7.7078	284.79	170.68	8.503	258.00	17.2189	747.36	492.44	11.023
120.00	7.8477	290.21	174.03	8.549	260.00	17.3531	755.07	498.17	11.053

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)
262.00	17.4873	762.80	503.92	11.083	402.00	26.8487	1304.69	907.22	12.742
264.00	17.6214	770.55	509.67	11.112	404.00	26.9822	1312.21	912.76	12.760
266.00	17.7555	778.30	515.45	11.141	406.00	27.1157	1319.71	918.29	12.779
268.00	17.8897	786.08	521.23	11.171	408.00	27.2492	1327.21	923.81	12.797
270.00	18.0237	793.86	527.03	11.199	410.00	27.3828	1334.70	929.32	12.816
272.00	18.1578	801.63	532.81	11.228	412.00	27.5163	1342.18	934.82	12.834
274.00	18.2919	809.40	538.60	11.257	414.00	27.6498	1349.65	940.31	12.852
276.00	18.4259	817.19	544.41	11.285	416.00	27.7833	1357.11	945.80	12.870
278.00	18.5600	824.98	550.21	11.313	418.00	27.9168	1364.57	951.28	12.888
280.00	18.6940	832.78	556.03	11.341	420.00	28.0504	1372.02	956.75	12.906
282.00	18.8280	840.58	561.85	11.369	422.00	28.1839	1379.45	962.21	12.923
284.00	18.9619	848.40	567.68	11.396	424.00	28.3174	1386.88	967.67	12.941
286.00	19.0959	856.21	573.51	11.424	426.00	28.4509	1394.30	973.11	12.958
288.00	19.2299	864.04	579.35	11.451	428.00	28.5844	1401.72	978.55	12.976
290.00	19.3638	871.86	585.19	11.478	430.00	28.7178	1409.12	983.97	12.993
292.00	19.4977	879.69	591.04	11.505	432.00	28.8513	1416.51	989.39	13.010
294.00	19.6316	887.52	596.89	11.532	434.00	28.9847	1423.90	994.80	13.027
296.00	19.7655	895.36	602.74	11.558	436.00	29.1181	1431.28	1000.20	13.044
298.00	19.8994	903.19	608.60	11.585	438.00	29.2515	1438.64	1005.60	13.061
300.00	20.0333	911.03	614.45	11.611	440.00	29.3848	1446.00	1010.98	13.078
302.00	20.1671	918.87	620.31	11.637	442.00	29.5182	1453.35	1016.36	13.094
304.00	20.3010	926.71	626.17	11.663	444.00	29.6515	1460.70	1021.73	13.111
306.00	20.4348	934.55	632.03	11.689	446.00	29.7847	1468.03	1027.09	13.127
308.00	20.5686	942.39	637.88	11.714	448.00	29.9180	1475.36	1032.44	13.144
310.00	20.7024	950.23	643.74	11.739	450.00	30.0512	1482.67	1037.79	13.160
312.00	20.8362	958.06	649.60	11.765	452.00	30.1844	1490.00	1043.14	13.176
314.00	20.9700	965.90	655.45	11.790	454.00	30.3175	1497.32	1048.49	13.192
316.00	21.1038	973.73	661.31	11.815	456.00	30.4506	1504.63	1053.83	13.208
318.00	21.2376	981.56	667.16	11.839	458.00	30.5837	1511.93	1059.16	13.224
320.00	21.3713	989.39	673.00	11.864	460.00	30.7168	1519.23	1064.49	13.240
322.00	21.5051	997.21	678.85	11.888	462.00	30.8499	1526.51	1069.81	13.256
324.00	21.6388	1005.03	684.69	11.912	464.00	30.9829	1533.80	1075.12	13.272
326.00	21.7725	1012.85	690.53	11.936	466.00	31.1159	1541.07	1080.42	13.288
328.00	21.9062	1020.66	696.36	11.960	468.00	31.2489	1548.33	1085.72	13.303
330.00	22.0399	1028.47	702.19	11.984	470.00	31.3818	1555.59	1091.01	13.319
332.00	22.1737	1036.28	708.01	12.008	472.00	31.5148	1562.85	1096.29	13.334
334.00	22.3073	1044.07	713.83	12.031	474.00	31.6477	1570.09	1101.57	13.349
336.00	22.4410	1051.87	719.65	12.054	476.00	31.7806	1577.33	1106.84	13.365
338.00	22.5747	1059.65	725.45	12.077	478.00	31.9136	1584.56	1112.11	13.380
340.00	22.7084	1067.44	731.26	12.100	480.00	32.0465	1591.79	1117.37	13.395
342.00	22.8420	1075.21	737.05	12.123	482.00	32.1794	1599.01	1122.62	13.410
344.00	22.9757	1082.98	742.84	12.146	484.00	32.3124	1606.23	1127.87	13.425
346.00	23.1094	1090.74	748.62	12.168	486.00	32.4453	1613.44	1133.11	13.440
348.00	23.2430	1098.50	754.40	12.191	488.00	32.5783	1620.65	1138.35	13.454
350.00	23.3766	1106.24	760.17	12.213	490.00	32.7112	1627.85	1143.58	13.469
352.00	23.5103	1113.98	765.93	12.235	492.00	32.8442	1635.04	1148.81	13.484
354.00	23.6439	1121.72	771.69	12.257	494.00	32.9773	1642.24	1154.03	13.498
356.00	23.7775	1129.44	777.43	12.279	496.00	33.1103	1649.42	1159.25	13.513
358.00	23.9111	1137.16	783.17	12.300	498.00	33.2434	1656.61	1164.46	13.527
360.00	24.0447	1144.87	788.90	12.322	500.00	33.3766	1663.78	1169.67	13.542
362.00	24.1783	1152.56	794.62	12.343	502.00	33.5097	1670.96	1174.87	13.556
364.00	24.3118	1160.25	800.34	12.364	504.00	33.6430	1678.13	1180.07	13.570
366.00	24.4454	1167.93	806.04	12.385	506.00	33.7762	1685.30	1185.27	13.585
368.00	24.5789	1175.61	811.73	12.406	508.00	33.9096	1692.47	1190.46	13.599
370.00	24.7125	1183.27	817.42	12.427	510.00	34.0430	1699.63	1195.65	13.613
372.00	24.8460	1190.92	823.10	12.448	512.00	34.1764	1706.79	1200.83	13.627
374.00	24.9795	1198.57	828.77	12.468	514.00	34.3099	1713.94	1206.01	13.641
376.00	25.1130	1206.21	834.43	12.488	516.00	34.4435	1721.10	1211.19	13.655
378.00	25.2466	1213.84	840.08	12.509	518.00	34.5771	1728.25	1216.36	13.668
380.00	25.3801	1221.46	845.72	12.529	520.00	34.7108	1735.39	1221.53	13.682
382.00	25.5136	1229.07	851.36	12.549	522.00	34.8446	1742.54	1226.69	13.696
384.00	25.6471	1236.67	856.98	12.569	524.00	34.9784	1749.68	1231.85	13.710
386.00	25.7806	1244.26	862.60	12.588	526.00	35.1122	1756.82	1237.01	13.723
388.00	25.9141	1251.85	868.21	12.608	528.00	35.2462	1763.96	1242.16	13.737
390.00	26.0477	1259.42	873.81	12.627	530.00	35.3801	1771.09	1247.31	13.750
392.00	26.1812	1266.99	879.40	12.647	532.00	35.5141	1778.22	1252.46	13.764
394.00	26.3147	1274.55	884.98	12.666	534.00	35.6481	1785.35	1257.60	13.777
396.00	26.4482	1282.10	890.55	12.685	536.00	35.7821	1792.47	1262.74	13.790
398.00	26.5817	1289.64	896.12	12.704	538.00	35.9162	1799.59	1267.88	13.804
400.00	26.7152	1297.17	901.67	12.723	540.00	36.0503	1806.71	1273.01	13.817

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
36.00	.2231	-108.89	-112.60	1.857	122.00	7.0855	294.68	176.67	8.472
38.00	.2271	-104.27	-108.05	1.982	124.00	7.2101	300.16	180.08	8.517
40.00	.2316	-99.33	-103.19	2.109	126.00	7.3344	305.66	183.51	8.561
					128.00	7.4585	311.18	186.96	8.604
					130.00	7.5824	316.73	190.44	8.647
					132.00	7.7061	322.29	193.95	8.689
					134.00	7.8296	327.89	197.49	8.732
					136.00	7.9530	333.51	201.05	8.773
					138.00	8.0761	339.16	204.65	8.814
					140.00	8.1991	344.84	208.28	8.855
					142.00	8.3220	350.55	211.95	8.896
					144.00	8.4447	356.29	215.65	8.936
					146.00	8.5672	362.07	219.39	8.976
					148.00	8.6896	367.89	223.16	9.015
					150.00	8.8119	373.74	226.98	9.055
					152.00	8.9341	379.63	230.84	9.094
					154.00	9.0562	385.56	234.73	9.132
					156.00	9.1781	391.53	238.67	9.171
					158.00	9.2999	397.54	242.66	9.209
					160.00	9.4217	403.60	246.68	9.247
					162.00	9.5433	409.69	250.75	9.285
					164.00	9.6648	415.83	254.87	9.323
					166.00	9.7863	422.01	259.02	9.360
					168.00	9.9076	428.24	263.23	9.398
					170.00	10.0289	434.50	267.48	9.435
					172.00	10.1501	440.81	271.77	9.472
					174.00	10.2712	447.17	276.10	9.508
36.00	.2231	-108.89	-112.60	1.857	176.00	10.3922	453.56	280.48	9.545
38.00	.2271	-104.27	-108.05	1.982	178.00	10.5132	460.00	284.91	9.581
40.00	.2316	-99.33	-103.19	2.109	180.00	10.6341	466.48	289.37	9.617
42.00	.2367	-94.01	-97.96	2.238					
44.00	.2426	-88.26	-92.30	2.372	182.00	10.7549	473.00	293.88	9.653
46.00	.2495	-81.98	-86.14	2.512	184.00	10.8756	479.55	298.42	9.689
48.00	.2579	-75.03	-79.32	2.660	186.00	10.9962	486.15	303.01	9.725
50.00	.2685	-67.13	-71.61	2.821	188.00	11.1167	492.79	307.65	9.760
* 50.962	.2749	-62.86	-72.09	2.905	190.00	11.2372	499.48	312.32	9.796
* 50.962	2.0629	84.88	50.52	5.809	192.00	11.3577	506.20	317.04	9.831
52.00	2.1845	90.23	53.85	5.913	194.00	11.4781	512.97	321.81	9.866
54.00	2.3921	99.12	59.28	6.081	196.00	11.5984	519.78	326.61	9.901
56.00	2.5789	106.94	63.99	6.223	198.00	11.7187	526.63	331.45	9.936
58.00	2.7531	114.13	68.28	6.349	200.00	11.8389	533.51	336.34	9.970
60.00	2.9187	120.91	72.30	6.464					
62.00	3.0781	127.41	76.14	6.571	202.00	11.9591	540.44	341.27	10.005
64.00	3.2328	133.70	79.86	6.671	204.00	12.0793	547.41	346.23	10.039
66.00	3.3838	139.83	83.48	6.765	206.00	12.1994	554.41	351.24	10.073
68.00	3.5316	145.84	87.03	6.855	208.00	12.3194	561.46	356.28	10.107
70.00	3.6770	151.76	90.52	6.940	210.00	12.4394	568.53	361.36	10.141
72.00	3.8201	157.59	93.97	7.023	212.00	12.5594	575.65	366.47	10.175
74.00	3.9613	163.35	97.38	7.101	214.00	12.6793	582.80	371.63	10.208
76.00	4.1009	169.06	100.76	7.178	216.00	12.7993	589.98	376.81	10.242
78.00	4.2391	174.72	104.12	7.251	218.00	12.9191	597.19	382.03	10.275
80.00	4.3759	180.33	107.45	7.322	220.00	13.0390	604.44	387.28	10.308
82.00	4.5116	185.91	110.77	7.391	222.00	13.1588	611.72	392.56	10.341
84.00	4.6462	191.46	114.07	7.458	224.00	13.2785	619.02	397.87	10.374
86.00	4.7799	196.97	117.37	7.523	226.00	13.3983	626.36	403.21	10.406
88.00	4.9127	202.47	120.65	7.586	228.00	13.5180	633.73	408.59	10.439
90.00	5.0447	207.94	123.92	7.647	230.00	13.6377	641.12	413.99	10.471
92.00	5.1760	213.39	127.19	7.707	232.00	13.7574	648.54	419.42	10.503
94.00	5.3066	218.83	130.45	7.766	234.00	13.8770	655.99	424.87	10.535
96.00	5.4366	224.25	133.71	7.823	236.00	13.9966	663.47	430.36	10.567
98.00	5.5659	229.67	136.97	7.879	238.00	14.1162	670.97	435.87	10.599
100.00	5.6948	235.08	140.23	7.933	240.00	14.2358	678.49	441.40	10.630
102.00	5.8232	240.48	143.50	7.987	242.00	14.3554	686.04	446.96	10.662
104.00	5.9511	245.88	146.77	8.039	244.00	14.4749	693.61	452.53	10.693
106.00	6.0785	251.28	150.04	8.091	246.00	14.5944	701.20	458.14	10.724
108.00	6.2056	256.68	153.32	8.141	248.00	14.7139	708.82	463.76	10.755
110.00	6.3322	262.08	156.62	8.191	250.00	14.8334	716.45	469.40	10.785
112.00	6.4585	267.49	159.92	8.239	252.00	14.9528	724.10	475.06	10.816
114.00	6.5845	272.90	163.24	8.287	254.00	15.0723	731.77	480.75	10.846
116.00	6.7102	278.33	166.57	8.335	256.00	15.1917	739.46	486.44	10.876
118.00	6.8356	283.77	169.92	8.381	258.00	15.3111	747.16	492.16	10.906
120.00	6.9607	289.22	173.29	8.427	260.00	15.4305	754.88	497.89	10.936

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	15.5498	762.62	503.64	10.966	402.00	23.8761	1304.70	907.05	12.625
264.00	15.6692	770.37	509.40	10.995	404.00	23.9948	1312.22	912.59	12.644
266.00	15.7885	778.13	515.17	11.024	406.00	24.1135	1319.73	918.12	12.662
268.00	15.9078	785.90	520.96	11.053	408.00	24.2322	1327.23	923.64	12.681
270.00	16.0271	793.69	526.76	11.082	410.00	24.3509	1334.72	929.16	12.699
272.00	16.1464	801.46	532.55	11.111	412.00	24.4696	1342.20	934.66	12.717
274.00	16.2657	809.24	538.34	11.140	414.00	24.5883	1349.67	940.16	12.735
276.00	16.3850	817.03	544.14	11.168	416.00	24.7071	1357.14	945.65	12.753
278.00	16.5042	824.83	549.95	11.196	418.00	24.8258	1364.59	951.13	12.771
280.00	16.6234	832.63	555.77	11.224	420.00	24.9446	1372.04	956.60	12.789
282.00	16.7426	840.44	561.60	11.252	422.00	25.0633	1379.48	962.06	12.807
284.00	16.8618	848.26	567.43	11.279	424.00	25.1820	1386.91	967.51	12.824
286.00	16.9810	856.08	573.26	11.307	426.00	25.3007	1394.34	972.96	12.842
288.00	17.1001	863.90	579.10	11.334	428.00	25.4194	1401.75	978.40	12.859
290.00	17.2193	871.73	584.95	11.361	430.00	25.5380	1409.15	983.82	12.876
292.00	17.3384	879.56	590.80	11.388	432.00	25.6567	1416.55	989.24	12.894
294.00	17.4575	887.40	596.65	11.415	434.00	25.7753	1423.94	994.66	12.911
296.00	17.5766	895.24	602.50	11.441	436.00	25.8939	1431.32	1000.06	12.928
298.00	17.6957	903.08	608.36	11.468	438.00	26.0125	1438.69	1005.45	12.944
300.00	17.8148	910.92	614.22	11.494	440.00	26.1311	1446.05	1010.84	12.961
302.00	17.9339	918.76	620.08	11.520	442.00	26.2496	1453.40	1016.22	12.978
304.00	18.0529	926.60	625.94	11.546	444.00	26.3682	1460.74	1021.59	12.994
306.00	18.1720	934.45	631.80	11.572	446.00	26.4867	1468.08	1026.95	13.011
308.00	18.2910	942.29	637.66	11.597	448.00	26.6051	1475.41	1032.30	13.027
310.00	18.4100	950.13	643.51	11.623	450.00	26.7236	1482.73	1037.65	13.044
312.00	18.5290	957.97	649.37	11.648	452.00	26.8420	1490.05	1043.01	13.060
314.00	18.6480	965.81	655.23	11.673	454.00	26.9604	1497.37	1048.35	13.076
316.00	18.7670	973.64	661.08	11.698	456.00	27.0788	1504.69	1053.70	13.092
318.00	18.8860	981.48	666.93	11.722	458.00	27.1971	1511.99	1059.03	13.108
320.00	19.0049	989.31	672.78	11.747	460.00	27.3154	1519.29	1064.35	13.124
322.00	19.1239	997.13	678.63	11.771	462.00	27.4337	1526.58	1069.67	13.140
324.00	19.2429	1004.96	684.47	11.796	464.00	27.5520	1533.86	1074.99	13.155
326.00	19.3618	1012.78	690.31	11.820	466.00	27.6703	1541.13	1080.29	13.171
328.00	19.4807	1020.59	696.15	11.844	468.00	27.7885	1548.40	1085.59	13.187
330.00	19.5996	1028.40	701.98	11.867	470.00	27.9067	1555.66	1090.88	13.202
332.00	19.7186	1036.21	707.80	11.891	472.00	28.0249	1562.91	1096.17	13.218
334.00	19.8375	1044.01	713.62	11.914	474.00	28.1431	1570.16	1101.44	13.233
336.00	19.9564	1051.81	719.44	11.938	476.00	28.2613	1577.40	1106.72	13.248
338.00	20.0752	1059.60	725.25	11.961	478.00	28.3795	1584.64	1111.98	13.263
340.00	20.1941	1067.38	731.05	11.984	480.00	28.4977	1591.87	1117.24	13.278
342.00	20.3130	1075.16	736.85	12.006	482.00	28.6159	1599.09	1122.50	13.293
344.00	20.4319	1082.93	742.64	12.029	484.00	28.7341	1606.31	1127.75	13.308
346.00	20.5507	1090.69	748.43	12.052	486.00	28.8523	1613.52	1132.99	13.323
348.00	20.6696	1098.45	754.20	12.074	488.00	28.9705	1620.73	1138.23	13.338
350.00	20.7885	1106.20	759.97	12.096	490.00	29.0887	1627.93	1143.46	13.353
352.00	20.9073	1113.94	765.74	12.118	492.00	29.2070	1635.13	1148.69	13.367
354.00	21.0261	1121.68	771.49	12.140	494.00	29.3253	1642.32	1153.91	13.382
356.00	21.1450	1129.41	777.24	12.162	496.00	29.4436	1649.51	1159.13	13.397
358.00	21.2638	1137.13	782.98	12.184	498.00	29.5619	1656.69	1164.34	13.411
360.00	21.3826	1144.84	788.71	12.205	500.00	29.6803	1663.87	1169.55	13.425
362.00	21.5014	1152.54	794.44	12.226	502.00	29.7987	1671.05	1174.76	13.440
364.00	21.6202	1160.23	800.15	12.248	504.00	29.9171	1678.22	1179.96	13.454
366.00	21.7389	1167.91	805.85	12.269	506.00	30.0356	1685.39	1185.15	13.468
368.00	21.8577	1175.58	811.55	12.290	508.00	30.1542	1692.55	1190.34	13.482
370.00	21.9764	1183.25	817.24	12.310	510.00	30.2728	1699.72	1195.53	13.496
372.00	22.0952	1190.91	822.92	12.331	512.00	30.3914	1706.88	1200.72	13.510
374.00	22.2139	1198.55	828.59	12.351	514.00	30.5101	1714.03	1205.90	13.524
376.00	22.3327	1206.19	834.25	12.372	516.00	30.6288	1721.19	1211.07	13.538
378.00	22.4514	1213.82	839.90	12.392	518.00	30.7476	1728.34	1216.24	13.552
380.00	22.5701	1221.45	845.55	12.412	520.00	30.8665	1735.49	1221.41	13.566
382.00	22.6889	1229.06	851.18	12.432	522.00	30.9854	1742.63	1226.58	13.580
384.00	22.8076	1236.66	856.81	12.452	524.00	31.1043	1749.78	1231.74	13.593
386.00	22.9263	1244.26	862.43	12.472	526.00	31.2233	1756.92	1236.90	13.607
388.00	23.0450	1251.85	868.04	12.491	528.00	31.3424	1764.05	1242.05	13.620
390.00	23.1638	1259.42	873.64	12.511	530.00	31.4614	1771.19	1247.20	13.634
392.00	23.2825	1266.99	879.23	12.530	532.00	31.5805	1778.32	1252.35	13.647
394.00	23.4012	1274.55	884.81	12.549	534.00	31.6997	1785.44	1257.49	13.661
396.00	23.5199	1282.10	890.39	12.569	536.00	31.8188	1792.57	1262.63	13.674
398.00	23.6386	1289.65	895.95	12.588	538.00	31.9380	1799.69	1267.77	13.687
400.00	23.7574	1297.18	901.51	12.606	540.00	32.0571	1806.81	1272.90	13.700

100.00 PSIA ISO8BAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/LB-R)
122.00	6.3641	293.72	175.95	8.362	124.00	6.4769	299.23	179.37	8.407
126.00	6.5894	304.75	182.81	8.451	128.00	6.7017	310.30	186.28	8.495
130.00	6.8137	315.87	189.78	8.538	132.00	6.9256	321.46	193.30	8.581
134.00	7.0373	327.07	196.85	8.623	136.00	7.1488	332.72	200.43	8.665
138.00	7.2601	338.39	204.04	8.706	140.00	7.3713	344.09	207.68	8.747
142.00	7.4823	349.82	211.36	8.788	144.00	7.5931	355.58	215.07	8.828
146.00	7.7038	361.38	218.82	8.868	148.00	7.8144	367.21	222.61	8.908
150.00	7.9249	373.08	226.43	8.947	152.00	8.0352	378.99	230.30	8.986
154.00	8.1454	384.94	234.21	9.025	156.00	8.2555	390.92	238.15	9.064
158.00	8.3655	396.95	242.15	9.102	160.00	8.4754	403.02	246.18	9.140
36.00	.2228	-108.60	-112.72	1.854	176.00	9.3513	453.09	280.04	9.438
38.00	.2268	-104.00	-108.20	1.978	178.00	9.4604	459.54	284.47	9.475
40.00	.2313	-99.08	-103.36	2.104	180.00	9.5694	466.03	288.95	9.511
42.00	.2363	-93.79	-98.16	2.233	182.00	9.6784	472.56	293.46	9.547
44.00	.2421	-88.07	-92.55	2.366	184.00	9.7872	479.12	298.01	9.583
46.00	.2489	-81.84	-86.44	2.505	186.00	9.8960	485.73	302.60	9.619
48.00	.2570	-74.96	-79.71	2.651	188.00	10.0047	492.38	307.24	9.654
50.00	.2673	-67.19	-72.13	2.810	190.00	10.1134	499.08	311.93	9.690
52.00	.2811	-58.05	-63.25	2.989	192.00	10.2220	505.81	316.65	9.725
* 52.067	.2818	-57.71	-68.22	2.995	194.00	10.3305	512.59	321.42	9.760
* 52.067	1.8328	83.21	49.29	5.707	196.00	10.4390	519.40	326.23	9.795
54.00	2.0419	93.44	55.65	5.900	198.00	10.5475	526.26	331.08	9.830
56.00	2.2272	102.20	60.99	6.059	200.00	10.6559	533.16	335.97	9.865
58.00	2.3956	110.00	65.67	6.196					
60.00	2.5532	117.21	69.96	6.318					
62.00	2.7034	124.04	74.01	6.430	202.00	10.7642	540.09	340.90	9.899
64.00	2.8481	130.59	77.88	6.534	204.00	10.8725	547.06	345.87	9.933
66.00	2.9885	136.94	81.63	6.632	206.00	10.9808	554.08	350.87	9.968
68.00	3.1256	143.13	85.29	6.724	208.00	11.0890	561.13	355.92	10.002
70.00	3.2599	149.20	88.87	6.812	210.00	11.1972	568.21	361.00	10.036
72.00	3.3918	155.17	92.40	6.896	212.00	11.3053	575.33	366.12	10.069
74.00	3.5217	161.06	95.89	6.977	214.00	11.4134	582.49	371.28	10.103
76.00	3.6499	166.87	99.33	7.055	216.00	11.5215	589.68	376.47	10.136
78.00	3.7765	172.63	102.74	7.129	218.00	11.6295	596.90	381.69	10.170
80.00	3.9018	178.34	106.13	7.202	220.00	11.7375	604.15	386.94	10.203
82.00	4.0259	184.00	109.50	7.272	222.00	11.8455	611.43	392.23	10.236
84.00	4.1488	189.62	112.85	7.339	224.00	11.9534	618.75	397.54	10.269
86.00	4.2708	195.21	116.18	7.405	226.00	12.0613	626.09	402.89	10.301
88.00	4.3919	200.77	119.50	7.469	228.00	12.1692	633.46	408.27	10.334
90.00	4.5122	206.31	122.81	7.531	230.00	12.2771	640.86	413.67	10.366
92.00	4.6317	211.82	126.11	7.592	232.00	12.3849	648.29	419.10	10.398
94.00	4.7506	217.31	129.40	7.651	234.00	12.4927	655.74	424.56	10.430
96.00	4.8688	222.79	132.70	7.709	236.00	12.6005	663.22	430.05	10.462
98.00	4.9864	228.26	135.98	7.765	238.00	12.7083	670.73	435.56	10.494
100.00	5.1035	233.71	139.27	7.820	240.00	12.8160	678.26	441.09	10.525
102.00	5.2200	239.16	142.56	7.874	242.00	12.9237	685.81	446.65	10.556
104.00	5.3361	244.60	145.86	7.927	244.00	13.0314	693.39	452.24	10.588
106.00	5.4518	250.04	149.16	7.979	246.00	13.1391	700.98	457.84	10.619
108.00	5.5670	255.48	152.46	8.029	248.00	13.2468	708.60	463.47	10.650
110.00	5.6819	260.92	155.78	8.079	250.00	13.3544	716.24	469.11	10.680
112.00	5.7963	266.37	159.10	8.128	252.00	13.4621	723.90	474.78	10.711
114.00	5.9105	271.82	162.44	8.177	254.00	13.5697	731.57	480.46	10.741
116.00	6.0243	277.28	165.79	8.224	256.00	13.6772	739.26	486.16	10.771
118.00	6.1379	282.74	169.16	8.271	258.00	13.7848	746.97	491.88	10.801
120.00	6.2511	288.22	172.54	8.317	260.00	13.8924	754.69	497.61	10.831

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
262.00	13.9999	762.43	503.36	10.861	402.00	21.4979	1304.72	906.89	12.521
264.00	14.1074	770.19	509.13	10.890	404.00	21.6048	1312.24	912.43	12.540
266.00	14.2149	777.95	514.90	10.919	406.00	21.7117	1319.75	917.96	12.558
268.00	14.3224	785.73	520.69	10.949	408.00	21.8186	1327.25	923.49	12.577
270.00	14.4299	793.52	526.49	10.978	410.00	21.9255	1334.74	929.00	12.595
272.00	14.5373	801.30	532.28	11.006	412.00	22.0323	1342.22	934.50	12.613
274.00	14.6448	809.08	538.08	11.035	414.00	22.1392	1349.69	940.00	12.631
276.00	14.7522	816.88	543.88	11.063	416.00	22.2461	1357.16	945.49	12.649
278.00	14.8596	824.68	549.70	11.091	418.00	22.3530	1364.62	950.97	12.667
280.00	14.9670	832.48	555.52	11.119	420.00	22.4599	1372.07	956.44	12.685
282.00	15.0744	840.30	561.34	11.147	422.00	22.5668	1379.51	961.91	12.702
284.00	15.1817	848.12	567.17	11.175	424.00	22.6736	1386.95	967.36	12.720
286.00	15.2891	855.94	573.01	11.202	426.00	22.7805	1394.37	972.81	12.738
288.00	15.3964	863.77	578.85	11.229	428.00	22.8873	1401.78	978.25	12.755
290.00	15.5037	871.60	584.70	11.256	430.00	22.9942	1409.19	983.68	12.772
292.00	15.6110	879.44	590.55	11.283	432.00	23.1010	1416.59	989.10	12.789
294.00	15.7183	887.28	596.41	11.310	434.00	23.2078	1423.98	994.51	12.806
296.00	15.8256	895.12	602.26	11.337	436.00	23.3146	1431.36	999.91	12.823
298.00	15.9328	902.96	608.12	11.363	438.00	23.4213	1438.73	1005.31	12.840
300.00	16.0401	910.81	613.98	11.389	440.00	23.5281	1446.09	1010.70	12.857
302.00	16.1473	918.65	619.84	11.415	442.00	23.6348	1453.45	1016.08	12.874
304.00	16.2545	926.50	625.70	11.441	444.00	23.7415	1460.79	1021.45	12.890
306.00	16.3617	934.34	631.57	11.467	446.00	23.8482	1468.13	1026.81	12.907
308.00	16.4689	942.19	637.43	11.493	448.00	23.9548	1475.46	1032.17	12.923
310.00	16.5761	950.03	643.29	11.518	450.00	24.0614	1482.78	1037.51	12.939
312.00	16.6833	957.88	649.15	11.543	452.00	24.1680	1490.11	1042.87	12.956
314.00	16.7904	965.72	655.01	11.568	454.00	24.2746	1497.43	1048.22	12.972
316.00	16.8976	973.56	660.86	11.593	456.00	24.3812	1504.74	1053.56	12.988
318.00	17.0047	981.39	666.72	11.618	458.00	24.4877	1512.05	1058.90	13.004
320.00	17.1119	989.23	672.57	11.642	460.00	24.5943	1519.35	1064.22	13.020
322.00	17.2190	997.06	678.42	11.667	462.00	24.7008	1526.64	1069.54	13.036
324.00	17.3261	1004.88	684.26	11.691	464.00	24.8072	1533.92	1074.86	13.051
326.00	17.4332	1012.71	690.10	11.715	466.00	24.9137	1541.20	1080.16	13.067
328.00	17.5403	1020.53	695.94	11.739	468.00	25.0201	1548.47	1085.46	13.083
330.00	17.6474	1028.34	701.77	11.763	470.00	25.1266	1555.73	1090.75	13.098
332.00	17.7545	1036.15	707.60	11.786	472.00	25.2330	1562.99	1096.04	13.113
334.00	17.8616	1043.95	713.42	11.810	474.00	25.3394	1570.23	1101.32	13.129
336.00	17.9686	1051.75	719.24	11.833	476.00	25.4458	1577.48	1106.59	13.144
338.00	18.0757	1059.54	725.05	11.856	478.00	25.5522	1584.71	1111.86	13.159
340.00	18.1827	1067.33	730.85	11.879	480.00	25.6586	1591.94	1117.12	13.174
342.00	18.2898	1075.11	736.65	11.902	482.00	25.7650	1599.17	1122.38	13.189
344.00	18.3968	1082.88	742.44	11.925	484.00	25.8714	1606.39	1127.63	13.204
346.00	18.5038	1090.65	748.23	11.947	486.00	25.9778	1613.60	1132.87	13.219
348.00	18.6109	1098.41	754.01	11.970	488.00	26.0843	1620.81	1138.11	13.234
350.00	18.7179	1106.16	759.78	11.992	490.00	26.1907	1628.01	1143.34	13.249
352.00	18.8249	1113.91	765.55	12.014	492.00	26.2972	1635.21	1148.57	13.263
354.00	18.9319	1121.64	771.30	12.036	494.00	26.4036	1642.40	1153.80	13.278
356.00	19.0389	1129.37	777.05	12.058	496.00	26.5101	1649.59	1159.02	13.292
358.00	19.1459	1137.09	782.79	12.079	498.00	26.6167	1656.78	1164.23	13.307
360.00	19.2529	1144.81	788.53	12.101	500.00	26.7232	1663.96	1169.44	13.321
362.00	19.3598	1152.51	794.25	12.122	502.00	26.8298	1671.14	1174.64	13.336
364.00	19.4668	1160.20	799.96	12.143	504.00	26.9364	1678.31	1179.84	13.350
366.00	19.5737	1167.89	805.67	12.164	506.00	27.0431	1685.48	1185.04	13.364
368.00	19.6807	1175.56	811.37	12.185	508.00	27.1498	1692.65	1190.23	13.378
370.00	19.7876	1183.23	817.06	12.206	510.00	27.2566	1699.81	1195.42	13.392
372.00	19.8945	1190.89	822.74	12.227	512.00	27.3634	1706.97	1200.60	13.406
374.00	20.0014	1198.54	828.41	12.247	514.00	27.4702	1714.13	1205.78	13.420
376.00	20.1083	1206.18	834.07	12.267	516.00	27.5771	1721.28	1210.96	13.434
378.00	20.2152	1213.82	839.73	12.288	518.00	27.6840	1728.43	1216.13	13.448
380.00	20.3221	1221.44	845.37	12.308	520.00	27.7910	1735.58	1221.30	13.462
382.00	20.4290	1229.05	851.01	12.328	522.00	27.8980	1742.73	1226.47	13.475
384.00	20.5359	1236.66	856.64	12.348	524.00	28.0051	1749.87	1231.63	13.489
386.00	20.6428	1244.26	862.26	12.367	526.00	28.1122	1757.01	1236.79	13.503
388.00	20.7497	1251.85	867.87	12.387	528.00	28.2193	1764.15	1241.94	13.516
390.00	20.8566	1259.43	873.47	12.406	530.00	28.3265	1771.28	1247.09	13.530
392.00	20.9635	1267.00	879.06	12.426	532.00	28.4337	1778.42	1252.24	13.543
394.00	21.0704	1274.56	884.65	12.445	534.00	28.5409	1785.54	1257.39	13.557
396.00	21.1773	1282.11	890.22	12.464	536.00	28.6481	1792.67	1262.53	13.570
398.00	21.2842	1289.66	895.79	12.483	538.00	28.7554	1799.79	1267.66	13.583
400.00	21.3911	1297.19	901.34	12.502	540.00	28.8626	1806.91	1272.80	13.596

120.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)
122.00	5.2824	291.79	174.49	8.171	122.00	5.2824	291.79	174.49	8.171
124.00	5.3774	297.36	177.94	8.216	124.00	5.3774	297.36	177.94	8.216
126.00	5.4722	302.94	181.42	8.261	126.00	5.4722	302.94	181.42	8.261
128.00	5.5667	308.53	184.92	8.305	128.00	5.5667	308.53	184.92	8.305
130.00	5.6610	314.15	188.44	8.348	130.00	5.6610	314.15	188.44	8.348
132.00	5.7551	319.79	191.99	8.391	132.00	5.7551	319.79	191.99	8.391
134.00	5.8490	325.45	195.57	8.434	134.00	5.8490	325.45	195.57	8.434
136.00	5.9428	331.14	199.17	8.476	136.00	5.9428	331.14	199.17	8.476
138.00	6.0363	336.85	202.81	8.518	138.00	6.0363	336.85	202.81	8.518
140.00	6.1297	342.59	206.48	8.559	140.00	6.1297	342.59	206.48	8.559
					142.00	6.2230	348.37	210.18	8.600
					144.00	6.3161	354.17	213.91	8.641
					146.00	6.4090	360.00	217.68	8.681
					148.00	6.5018	365.87	221.49	8.721
					150.00	6.5945	371.78	225.34	8.760
					152.00	6.6871	377.72	229.22	8.800
					154.00	6.7795	383.70	233.15	8.839
					156.00	6.8719	389.71	237.12	8.878
					158.00	6.9641	395.77	241.13	8.916
					160.00	7.0562	401.87	245.18	8.955
					162.00	7.1482	408.01	249.27	8.993
					164.00	7.2402	414.19	253.41	9.031
					166.00	7.3320	420.41	257.59	9.068
					168.00	7.4238	426.67	261.82	9.106
					170.00	7.5154	432.98	266.09	9.143
					172.00	7.6070	439.33	270.40	9.180
					174.00	7.6985	445.72	274.76	9.217
36.00	.2223	-108.02	-112.96	1.847	176.00	7.7900	452.15	279.16	9.254
38.00	.2262	-103.45	-108.48	1.970	178.00	7.8813	458.62	283.61	9.290
40.00	.2305	-98.57	-103.69	2.096	180.00	7.9726	465.13	288.09	9.327
42.00	.2355	-93.33	-98.55	2.223					
44.00	.2411	-87.67	-93.03	2.355	182.00	8.0638	471.68	292.62	9.363
46.00	.2476	-81.53	-87.03	2.491	184.00	8.1549	478.27	297.18	9.399
48.00	.2554	-74.79	-80.46	2.635	186.00	8.2459	484.90	301.79	9.435
50.00	.2650	-67.24	-73.13	2.789	188.00	8.3368	491.57	306.44	9.471
52.00	.2775	-58.52	-64.68	2.960	190.00	8.4277	498.28	311.13	9.506
54.00	.2961	-47.71	-54.28	3.164	192.00	8.5185	505.03	315.87	9.541
* 54.062	.2975	-47.31	-60.63	3.171	194.00	8.6093	511.82	320.64	9.577
* 54.062	1.4780	79.07	46.25	5.514	196.00	8.7000	518.66	325.46	9.612
56.00	1.6777	91.04	53.79	5.732	198.00	8.7906	525.53	330.32	9.647
58.00	1.8464	100.74	59.74	5.902	200.00	8.8812	532.44	335.22	9.681
60.00	1.9965	109.16	64.82	6.045					
62.00	2.1355	116.83	69.41	6.171	202.00	8.9718	539.39	340.16	9.716
64.00	2.2669	124.03	73.69	6.285	204.00	9.0623	546.38	345.14	9.750
66.00	2.3927	130.89	77.75	6.390	206.00	9.1528	553.41	350.16	9.785
68.00	2.5143	137.50	81.66	6.489	208.00	9.2432	560.47	355.21	9.819
70.00	2.6326	143.92	85.46	6.582	210.00	9.3336	567.57	360.30	9.853
72.00	2.7481	150.20	89.17	6.671	212.00	9.4240	574.71	365.43	9.886
74.00	2.8614	156.35	92.81	6.755	214.00	9.5143	581.87	370.60	9.920
76.00	2.9726	162.41	96.40	6.836	216.00	9.6046	589.08	375.80	9.954
78.00	3.0822	168.38	99.94	6.913	218.00	9.6949	596.31	381.02	9.987
80.00	3.1903	174.28	103.44	6.988	220.00	9.7851	603.57	386.28	10.020
82.00	3.2971	180.13	106.91	7.060	222.00	9.8753	610.87	391.57	10.053
84.00	3.4027	185.91	110.35	7.130	224.00	9.9655	618.19	396.90	10.086
86.00	3.5072	191.65	113.77	7.197	226.00	10.0556	625.55	402.25	10.119
88.00	3.6108	197.36	117.17	7.263	228.00	10.1457	632.93	407.63	10.151
90.00	3.7135	203.02	120.56	7.327	230.00	10.2358	640.34	413.04	10.184
92.00	3.8155	208.66	123.93	7.388	232.00	10.3259	647.78	418.48	10.216
94.00	3.9167	214.27	127.30	7.449	234.00	10.4160	655.25	423.95	10.248
96.00	4.0173	219.86	130.65	7.508	236.00	10.5060	662.74	429.44	10.280
98.00	4.1173	225.43	134.00	7.565	238.00	10.5960	670.25	434.95	10.311
100.00	4.2167	230.98	137.34	7.621	240.00	10.6860	677.79	440.50	10.343
102.00	4.3156	236.52	140.69	7.676	242.00	10.7760	685.36	446.06	10.374
104.00	4.4140	242.05	144.03	7.730	244.00	10.8659	692.94	451.65	10.406
106.00	4.5119	247.57	147.38	7.782	246.00	10.9558	700.55	457.26	10.437
108.00	4.6094	253.09	150.73	7.834	248.00	11.0457	708.17	462.89	10.467
110.00	4.7066	258.61	154.09	7.884	250.00	11.1356	715.82	468.54	10.498
112.00	4.8033	264.13	157.46	7.934	252.00	11.2255	723.49	474.21	10.529
114.00	4.8998	269.64	160.84	7.983	254.00	11.3154	731.17	479.90	10.559
116.00	4.9959	275.17	164.23	8.031	256.00	11.4052	738.87	485.60	10.589
118.00	5.0917	280.70	167.63	8.078	258.00	11.4950	746.59	491.33	10.619
120.00	5.1872	286.24	171.05	8.125	260.00	11.5849	754.32	497.06	10.649

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	11.6746	762.07	502.82	10.679	402.00	17.9303	1304.74	906.58	12.340
264.00	11.7644	769.83	508.59	10.708	404.00	18.0194	1312.27	912.12	12.359
266.00	11.8542	777.61	514.37	10.738	406.00	18.1086	1319.78	917.65	12.377
268.00	11.9439	785.39	520.16	10.767	408.00	18.1977	1327.28	923.18	12.396
270.00	12.0336	793.19	525.97	10.796	410.00	18.2868	1334.78	928.69	12.414
272.00	12.1233	800.98	531.76	10.825	412.00	18.3759	1342.26	934.20	12.432
274.00	12.2130	808.77	537.56	10.853	414.00	18.4651	1349.74	939.70	12.451
276.00	12.3027	816.57	543.37	10.881	416.00	18.5542	1357.21	945.19	12.469
278.00	12.3924	824.38	549.19	10.910	418.00	18.6433	1364.67	950.67	12.486
280.00	12.4820	832.19	555.01	10.938	420.00	18.7325	1372.13	956.15	12.504
282.00	12.5716	840.01	560.84	10.965	422.00	18.8216	1379.57	961.61	12.522
284.00	12.6612	847.84	566.68	10.993	424.00	18.9107	1387.01	967.07	12.540
286.00	12.7508	855.67	572.52	11.021	426.00	18.9998	1394.44	972.52	12.557
288.00	12.8404	863.51	578.37	11.048	428.00	19.0889	1401.85	977.96	12.574
290.00	12.9300	871.35	584.22	11.075	430.00	19.1780	1409.26	983.39	12.592
292.00	13.0195	879.19	590.08	11.102	432.00	19.2670	1416.66	988.81	12.609
294.00	13.1090	887.04	595.93	11.129	434.00	19.3561	1424.06	994.23	12.626
296.00	13.1986	894.89	601.79	11.155	436.00	19.4451	1431.44	999.63	12.643
298.00	13.2881	902.74	607.66	11.182	438.00	19.5341	1438.81	1005.03	12.660
300.00	13.3776	910.59	613.52	11.208	440.00	19.6232	1446.18	1010.42	12.677
302.00	13.4670	918.44	619.39	11.234	442.00	19.7121	1453.54	1015.80	12.693
304.00	13.5565	926.29	625.25	11.260	444.00	19.8011	1460.89	1021.18	12.710
306.00	13.6460	934.14	631.12	11.286	446.00	19.8901	1468.23	1026.54	12.726
308.00	13.7354	942.00	636.98	11.311	448.00	19.9790	1475.56	1031.90	12.743
310.00	13.8248	949.85	642.85	11.337	450.00	20.0679	1482.88	1037.25	12.759
312.00	13.9143	957.70	648.71	11.362	452.00	20.1568	1490.22	1042.61	12.775
314.00	14.0037	965.54	654.57	11.387	454.00	20.2457	1497.54	1047.96	12.791
316.00	14.0931	973.39	660.43	11.412	456.00	20.3345	1504.86	1053.30	12.808
318.00	14.1825	981.23	666.29	11.437	458.00	20.4233	1512.17	1058.64	12.824
320.00	14.2718	989.07	672.14	11.461	460.00	20.5122	1519.47	1063.97	12.839
322.00	14.3612	996.91	678.00	11.486	462.00	20.6010	1526.76	1069.29	12.855
324.00	14.4506	1004.74	683.84	11.510	464.00	20.6898	1534.05	1074.60	12.871
326.00	14.5399	1012.57	689.69	11.534	466.00	20.7785	1541.33	1079.91	12.887
328.00	14.6293	1020.39	695.53	11.558	468.00	20.8673	1548.60	1085.21	12.902
330.00	14.7186	1028.21	701.36	11.582	470.00	20.9560	1555.86	1090.51	12.918
332.00	14.8080	1036.02	707.19	11.605	472.00	21.0448	1563.12	1095.80	12.933
334.00	14.8973	1043.83	713.02	11.629	474.00	21.1335	1570.37	1101.08	12.948
336.00	14.9866	1051.64	718.84	11.652	476.00	21.2222	1577.62	1106.35	12.964
338.00	15.0759	1059.43	724.65	11.675	478.00	21.3109	1584.86	1111.62	12.979
340.00	15.1652	1067.22	730.46	11.698	480.00	21.3996	1592.09	1116.88	12.994
342.00	15.2545	1075.01	736.26	11.721	482.00	21.4884	1599.32	1122.14	13.009
344.00	15.3438	1082.79	742.06	11.744	484.00	21.5771	1606.54	1127.39	13.024
346.00	15.4331	1090.56	747.85	11.766	486.00	21.6658	1613.76	1132.64	13.039
348.00	15.5224	1098.32	753.63	11.789	488.00	21.7545	1620.97	1137.88	13.054
350.00	15.6116	1106.08	759.40	11.811	490.00	21.8433	1628.17	1143.11	13.068
352.00	15.7009	1113.83	765.17	11.833	492.00	21.9320	1635.37	1148.34	13.083
354.00	15.7902	1121.57	770.93	11.855	494.00	22.0208	1642.57	1153.57	13.098
356.00	15.8794	1129.31	776.68	11.877	496.00	22.1096	1649.76	1158.79	13.112
358.00	15.9687	1137.03	782.43	11.898	498.00	22.1984	1656.95	1164.00	13.127
360.00	16.0579	1144.75	788.16	11.920	500.00	22.2872	1664.13	1169.22	13.141
362.00	16.1471	1152.46	793.89	11.941	502.00	22.3761	1671.31	1174.42	13.155
364.00	16.2363	1160.15	799.60	11.962	504.00	22.4650	1678.49	1179.62	13.170
366.00	16.3255	1167.84	805.31	11.983	506.00	22.5539	1685.66	1184.82	13.184
368.00	16.4147	1175.52	811.01	12.004	508.00	22.6428	1692.83	1190.01	13.198
370.00	16.5039	1183.20	816.70	12.025	510.00	22.7318	1699.99	1195.20	13.212
372.00	16.5931	1190.86	822.39	12.046	512.00	22.8209	1707.16	1200.39	13.226
374.00	16.6822	1198.51	828.06	12.066	514.00	22.9099	1714.32	1205.57	13.240
376.00	16.7714	1206.16	833.73	12.087	516.00	22.9990	1721.47	1210.75	13.254
378.00	16.8606	1213.80	839.38	12.107	518.00	23.0881	1728.62	1215.92	13.268
380.00	16.9497	1221.42	845.03	12.127	520.00	23.1773	1735.78	1221.09	13.282
382.00	17.0389	1229.04	850.67	12.147	522.00	23.2665	1742.92	1226.26	13.295
384.00	17.1280	1236.65	856.30	12.167	524.00	23.3557	1750.07	1231.42	13.309
386.00	17.2172	1244.25	861.92	12.187	526.00	23.4450	1757.21	1236.58	13.322
388.00	17.3063	1251.85	867.54	12.206	528.00	23.5343	1764.35	1241.74	13.336
390.00	17.3955	1259.43	873.14	12.226	530.00	23.6236	1771.48	1246.89	13.350
392.00	17.4846	1267.00	878.73	12.245	532.00	23.7130	1778.61	1252.04	13.363
394.00	17.5738	1274.57	884.32	12.264	534.00	23.8023	1785.74	1257.18	13.376
396.00	17.6629	1282.13	889.90	12.284	536.00	23.8917	1792.87	1262.32	13.390
398.00	17.7521	1289.68	895.47	12.303	538.00	23.9811	1799.99	1267.46	13.403
400.00	17.8412	1297.21	901.03	12.322	540.00	24.0704	1807.11	1272.59	13.416

140.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	4.5101	289.87	173.02	8.007	142.00	5.3238	346.92	208.99	8.440
124.00	4.5924	295.49	176.51	8.053	144.00	5.4042	352.76	212.75	8.481
126.00	4.6745	301.13	180.02	8.098	146.00	5.4845	358.63	216.54	8.521
128.00	4.7564	306.78	183.55	8.142	148.00	5.5646	364.54	220.38	8.561
130.00	4.8380	312.44	187.10	8.186	150.00	5.6446	370.48	224.24	8.601
132.00	4.9194	318.13	190.68	8.230	152.00	5.7244	376.45	228.15	8.641
134.00	5.0006	323.84	194.28	8.273	154.00	5.8042	382.46	232.09	8.680
136.00	5.0817	329.57	197.92	8.315	156.00	5.8838	388.51	236.08	8.719
138.00	5.1626	335.32	201.58	8.357	158.00	5.9634	394.60	240.11	8.758
140.00	5.2433	341.11	205.27	8.399	160.00	6.0428	400.73	244.18	8.797
36.00	.2218	-107.44	-113.19	1.840	162.00	6.1221	406.90	248.29	8.835
38.00	.2256	-102.90	-108.75	1.963	164.00	6.2014	413.10	252.44	8.873
40.00	.2299	-98.05	-104.01	2.087	166.00	6.2805	419.35	256.64	8.911
					168.00	6.3596	425.64	260.88	8.948
					170.00	6.4385	431.97	265.17	8.986
					172.00	6.5174	438.35	269.50	9.023
					174.00	6.5963	444.76	273.87	9.060
					176.00	6.6750	451.22	278.28	9.097
					178.00	6.7537	457.71	282.74	9.134
					180.00	6.8323	464.25	287.24	9.170
42.00	.2346	-92.86	-98.94	2.214	182.00	6.9108	470.82	291.78	9.207
44.00	.2401	-87.27	-93.49	2.344					
46.00	.2464	-81.21	-87.59	2.478	184.00	6.9891	477.42	296.35	9.243
48.00	.2538	-74.59	-81.16	2.619	186.00	7.0674	484.07	300.97	9.279
50.00	.2629	-67.23	-74.04	2.770	188.00	7.1457	490.76	305.63	9.314
52.00	.2744	-58.85	-65.96	2.934	190.00	7.2238	497.49	310.34	9.350
54.00	.2906	-48.81	-56.34	3.123	192.00	7.3019	504.26	315.08	9.385
* 55.832	.3171	-36.43	-52.99	3.348	194.00	7.3800	511.07	319.87	9.421
* 55.832	1.2143	73.86	42.40	5.329	196.00	7.4579	517.92	324.70	9.456
56.00	1.2350	75.39	43.40	5.356	198.00	7.5359	524.81	329.57	9.491
58.00	1.4317	89.43	52.34	5.603	200.00	7.6137	531.73	334.48	9.526
60.00	1.5862	99.91	58.82	5.781					
62.00	1.7219	108.85	64.25	5.927	202.00	7.6916	538.70	339.43	9.560
64.00	1.8463	116.93	69.09	6.055	204.00	7.7694	545.71	344.42	9.595
66.00	1.9634	124.44	73.57	6.171	206.00	7.8471	552.75	349.45	9.629
68.00	2.0751	131.57	77.81	6.278	208.00	7.9248	559.82	354.51	9.663
70.00	2.1826	138.41	81.87	6.377	210.00	8.0025	566.94	359.61	9.697
72.00	2.2870	145.04	85.79	6.470	212.00	8.0801	574.08	364.75	9.731
74.00	2.3887	151.50	89.62	6.559	214.00	8.1577	581.27	369.92	9.765
76.00	2.4882	157.83	93.37	6.643	216.00	8.2353	588.48	375.13	9.799
78.00	2.5858	164.04	97.05	6.724	218.00	8.3128	595.73	380.36	9.832
80.00	2.6817	170.15	100.67	6.801	220.00	8.3903	603.00	385.63	9.865
82.00	2.7763	176.18	104.26	6.876	222.00	8.4678	610.31	390.93	9.898
84.00	2.8696	182.15	107.80	6.947	224.00	8.5453	617.65	396.26	9.931
86.00	2.9618	188.05	111.32	7.017	226.00	8.6227	625.01	401.62	9.964
88.00	3.0530	193.90	114.81	7.084	228.00	8.7002	632.41	407.01	9.996
90.00	3.1432	199.71	118.28	7.149	230.00	8.7776	639.83	412.43	10.029
92.00	3.2327	205.47	121.72	7.213	232.00	8.8549	647.28	417.87	10.061
94.00	3.3214	211.21	125.16	7.274	234.00	8.9323	654.75	423.34	10.093
96.00	3.4094	216.91	128.58	7.334	236.00	9.0096	662.26	428.84	10.125
98.00	3.4968	222.58	131.99	7.393	238.00	9.0870	669.78	434.36	10.157
100.00	3.5836	228.24	135.40	7.450	240.00	9.1643	677.33	439.91	10.188
102.00	3.6698	233.87	138.80	7.506	242.00	9.2415	684.90	445.48	10.220
104.00	3.7556	239.49	142.19	7.560	244.00	9.3188	692.50	451.07	10.251
106.00	3.8409	245.10	145.59	7.614	246.00	9.3961	700.11	456.69	10.282
108.00	3.9258	250.70	148.99	7.666	248.00	9.4733	707.75	462.32	10.313
110.00	4.0103	256.29	152.40	7.717	250.00	9.5505	715.41	467.98	10.344
112.00	4.0944	261.88	155.81	7.768	252.00	9.6277	723.08	473.65	10.374
114.00	4.1782	267.47	159.23	7.817	254.00	9.7049	730.77	479.35	10.405
116.00	4.2616	273.06	162.66	7.866	256.00	9.7821	738.48	485.06	10.435
118.00	4.3447	278.66	166.10	7.914	258.00	9.8592	746.21	490.78	10.465
120.00	4.4276	284.26	169.55	7.961	260.00	9.9364	753.95	496.53	10.495

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)
262.00	10.0135	761.71	502.29	10.525	402.00	15.3817	1304.77	906.27	12.187
264.00	10.0906	769.48	508.06	10.554	404.00	15.4582	1312.30	911.81	12.206
266.00	10.1677	777.26	513.85	10.584	406.00	15.5346	1319.81	917.35	12.225
268.00	10.2447	785.06	519.64	10.613	408.00	15.6111	1327.32	922.88	12.243
270.00	10.3218	792.87	525.46	10.642	410.00	15.6875	1334.82	928.39	12.261
272.00	10.3988	800.66	531.25	10.671	412.00	15.7639	1342.31	933.90	12.280
274.00	10.4758	808.46	537.06	10.699	414.00	15.8404	1349.79	939.40	12.298
276.00	10.5528	816.27	542.87	10.728	416.00	15.9168	1357.26	944.90	12.316
278.00	10.6298	824.08	548.69	10.756	418.00	15.9933	1364.73	950.38	12.334
280.00	10.7068	831.90	554.52	10.784	420.00	16.0697	1372.19	955.86	12.352
282.00	10.7837	839.73	560.36	10.812	422.00	16.1462	1379.63	961.33	12.369
284.00	10.8606	847.57	566.20	10.839	424.00	16.2226	1387.07	966.79	12.387
286.00	10.9375	855.41	572.04	10.867	426.00	16.2990	1394.50	972.24	12.404
288.00	11.0144	863.25	577.89	10.894	428.00	16.3754	1401.93	977.68	12.422
290.00	11.0913	871.10	583.75	10.921	430.00	16.4518	1409.34	983.11	12.439
292.00	11.1682	878.95	589.61	10.948	432.00	16.5282	1416.74	988.54	12.456
294.00	11.2450	886.80	595.47	10.975	434.00	16.6046	1424.14	993.96	12.473
296.00	11.3219	894.66	601.34	11.002	436.00	16.6809	1431.52	999.36	12.490
298.00	11.3987	902.51	607.20	11.028	438.00	16.7573	1438.90	1004.76	12.507
300.00	11.4755	910.37	613.07	11.055	440.00	16.8336	1446.27	1010.15	12.524
302.00	11.5523	918.23	618.94	11.081	442.00	16.9099	1453.63	1015.54	12.541
304.00	11.6291	926.09	624.81	11.107	444.00	16.9862	1460.98	1020.91	12.557
306.00	11.7059	933.95	630.68	11.132	446.00	17.0625	1468.33	1026.28	12.574
308.00	11.7826	941.81	636.55	11.158	448.00	17.1388	1475.66	1031.64	12.590
310.00	11.8594	949.66	642.42	11.183	450.00	17.2151	1482.99	1036.99	12.606
312.00	11.9361	957.52	648.29	11.209	452.00	17.2913	1490.33	1042.35	12.623
314.00	12.0128	965.37	654.15	11.234	454.00	17.3675	1497.65	1047.71	12.639
316.00	12.0896	973.22	660.01	11.259	456.00	17.4437	1504.97	1053.05	12.655
318.00	12.1663	981.07	665.88	11.283	458.00	17.5199	1512.29	1058.39	12.671
320.00	12.2430	988.92	671.73	11.308	460.00	17.5961	1519.59	1063.72	12.687
322.00	12.3197	996.76	677.59	11.332	462.00	17.6722	1526.89	1069.04	12.703
324.00	12.3963	1004.60	683.44	11.357	464.00	17.7484	1534.18	1074.36	12.718
326.00	12.4730	1012.43	689.29	11.381	466.00	17.8245	1541.46	1079.67	12.734
328.00	12.5497	1020.26	695.13	11.405	468.00	17.9006	1548.73	1084.97	12.750
330.00	12.6263	1028.09	700.97	11.429	470.00	17.9768	1556.00	1090.27	12.765
332.00	12.7030	1035.90	706.80	11.452	472.00	18.0529	1563.26	1095.56	12.781
334.00	12.7796	1043.72	712.63	11.476	474.00	18.1289	1570.52	1100.84	12.796
336.00	12.8563	1051.53	718.45	11.499	476.00	18.2050	1577.77	1106.12	12.811
338.00	12.9329	1059.33	724.27	11.522	478.00	18.2811	1585.01	1111.39	12.826
340.00	13.0095	1067.13	730.08	11.545	480.00	18.3572	1592.24	1116.66	12.841
342.00	13.0862	1074.92	735.89	11.568	482.00	18.4333	1599.47	1121.91	12.856
344.00	13.1628	1082.70	741.69	11.591	484.00	18.5094	1606.70	1127.17	12.871
346.00	13.2394	1090.47	747.48	11.613	486.00	18.5855	1613.92	1132.41	12.886
348.00	13.3160	1098.24	753.26	11.636	488.00	18.6615	1621.13	1137.66	12.901
350.00	13.3926	1106.01	759.04	11.658	490.00	18.7376	1628.34	1142.89	12.916
352.00	13.4692	1113.76	764.81	11.680	492.00	18.8138	1635.54	1148.12	12.931
354.00	13.5458	1121.51	770.57	11.702	494.00	18.8899	1642.74	1153.35	12.945
356.00	13.6224	1129.24	776.32	11.724	496.00	18.9660	1649.93	1158.57	12.960
358.00	13.6990	1136.98	782.07	11.745	498.00	19.0422	1657.12	1163.79	12.974
360.00	13.7755	1144.70	787.81	11.767	500.00	19.1184	1664.31	1169.00	12.989
362.00	13.8521	1152.41	793.54	11.788	502.00	19.1946	1671.49	1174.21	13.003
364.00	13.9286	1160.11	799.26	11.809	504.00	19.2708	1678.67	1179.41	13.017
366.00	14.0051	1167.80	804.97	11.830	506.00	19.3470	1685.84	1184.61	13.031
368.00	14.0816	1175.49	810.67	11.851	508.00	19.4233	1693.01	1189.80	13.045
370.00	14.1581	1183.16	816.36	11.872	510.00	19.4996	1700.18	1195.00	13.060
372.00	14.2346	1190.83	822.05	11.893	512.00	19.5759	1707.34	1200.18	13.074
374.00	14.3111	1198.49	827.72	11.913	514.00	19.6523	1714.50	1205.36	13.088
376.00	14.3876	1206.14	833.39	11.934	516.00	19.7286	1721.66	1210.54	13.101
378.00	14.4641	1213.78	839.05	11.954	518.00	19.8051	1728.82	1215.72	13.115
380.00	14.5406	1221.41	844.70	11.974	520.00	19.8815	1735.97	1220.89	13.129
382.00	14.6171	1229.03	850.34	11.994	522.00	19.9580	1743.12	1226.06	13.143
384.00	14.6935	1236.65	855.98	12.014	524.00	20.0345	1750.26	1231.22	13.156
386.00	14.7700	1244.25	861.60	12.034	526.00	20.1110	1757.40	1236.38	13.170
388.00	14.8465	1251.85	867.21	12.053	528.00	20.1875	1764.54	1241.54	13.184
390.00	14.9230	1259.44	872.82	12.073	530.00	20.2641	1771.68	1246.69	13.197
392.00	14.9994	1267.01	878.42	12.092	532.00	20.3407	1778.82	1251.84	13.211
394.00	15.0759	1274.58	884.01	12.112	534.00	20.4173	1785.95	1256.99	13.224
396.00	15.1524	1282.14	889.59	12.131	536.00	20.4939	1793.07	1262.13	13.237
398.00	15.2288	1289.69	895.16	12.150	538.00	20.5705	1800.20	1267.27	13.250
400.00	15.3053	1297.24	900.72	12.169	540.00	20.6472	1807.32	1272.40	13.264

160.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)
122.00	3.9312	287.95	171.56	7.864	122.00	3.9312	287.95	171.56	7.864
124.00	4.0040	293.63	175.08	7.910	124.00	4.0040	293.63	175.08	7.910
126.00	4.0766	299.32	178.62	7.955	126.00	4.0766	299.32	178.62	7.955
128.00	4.1489	305.02	182.18	8.000	128.00	4.1489	305.02	182.18	8.000
130.00	4.2210	310.74	185.76	8.045	130.00	4.2210	310.74	185.76	8.045
132.00	4.2929	316.48	189.37	8.088	132.00	4.2929	316.48	189.37	8.088
134.00	4.3646	322.23	193.00	8.132	134.00	4.3646	322.23	193.00	8.132
136.00	4.4362	328.01	196.66	8.174	136.00	4.4362	328.01	196.66	8.174
138.00	4.5075	333.80	200.34	8.217	138.00	4.5075	333.80	200.34	8.217
140.00	4.5787	339.63	204.06	8.259	140.00	4.5787	339.63	204.06	8.259
					142.00	4.6497	345.48	207.81	8.300
					144.00	4.7206	351.36	211.59	8.341
					146.00	4.7913	357.27	215.41	8.382
					148.00	4.8619	363.21	219.26	8.422
					150.00	4.9324	369.19	223.15	8.463
					152.00	5.0027	375.19	227.07	8.502
					154.00	5.0730	381.24	231.04	8.542
					156.00	5.1431	387.32	235.04	8.581
					158.00	5.2131	393.44	239.09	8.620
					160.00	5.2830	399.59	243.17	8.659
					162.00	5.3528	405.79	247.30	8.697
					164.00	5.4225	412.03	251.47	8.736
					166.00	5.4921	418.30	255.69	8.774
					168.00	5.5616	424.62	259.95	8.811
					170.00	5.6311	430.98	264.25	8.849
					172.00	5.7005	437.37	268.59	8.886
					174.00	5.7698	443.81	272.98	8.924
36.00	.2213	-106.86	-113.41	1.834	176.00	5.8390	450.29	277.41	8.961
38.00	.2250	-102.35	-109.01	1.955	178.00	5.9081	456.81	281.88	8.998
40.00	.2292	-97.53	-104.32	2.079	180.00	5.9772	463.36	286.39	9.034
42.00	.2339	-92.38	-99.31	2.205					
44.00	.2392	-86.85	-93.93	2.333	182.00	6.0462	469.95	290.94	9.071
46.00	.2453	-80.87	-88.13	2.466	184.00	6.1150	476.58	295.52	9.107
48.00	.2524	-74.36	-81.83	2.605	186.00	6.1838	483.25	300.15	9.143
50.00	.2609	-67.16	-74.89	2.751	188.00	6.2525	489.95	304.83	9.179
52.00	.2717	-59.06	-67.10	2.910	190.00	6.3211	496.70	309.54	9.214
54.00	.2861	-49.60	-58.07	3.089	192.00	6.3896	503.49	314.30	9.250
56.00	.3086	-37.46	-46.60	3.309	194.00	6.4581	510.32	319.10	9.285
* 57.424	.3446	-24.27	-44.84	3.541	196.00	6.5265	517.18	323.94	9.320
* 57.424	1.0064	67.33	37.53	5.141	198.00	6.5949	524.09	328.82	9.356
58.00	1.0790	73.70	41.75	5.252	200.00	6.6632	531.03	333.74	9.390
60.00	1.2612	88.77	51.43	5.507					
62.00	1.4021	99.80	58.28	5.688	202.00	6.7315	538.01	338.70	9.425
64.00	1.5251	109.13	63.98	5.837	204.00	6.7997	545.03	343.70	9.460
66.00	1.6376	117.52	69.03	5.966	206.00	6.8679	552.09	348.74	9.494
68.00	1.7430	125.29	73.69	6.082	208.00	6.9361	559.18	353.81	9.528
70.00	1.8434	132.65	78.07	6.188	210.00	7.0042	566.30	358.92	9.563
72.00	1.9399	139.69	82.25	6.288	212.00	7.0723	573.47	364.07	9.596
74.00	2.0333	146.50	86.30	6.381	214.00	7.1403	580.66	369.25	9.630
76.00	2.1242	153.12	90.23	6.469	216.00	7.2083	587.89	374.46	9.664
78.00	2.2131	159.59	94.07	6.553	218.00	7.2763	595.15	379.71	9.697
80.00	2.3001	165.94	97.83	6.634	220.00	7.3443	602.43	384.98	9.731
82.00	2.3856	172.18	101.54	6.711	222.00	7.4123	609.75	390.29	9.764
84.00	2.4698	178.33	105.20	6.785	224.00	7.4802	617.10	395.62	9.797
86.00	2.5528	184.40	108.82	6.856	226.00	7.5481	624.48	400.99	9.829
88.00	2.6347	190.41	112.40	6.925	228.00	7.6160	631.88	406.39	9.862
90.00	2.7157	196.36	115.96	6.992	230.00	7.6839	639.32	411.81	9.895
92.00	2.7958	202.26	119.49	7.057	232.00	7.7517	646.78	417.26	9.927
94.00	2.8751	208.12	122.99	7.120	234.00	7.8196	654.26	422.74	9.959
96.00	2.9537	213.94	126.49	7.181	236.00	7.8874	661.78	428.24	9.991
98.00	3.0317	219.73	129.96	7.241	238.00	7.9552	669.31	433.77	10.023
100.00	3.1090	225.48	133.43	7.299	240.00	8.0230	676.87	439.32	10.054
102.00	3.1859	231.22	136.89	7.356	242.00	8.0907	684.45	444.90	10.086
104.00	3.2622	236.93	140.34	7.411	244.00	8.1585	692.06	450.50	10.117
106.00	3.3380	242.62	143.79	7.465	246.00	8.2262	699.68	456.12	10.148
108.00	3.4134	248.30	147.24	7.519	248.00	8.2940	707.33	461.76	10.179
110.00	3.4884	253.98	150.69	7.571	250.00	8.3617	715.00	467.42	10.210
112.00	3.5630	259.64	154.15	7.622	252.00	8.4294	722.68	473.10	10.241
114.00	3.6373	265.30	157.61	7.672	254.00	8.4970	730.38	478.80	10.271
116.00	3.7112	270.96	161.08	7.721	256.00	8.5647	738.10	484.51	10.301
118.00	3.7849	276.62	164.56	7.769	258.00	8.6323	745.84	490.24	10.331
120.00	3.8582	282.28	168.05	7.817	260.00	8.7000	753.59	495.99	10.361

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)
262.00	8.7676	761.35	501.76	10.391	402.00	13.4702	1304.80	905.97	12.055
264.00	8.8352	769.13	507.53	10.421	404.00	13.5371	1312.33	911.51	12.074
266.00	8.9028	776.92	513.32	10.450	406.00	13.6041	1319.85	917.05	12.092
268.00	8.9703	784.72	519.13	10.479	408.00	13.6710	1327.36	922.58	12.111
270.00	9.0379	792.54	524.94	10.508	410.00	13.7379	1334.86	928.10	12.129
272.00	9.1054	800.34	530.74	10.537	412.00	13.8049	1342.35	933.61	12.147
274.00	9.1729	808.15	536.55	10.566	414.00	13.8718	1349.83	939.11	12.165
276.00	9.2404	815.96	542.37	10.594	416.00	13.9387	1357.31	944.61	12.183
278.00	9.3079	823.79	548.20	10.622	418.00	14.0057	1364.78	950.10	12.201
280.00	9.3753	831.62	554.03	10.650	420.00	14.0726	1372.24	955.57	12.219
282.00	9.4427	839.45	559.87	10.678	422.00	14.1395	1379.69	961.04	12.237
284.00	9.5102	847.30	565.71	10.706	424.00	14.2064	1387.14	966.51	12.254
286.00	9.5776	855.14	571.57	10.734	426.00	14.2733	1394.57	971.96	12.272
288.00	9.6450	862.99	577.42	10.761	428.00	14.3402	1401.99	977.40	12.289
290.00	9.7123	870.85	583.28	10.788	430.00	14.4071	1409.41	982.84	12.307
292.00	9.7797	878.71	589.14	10.815	432.00	14.4740	1416.82	988.26	12.324
294.00	9.8470	886.57	595.01	10.842	434.00	14.5408	1424.22	993.68	12.341
296.00	9.9144	894.43	600.88	10.869	436.00	14.6077	1431.60	999.09	12.358
298.00	9.9817	902.29	606.75	10.895	438.00	14.6745	1438.99	1004.49	12.375
300.00	10.0490	910.16	612.62	10.921	440.00	14.7414	1446.36	1009.89	12.391
302.00	10.1162	918.02	618.50	10.947	442.00	14.8082	1453.72	1015.27	12.408
304.00	10.1835	925.89	624.37	10.973	444.00	14.8750	1461.08	1020.65	12.425
306.00	10.2508	933.75	630.24	10.999	446.00	14.9418	1468.42	1026.02	12.441
308.00	10.3180	941.62	636.12	11.025	448.00	15.0085	1475.76	1031.38	12.458
310.00	10.3852	949.48	641.99	11.050	450.00	15.0753	1483.09	1036.74	12.474
312.00	10.4525	957.34	647.86	11.076	452.00	15.1420	1490.43	1042.10	12.490
314.00	10.5197	965.20	653.73	11.101	454.00	15.2088	1497.76	1047.45	12.506
316.00	10.5869	973.06	659.60	11.126	456.00	15.2755	1505.08	1052.80	12.523
318.00	10.6541	980.91	665.46	11.150	458.00	15.3422	1512.40	1058.14	12.539
320.00	10.7212	988.76	671.32	11.175	460.00	15.4089	1519.71	1063.47	12.555
322.00	10.7884	996.61	677.18	11.199	462.00	15.4756	1527.01	1068.80	12.570
324.00	10.8556	1004.46	683.04	11.224	464.00	15.5422	1534.30	1074.12	12.586
326.00	10.9228	1012.29	688.89	11.248	466.00	15.6089	1541.59	1079.43	12.602
328.00	10.9899	1020.13	694.74	11.272	468.00	15.6755	1548.86	1084.74	12.617
330.00	11.0571	1027.96	700.58	11.296	470.00	15.7422	1556.13	1090.03	12.633
332.00	11.1242	1035.78	706.41	11.319	472.00	15.8088	1563.40	1095.32	12.648
334.00	11.1913	1043.60	712.25	11.343	474.00	15.8754	1570.66	1100.61	12.664
336.00	11.2585	1051.42	718.07	11.366	476.00	15.9420	1577.91	1105.89	12.679
338.00	11.3256	1059.22	723.89	11.389	478.00	16.0086	1585.15	1111.16	12.694
340.00	11.3927	1067.03	729.70	11.412	480.00	16.0752	1592.39	1116.43	12.709
342.00	11.4598	1074.82	735.51	11.435	482.00	16.1418	1599.62	1121.69	12.724
344.00	11.5269	1082.61	741.31	11.458	484.00	16.2085	1606.85	1126.94	12.739
346.00	11.5940	1090.39	747.11	11.480	486.00	16.2751	1614.07	1132.19	12.754
348.00	11.6612	1098.16	752.89	11.503	488.00	16.3417	1621.29	1137.43	12.769
350.00	11.7282	1105.93	758.67	11.525	490.00	16.4083	1628.50	1142.67	12.784
352.00	11.7953	1113.69	764.45	11.547	492.00	16.4749	1635.70	1147.91	12.798
354.00	11.8624	1121.44	770.21	11.569	494.00	16.5416	1642.90	1153.13	12.813
356.00	11.9295	1129.18	775.97	11.591	496.00	16.6082	1650.10	1158.36	12.827
358.00	11.9966	1136.92	781.72	11.613	498.00	16.6749	1657.29	1163.57	12.842
360.00	12.0637	1144.64	787.46	11.634	500.00	16.7416	1664.48	1168.79	12.856
362.00	12.1307	1152.36	793.19	11.655	502.00	16.8083	1671.66	1174.00	12.871
364.00	12.1977	1160.06	798.91	11.677	504.00	16.8750	1678.84	1179.20	12.885
366.00	12.2647	1167.76	804.62	11.698	506.00	16.9417	1686.02	1184.40	12.899
368.00	12.3317	1175.45	810.33	11.719	508.00	17.0085	1693.19	1189.60	12.913
370.00	12.3987	1183.13	816.02	11.740	510.00	17.0753	1700.36	1194.79	12.927
372.00	12.4657	1190.80	821.71	11.760	512.00	17.1421	1707.53	1199.98	12.941
374.00	12.5327	1198.46	827.39	11.781	514.00	17.2089	1714.69	1205.16	12.955
376.00	12.5997	1206.12	833.06	11.801	516.00	17.2758	1721.85	1210.34	12.969
378.00	12.6667	1213.76	838.72	11.821	518.00	17.3427	1729.00	1215.52	12.983
380.00	12.7337	1221.40	844.37	11.842	520.00	17.4096	1736.16	1220.69	12.997
382.00	12.8006	1229.02	850.02	11.862	522.00	17.4765	1743.31	1225.86	13.011
384.00	12.8676	1236.64	855.65	11.881	524.00	17.5434	1750.45	1231.02	13.024
386.00	12.9346	1244.25	861.28	11.901	526.00	17.6104	1757.60	1236.18	13.038
388.00	13.0015	1251.85	866.89	11.921	528.00	17.6774	1764.74	1241.34	13.051
390.00	13.0685	1259.44	872.50	11.940	530.00	17.7444	1771.88	1246.49	13.065
392.00	13.1355	1267.02	878.10	11.960	532.00	17.8114	1779.01	1251.64	13.078
394.00	13.2024	1274.60	883.69	11.979	534.00	17.8785	1786.14	1256.79	13.092
396.00	13.2694	1282.16	889.27	11.998	536.00	17.9455	1793.27	1261.93	13.105
398.00	13.3363	1289.71	894.85	12.017	538.00	18.0125	1800.40	1267.07	13.118
400.00	13.4033	1297.26	900.41	12.036	540.00	18.0796	1807.52	1272.21	13.132

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (8TU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)
122.00	3.4813	286.04	170.08	7.736	122.00	3.4813	286.04	170.08	7.736
124.00	3.5467	291.78	173.64	7.783	124.00	3.5467	291.78	173.64	7.783
126.00	3.6118	297.52	177.21	7.828	126.00	3.6118	297.52	177.21	7.828
128.00	3.6767	303.28	180.81	7.874	128.00	3.6767	303.28	180.81	7.874
130.00	3.7414	309.04	184.42	7.919	130.00	3.7414	309.04	184.42	7.919
132.00	3.8059	314.83	188.05	7.963	132.00	3.8059	314.83	188.05	7.963
134.00	3.8702	320.63	191.71	8.006	134.00	3.8702	320.63	191.71	8.006
136.00	3.9343	326.45	195.40	8.049	136.00	3.9343	326.45	195.40	8.049
138.00	3.9983	332.29	199.11	8.092	138.00	3.9983	332.29	199.11	8.092
140.00	4.0621	338.16	202.85	8.134	140.00	4.0621	338.16	202.85	8.134
					142.00	4.1257	344.05	206.63	8.176
					144.00	4.1891	349.97	210.43	8.217
					146.00	4.2524	355.91	214.27	8.258
					148.00	4.3156	361.89	218.14	8.299
					150.00	4.3787	367.90	222.05	8.339
					152.00	4.4416	373.94	226.00	8.379
					154.00	4.5044	380.02	229.98	8.419
					156.00	4.5671	386.13	234.00	8.459
					158.00	4.6297	392.28	238.07	8.498
					160.00	4.6922	398.47	242.17	8.537
					162.00	4.7546	404.69	246.32	8.575
					164.00	4.8169	410.96	250.51	8.614
					166.00	4.8791	417.26	254.74	8.652
					168.00	4.9412	423.60	259.01	8.690
					170.00	5.0033	429.98	263.33	8.728
					172.00	5.0652	436.41	267.69	8.765
					174.00	5.1271	442.87	272.09	8.803
36.00	.2208	-106.28	-113.63	1.827	176.00	5.1889	449.37	276.53	8.840
38.00	.2244	-101.79	-109.27	1.948	178.00	5.2507	455.91	281.01	8.877
40.00	.2285	-97.01	-104.62	2.071	180.00	5.3123	462.49	285.54	8.913
42.00	.2331	-91.90	-99.66	2.196					
44.00	.2383	-86.42	-94.36	2.323	182.00	5.3739	469.10	290.10	8.950
46.00	.2442	-80.51	-88.65	2.454	184.00	5.4353	475.75	294.70	8.986
48.00	.2510	-74.10	-82.46	2.591	186.00	5.4967	482.43	299.34	9.022
50.00	.2591	-67.05	-75.69	2.734	188.00	5.5579	489.16	304.02	9.058
52.00	.2692	-59.19	-68.15	2.889	190.00	5.6191	495.92	308.75	9.094
54.00	.2822	-50.16	-59.56	3.059	192.00	5.6803	502.73	313.52	9.130
56.00	.3012	-39.13	-47.17	3.259	194.00	5.7413	509.57	318.33	9.165
58.00	.3388	-22.53	-33.81	3.550	196.00	5.8023	516.45	323.18	9.201
* 58.860	.3978	-8.28	-34.99	3.793	198.00	5.8632	523.37	328.07	9.236
* 58.860					200.00	5.9241	530.33	333.00	9.271
60.00									
62.00					202.00	5.9850	537.33	337.97	9.306
64.00					204.00	6.0458	544.36	342.98	9.340
66.00					206.00	6.1065	551.43	348.03	9.375
68.00					208.00	6.1672	558.54	353.11	9.409
70.00	1.5778	126.59	74.03	6.012	210.00	6.2279	565.68	358.23	9.443
72.00	1.6688	134.12	78.53	6.118	212.00	6.2886	572.85	363.39	9.477
74.00	1.7562	141.33	82.83	6.216	214.00	6.3492	580.06	368.58	9.511
76.00	1.8407	148.28	86.97	6.309	216.00	6.4098	587.30	373.80	9.545
78.00	1.9229	155.04	90.99	6.397	218.00	6.4703	594.57	379.05	9.578
80.00	2.0032	161.64	94.92	6.481	220.00	6.5309	601.87	384.33	9.611
82.00	2.0818	168.10	98.76	6.560	222.00	6.5914	609.20	389.65	9.645
84.00	2.1589	174.46	102.54	6.637	224.00	6.6519	616.56	394.99	9.678
86.00	2.2348	180.71	106.27	6.710	226.00	6.7124	623.95	400.36	9.711
88.00	2.3096	186.89	109.96	6.781	228.00	6.7729	631.37	405.77	9.743
90.00	2.3833	192.99	113.60	6.850	230.00	6.8333	638.81	411.20	9.776
92.00	2.4562	199.03	117.22	6.916	232.00	6.8938	646.28	416.66	9.808
94.00	2.5282	205.02	120.80	6.981	234.00	6.9542	653.78	422.14	9.840
96.00	2.5996	210.96	124.37	7.043	236.00	7.0146	661.30	427.65	9.872
98.00	2.6702	216.86	127.91	7.104	238.00	7.0750	668.85	433.18	9.904
100.00	2.7403	222.72	131.44	7.163	240.00	7.1354	676.42	438.74	9.936
102.00	2.8097	228.55	134.96	7.221	242.00	7.1958	684.01	444.32	9.967
104.00	2.8787	234.36	138.47	7.278	244.00	7.2561	691.63	449.93	9.999
106.00	2.9472	240.14	141.97	7.333	246.00	7.3165	699.26	455.55	10.030
108.00	3.0152	245.91	145.47	7.386	248.00	7.3768	706.92	461.20	10.061
110.00	3.0828	251.66	148.97	7.439	250.00	7.4371	714.59	466.86	10.092
112.00	3.1501	257.40	152.48	7.491	252.00	7.4974	722.28	472.55	10.122
114.00	3.2169	263.13	155.98	7.542	254.00	7.5577	730.00	478.25	10.153
116.00	3.2835	268.86	159.49	7.592	256.00	7.6180	737.72	483.97	10.183
118.00	3.3497	274.59	163.01	7.640	258.00	7.6782	745.47	489.71	10.213
120.00	3.4156	280.31	166.54	7.689	260.00	7.7385	753.23	495.46	10.243

* PHASE CHANGE

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	7.7987	761.00	501.23	10.273	402.00	11.9835	1304.83	905.66	11.938
264.00	7.8589	768.79	507.01	10.302	404.00	12.0431	1312.36	911.21	11.957
266.00	7.9191	776.59	512.81	10.332	406.00	12.1026	1319.88	916.75	11.975
268.00	7.9792	784.40	518.61	10.361	408.00	12.1621	1327.39	922.28	11.994
270.00	8.0394	792.22	524.43	10.390	410.00	12.2217	1334.90	927.80	12.012
272.00	8.0995	800.03	530.24	10.419	412.00	12.2812	1342.40	933.32	12.030
274.00	8.1596	807.85	536.05	10.448	414.00	12.3407	1349.88	938.82	12.048
276.00	8.2197	815.67	541.88	10.476	416.00	12.4003	1357.36	944.32	12.066
278.00	8.2798	823.50	547.71	10.504	418.00	12.4598	1364.84	949.81	12.084
280.00	8.3398	831.34	553.54	10.532	420.00	12.5193	1372.30	955.29	12.102
282.00	8.3999	839.18	559.39	10.560	422.00	12.5788	1379.76	960.76	12.120
284.00	8.4599	847.03	565.24	10.588	424.00	12.6383	1387.20	966.22	12.137
286.00	8.5199	854.89	571.09	10.616	426.00	12.6978	1394.64	971.68	12.155
288.00	8.5799	862.74	576.95	10.643	428.00	12.7573	1402.07	977.13	12.172
290.00	8.6399	870.61	582.82	10.670	430.00	12.8168	1409.49	982.56	12.190
292.00	8.6998	878.47	588.68	10.697	432.00	12.8763	1416.90	987.99	12.207
294.00	8.7598	886.34	594.55	10.724	434.00	12.9358	1424.30	993.41	12.224
296.00	8.8197	894.21	600.43	10.751	436.00	12.9952	1431.69	998.83	12.241
298.00	8.8796	902.08	606.30	10.777	438.00	13.0547	1439.07	1004.23	12.258
300.00	8.9395	909.95	612.18	10.804	440.00	13.1141	1446.45	1009.62	12.275
302.00	8.9994	917.82	618.06	10.830	442.00	13.1735	1453.82	1015.01	12.291
304.00	9.0592	925.69	623.93	10.856	444.00	13.2329	1461.17	1020.39	12.308
306.00	9.1191	933.56	629.81	10.882	446.00	13.2923	1468.52	1025.76	12.324
308.00	9.1789	941.43	635.69	10.907	448.00	13.3517	1475.87	1031.13	12.341
310.00	9.2388	949.30	641.56	10.933	450.00	13.4111	1483.20	1036.48	12.357
312.00	9.2986	957.17	647.44	10.958	452.00	13.4705	1490.54	1041.85	12.374
314.00	9.3584	965.04	653.31	10.983	454.00	13.5298	1497.88	1047.21	12.390
316.00	9.4182	972.90	659.18	11.008	456.00	13.5891	1505.20	1052.56	12.406
318.00	9.4780	980.76	665.05	11.033	458.00	13.6485	1512.52	1057.90	12.422
320.00	9.5378	988.62	670.92	11.058	460.00	13.7078	1519.83	1063.23	12.438
322.00	9.5976	996.47	676.78	11.082	462.00	13.7671	1527.14	1068.56	12.454
324.00	9.6573	1004.32	682.64	11.106	464.00	13.8264	1534.43	1073.88	12.469
326.00	9.7171	1012.17	688.49	11.130	466.00	13.8857	1541.72	1079.19	12.485
328.00	9.7768	1020.01	694.34	11.154	468.00	13.9449	1549.00	1084.50	12.501
330.00	9.8366	1027.84	700.19	11.178	470.00	14.0042	1556.27	1089.80	12.516
332.00	9.8963	1035.67	706.03	11.202	472.00	14.0635	1563.54	1095.09	12.532
334.00	9.9561	1043.50	711.86	11.225	474.00	14.1227	1570.80	1100.38	12.547
336.00	10.0158	1051.31	717.69	11.249	476.00	14.1819	1578.06	1105.66	12.562
338.00	10.0755	1059.13	723.52	11.272	478.00	14.2412	1585.30	1110.94	12.577
340.00	10.1353	1066.93	729.33	11.295	480.00	14.3004	1592.54	1116.20	12.592
342.00	10.1950	1074.73	735.14	11.318	482.00	14.3597	1599.78	1121.47	12.608
344.00	10.2547	1082.52	740.95	11.341	484.00	14.4189	1607.01	1126.72	12.622
346.00	10.3144	1090.31	746.74	11.363	486.00	14.4782	1614.23	1131.97	12.637
348.00	10.3741	1098.09	752.53	11.385	488.00	14.5374	1621.45	1137.22	12.652
350.00	10.4338	1105.86	758.31	11.408	490.00	14.5966	1628.66	1142.46	12.667
352.00	10.4935	1113.62	764.09	11.430	492.00	14.6559	1635.87	1147.69	12.682
354.00	10.5532	1121.38	769.86	11.452	494.00	14.7152	1643.08	1152.92	12.696
356.00	10.6129	1129.13	775.61	11.474	496.00	14.7744	1650.27	1158.14	12.711
358.00	10.6726	1136.86	781.37	11.495	498.00	14.8337	1657.47	1163.36	12.725
360.00	10.7323	1144.60	787.11	11.517	500.00	14.8930	1664.66	1168.58	12.740
362.00	10.7919	1152.31	792.84	11.538	502.00	14.9524	1671.84	1173.79	12.754
364.00	10.8515	1160.02	798.56	11.560	504.00	15.0117	1679.03	1178.99	12.768
366.00	10.9112	1167.73	804.28	11.581	506.00	15.0710	1686.20	1184.19	12.783
368.00	10.9708	1175.42	809.99	11.602	508.00	15.1304	1693.38	1189.39	12.797
370.00	11.0304	1183.10	815.69	11.622	510.00	15.1898	1700.55	1194.58	12.811
372.00	11.0900	1190.78	821.37	11.643	512.00	15.2492	1707.72	1199.77	12.825
374.00	11.1496	1198.44	827.06	11.664	514.00	15.3086	1714.88	1204.96	12.839
376.00	11.2092	1206.10	832.73	11.684	516.00	15.3680	1722.04	1210.14	12.853
378.00	11.2688	1213.75	838.39	11.704	518.00	15.4275	1729.20	1215.31	12.866
380.00	11.3283	1221.39	844.05	11.724	520.00	15.4870	1736.35	1220.49	12.880
382.00	11.3879	1229.02	849.69	11.745	522.00	15.5465	1743.50	1225.66	12.894
384.00	11.4475	1236.64	855.33	11.764	524.00	15.6060	1750.65	1230.82	12.908
386.00	11.5071	1244.25	860.96	11.784	526.00	15.6655	1757.80	1235.99	12.921
388.00	11.5666	1251.86	866.58	11.804	528.00	15.7251	1764.94	1241.14	12.935
390.00	11.6262	1259.45	872.19	11.823	530.00	15.7847	1772.08	1246.30	12.948
392.00	11.6858	1267.04	877.79	11.843	532.00	15.8442	1779.21	1251.45	12.962
394.00	11.7453	1274.61	883.38	11.862	534.00	15.9038	1786.35	1256.60	12.975
396.00	11.8049	1282.18	888.96	11.881	536.00	15.9634	1793.48	1261.74	12.988
398.00	11.8644	1289.74	894.54	11.900	538.00	16.0230	1800.60	1266.88	13.002
400.00	11.9240	1297.29	900.10	11.919	540.00	16.0826	1807.72	1272.02	13.015

200.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00		3.1216	284.14	168.61	7.620				
124.00		3.1811	289.93	172.20	7.667				
126.00		3.2403	295.73	175.81	7.714				
128.00		3.2993	301.54	179.43	7.760				
130.00		3.3580	307.36	183.07	7.805				
132.00		3.4166	313.19	186.74	7.849				
134.00		3.4750	319.04	190.43	7.893				
136.00		3.5331	324.90	194.14	7.937				
138.00		3.5911	330.79	197.88	7.980				
140.00		3.6490	336.70	201.64	8.022				
142.00		3.7067	342.63	205.44	8.064				
144.00		3.7642	348.58	209.27	8.106				
146.00		3.8216	354.57	213.13	8.147				
148.00		3.8788	360.58	217.02	8.188				
150.00		3.9360	366.63	220.95	8.229				
152.00		3.9929	372.70	224.92	8.269				
154.00		4.0498	378.81	228.93	8.309				
156.00		4.1066	384.96	232.97	8.348				
158.00		4.1633	391.13	237.05	8.388				
160.00		4.2198	397.35	241.17	8.427				
162.00		4.2763	403.60	245.34	8.466				
164.00		4.3326	409.90	249.54	8.504				
166.00		4.3889	416.22	253.79	8.543				
168.00		4.4451	422.59	258.08	8.581				
170.00		4.5012	429.00	262.41	8.619				
172.00		4.5572	435.45	266.78	8.656				
174.00		4.6132	441.93	271.20	8.694				
36.00	.2203	-105.69	-113.84	1.821	176.00	4.6691	448.46	275.66	8.731
38.00	.2239	-101.23	-109.52	1.941	178.00	4.7249	455.02	280.15	8.768
40.00	.2279	-96.48	-104.92	2.063	180.00	4.7806	461.62	284.69	8.805
42.00	.2324	-91.41	-100.01	2.187	182.00	4.8362	468.26	289.26	8.842
44.00	.2374	-85.98	-94.77	2.313	184.00	4.8917	474.92	293.87	8.878
46.00	.2431	-80.14	-89.14	2.443	186.00	4.9472	481.62	298.53	8.914
48.00	.2497	-73.82	-83.06	2.577	188.00	5.0025	488.37	303.22	8.950
50.00	.2575	-66.90	-76.43	2.718	190.00	5.0577	495.15	307.96	8.986
52.00	.2669	-59.24	-69.12	2.868	192.00	5.1129	501.97	312.74	9.022
54.00	.2789	-50.57	-60.90	3.032	194.00	5.1680	508.83	317.56	9.058
56.00	.2955	-40.30	-51.24	3.219	196.00	5.2231	515.73	322.42	9.093
58.00					198.00	5.2781	522.67	327.32	9.128
60.00					200.00	5.3330	529.64	332.27	9.163
62.00					202.00	5.3879	536.65	337.25	9.198
64.00					204.00	5.4427	543.70	342.26	9.233
66.00					206.00	5.4975	550.79	347.32	9.267
68.00	1.2710	111.46	64.42	5.716	208.00	5.5523	557.91	352.41	9.302
70.00	1.3638	120.20	69.73	5.843	210.00	5.6071	565.06	357.54	9.336
72.00	1.4509	128.31	74.61	5.957	212.00	5.6618	572.25	362.70	9.370
74.00	1.5338	135.98	79.21	6.062	214.00	5.7164	579.47	367.90	9.404
76.00	1.6135	143.31	83.59	6.160	216.00	5.7711	586.73	373.13	9.438
78.00	1.6906	150.39	87.82	6.252	218.00	5.8257	594.01	378.39	9.471
80.00	1.7656	157.26	91.92	6.339	220.00	5.8803	601.32	383.68	9.505
82.00	1.8387	163.97	95.91	6.422	222.00	5.9349	608.66	389.01	9.538
84.00	1.9103	170.53	99.83	6.501	224.00	5.9895	616.03	394.36	9.571
86.00	1.9806	176.98	103.68	6.577	226.00	6.0441	623.43	399.74	9.604
88.00	2.0496	183.33	107.47	6.650	228.00	6.0986	630.86	405.15	9.637
90.00	2.1177	189.59	111.21	6.720	230.00	6.1531	638.32	410.59	9.669
92.00	2.1848	195.78	114.92	6.788	232.00	6.2076	645.80	416.05	9.702
94.00	2.2510	201.90	118.59	6.854	234.00	6.2621	653.31	421.54	9.734
96.00	2.3165	207.96	122.23	6.918	236.00	6.3166	660.84	427.06	9.766
98.00	2.3814	213.98	125.84	6.980	238.00	6.3711	668.40	432.60	9.798
100.00	2.4455	219.95	129.44	7.040	240.00	6.4256	675.98	438.16	9.829
102.00	2.5091	225.89	133.02	7.099	242.00	6.4800	683.58	443.75	9.861
104.00	2.5722	231.79	136.59	7.156	244.00	6.5345	691.20	449.36	9.892
106.00	2.6348	237.66	140.15	7.212	246.00	6.5889	698.85	454.99	9.924
108.00	2.6969	243.52	143.70	7.267	248.00	6.6433	706.51	460.64	9.955
110.00	2.7587	249.35	147.25	7.320	250.00	6.6977	714.20	466.31	9.985
112.00	2.8200	255.17	150.80	7.373	252.00	6.7521	721.90	472.00	10.016
114.00	2.8809	260.97	154.35	7.424	254.00	6.8064	729.62	477.71	10.047
116.00	2.9416	266.77	157.90	7.474	256.00	6.8608	737.36	483.44	10.077
118.00	3.0019	272.56	161.46	7.524	258.00	6.9151	745.11	489.18	10.107
120.00	3.0619	278.35	165.03	7.572	260.00	6.9694	752.88	494.93	10.137

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	7.0237	760.66	500.71	10.167	402.00	10.7943	1304.86	905.36	11.833
264.00	7.0780	768.45	506.49	10.197	404.00	10.8479	1312.40	910.91	11.852
266.00	7.1323	776.26	512.29	10.226	406.00	10.9015	1319.92	916.45	11.871
268.00	7.1865	784.08	518.10	10.255	408.00	10.9552	1327.44	921.98	11.889
270.00	7.2408	791.91	523.93	10.284	410.00	11.0088	1334.95	927.51	11.907
272.00	7.2950	799.73	529.74	10.313	412.00	11.0624	1342.45	933.02	11.926
274.00	7.3492	807.55	535.55	10.342	414.00	11.1160	1349.94	938.53	11.944
276.00	7.4033	815.38	541.38	10.370	416.00	11.1696	1357.42	944.03	11.962
278.00	7.4575	823.22	547.22	10.399	418.00	11.2232	1364.90	949.52	11.980
280.00	7.5116	831.07	553.06	10.427	420.00	11.2768	1372.37	955.00	11.998
282.00	7.5658	838.92	558.90	10.455	422.00	11.3304	1379.82	960.48	12.015
284.00	7.6199	846.77	564.76	10.483	424.00	11.3840	1387.27	965.94	12.033
286.00	7.6739	854.63	570.62	10.510	426.00	11.4376	1394.71	971.40	12.050
288.00	7.7280	862.50	576.48	10.538	428.00	11.4911	1402.14	976.85	12.068
290.00	7.7821	870.37	582.35	10.565	430.00	11.5447	1409.57	982.29	12.085
292.00	7.8361	878.24	588.22	10.592	432.00	11.5983	1416.98	987.72	12.102
294.00	7.8901	886.11	594.09	10.619	434.00	11.6518	1424.38	993.14	12.119
296.00	7.9441	893.99	599.97	10.645	436.00	11.7054	1431.78	998.56	12.136
298.00	7.9981	901.86	605.85	10.672	438.00	11.7589	1439.17	1003.96	12.153
300.00	8.0521	909.74	611.73	10.698	440.00	11.8124	1446.55	1009.36	12.170
302.00	8.1060	917.62	617.61	10.724	442.00	11.8659	1453.92	1014.75	12.187
304.00	8.1600	925.50	623.49	10.750	444.00	11.9194	1461.28	1020.13	12.203
306.00	8.2139	933.38	629.37	10.776	446.00	11.9729	1468.63	1025.51	12.220
308.00	8.2678	941.25	635.26	10.802	448.00	12.0264	1475.97	1030.87	12.236
310.00	8.3217	949.13	641.14	10.827	450.00	12.0798	1483.31	1036.23	12.253
312.00	8.3756	957.00	647.01	10.853	452.00	12.1333	1490.66	1041.60	12.269
314.00	8.4295	964.87	652.89	10.878	454.00	12.1867	1497.99	1046.96	12.285
316.00	8.4834	972.74	658.77	10.903	456.00	12.2402	1505.32	1052.31	12.301
318.00	8.5373	980.61	664.64	10.928	458.00	12.2936	1512.64	1057.65	12.317
320.00	8.5911	988.47	670.51	10.952	460.00	12.3470	1519.96	1062.99	12.333
322.00	8.6450	996.33	676.37	10.977	462.00	12.4004	1527.26	1068.32	12.349
324.00	8.6988	1004.19	682.24	11.001	464.00	12.4538	1534.56	1073.64	12.365
326.00	8.7527	1012.04	688.09	11.025	466.00	12.5072	1541.85	1078.96	12.381
328.00	8.8065	1019.88	693.95	11.049	468.00	12.5605	1549.14	1084.27	12.396
330.00	8.8603	1027.72	699.80	11.073	470.00	12.6139	1556.42	1089.57	12.412
332.00	8.9142	1035.56	705.64	11.097	472.00	12.6673	1563.69	1094.86	12.427
334.00	8.9680	1043.39	711.48	11.120	474.00	12.7206	1570.95	1100.15	12.442
336.00	9.0218	1051.21	717.31	11.144	476.00	12.7740	1578.21	1105.43	12.458
338.00	9.0756	1059.03	723.14	11.167	478.00	12.8273	1585.46	1110.71	12.473
340.00	9.1294	1066.84	728.95	11.190	480.00	12.8807	1592.70	1115.98	12.488
342.00	9.1832	1074.65	734.77	11.213	482.00	12.9340	1599.94	1121.24	12.503
344.00	9.2370	1082.44	740.57	11.235	484.00	12.9874	1607.17	1126.50	12.518
346.00	9.2908	1090.23	746.37	11.258	486.00	13.0407	1614.40	1131.75	12.533
348.00	9.3446	1098.02	752.17	11.280	488.00	13.0941	1621.62	1137.00	12.548
350.00	9.3984	1105.79	757.95	11.303	490.00	13.1474	1628.83	1142.24	12.563
352.00	9.4522	1113.56	763.73	11.325	492.00	13.2008	1636.04	1147.47	12.577
354.00	9.5060	1121.32	769.50	11.347	494.00	13.2541	1643.25	1152.70	12.592
356.00	9.5598	1129.07	775.26	11.369	496.00	13.3075	1650.45	1157.93	12.606
358.00	9.6135	1136.82	781.01	11.390	498.00	13.3609	1657.65	1163.15	12.621
360.00	9.6673	1144.55	786.76	11.412	500.00	13.4143	1664.84	1168.37	12.635
362.00	9.7210	1152.27	792.49	11.433	502.00	13.4677	1672.03	1173.58	12.650
364.00	9.7747	1159.99	798.22	11.455	504.00	13.5211	1679.21	1178.78	12.664
366.00	9.8284	1167.69	803.94	11.476	506.00	13.5746	1686.39	1183.99	12.678
368.00	9.8821	1175.39	809.65	11.497	508.00	13.6280	1693.56	1189.18	12.692
370.00	9.9356	1183.08	815.35	11.518	510.00	13.6815	1700.74	1194.38	12.706
372.00	9.9895	1190.76	821.04	11.538	512.00	13.7349	1707.91	1199.57	12.720
374.00	10.0432	1198.43	826.72	11.559	514.00	13.7884	1715.07	1204.75	12.734
376.00	10.0969	1206.09	832.40	11.579	516.00	13.8420	1722.23	1209.94	12.748
378.00	10.1505	1213.74	838.06	11.600	518.00	13.8955	1729.39	1215.11	12.762
380.00	10.2042	1221.39	843.72	11.620	520.00	13.9490	1736.55	1220.29	12.776
382.00	10.2579	1229.02	849.37	11.640	522.00	14.0026	1743.70	1225.46	12.790
384.00	10.3115	1236.64	855.01	11.660	524.00	14.0562	1750.85	1230.62	12.803
386.00	10.3652	1244.26	860.64	11.679	526.00	14.1098	1758.00	1235.79	12.817
388.00	10.4188	1251.87	866.26	11.699	528.00	14.1634	1765.14	1240.95	12.830
390.00	10.4725	1259.47	871.87	11.719	530.00	14.2170	1772.28	1246.10	12.844
392.00	10.5261	1267.05	877.48	11.738	532.00	14.2706	1779.42	1251.26	12.857
394.00	10.5798	1274.63	883.07	11.757	534.00	14.3243	1786.55	1256.40	12.871
396.00	10.6334	1282.20	888.66	11.776	536.00	14.3779	1793.68	1261.55	12.884
398.00	10.6870	1289.77	894.23	11.795	538.00	14.4315	1800.81	1266.69	12.897
400.00	10.7407	1297.32	899.80	11.814	540.00	14.4852	1807.93	1271.83	12.911

250.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)
122.00	2.4752	279.41	164.90	7.371	122.00	2.4752	279.41	164.90	7.371
124.00	2.5240	285.35	168.58	7.419	124.00	2.5240	285.35	168.58	7.419
126.00	2.5725	291.29	172.28	7.467	126.00	2.5725	291.29	172.28	7.467
128.00	2.6208	297.23	175.98	7.514	128.00	2.6208	297.23	175.98	7.514
130.00	2.6689	303.17	179.70	7.560	130.00	2.6689	303.17	179.70	7.560
132.00	2.7167	309.13	183.44	7.605	132.00	2.7167	309.13	183.44	7.605
134.00	2.7644	315.09	187.20	7.650	134.00	2.7644	315.09	187.20	7.650
136.00	2.8119	321.07	190.99	7.694	136.00	2.8119	321.07	190.99	7.694
138.00	2.8592	327.07	194.79	7.738	138.00	2.8592	327.07	194.79	7.738
140.00	2.9063	333.08	198.62	7.781	140.00	2.9063	333.08	198.62	7.781
142.00	2.9533	339.11	202.48	7.824	142.00	2.9533	339.11	202.48	7.824
144.00	3.0001	345.16	206.37	7.867	144.00	3.0001	345.16	206.37	7.867
146.00	3.0468	351.24	210.29	7.908	146.00	3.0468	351.24	210.29	7.908
148.00	3.0934	357.35	214.24	7.950	148.00	3.0934	357.35	214.24	7.950
150.00	3.1398	363.48	218.22	7.991	150.00	3.1398	363.48	218.22	7.991
152.00	3.1861	369.64	222.24	8.032	152.00	3.1861	369.64	222.24	8.032
154.00	3.2323	375.83	226.29	8.072	154.00	3.2323	375.83	226.29	8.072
156.00	3.2784	382.05	230.38	8.113	156.00	3.2784	382.05	230.38	8.113
158.00	3.3243	388.30	234.51	8.152	158.00	3.3243	388.30	234.51	8.152
160.00	3.3702	394.59	238.68	8.192	160.00	3.3702	394.59	238.68	8.192
162.00	3.4159	400.92	242.89	8.231	162.00	3.4159	400.92	242.89	8.231
164.00	3.4616	407.28	247.13	8.270	164.00	3.4616	407.28	247.13	8.270
166.00	3.5072	413.68	251.42	8.309	166.00	3.5072	413.68	251.42	8.309
168.00	3.5527	420.11	255.75	8.348	168.00	3.5527	420.11	255.75	8.348
170.00	3.5981	426.58	260.12	8.386	170.00	3.5981	426.58	260.12	8.386
172.00	3.6435	433.09	264.53	8.424	172.00	3.6435	433.09	264.53	8.424
174.00	3.6887	439.63	268.98	8.462	174.00	3.6887	439.63	268.98	8.462
36.00	.2191	-104.22	-114.35	1.805	176.00	3.7339	446.22	273.48	8.499
38.00	.2226	-99.82	-110.11	1.924	178.00	3.7790	452.84	278.01	8.537
40.00	.2264	-95.14	-105.61	2.044	180.00	3.8241	459.49	282.58	8.574
42.00	.2306	-90.16	-100.83	2.165	182.00	3.8690	466.18	287.18	8.611
44.00	.2353	-84.85	-95.73	2.289	184.00	3.9139	472.89	291.82	8.648
46.00	.2406	-79.15	-90.29	2.415	186.00	3.9586	479.64	296.50	8.684
48.00	.2467	-73.03	-84.44	2.546	188.00	4.0033	486.43	301.22	8.720
50.00	.2537	-66.40	-78.13	2.681	190.00	4.0479	493.25	305.98	8.756
52.00	.2620	-59.14	-71.26	2.823	192.00	4.0924	500.12	310.79	8.792
54.00	.2721	-51.13	-63.71	2.975	194.00	4.1369	507.02	315.63	8.828
56.00	.2849	-42.05	-55.23	3.140	196.00	4.1813	513.96	320.52	8.864
58.00	.3026	-31.24	-45.24	3.329	198.00	4.2257	520.93	325.44	8.899
60.00	.3272	-18.47	-33.61	3.547	200.00	4.2700	527.95	330.40	8.934
62.00	.3789	2.15	-15.38	3.886	202.00	4.3143	535.00	335.40	8.969
64.00	.6083	52.83	24.69	4.690	204.00	4.3585	542.08	340.44	9.004
66.00	.7695	76.29	40.69	5.051	206.00	4.4027	549.20	345.52	9.039
68.00	.8803	90.77	50.05	5.267	208.00	4.4469	556.36	350.63	9.074
70.00	.9730	102.49	57.48	5.437	210.00	4.4910	563.55	355.78	9.108
72.00	1.0558	112.62	63.77	5.580	212.00	4.5351	570.77	360.96	9.142
74.00	1.1322	121.77	69.39	5.705	214.00	4.5791	578.02	366.18	9.176
76.00	1.2040	130.27	74.57	5.819	216.00	4.6231	585.31	371.43	9.210
78.00	1.2725	138.29	79.43	5.923	218.00	4.6671	592.62	376.71	9.244
80.00	1.3383	145.96	84.05	6.020	220.00	4.7111	599.97	382.01	9.277
82.00	1.4019	153.35	88.49	6.111	222.00	4.7551	607.34	387.35	9.311
84.00	1.4637	160.51	92.79	6.197	224.00	4.7990	614.74	392.72	9.344
86.00	1.5240	167.48	96.98	6.279	226.00	4.8429	622.17	398.12	9.377
88.00	1.5829	174.30	101.08	6.358	228.00	4.8868	629.63	403.55	9.410
90.00	1.6407	180.99	105.09	6.433	230.00	4.9307	637.11	409.00	9.443
92.00	1.6974	187.57	109.04	6.505	232.00	4.9746	644.62	414.48	9.475
94.00	1.7533	194.05	112.93	6.575	234.00	5.0184	652.16	419.99	9.507
96.00	1.8083	200.44	116.78	6.642	236.00	5.0623	659.72	425.52	9.540
98.00	1.8626	206.76	120.59	6.707	238.00	5.1061	667.30	431.07	9.572
100.00	1.9162	213.01	124.36	6.771	240.00	5.1499	674.90	436.65	9.603
102.00	1.9693	219.21	128.11	6.832	242.00	5.1937	682.53	442.25	9.635
104.00	2.0218	225.36	131.83	6.892	244.00	5.2374	690.18	447.88	9.667
106.00	2.0737	231.47	135.53	6.950	246.00	5.2812	697.85	453.52	9.698
108.00	2.1252	237.54	139.22	7.007	248.00	5.3249	705.53	459.19	9.729
110.00	2.1763	243.58	142.90	7.062	250.00	5.3687	713.24	464.87	9.760
112.00	2.2270	249.60	146.57	7.116	252.00	5.4124	720.97	470.57	9.791
114.00	2.2773	255.59	150.23	7.169	254.00	5.4561	728.71	476.29	9.821
116.00	2.3272	261.56	153.90	7.221	256.00	5.4998	736.47	482.03	9.852
118.00	2.3768	267.52	157.56	7.272	258.00	5.5434	744.24	487.78	9.882
120.00	2.4262	273.47	161.23	7.322	260.00	5.5871	752.03	493.55	9.912

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)
262.00	5.6307	759.83	499.34	9.942	402.00	8.6553	1304.96	904.54	11.611
264.00	5.6743	767.65	505.13	9.972	404.00	8.6983	1312.51	910.10	11.630
266.00	5.7179	775.47	510.94	10.001	406.00	8.7413	1320.04	915.64	11.648
268.00	5.7615	783.31	516.77	10.031	408.00	8.7842	1327.57	921.18	11.667
270.00	5.8050	791.16	522.60	10.060	410.00	8.8272	1335.08	926.71	11.685
272.00	5.8486	799.00	528.42	10.089	412.00	8.8701	1342.59	932.23	11.704
274.00	5.8921	806.84	534.25	10.117	414.00	8.9131	1350.09	937.74	11.722
276.00	5.9356	814.69	540.09	10.146	416.00	8.9560	1357.58	943.25	11.740
278.00	5.9791	822.54	545.93	10.174	418.00	8.9990	1365.07	948.74	11.758
280.00	6.0226	830.41	551.78	10.202	420.00	9.0419	1372.54	954.23	11.776
282.00	6.0660	838.27	557.64	10.230	422.00	9.0848	1380.01	959.71	11.793
284.00	6.1095	846.15	563.50	10.258	424.00	9.1278	1387.46	965.18	11.811
286.00	6.1529	854.03	569.37	10.286	426.00	9.1707	1394.91	970.64	11.828
288.00	6.1963	861.91	575.24	10.313	428.00	9.2136	1402.35	976.10	11.846
290.00	6.2397	869.79	581.12	10.341	430.00	9.2565	1409.78	981.54	11.863
292.00	6.2831	877.68	587.00	10.368	432.00	9.2994	1417.20	986.98	11.880
294.00	6.3265	885.57	592.89	10.395	434.00	9.3423	1424.61	992.41	11.898
296.00	6.3698	893.46	598.77	10.421	436.00	9.3852	1432.02	997.83	11.915
298.00	6.4131	901.35	604.66	10.448	438.00	9.4281	1439.41	1003.24	11.931
300.00	6.4565	909.25	610.55	10.474	440.00	9.4710	1446.80	1008.64	11.948
302.00	6.4998	917.14	616.44	10.501	442.00	9.5138	1454.18	1014.04	11.965
304.00	6.5431	925.03	622.33	10.527	444.00	9.5567	1461.55	1019.42	11.982
306.00	6.5863	932.93	628.22	10.553	446.00	9.5995	1468.91	1024.80	11.998
308.00	6.6296	940.82	634.11	10.578	448.00	9.6423	1476.26	1030.17	12.015
310.00	6.6729	948.71	640.00	10.604	450.00	9.6852	1483.60	1035.54	12.031
312.00	6.7161	956.60	645.89	10.629	452.00	9.7280	1490.96	1040.91	12.047
314.00	6.7593	964.48	651.77	10.654	454.00	9.7708	1498.30	1046.27	12.064
316.00	6.8026	972.37	657.66	10.679	456.00	9.8136	1505.64	1051.63	12.080
318.00	6.8458	980.25	663.54	10.704	458.00	9.8564	1512.97	1056.98	12.096
320.00	6.8890	988.12	669.42	10.729	460.00	9.8992	1520.29	1062.32	12.112
322.00	6.9322	996.00	675.29	10.753	462.00	9.9420	1527.60	1067.66	12.128
324.00	6.9754	1003.87	681.16	10.778	464.00	9.9847	1534.91	1072.98	12.143
326.00	7.0186	1011.73	687.03	10.802	466.00	10.0275	1542.21	1078.30	12.159
328.00	7.0618	1019.59	692.89	10.826	468.00	10.0703	1549.50	1083.62	12.175
330.00	7.1050	1027.44	698.75	10.850	470.00	10.1130	1556.78	1088.92	12.190
332.00	7.1481	1035.29	704.60	10.874	472.00	10.1558	1564.06	1094.22	12.206
334.00	7.1913	1043.14	710.44	10.897	474.00	10.1985	1571.33	1099.52	12.221
336.00	7.2345	1050.97	716.28	10.921	476.00	10.2413	1578.60	1104.80	12.236
338.00	7.2776	1058.80	722.12	10.944	478.00	10.2840	1585.85	1110.08	12.251
340.00	7.3208	1066.63	727.95	10.967	480.00	10.3267	1593.10	1115.36	12.267
342.00	7.3639	1074.44	733.77	10.990	482.00	10.3695	1600.35	1120.62	12.282
344.00	7.4070	1082.25	739.58	11.013	484.00	10.4122	1607.59	1125.88	12.297
346.00	7.4502	1090.06	745.39	11.035	486.00	10.4549	1614.82	1131.14	12.312
348.00	7.4933	1097.85	751.19	11.058	488.00	10.4977	1622.05	1136.39	12.326
350.00	7.5364	1105.64	756.98	11.080	490.00	10.5404	1629.27	1141.63	12.341
352.00	7.5796	1113.42	762.77	11.102	492.00	10.5832	1636.48	1146.87	12.356
354.00	7.6227	1121.19	768.54	11.124	494.00	10.6259	1643.70	1152.11	12.371
356.00	7.6658	1128.96	774.31	11.146	496.00	10.6686	1650.90	1157.34	12.385
358.00	7.7089	1136.71	780.07	11.168	498.00	10.7114	1658.10	1162.56	12.400
360.00	7.7520	1144.46	785.82	11.189	500.00	10.7542	1665.30	1167.78	12.414
362.00	7.7951	1152.19	791.57	11.211	502.00	10.7969	1672.49	1172.99	12.428
364.00	7.8382	1159.92	797.30	11.232	504.00	10.8397	1679.68	1178.20	12.443
366.00	7.8812	1167.63	803.02	11.253	506.00	10.8825	1686.87	1183.41	12.457
368.00	7.9243	1175.34	808.74	11.274	508.00	10.9253	1694.05	1188.61	12.471
370.00	7.9673	1183.04	814.44	11.295	510.00	10.9681	1701.22	1193.80	12.485
372.00	8.0103	1190.73	820.14	11.316	512.00	11.0109	1708.40	1198.99	12.499
374.00	8.0534	1198.41	825.83	11.336	514.00	11.0538	1715.57	1204.18	12.513
376.00	8.0964	1206.08	831.51	11.357	516.00	11.0966	1722.73	1209.37	12.527
378.00	8.1394	1213.74	837.18	11.377	518.00	11.1395	1729.89	1214.55	12.541
380.00	8.1824	1221.39	842.85	11.397	520.00	11.1823	1737.05	1219.72	12.555
382.00	8.2254	1229.03	848.50	11.417	522.00	11.2252	1744.21	1224.90	12.568
384.00	8.2684	1236.67	854.14	11.437	524.00	11.2681	1751.36	1230.06	12.582
386.00	8.3115	1244.29	859.78	11.457	526.00	11.3110	1758.51	1235.23	12.596
388.00	8.3545	1251.91	865.41	11.477	528.00	11.3539	1765.66	1240.39	12.609
390.00	8.3974	1259.52	871.02	11.496	530.00	11.3968	1772.80	1245.55	12.623
392.00	8.4404	1267.11	876.63	11.516	532.00	11.4397	1779.94	1250.70	12.636
394.00	8.4834	1274.70	882.23	11.535	534.00	11.4826	1787.08	1255.86	12.650
396.00	8.5264	1282.28	887.82	11.554	536.00	11.5255	1794.21	1261.00	12.663
398.00	8.5694	1289.85	893.40	11.573	538.00	11.5684	1801.34	1266.15	12.676
400.00	8.6124	1297.41	898.98	11.592	540.00	11.6114	1808.47	1271.29	12.689

300.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)
122.00	2.0456	274.74	161.18	7.162	122.00	2.0456	274.74	161.18	7.162
124.00	2.0872	280.83	164.95	7.212	124.00	2.0872	280.83	164.95	7.212
126.00	2.1286	286.90	168.74	7.261	126.00	2.1286	286.90	168.74	7.261
128.00	2.1697	292.98	172.53	7.308	128.00	2.1697	292.98	172.53	7.308
130.00	2.2106	299.05	176.33	7.356	130.00	2.2106	299.05	176.33	7.356
132.00	2.2513	305.13	180.15	7.402	132.00	2.2513	305.13	180.15	7.402
134.00	2.2918	311.21	183.98	7.448	134.00	2.2918	311.21	183.98	7.448
136.00	2.3321	317.30	187.83	7.493	136.00	2.3321	317.30	187.83	7.493
138.00	2.3723	323.41	191.71	7.537	138.00	2.3723	323.41	191.71	7.537
140.00	2.4123	329.52	195.60	7.581	140.00	2.4123	329.52	195.60	7.581
142.00	2.4521	335.65	199.52	7.625	142.00	2.4521	335.65	199.52	7.625
144.00	2.4918	341.80	203.47	7.668	144.00	2.4918	341.80	203.47	7.668
146.00	2.5313	347.98	207.45	7.710	146.00	2.5313	347.98	207.45	7.710
148.00	2.5707	354.17	211.45	7.752	148.00	2.5707	354.17	211.45	7.752
150.00	2.6100	360.39	215.49	7.794	150.00	2.6100	360.39	215.49	7.794
152.00	2.6491	366.63	219.56	7.836	152.00	2.6491	366.63	219.56	7.836
154.00	2.6882	372.90	223.67	7.877	154.00	2.6882	372.90	223.67	7.877
156.00	2.7271	379.20	227.81	7.917	156.00	2.7271	379.20	227.81	7.917
158.00	2.7659	385.53	231.98	7.958	158.00	2.7659	385.53	231.98	7.958
160.00	2.8046	391.89	236.19	7.998	160.00	2.8046	391.89	236.19	7.998
36.00	.2180	-102.73	-114.84	1.790	162.00	2.8432	398.29	240.45	8.037
38.00	.2213	-98.39	-110.67	1.908	164.00	2.8817	404.72	244.74	8.077
40.00	.2249	-93.78	-106.26	2.026	166.00	2.9202	411.18	249.07	8.116
42.00	.2290	-88.88	-101.59	2.145	168.00	2.9585	417.68	253.43	8.155
44.00	.2334	-83.67	-96.62	2.267	170.00	2.9968	424.21	257.84	8.193
46.00	.2384	-78.10	-91.34	2.390	172.00	3.0350	430.78	262.29	8.232
48.00	.2440	-72.14	-85.69	2.517	174.00	3.0731	437.39	266.78	8.270
50.00	.2504	-65.73	-79.63	2.648	176.00	3.1112	444.03	271.31	8.308
52.00	.2579	-58.79	-73.10	2.784	178.00	3.1492	450.70	275.87	8.346
54.00	.2666	-51.23	-66.03	2.927	180.00	3.1871	457.41	280.48	8.383
56.00	.2773	-42.88	-58.28	3.078	182.00	3.2249	464.14	285.11	8.420
58.00	.2910	-33.37	-49.52	3.246	184.00	3.2626	470.90	289.78	8.457
60.00	.3091	-22.70	-39.86	3.428	186.00	3.3002	477.70	294.48	8.494
62.00	.3352	-9.13	-27.73	3.651	188.00	3.3378	484.53	299.23	8.531
64.00	.3814	9.59	-11.58	3.949	190.00	3.3754	491.40	304.02	8.567
66.00	.4830	38.43	11.62	4.392	192.00	3.4128	498.31	308.84	8.603
68.00	.6089	64.37	30.56	4.779	194.00	3.4503	505.25	313.71	8.639
70.00	.7080	81.71	42.41	5.030	196.00	3.4876	512.23	318.61	8.675
72.00	.7909	95.05	51.15	5.218	198.00	3.5250	519.25	323.56	8.710
74.00	.8644	106.33	58.35	5.373	200.00	3.5622	526.30	328.54	8.746
76.00	.9319	116.38	64.64	5.507	202.00	3.5995	533.39	333.56	8.781
78.00	.9951	125.59	70.35	5.627	204.00	3.6366	540.51	338.62	8.816
80.00	1.0550	134.22	75.65	5.736	206.00	3.6738	547.67	343.71	8.851
82.00	1.1124	142.40	80.65	5.837	208.00	3.7109	554.86	348.84	8.886
84.00	1.1678	150.24	85.41	5.931	210.00	3.7480	562.08	354.01	8.920
86.00	1.2214	157.81	90.00	6.020	212.00	3.7850	569.34	359.21	8.955
88.00	1.2736	165.15	94.44	6.105	214.00	3.8220	576.62	364.44	8.989
90.00	1.3245	172.30	98.77	6.185	216.00	3.8590	583.94	369.71	9.023
92.00	1.3744	179.29	102.99	6.262	218.00	3.8959	591.29	375.00	9.057
94.00	1.4233	186.15	107.14	6.336	220.00	3.9329	598.66	380.33	9.091
96.00	1.4713	192.89	111.21	6.407	222.00	3.9698	606.07	385.68	9.124
98.00	1.5186	199.53	115.23	6.475	224.00	4.0066	613.50	391.07	9.157
100.00	1.5651	206.08	119.19	6.541	226.00	4.0435	620.96	396.48	9.191
102.00	1.6111	212.56	123.12	6.605	228.00	4.0803	628.44	401.92	9.224
104.00	1.6564	218.96	127.01	6.668	230.00	4.1171	635.95	407.39	9.256
106.00	1.7013	225.31	130.86	6.728	232.00	4.1538	643.49	412.89	9.289
108.00	1.7457	231.61	134.70	6.787	234.00	4.1906	651.05	418.41	9.321
110.00	1.7896	237.86	138.51	6.844	236.00	4.2273	658.64	423.95	9.354
112.00	1.8331	244.07	142.31	6.900	238.00	4.2640	666.24	429.52	9.386
114.00	1.8763	250.25	146.09	6.955	240.00	4.3007	673.87	435.12	9.418
116.00	1.9191	256.41	149.87	7.008	242.00	4.3374	681.53	440.73	9.450
118.00	1.9615	262.53	153.64	7.061	244.00	4.3741	689.20	446.37	9.481
120.00	2.0037	268.65	157.41	7.112	246.00	4.4107	696.89	452.03	9.512
					248.00	4.4473	704.60	457.70	9.544
					250.00	4.4839	712.33	463.40	9.575
					252.00	4.5205	720.08	469.12	9.606
					254.00	4.5571	727.84	474.85	9.636
					256.00	4.5936	735.62	480.60	9.667
					258.00	4.6302	743.41	486.37	9.697
					260.00	4.6667	751.22	492.15	9.727

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	4.7032	759.04	497.94	9.757	402.00	7.2303	1305.10	903.70	11.429
264.00	4.7397	766.88	503.75	9.787	404.00	7.2662	1312.65	909.26	11.448
266.00	4.7761	774.73	509.57	9.817	406.00	7.3020	1320.19	914.81	11.467
268.00	4.8126	782.58	515.41	9.846	408.00	7.3379	1327.72	920.35	11.485
270.00	4.8490	790.45	521.25	9.875	410.00	7.3738	1335.25	925.89	11.504
272.00	4.8854	798.30	527.08	9.904	412.00	7.4096	1342.76	931.41	11.522
274.00	4.9218	806.16	532.92	9.933	414.00	7.4454	1350.27	936.93	11.540
276.00	4.9582	814.03	538.77	9.962	416.00	7.4813	1357.77	942.44	11.558
278.00	4.9946	821.90	544.62	9.990	418.00	7.5171	1365.26	947.94	11.576
280.00	5.0310	829.78	550.49	10.018	420.00	7.5529	1372.75	953.44	11.594
282.00	5.0673	837.67	556.35	10.046	422.00	7.5888	1380.22	958.92	11.612
284.00	5.1036	845.56	562.23	10.074	424.00	7.6246	1387.68	964.40	11.629
286.00	5.1400	853.45	568.10	10.102	426.00	7.6604	1395.14	969.86	11.647
288.00	5.1762	861.35	573.99	10.130	428.00	7.6962	1402.59	975.32	11.664
290.00	5.2125	869.25	579.87	10.157	430.00	7.7320	1410.02	980.77	11.682
292.00	5.2488	877.15	585.76	10.184	432.00	7.7678	1417.45	986.22	11.699
294.00	5.2851	885.06	591.65	10.211	434.00	7.8036	1424.87	991.65	11.716
296.00	5.3213	892.96	597.55	10.238	436.00	7.8394	1432.28	997.07	11.733
298.00	5.3575	900.87	603.44	10.264	438.00	7.8752	1439.69	1002.49	11.750
300.00	5.3938	908.78	609.34	10.291	440.00	7.9109	1447.08	1007.90	11.767
302.00	5.4300	916.69	615.24	10.317	442.00	7.9467	1454.47	1013.30	11.784
304.00	5.4662	924.60	621.14	10.343	444.00	7.9824	1461.84	1018.69	11.800
306.00	5.5023	932.51	627.04	10.369	446.00	8.0182	1469.21	1024.07	11.817
308.00	5.5385	940.41	632.94	10.395	448.00	8.0539	1476.57	1029.45	11.833
310.00	5.5747	948.32	638.83	10.421	450.00	8.0897	1483.92	1034.82	11.850
312.00	5.6108	956.22	644.73	10.446	452.00	8.1254	1491.28	1040.19	11.866
314.00	5.6470	964.12	650.62	10.471	454.00	8.1611	1498.64	1045.56	11.882
316.00	5.6831	972.02	656.51	10.496	456.00	8.1968	1505.98	1050.93	11.898
318.00	5.7192	979.91	662.40	10.521	458.00	8.2325	1513.32	1056.28	11.914
320.00	5.7553	987.80	668.29	10.546	460.00	8.2682	1520.64	1061.63	11.930
322.00	5.7914	995.69	674.17	10.570	462.00	8.3039	1527.97	1066.97	11.946
324.00	5.8275	1003.57	680.05	10.595	464.00	8.3396	1535.28	1072.30	11.962
326.00	5.8636	1011.45	685.92	10.619	466.00	8.3753	1542.59	1077.62	11.978
328.00	5.8997	1019.32	691.79	10.643	468.00	8.4110	1549.88	1082.94	11.993
330.00	5.9358	1027.19	697.66	10.667	470.00	8.4467	1557.17	1088.25	12.009
332.00	5.9718	1035.05	703.52	10.691	472.00	8.4823	1564.46	1093.55	12.024
334.00	6.0079	1042.91	709.37	10.714	474.00	8.5180	1571.74	1098.85	12.040
336.00	6.0440	1050.76	715.22	10.738	476.00	8.5537	1579.01	1104.14	12.055
338.00	6.0800	1058.60	721.06	10.761	478.00	8.5893	1586.27	1109.43	12.070
340.00	6.1160	1066.44	726.90	10.784	480.00	8.6250	1593.53	1114.70	12.086
342.00	6.1521	1074.27	732.73	10.807	482.00	8.6607	1600.78	1119.97	12.101
344.00	6.1881	1082.09	738.55	10.830	484.00	8.6963	1608.02	1125.24	12.116
346.00	6.2241	1089.90	744.36	10.853	486.00	8.7320	1615.26	1130.50	12.131
348.00	6.2602	1097.71	750.17	10.875	488.00	8.7676	1622.50	1135.75	12.145
350.00	6.2962	1105.51	755.97	10.898	490.00	8.8033	1629.72	1141.00	12.160
352.00	6.3322	1113.30	761.77	10.920	492.00	8.8390	1636.94	1146.24	12.175
354.00	6.3682	1121.09	767.55	10.942	494.00	8.8746	1644.16	1151.48	12.189
356.00	6.4042	1128.86	773.33	10.964	496.00	8.9103	1651.37	1156.71	12.204
358.00	6.4402	1136.63	779.10	10.985	498.00	8.9460	1658.58	1161.94	12.219
360.00	6.4762	1144.39	784.86	11.007	500.00	8.9816	1665.78	1167.16	12.233
362.00	6.5121	1152.13	790.60	11.028	502.00	9.0173	1672.98	1172.38	12.247
364.00	6.5481	1159.87	796.34	11.050	504.00	9.0530	1680.17	1177.59	12.262
366.00	6.5840	1167.59	802.07	11.071	506.00	9.0887	1687.36	1182.79	12.276
368.00	6.6200	1175.31	807.80	11.092	508.00	9.1244	1694.55	1188.00	12.290
370.00	6.6559	1183.02	813.51	11.113	510.00	9.1601	1701.73	1193.20	12.304
372.00	6.6919	1190.72	819.21	11.134	512.00	9.1958	1708.90	1198.39	12.318
374.00	6.7278	1198.41	824.91	11.154	514.00	9.2315	1716.08	1203.58	12.332
376.00	6.7637	1206.09	830.60	11.175	516.00	9.2672	1723.25	1208.77	12.346
378.00	6.7996	1213.76	836.27	11.195	518.00	9.3030	1730.41	1213.95	12.360
380.00	6.8355	1221.42	841.94	11.215	520.00	9.3387	1737.58	1219.13	12.374
382.00	6.8715	1229.08	847.60	11.235	522.00	9.3745	1744.73	1224.30	12.388
384.00	6.9074	1236.72	853.25	11.255	524.00	9.4102	1751.89	1229.47	12.401
386.00	6.9433	1244.35	858.89	11.275	526.00	9.4460	1759.04	1234.64	12.415
388.00	6.9792	1251.98	864.53	11.295	528.00	9.4817	1766.19	1239.81	12.428
390.00	7.0151	1259.60	870.15	11.314	530.00	9.5175	1773.34	1244.97	12.442
392.00	7.0509	1267.20	875.76	11.334	532.00	9.5533	1780.48	1250.12	12.455
394.00	7.0868	1274.80	881.37	11.353	534.00	9.5890	1787.62	1255.28	12.469
396.00	7.1227	1282.39	886.96	11.372	536.00	9.6248	1794.76	1260.42	12.482
398.00	7.1586	1289.97	892.55	11.392	538.00	9.6606	1801.89	1265.57	12.495
400.00	7.1945	1297.54	898.13	11.411	540.00	9.6964	1809.02	1270.71	12.509

350.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
36.00	.2169	-101.24	-115.29	1.776	122.00	1.7400	270.14	157.45	6.982
38.00	.2201	-96.94	-111.20	1.892	124.00	1.7764	276.38	161.32	7.033
40.00	.2236	-92.39	-106.88	2.009	126.00	1.8126	282.59	165.19	7.082
42.00	.2274	-87.57	-102.30	2.126	128.00	1.8486	288.80	169.07	7.131
44.00	.2317	-82.45	-97.45	2.245	130.00	1.8844	295.00	172.96	7.179
46.00	.2364	-76.99	-92.30	2.367	132.00	1.9199	301.20	176.85	7.227
48.00	.2416	-71.18	-86.83	2.490	134.00	1.9553	307.40	180.76	7.273
50.00	.2475	-64.95	-80.98	2.617	136.00	1.9905	313.61	184.69	7.319
52.00	.2543	-58.25	-74.72	2.749	138.00	2.0255	319.82	188.63	7.364
54.00	.2621	-51.04	-68.01	2.885	140.00	2.0603	326.03	192.59	7.409
56.00	.2714	-43.19	-60.77	3.028	142.00	2.0950	332.27	196.58	7.453
58.00	.2827	-34.46	-52.77	3.181	144.00	2.1296	338.51	200.58	7.497
60.00	.2975	-24.92	-44.19	3.344	146.00	2.1640	344.77	204.62	7.540
62.00	.3159	-13.65	-34.11	3.530	148.00	2.1982	351.06	208.68	7.583
64.00	.3418	-1.19	-22.33	3.744	150.00	2.2324	357.36	212.77	7.625
66.00	.3821	16.71	-8.04	4.003	152.00	2.2664	363.69	216.90	7.667
68.00	.4468	37.78	8.84	4.317	154.00	2.3003	370.04	221.05	7.709
70.00	.5288	58.92	24.67	4.624	156.00	2.3341	376.41	225.24	7.750
72.00	.6073	76.04	36.71	4.865	158.00	2.3678	382.82	229.46	7.791
74.00	.6775	89.95	46.07	5.056	160.00	2.4014	389.25	233.72	7.831
76.00	.7413	101.86	53.85	5.215	162.00	2.4349	395.72	238.02	7.871
78.00	.8003	112.47	60.64	5.352	164.00	2.4683	402.21	242.35	7.911
80.00	.8558	122.19	66.76	5.476	166.00	2.5016	408.74	246.72	7.951
82.00	.9086	131.27	72.42	5.588	168.00	2.5348	415.30	251.13	7.990
84.00	.9592	139.85	77.73	5.691	170.00	2.5680	421.90	255.58	8.029
86.00	1.0079	148.06	82.77	5.788	172.00	2.6010	428.53	260.06	8.068
88.00	1.0551	155.95	87.61	5.878	174.00	2.6341	435.19	264.59	8.106
90.00	1.1010	163.59	92.28	5.964	176.00	2.6670	441.89	269.15	8.145
92.00	1.1458	171.02	96.81	6.046	178.00	2.6999	448.62	273.75	8.183
94.00	1.1896	178.28	101.23	6.124	180.00	2.7327	455.38	278.39	8.220
96.00	1.2326	185.38	105.55	6.199	182.00	2.7654	462.16	283.05	8.258
98.00	1.2747	192.35	109.79	6.270	184.00	2.7980	468.97	287.75	8.295
100.00	1.3161	199.20	113.96	6.340	186.00	2.8305	475.81	292.48	8.332
102.00	1.3569	205.96	118.07	6.407	188.00	2.8630	482.69	297.26	8.369
104.00	1.3972	212.63	122.13	6.471	190.00	2.8955	489.61	302.07	8.405
106.00	1.4369	219.22	126.15	6.534	192.00	2.9279	496.56	306.92	8.442
108.00	1.4761	225.74	130.14	6.595	194.00	2.9603	503.54	311.81	8.478
110.00	1.5149	232.21	134.09	6.654	196.00	2.9926	510.56	316.74	8.514
112.00	1.5533	238.62	138.02	6.712	198.00	3.0248	517.62	321.71	8.550
114.00	1.5912	244.99	141.93	6.769	200.00	3.0570	524.71	326.71	8.585
116.00	1.6289	251.32	145.82	6.824	202.00	3.0892	531.83	331.75	8.621
118.00	1.6662	257.62	149.71	6.878	204.00	3.1213	538.99	336.83	8.656
120.00	1.7032	263.90	153.58	6.930	206.00	3.1534	546.18	341.94	8.691
202.00	3.4082	531.83	331.75	8.621	204.00	3.1855	553.41	347.09	8.726
206.00	3.4724	560.67	352.28	8.761	208.00	3.2175	567.96	357.50	8.795
210.00	3.4724	567.96	357.50	8.795	212.00	3.2494	575.28	362.75	8.830
214.00	3.4724	582.63	368.03	8.864	216.00	3.3133	582.63	368.03	8.864
218.00	3.4724	590.01	373.34	8.898	220.00	3.3452	597.41	378.69	8.932
222.00	3.4088	604.84	384.06	8.965	224.00	3.4406	612.30	389.46	8.999
226.00	3.4724	619.79	394.89	9.032	228.00	3.5041	627.30	400.35	9.065
230.00	3.5359	634.84	405.83	9.098	232.00	3.5676	642.41	411.34	9.131
234.00	3.5992	649.99	416.88	9.163	236.00	3.6309	657.60	422.44	9.196
238.00	3.6625	665.23	428.02	9.228	240.00	3.6941	672.89	433.63	9.260
242.00	3.7257	680.56	439.26	9.292	244.00	3.7573	688.26	444.91	9.324
246.00	3.7888	695.97	450.58	9.355	250.00	3.8204	703.71	456.27	9.386
252.00	3.8834	719.23	467.71	9.448	254.00	3.9148	727.01	473.45	9.479
256.00	3.9463	734.81	479.21	9.510	258.00	3.9777	742.62	484.99	9.540
260.00	4.0092	750.45	490.78	9.570					

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	4.0406	758.29	496.59	9.600	402.00	6.2122	1305.26	902.90	11.275
264.00	4.0720	766.15	502.41	9.630	404.00	6.2430	1312.82	908.47	11.294
266.00	4.1033	774.01	508.24	9.660	406.00	6.2738	1320.37	914.02	11.313
268.00	4.1347	781.89	514.09	9.689	408.00	6.3046	1327.91	919.57	11.331
270.00	4.1661	789.77	519.95	9.719	410.00	6.3353	1335.44	925.11	11.350
272.00	4.1974	797.64	525.79	9.748	412.00	6.3661	1342.96	930.64	11.368
274.00	4.2287	805.52	531.64	9.777	414.00	6.3969	1350.48	936.16	11.386
276.00	4.2600	813.41	537.49	9.805	416.00	6.4276	1357.99	941.68	11.404
278.00	4.2913	821.30	543.36	9.834	418.00	6.4584	1365.49	947.19	11.422
280.00	4.3226	829.19	549.23	9.862	420.00	6.4891	1372.98	952.69	11.440
282.00	4.3538	837.09	555.10	9.890	422.00	6.5199	1380.46	958.18	11.458
284.00	4.3851	845.00	560.99	9.918	424.00	6.5506	1387.93	963.66	11.476
286.00	4.4163	852.91	566.87	9.946	426.00	6.5814	1395.39	969.13	11.493
288.00	4.4475	860.82	572.77	9.974	428.00	6.6121	1402.85	974.59	11.511
290.00	4.4787	868.74	578.66	10.001	430.00	6.6428	1410.29	980.05	11.528
292.00	4.5099	876.66	584.56	10.028	432.00	6.6735	1417.73	985.50	11.545
294.00	4.5411	884.58	590.46	10.055	434.00	6.7043	1425.16	990.93	11.562
296.00	4.5723	892.50	596.36	10.082	436.00	6.7350	1432.58	996.36	11.580
298.00	4.6034	900.42	602.27	10.109	438.00	6.7657	1439.99	1001.79	11.596
300.00	4.6346	908.35	608.18	10.135	440.00	6.7964	1447.39	1007.20	11.613
302.00	4.6657	916.27	614.08	10.162	442.00	6.8271	1454.78	1012.60	11.630
304.00	4.6968	924.19	619.99	10.188	444.00	6.8578	1462.17	1018.00	11.647
306.00	4.7279	932.12	625.90	10.214	446.00	6.8884	1469.54	1023.39	11.663
308.00	4.7590	940.04	631.80	10.239	448.00	6.9191	1476.91	1028.77	11.680
310.00	4.7901	947.96	637.71	10.265	450.00	6.9498	1484.27	1034.14	11.696
312.00	4.8212	955.87	643.61	10.291	452.00	6.9804	1491.64	1039.52	11.713
314.00	4.8522	963.79	649.52	10.316	454.00	7.0111	1499.00	1044.90	11.729
316.00	4.8833	971.70	655.41	10.341	456.00	7.0417	1506.35	1050.26	11.745
318.00	4.9143	979.61	661.31	10.366	458.00	7.0724	1513.69	1055.62	11.761
320.00	4.9454	987.51	667.21	10.391	460.00	7.1030	1521.03	1060.97	11.777
322.00	4.9764	995.41	673.10	10.415	462.00	7.1337	1528.35	1066.32	11.793
324.00	5.0074	1003.31	678.98	10.440	464.00	7.1643	1535.68	1071.65	11.809
326.00	5.0384	1011.20	684.87	10.464	466.00	7.1949	1542.99	1076.98	11.824
328.00	5.0694	1019.08	690.74	10.488	468.00	7.2255	1550.29	1082.31	11.840
330.00	5.1004	1026.96	696.62	10.512	470.00	7.2562	1557.59	1087.62	11.856
332.00	5.1314	1034.84	702.48	10.536	472.00	7.2868	1564.88	1092.93	11.871
334.00	5.1624	1042.71	708.35	10.559	474.00	7.3174	1572.16	1098.23	11.887
336.00	5.1934	1050.57	714.20	10.583	476.00	7.3480	1579.44	1103.52	11.902
338.00	5.2244	1058.43	720.05	10.606	478.00	7.3786	1586.71	1108.81	11.917
340.00	5.2553	1066.28	725.90	10.629	480.00	7.4092	1593.97	1114.09	11.932
342.00	5.2863	1074.12	731.73	10.652	482.00	7.4398	1601.23	1119.37	11.947
344.00	5.3172	1081.95	737.56	10.675	484.00	7.4704	1608.48	1124.63	11.962
346.00	5.3482	1089.78	743.39	10.698	486.00	7.5010	1615.73	1129.90	11.977
348.00	5.3791	1097.60	749.20	10.720	488.00	7.5316	1622.96	1135.15	11.992
350.00	5.4100	1105.41	755.01	10.743	490.00	7.5622	1630.20	1140.40	12.007
352.00	5.4410	1113.21	760.81	10.765	492.00	7.5928	1637.42	1145.65	12.022
354.00	5.4719	1121.01	766.60	10.787	494.00	7.6234	1644.65	1150.89	12.036
356.00	5.5028	1128.80	772.39	10.809	496.00	7.6540	1651.86	1156.12	12.051
358.00	5.5337	1136.57	778.16	10.831	498.00	7.6846	1659.07	1161.35	12.065
360.00	5.5646	1144.34	783.93	10.853	500.00	7.7152	1666.28	1166.58	12.080
362.00	5.5955	1152.10	789.69	10.874	502.00	7.7459	1673.48	1171.80	12.094
364.00	5.6264	1159.84	795.43	10.895	504.00	7.7765	1680.68	1177.01	12.108
366.00	5.6573	1167.58	801.17	10.917	506.00	7.8071	1687.87	1182.22	12.123
368.00	5.6881	1175.31	806.90	10.938	508.00	7.8377	1695.06	1187.43	12.137
370.00	5.7190	1183.03	812.62	10.959	510.00	7.8683	1702.25	1192.63	12.151
372.00	5.7499	1190.74	818.33	10.979	512.00	7.8990	1709.43	1197.82	12.165
374.00	5.7807	1198.44	824.03	11.000	514.00	7.9296	1716.61	1203.02	12.179
376.00	5.8116	1206.13	829.72	11.020	516.00	7.9603	1723.78	1208.21	12.193
378.00	5.8424	1213.81	835.41	11.041	518.00	7.9909	1730.95	1213.39	12.207
380.00	5.8732	1221.48	841.08	11.061	520.00	8.0216	1738.12	1218.57	12.221
382.00	5.9041	1229.14	846.75	11.081	522.00	8.0522	1745.28	1223.75	12.234
384.00	5.9349	1236.80	852.40	11.101	524.00	8.0829	1752.44	1228.92	12.248
386.00	5.9657	1244.44	858.05	11.121	526.00	8.1135	1759.59	1234.09	12.262
388.00	5.9966	1252.08	863.69	11.141	528.00	8.1442	1766.75	1239.26	12.275
390.00	6.0274	1259.70	869.32	11.160	530.00	8.1749	1773.89	1244.42	12.289
392.00	6.0582	1267.32	874.94	11.180	532.00	8.2055	1781.04	1249.58	12.302
394.00	6.0890	1274.92	880.55	11.199	534.00	8.2362	1788.18	1254.73	12.316
396.00	6.1198	1282.52	886.15	11.218	536.00	8.2669	1795.32	1259.89	12.329
398.00	6.1506	1290.11	891.74	11.238	538.00	8.2976	1802.46	1265.04	12.342
400.00	6.1814	1297.69	897.33	11.257	540.00	8.3282	1809.59	1270.18	12.356

400.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)
122.00	1.5119	265.64	153.73	6.822	142.00	1.8280	328.95	193.64	7.303
124.00	1.5444	272.01	157.69	6.874	144.00	1.8587	335.29	197.71	7.347
126.00	1.5767	278.37	161.66	6.925	146.00	1.8892	341.64	201.80	7.391
128.00	1.6088	284.71	165.62	6.975	148.00	1.9196	348.01	205.92	7.434
130.00	1.6407	291.04	169.59	7.024	150.00	1.9499	354.40	210.07	7.477
132.00	1.6724	297.36	173.57	7.072	152.00	1.9800	360.81	214.24	7.519
134.00	1.7038	303.67	177.55	7.119	154.00	2.0101	367.24	218.45	7.561
136.00	1.7351	309.98	181.55	7.166	156.00	2.0400	373.69	222.69	7.603
138.00	1.7663	316.30	185.56	7.212	158.00	2.0698	380.17	226.96	7.644
140.00	1.7972	322.62	189.59	7.258	160.00	2.0996	386.68	231.26	7.685
36.00	.2159	-99.74	-115.72	1.762	162.00	2.1292	393.21	235.60	7.726
38.00	.2190	-95.49	-111.70	1.877	164.00	2.1588	399.77	239.98	7.766
40.00	.2223	-90.99	-107.45	1.992	166.00	2.1882	406.36	244.39	7.806
					168.00	2.2176	412.99	248.84	7.846
					170.00	2.2469	419.64	253.33	7.885
					172.00	2.2761	426.33	257.85	7.924
					174.00	2.3053	433.05	262.41	7.963
					176.00	2.3344	439.80	267.01	8.002
					178.00	2.3634	446.58	271.64	8.040
					180.00	2.3924	453.40	276.31	8.078
42.00	.2260	-86.24	-102.96	2.108	182.00	2.4212	460.23	281.01	8.116
44.00	.2300	-81.19	-98.22	2.225	184.00	2.4500	467.09	285.74	8.153
46.00	.2345	-75.84	-93.19	2.344	186.00	2.4787	473.98	290.50	8.190
48.00	.2394	-70.15	-87.87	2.465	188.00	2.5074	480.90	295.30	8.227
50.00	.2449	-64.07	-82.20	2.589	190.00	2.5360	487.86	300.14	8.264
52.00	.2511	-57.58	-76.17	2.717	192.00	2.5646	494.85	305.02	8.301
54.00	.2582	-50.64	-69.75	2.848	194.00	2.5931	501.88	309.94	8.337
56.00	.2664	-43.16	-62.89	2.984	196.00	2.6216	508.94	314.89	8.374
58.00	.2762	-34.97	-55.41	3.128	198.00	2.6500	516.04	319.88	8.410
60.00	.2888	-26.16	-47.54	3.278	200.00	2.6784	523.17	324.91	8.445
62.00	.3033	-16.12	-38.57	3.444	202.00	2.7067	530.33	329.97	8.481
64.00	.3220	-4.76	-28.59	3.625	204.00	2.7350	537.52	335.07	8.516
66.00	.3471	8.38	-17.31	3.826	206.00	2.7633	544.75	340.21	8.552
68.00	.3822	23.73	-4.57	4.055	208.00	2.7915	552.01	345.38	8.587
70.00	.4304	41.05	9.19	4.306	210.00	2.8197	559.30	350.58	8.622
72.00	.4886	58.35	22.18	4.550	212.00	2.8478	566.62	355.82	8.656
74.00	.5486	73.88	33.27	4.762	214.00	2.8759	573.97	361.09	8.691
76.00	.6061	87.41	42.55	4.943	216.00	2.9040	581.36	366.40	8.725
78.00	.6603	99.38	50.50	5.098	218.00	2.9321	588.76	371.73	8.759
80.00	.7114	110.20	57.54	5.235	220.00	2.9601	596.20	377.08	8.793
82.00	.7599	120.18	63.93	5.359	222.00	2.9881	603.66	382.47	8.827
84.00	.8064	129.52	69.83	5.471	224.00	3.0161	611.14	387.89	8.861
86.00	.8510	138.37	75.38	5.575	226.00	3.0440	618.66	393.34	8.894
88.00	.8942	146.83	80.64	5.673	228.00	3.0719	626.20	398.81	8.927
90.00	.9361	154.97	85.68	5.764	230.00	3.0998	633.76	404.31	8.960
92.00	.9769	162.84	90.53	5.851	232.00	3.1277	641.35	409.83	8.993
94.00	1.0167	170.49	95.24	5.933	234.00	3.1556	648.96	415.38	9.026
96.00	1.0556	177.96	99.82	6.011	236.00	3.1834	656.60	420.96	9.058
98.00	1.0938	185.26	104.29	6.087	238.00	3.2112	664.25	426.56	9.091
100.00	1.1313	192.42	108.68	6.159	240.00	3.2390	671.93	432.18	9.123
102.00	1.1681	199.45	112.99	6.229	242.00	3.2667	679.63	437.82	9.155
104.00	1.2044	206.38	117.23	6.296	244.00	3.2945	687.34	443.48	9.186
106.00	1.2402	213.22	121.42	6.361	246.00	3.3222	695.08	449.17	9.218
108.00	1.2755	219.97	125.56	6.424	248.00	3.3499	702.84	454.87	9.249
110.00	1.3103	226.65	129.66	6.485	250.00	3.3776	710.61	460.59	9.281
112.00	1.3447	233.26	133.72	6.545	252.00	3.4053	718.40	466.33	9.312
114.00	1.3788	239.82	137.76	6.603	254.00	3.4330	726.20	472.09	9.342
116.00	1.4125	246.33	141.77	6.660	256.00	3.4606	734.02	477.86	9.373
118.00	1.4459	252.80	145.77	6.715	258.00	3.4882	741.86	483.65	9.404
120.00	1.4790	259.23	149.75	6.769	260.00	3.5158	749.70	489.46	9.434

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)
262.00	3.5434	757.56	495.28	9.464	402.00	5.4483	1305.43	902.14	11.142
264.00	3.5710	765.44	501.11	9.494	404.00	5.4753	1313.00	907.71	11.161
266.00	3.5986	773.32	506.95	9.524	406.00	5.5023	1320.56	913.27	11.179
268.00	3.6261	781.22	512.81	9.553	408.00	5.5292	1328.11	918.83	11.198
270.00	3.6536	789.12	518.67	9.583	410.00	5.5562	1335.65	924.37	11.216
272.00	3.6812	797.01	524.53	9.612	412.00	5.5832	1343.18	929.91	11.235
274.00	3.7087	804.91	530.39	9.641	414.00	5.6101	1350.70	935.43	11.253
276.00	3.7362	812.81	536.25	9.669	416.00	5.6371	1358.22	940.96	11.271
278.00	3.7636	820.72	542.13	9.698	418.00	5.6640	1365.73	946.47	11.289
280.00	3.7911	828.63	548.01	9.726	420.00	5.6910	1373.22	951.97	11.307
282.00	3.8185	836.55	553.90	9.755	422.00	5.7179	1380.71	957.47	11.325
284.00	3.8460	844.47	559.79	9.783	424.00	5.7448	1388.19	962.95	11.342
286.00	3.8734	852.40	565.69	9.810	426.00	5.7718	1395.67	968.43	11.360
288.00	3.9008	860.33	571.59	9.838	428.00	5.7987	1403.13	973.90	11.377
290.00	3.9282	868.26	577.49	9.865	430.00	5.8256	1410.58	979.36	11.395
292.00	3.9556	876.19	583.40	9.893	432.00	5.8525	1418.03	984.81	11.412
294.00	3.9829	884.13	589.31	9.920	434.00	5.8794	1425.46	990.26	11.429
296.00	4.0103	892.07	595.22	9.947	436.00	5.9063	1432.89	995.69	11.446
298.00	4.0376	900.01	601.14	9.973	438.00	5.9332	1440.30	1001.12	11.463
300.00	4.0649	907.95	607.05	10.000	440.00	5.9601	1447.71	1006.54	11.480
302.00	4.0923	915.88	612.97	10.026	442.00	5.9870	1455.11	1011.95	11.497
304.00	4.1196	923.82	618.89	10.053	444.00	6.0139	1462.51	1017.35	11.514
306.00	4.1469	931.76	624.80	10.079	446.00	6.0408	1469.89	1022.74	11.530
308.00	4.1741	939.69	630.72	10.104	448.00	6.0677	1477.26	1028.13	11.547
310.00	4.2014	947.63	636.63	10.130	450.00	6.0945	1484.63	1033.51	11.563
312.00	4.2287	955.56	642.55	10.156	452.00	6.1214	1492.00	1038.89	11.579
314.00	4.2559	963.49	648.46	10.181	454.00	6.1482	1499.37	1044.27	11.596
316.00	4.2832	971.41	654.36	10.206	456.00	6.1751	1506.73	1049.64	11.612
318.00	4.3104	979.33	660.27	10.231	458.00	6.2019	1514.08	1055.00	11.628
320.00	4.3376	987.25	666.17	10.256	460.00	6.2288	1521.42	1060.36	11.644
322.00	4.3649	995.16	672.07	10.281	462.00	6.2556	1528.76	1065.71	11.660
324.00	4.3921	1003.07	677.97	10.305	464.00	6.2825	1536.08	1071.05	11.676
326.00	4.4193	1010.98	683.86	10.329	466.00	6.3093	1543.40	1076.38	11.691
328.00	4.4465	1018.87	689.74	10.353	468.00	6.3361	1550.71	1081.71	11.707
330.00	4.4737	1026.77	695.62	10.377	470.00	6.3629	1558.02	1087.03	11.723
332.00	4.5008	1034.65	701.50	10.401	472.00	6.3898	1565.31	1092.34	11.738
334.00	4.5280	1042.54	707.37	10.425	474.00	6.4166	1572.60	1097.64	11.754
336.00	4.5552	1050.41	713.23	10.448	476.00	6.4434	1579.89	1102.94	11.769
338.00	4.5823	1058.28	719.09	10.472	478.00	6.4702	1587.16	1108.23	11.784
340.00	4.6095	1066.14	724.94	10.495	480.00	6.4970	1594.43	1113.51	11.799
342.00	4.6366	1073.99	730.78	10.518	482.00	6.5238	1601.69	1118.79	11.814
344.00	4.6638	1081.84	736.62	10.541	484.00	6.5506	1608.95	1124.06	11.829
346.00	4.6909	1089.68	742.45	10.564	486.00	6.5774	1616.20	1129.33	11.844
348.00	4.7180	1097.51	748.27	10.586	488.00	6.6042	1623.44	1134.59	11.859
350.00	4.7452	1105.33	754.09	10.609	490.00	6.6310	1630.68	1139.84	11.874
352.00	4.7723	1113.14	759.90	10.631	492.00	6.6579	1637.91	1145.09	11.889
354.00	4.7994	1120.95	765.69	10.653	494.00	6.6847	1645.14	1150.33	11.903
356.00	4.8265	1128.75	771.49	10.675	496.00	6.7115	1652.36	1155.57	11.918
358.00	4.8536	1136.54	777.27	10.697	498.00	6.7383	1659.58	1160.80	11.933
360.00	4.8807	1144.32	783.04	10.718	500.00	6.7651	1666.79	1166.03	11.947
362.00	4.9078	1152.08	788.80	10.740	502.00	6.7919	1674.00	1171.25	11.961
364.00	4.9348	1159.84	794.56	10.761	504.00	6.8187	1681.20	1176.47	11.976
366.00	4.9619	1167.59	800.30	10.783	506.00	6.8455	1688.40	1181.68	11.990
368.00	4.9890	1175.32	806.04	10.804	508.00	6.8723	1695.59	1186.89	12.004
370.00	5.0160	1183.05	811.76	10.825	510.00	6.8992	1702.78	1192.09	12.018
372.00	5.0431	1190.77	817.48	10.845	512.00	6.9260	1709.96	1197.29	12.032
374.00	5.0701	1198.48	823.19	10.866	514.00	6.9528	1717.14	1202.49	12.046
376.00	5.0972	1206.18	828.88	10.887	516.00	6.9797	1724.32	1207.68	12.060
378.00	5.1242	1213.87	834.57	10.907	518.00	7.0065	1731.50	1212.87	12.074
380.00	5.1512	1221.56	840.26	10.927	520.00	7.0333	1738.67	1218.05	12.088
382.00	5.1783	1229.23	845.93	10.947	522.00	7.0602	1745.83	1223.23	12.102
384.00	5.2053	1236.89	851.59	10.967	524.00	7.0870	1752.99	1228.41	12.115
386.00	5.2323	1244.54	857.24	10.987	526.00	7.1138	1760.15	1233.58	12.129
388.00	5.2593	1252.19	862.89	11.007	528.00	7.1407	1767.31	1238.75	12.143
390.00	5.2863	1259.82	868.52	11.027	530.00	7.1675	1774.46	1243.91	12.156
392.00	5.3133	1267.45	874.15	11.046	532.00	7.1944	1781.61	1249.07	12.170
394.00	5.3403	1275.06	879.76	11.066	534.00	7.2212	1788.76	1254.23	12.183
396.00	5.3673	1282.67	885.37	11.085	536.00	7.2481	1795.90	1259.39	12.196
398.00	5.3943	1290.26	890.97	11.104	538.00	7.2749	1803.04	1264.54	12.210
400.00	5.4213	1297.85	896.56	11.123	540.00	7.3018	1810.17	1269.68	12.223

450.00 PSIA ISO8AR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8-R)	ENTROPY (BTU/L8)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8-R)	ENTROPY (BTU/L8)
36.00	.2149	-98.23	-116.12	1.749	122.00	1.3355	261.23	150.01	6.678
38.00	.2179	-94.02	-112.16	1.862	124.00	1.3650	267.75	154.08	6.731
40.00	.2211	-89.58	-107.99	1.976	126.00	1.3943	274.24	158.13	6.783
42.00	.2246	-84.88	-103.59	2.091	128.00	1.4233	280.71	162.19	6.834
44.00	.2285	-79.91	-98.94	2.206	130.00	1.4521	287.16	166.24	6.884
46.00	.2327	-74.65	-94.02	2.323	132.00	1.4807	293.60	170.29	6.933
48.00	.2373	-69.06	-88.83	2.442	134.00	1.5091	300.02	174.35	6.982
50.00	.2425	-63.12	-83.32	2.563	136.00	1.5374	306.45	178.43	7.029
52.00	.2483	-56.80	-77.48	2.687	138.00	1.5654	312.87	182.51	7.076
54.00	.2548	-50.08	-71.29	2.814	140.00	1.5934	319.29	186.60	7.122
56.00	.2622	-42.90	-64.73	2.945	142.00	1.6211	325.71	190.72	7.168
58.00	.2708	-35.11	-57.66	3.082	144.00	1.6488	332.15	194.85	7.213
60.00	.2820	-26.82	-50.30	3.223	146.00	1.6762	338.59	199.00	7.257
62.00	.2940	-17.57	-42.05	3.376	148.00	1.7036	345.04	203.18	7.301
64.00	.3088	-7.38	-33.10	3.538	150.00	1.7309	351.51	207.38	7.344
66.00	.3274	3.95	-23.31	3.712	152.00	1.7580	358.00	211.61	7.387
68.00	.3512	16.62	-12.63	3.901	154.00	1.7850	364.51	215.87	7.430
70.00	.3822	30.68	-1.15	4.104	156.00	1.8119	371.04	220.15	7.472
72.00	.4209	45.54	10.49	4.314	158.00	1.8387	377.59	224.47	7.514
74.00	.4657	60.37	21.60	4.517	160.00	1.8654	384.16	228.82	7.555
76.00	.5129	74.32	31.61	4.703	162.00	1.8921	390.76	233.20	7.596
78.00	.5600	87.08	40.45	4.869	164.00	1.9186	397.39	237.62	7.637
80.00	.6057	98.73	48.30	5.016	166.00	1.9450	404.05	242.08	7.677
82.00	.6497	109.48	55.38	5.149	168.00	1.9714	410.73	246.56	7.717
84.00	.6920	119.50	61.88	5.270	170.00	1.9977	417.45	251.09	7.757
86.00	.7329	128.95	67.92	5.381	172.00	2.0239	424.19	255.65	7.796
88.00	.7725	137.94	73.62	5.484	174.00	2.0501	430.97	260.25	7.836
90.00	.8109	146.55	79.03	5.581	176.00	2.0762	437.77	264.88	7.874
92.00	.8482	154.85	84.22	5.672	178.00	2.1022	444.61	269.55	7.913
94.00	.8847	162.89	89.22	5.759	180.00	2.1281	451.47	274.25	7.951
96.00	.9203	170.70	94.07	5.841	182.00	2.1540	458.36	278.98	7.989
98.00	.9552	178.33	98.78	5.920	184.00	2.1798	465.26	283.74	8.027
100.00	.9895	185.78	103.38	5.995	186.00	2.2055	472.20	288.53	8.065
102.00	1.0231	193.09	107.89	6.067	188.00	2.2312	479.17	293.36	8.102
104.00	1.0562	200.27	112.32	6.137	190.00	2.2569	486.17	298.23	8.139
106.00	1.0888	207.35	116.68	6.204	192.00	2.2824	493.20	303.14	8.176
108.00	1.1209	214.32	120.98	6.270	194.00	2.3080	500.27	308.08	8.212
110.00	1.1526	221.21	125.23	6.333	196.00	2.3444	507.37	313.06	8.249
112.00	1.1839	228.02	129.43	6.394	198.00	2.3800	514.50	318.07	8.285
114.00	1.2149	234.76	133.60	6.454	200.00	2.4156	521.70	319.44	8.322
116.00	1.2455	241.45	137.73	6.512	202.00	2.4500	528.00	324.56	8.359
118.00	1.2758	248.09	141.85	6.569	204.00	2.4843	535.28	329.09	8.396
120.00	1.3058	254.68	145.94	6.624	206.00	2.5187	542.50	333.12	8.433

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	3.1570	756.85	493.96	9.343	402.00	4.8543	1305.60	901.37	11.024
264.00	3.1816	764.74	499.80	9.373	404.00	4.8783	1313.18	906.95	11.043
266.00	3.2062	772.65	505.66	9.403	406.00	4.9023	1320.75	912.52	11.061
268.00	3.2308	780.56	511.52	9.433	408.00	4.9263	1328.31	918.08	11.080
270.00	3.2553	788.49	517.40	9.462	410.00	4.9503	1335.86	923.63	11.098
272.00	3.2799	796.39	523.27	9.491	412.00	4.9743	1343.40	929.17	11.117
274.00	3.3044	804.31	529.14	9.520	414.00	4.9983	1350.93	934.70	11.135
276.00	3.3289	812.23	535.02	9.549	416.00	5.0223	1358.46	940.23	11.153
278.00	3.3534	820.15	540.90	9.578	418.00	5.0463	1365.97	945.75	11.171
280.00	3.3779	828.08	546.79	9.606	420.00	5.0703	1373.48	951.26	11.189
282.00	3.4024	836.02	552.69	9.634	422.00	5.0942	1380.98	956.76	11.207
284.00	3.4269	843.96	558.59	9.662	424.00	5.1182	1388.46	962.25	11.224
286.00	3.4513	851.90	564.50	9.690	426.00	5.1422	1395.94	967.73	11.242
288.00	3.4757	859.85	570.41	9.718	428.00	5.1661	1403.41	973.21	11.260
290.00	3.5002	867.80	576.33	9.745	430.00	5.1901	1410.87	978.67	11.277
292.00	3.5246	875.75	582.25	9.773	432.00	5.2141	1418.33	984.13	11.294
294.00	3.5490	883.70	588.17	9.800	434.00	5.2380	1425.77	989.58	11.311
296.00	3.5734	891.66	594.09	9.827	436.00	5.2619	1433.20	995.02	11.328
298.00	3.5977	899.61	600.01	9.854	438.00	5.2859	1440.63	1000.45	11.345
300.00	3.6221	907.56	605.94	9.880	440.00	5.3098	1448.04	1005.87	11.362
302.00	3.6464	915.52	611.86	9.907	442.00	5.3337	1455.45	1011.29	11.379
304.00	3.6708	923.47	617.79	9.933	444.00	5.3577	1462.85	1016.70	11.396
306.00	3.6951	931.42	623.72	9.959	446.00	5.3816	1470.24	1022.09	11.412
308.00	3.7194	939.37	629.64	9.985	448.00	5.4055	1477.62	1027.48	11.429
310.00	3.7437	947.32	635.56	10.011	450.00	5.4294	1484.99	1032.87	11.445
312.00	3.7680	955.26	641.48	10.036	452.00	5.4533	1492.37	1038.26	11.462
314.00	3.7923	963.20	647.40	10.062	454.00	5.4772	1499.75	1043.64	11.478
316.00	3.8166	971.14	653.32	10.087	456.00	5.5011	1507.11	1049.01	11.494
318.00	3.8409	979.08	659.23	10.112	458.00	5.5250	1514.47	1054.38	11.510
320.00	3.8651	987.01	665.14	10.137	460.00	5.5489	1521.82	1059.74	11.526
322.00	3.8894	994.93	671.05	10.161	462.00	5.5728	1529.16	1065.09	11.542
324.00	3.9136	1002.85	676.95	10.186	464.00	5.5967	1536.49	1070.44	11.558
326.00	3.9379	1010.77	682.85	10.210	466.00	5.6205	1543.82	1075.77	11.574
328.00	3.9621	1018.68	688.74	10.234	468.00	5.6444	1551.13	1081.10	11.590
330.00	3.9863	1026.58	694.63	10.258	470.00	5.6683	1558.44	1086.43	11.605
332.00	4.0105	1034.48	700.51	10.282	472.00	5.6921	1565.75	1091.74	11.621
334.00	4.0347	1042.38	706.39	10.306	474.00	5.7160	1573.04	1097.05	11.636
336.00	4.0589	1050.26	712.26	10.330	476.00	5.7399	1580.33	1102.35	11.651
338.00	4.0831	1058.14	718.12	10.353	478.00	5.7637	1587.61	1107.64	11.667
340.00	4.1073	1066.01	723.98	10.376	480.00	5.7876	1594.89	1112.93	11.682
342.00	4.1315	1073.88	729.83	10.399	482.00	5.8114	1602.16	1118.21	11.697
344.00	4.1557	1081.73	735.68	10.422	484.00	5.8353	1609.42	1123.49	11.712
346.00	4.1798	1089.58	741.51	10.445	486.00	5.8592	1616.67	1128.76	11.727
348.00	4.2040	1097.42	747.34	10.467	488.00	5.8830	1623.92	1134.02	11.742
350.00	4.2281	1105.26	753.16	10.490	490.00	5.9069	1631.16	1139.28	11.757
352.00	4.2523	1113.08	758.98	10.512	492.00	5.9307	1638.40	1144.53	11.771
354.00	4.2764	1120.90	764.78	10.534	494.00	5.9546	1645.63	1149.77	11.786
356.00	4.3006	1128.70	770.58	10.556	496.00	5.9784	1652.86	1155.01	11.801
358.00	4.3247	1136.50	776.37	10.578	498.00	6.0023	1660.08	1160.25	11.815
360.00	4.3489	1144.29	782.15	10.600	500.00	6.0261	1667.30	1165.48	11.830
362.00	4.3730	1152.07	787.91	10.621	502.00	6.0500	1674.51	1170.70	11.844
364.00	4.3971	1159.83	793.67	10.643	504.00	6.0738	1681.71	1175.92	11.858
366.00	4.4212	1167.59	799.42	10.664	506.00	6.0977	1688.92	1181.14	11.873
368.00	4.4453	1175.34	805.16	10.685	508.00	6.1216	1696.11	1186.35	11.887
370.00	4.4694	1183.08	810.90	10.706	510.00	6.1454	1703.31	1191.55	11.901
372.00	4.4935	1190.81	816.62	10.727	512.00	6.1693	1710.50	1196.76	11.915
374.00	4.5175	1198.53	822.33	10.748	514.00	6.1931	1717.68	1201.95	11.929
376.00	4.5416	1206.24	828.04	10.768	516.00	6.2170	1724.86	1207.15	11.943
378.00	4.5657	1213.94	833.74	10.789	518.00	6.2409	1732.04	1212.34	11.957
380.00	4.5898	1221.63	839.42	10.809	520.00	6.2647	1739.21	1217.52	11.971
382.00	4.6138	1229.31	845.10	10.829	522.00	6.2886	1746.38	1222.71	11.984
384.00	4.6379	1236.98	850.77	10.849	524.00	6.3125	1753.55	1227.88	11.998
386.00	4.6620	1244.65	856.43	10.869	526.00	6.3364	1760.71	1233.06	12.012
388.00	4.6860	1252.30	862.08	10.889	528.00	6.3602	1767.87	1238.23	12.025
390.00	4.7101	1259.94	867.72	10.908	530.00	6.3841	1775.03	1243.40	12.039
392.00	4.7341	1267.58	873.35	10.928	532.00	6.4080	1782.18	1248.56	12.052
394.00	4.7581	1275.20	878.97	10.947	534.00	6.4318	1789.33	1253.72	12.066
396.00	4.7822	1282.82	884.59	10.967	536.00	6.4557	1796.47	1258.88	12.079
398.00	4.8062	1290.42	890.19	10.986	538.00	6.4796	1803.61	1264.03	12.092
400.00	4.8302	1298.02	895.79	11.005	540.00	6.5035	1810.75	1269.18	12.106

500.00 PSIA 150BAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/L8-R)
122.00	1.1955	256.93	146.32	6.547	122.00	1.1955	256.93	146.32	6.547
124.00	1.2225	263.59	150.48	6.601	124.00	1.2225	263.59	150.48	6.601
126.00	1.2492	270.22	154.63	6.654	126.00	1.2492	270.22	154.63	6.654
128.00	1.2757	276.81	158.77	6.706	128.00	1.2757	276.81	158.77	6.706
130.00	1.3021	283.38	162.91	6.757	130.00	1.3021	283.38	162.91	6.757
132.00	1.3282	289.93	167.04	6.807	132.00	1.3282	289.93	167.04	6.807
134.00	1.3541	296.47	171.18	6.856	134.00	1.3541	296.47	171.18	6.856
136.00	1.3799	303.00	175.32	6.905	136.00	1.3799	303.00	175.32	6.905
138.00	1.4055	309.52	179.48	6.952	138.00	1.4055	309.52	179.48	6.952
140.00	1.4310	316.04	183.64	6.999	140.00	1.4310	316.04	183.64	6.999
					142.00	1.4563	322.56	187.82	7.045
					144.00	1.4815	329.08	192.01	7.091
					146.00	1.5065	335.61	196.22	7.136
					148.00	1.5314	342.15	200.46	7.181
					150.00	1.5562	348.70	204.71	7.225
					152.00	1.5809	355.27	208.99	7.268
					154.00	1.6055	361.85	213.30	7.311
					156.00	1.6300	368.45	217.64	7.354
					158.00	1.6544	375.07	222.00	7.396
					160.00	1.6787	381.72	226.40	7.438
					162.00	1.7028	388.38	230.82	7.479
					164.00	1.7270	395.07	235.28	7.520
					166.00	1.7510	401.79	239.78	7.561
					168.00	1.7749	408.54	244.31	7.601
					170.00	1.7988	415.31	248.87	7.641
					172.00	1.8226	422.11	253.47	7.681
					174.00	1.8464	428.94	258.10	7.720
36.00	.2139	-96.71	-116.50	1.736	176.00	1.8700	435.80	262.77	7.760
38.00	.2168	-92.55	-112.61	1.848	178.00	1.8936	442.68	267.47	7.799
40.00	.2199	-88.15	-108.50	1.961	180.00	1.9172	449.60	272.21	7.837
42.00	.2233	-83.51	-104.17	2.074	182.00	1.9407	456.54	276.97	7.876
44.00	.2270	-78.61	-99.61	2.188	184.00	1.9640	463.49	281.76	7.914
46.00	.2310	-73.42	-94.80	2.303	186.00	1.9874	470.47	286.58	7.951
48.00	.2354	-67.93	-89.72	2.420	188.00	2.0107	477.48	291.44	7.989
50.00	.2403	-62.11	-84.35	2.539	190.00	2.0339	484.52	296.33	8.026
52.00	.2457	-55.93	-78.67	2.660	192.00	2.0571	491.60	301.26	8.063
54.00	.2517	-49.39	-72.69	2.783	194.00	2.0802	498.70	306.23	8.100
56.00	.2585	-42.45	-66.37	2.910	196.00	2.1033	505.84	311.23	8.136
58.00	.2663	-34.97	-59.61	3.041	198.00	2.1263	513.01	316.26	8.173
60.00	.2762	-27.09	-52.65	3.176	200.00	2.1493	520.21	321.34	8.209
62.00	.2866	-18.39	-44.91	3.319	202.00	2.1723	527.44	326.44	8.245
64.00	.2990	-8.98	-36.64	3.469	204.00	2.1952	534.70	331.58	8.281
66.00	.3139	1.28	-27.76	3.627	206.00	2.2181	541.99	336.76	8.316
68.00	.3321	12.45	-18.28	3.793	208.00	2.2409	549.31	341.96	8.352
70.00	.3546	24.57	-8.24	3.969	210.00	2.2637	556.66	347.21	8.387
72.00	.3820	37.36	2.01	4.149	212.00	2.2865	564.04	352.48	8.422
74.00	.4146	50.58	12.23	4.330	214.00	2.3092	571.45	357.78	8.457
76.00	.4511	63.77	22.04	4.506	216.00	2.3320	578.89	363.12	8.491
78.00	.4897	76.46	31.15	4.671	218.00	2.3546	586.35	368.48	8.526
80.00	.5289	88.41	39.48	4.822	220.00	2.3773	593.84	373.87	8.560
82.00	.5677	99.60	47.08	4.960	222.00	2.3999	601.35	379.29	8.594
84.00	.6057	110.11	54.07	5.087	224.00	2.4225	608.89	384.74	8.628
86.00	.6427	120.03	60.57	5.203	226.00	2.4451	616.45	390.22	8.661
88.00	.6788	129.47	66.66	5.312	228.00	2.4677	624.04	395.72	8.695
90.00	.7139	138.49	72.44	5.413	230.00	2.4902	631.66	401.25	8.728
92.00	.7482	147.17	77.95	5.509	232.00	2.5127	639.29	406.80	8.761
94.00	.7816	155.56	83.24	5.599	234.00	2.5352	646.95	412.38	8.794
96.00	.8144	163.70	88.34	5.685	236.00	2.5577	654.63	417.98	8.827
98.00	.8465	171.62	93.29	5.766	238.00	2.5801	662.34	423.61	8.859
100.00	.8780	179.35	98.12	5.844	240.00	2.6025	670.06	429.26	8.891
102.00	.9089	186.92	102.82	5.919	242.00	2.6249	677.80	434.92	8.923
104.00	.9393	194.35	107.44	5.991	244.00	2.6473	685.56	440.61	8.955
106.00	.9692	201.64	111.96	6.061	246.00	2.6697	693.34	446.33	8.987
108.00	.9988	208.83	116.42	6.128	248.00	2.6921	701.14	452.05	9.019
110.00	1.0279	215.92	120.82	6.193	250.00	2.7144	708.96	457.80	9.050
112.00	1.0566	222.92	125.16	6.256	252.00	2.7367	716.79	463.57	9.081
114.00	1.0850	229.84	129.46	6.317	254.00	2.7590	724.63	469.35	9.112
116.00	1.1130	236.70	133.71	6.377	256.00	2.7813	732.50	475.15	9.143
118.00	1.1408	243.50	137.94	6.435	258.00	2.8036	740.37	480.96	9.174
120.00	1.1683	250.24	142.14	6.492	260.00	2.8258	748.26	486.79	9.204

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
262.00	2.8481	756.16	492.64	9.235	402.00	4.3792	1305.78	900.59	10.918
264.00	2.8703	764.07	498.49	9.265	404.00	4.4008	1313.37	906.18	10.937
266.00	2.8925	771.99	504.36	9.295	406.00	4.4225	1320.95	911.75	10.955
268.00	2.9147	779.93	510.24	9.324	408.00	4.4441	1328.52	917.32	10.974
270.00	2.9369	787.87	516.13	9.354	410.00	4.4657	1336.07	922.88	10.992
272.00	2.9591	795.80	522.00	9.383	412.00	4.4874	1343.62	928.42	11.011
274.00	2.9812	803.73	527.89	9.412	414.00	4.5090	1351.16	933.96	11.029
276.00	3.0034	811.67	533.78	9.441	416.00	4.5306	1358.70	939.49	11.047
278.00	3.0255	819.61	539.67	9.470	418.00	4.5522	1366.22	945.02	11.065
280.00	3.0476	827.56	545.57	9.498	420.00	4.5738	1373.74	950.53	11.083
282.00	3.0697	835.51	551.48	9.526	422.00	4.5954	1381.24	956.04	11.101
284.00	3.0918	843.47	557.40	9.555	424.00	4.6170	1388.74	961.54	11.119
286.00	3.1139	851.43	563.31	9.582	426.00	4.6386	1396.22	967.03	11.136
288.00	3.1359	859.39	569.24	9.610	428.00	4.6602	1403.70	972.51	11.154
290.00	3.1580	867.36	575.16	9.638	430.00	4.6818	1411.17	977.98	11.171
292.00	3.1800	875.32	581.09	9.665	432.00	4.7034	1418.63	983.44	11.189
294.00	3.2020	883.29	587.02	9.692	434.00	4.7250	1426.08	988.89	11.206
296.00	3.2240	891.26	592.95	9.719	436.00	4.7466	1433.52	994.34	11.223
298.00	3.2460	899.23	598.88	9.746	438.00	4.7681	1440.95	999.77	11.240
300.00	3.2680	907.20	604.82	9.773	440.00	4.7897	1448.37	1005.20	11.257
302.00	3.2900	915.16	610.75	9.799	442.00	4.8113	1455.79	1010.62	11.274
304.00	3.3120	923.13	616.69	9.826	444.00	4.8328	1463.19	1016.03	11.290
306.00	3.3339	931.10	622.62	9.852	446.00	4.8544	1470.59	1021.43	11.307
308.00	3.3559	939.06	628.55	9.878	448.00	4.8759	1477.98	1026.83	11.324
310.00	3.3778	947.02	634.48	9.903	450.00	4.8975	1485.36	1032.22	11.340
312.00	3.3997	954.98	640.41	9.929	452.00	4.9190	1492.75	1037.61	11.356
314.00	3.4216	962.93	646.34	9.954	454.00	4.9405	1500.13	1043.00	11.373
316.00	3.4435	970.88	652.26	9.980	456.00	4.9621	1507.50	1048.38	11.389
318.00	3.4654	978.83	658.18	10.005	458.00	4.9836	1514.86	1053.75	11.405
320.00	3.4873	986.77	664.10	10.030	460.00	5.0051	1522.22	1059.11	11.421
322.00	3.5092	994.71	670.01	10.054	462.00	5.0266	1529.56	1064.47	11.437
324.00	3.5311	1002.64	675.92	10.079	464.00	5.0481	1536.90	1069.81	11.453
326.00	3.5529	1010.57	681.83	10.103	466.00	5.0697	1544.23	1075.16	11.469
328.00	3.5748	1018.49	687.73	10.127	468.00	5.0912	1551.56	1080.49	11.484
330.00	3.5966	1026.40	693.62	10.152	470.00	5.1127	1558.87	1085.81	11.500
332.00	3.6185	1034.31	699.51	10.175	472.00	5.1342	1566.18	1091.13	11.515
334.00	3.6403	1042.22	705.39	10.199	474.00	5.1557	1573.48	1096.45	11.531
336.00	3.6621	1050.11	711.27	10.223	476.00	5.1772	1580.78	1101.75	11.546
338.00	3.6839	1058.00	717.14	10.246	478.00	5.1987	1588.06	1107.05	11.561
340.00	3.7058	1065.88	723.00	10.269	480.00	5.2202	1595.34	1112.34	11.577
342.00	3.7276	1073.76	728.86	10.292	482.00	5.2417	1602.62	1117.62	11.592
344.00	3.7494	1081.63	734.71	10.315	484.00	5.2632	1609.88	1122.90	11.607
346.00	3.7712	1089.49	740.55	10.338	486.00	5.2847	1617.14	1128.17	11.622
348.00	3.7930	1097.34	746.39	10.361	488.00	5.3062	1624.40	1133.44	11.637
350.00	3.8147	1105.18	752.22	10.383	490.00	5.3276	1631.65	1138.70	11.651
352.00	3.8365	1113.01	758.04	10.406	492.00	5.3491	1638.89	1143.95	11.666
354.00	3.8583	1120.84	763.85	10.428	494.00	5.3706	1646.13	1149.20	11.681
356.00	3.8801	1128.66	769.65	10.450	496.00	5.3921	1653.36	1154.45	11.696
358.00	3.9018	1136.47	775.44	10.472	498.00	5.4136	1660.58	1159.68	11.710
360.00	3.9236	1144.26	781.23	10.493	500.00	5.4351	1667.80	1164.92	11.725
362.00	3.9453	1152.05	787.00	10.515	502.00	5.4566	1675.02	1170.14	11.739
364.00	3.9671	1159.83	792.77	10.536	504.00	5.4781	1682.23	1175.37	11.753
366.00	3.9888	1167.60	798.53	10.558	506.00	5.4996	1689.44	1180.58	11.768
368.00	4.0105	1175.35	804.27	10.579	508.00	5.5210	1696.64	1185.80	11.782
370.00	4.0322	1183.10	810.01	10.600	510.00	5.5425	1703.84	1191.01	11.796
372.00	4.0540	1190.84	815.74	10.621	512.00	5.5640	1711.03	1196.21	11.810
374.00	4.0757	1198.57	821.46	10.641	514.00	5.5855	1718.22	1201.41	11.824
376.00	4.0974	1206.29	827.18	10.662	516.00	5.6070	1725.40	1206.61	11.838
378.00	4.1191	1214.00	832.88	10.682	518.00	5.6285	1732.58	1211.80	11.852
380.00	4.1408	1221.70	838.57	10.703	520.00	5.6500	1739.76	1216.99	11.866
382.00	4.1625	1229.40	844.26	10.723	522.00	5.6715	1746.93	1222.17	11.879
384.00	4.1842	1237.08	849.93	10.743	524.00	5.6930	1754.10	1227.35	11.893
386.00	4.2058	1244.75	855.60	10.763	526.00	5.7145	1761.27	1232.53	11.907
388.00	4.2275	1252.41	861.25	10.783	528.00	5.7360	1768.43	1237.70	11.920
390.00	4.2492	1260.07	866.90	10.802	530.00	5.7575	1775.59	1242.87	11.934
392.00	4.2709	1267.71	872.54	10.822	532.00	5.7790	1782.75	1248.04	11.947
394.00	4.2925	1275.34	878.17	10.841	534.00	5.8005	1789.90	1253.20	11.961
396.00	4.3142	1282.97	883.79	10.861	536.00	5.8219	1797.05	1258.36	11.974
398.00	4.3359	1290.58	889.40	10.880	538.00	5.8434	1804.19	1263.52	11.987
400.00	4.3575	1298.19	895.00	10.899	540.00	5.8649	1811.33	1268.67	12.001

600.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00		.9881	248.75	139.04	6.315				
124.00		1.0112	255.66	143.39	6.372				
126.00		1.0341	262.53	147.72	6.427				
128.00		1.0568	269.37	152.03	6.480				
130.00		1.0793	276.17	156.33	6.533				
132.00		1.1016	282.94	160.63	6.585				
134.00		1.1237	289.68	164.92	6.636				
136.00		1.1457	296.41	169.20	6.685				
138.00		1.1676	303.13	173.49	6.734				
140.00		1.1893	309.83	177.79	6.783				
142.00		1.2108	316.53	182.09	6.830				
144.00		1.2323	323.22	186.41	6.877				
146.00		1.2536	329.92	190.73	6.923				
148.00		1.2748	336.62	195.08	6.969				
150.00		1.2959	343.32	199.44	7.014				
152.00		1.3168	350.04	203.83	7.058				
154.00		1.3377	356.77	208.24	7.102				
156.00		1.3585	363.51	212.67	7.146				
158.00		1.3792	370.26	217.13	7.189				
160.00		1.3998	377.03	221.61	7.231				
162.00		1.4203	383.83	226.13	7.273				
164.00		1.4408	390.64	230.67	7.315				
166.00		1.4611	397.48	235.25	7.357				
168.00		1.4814	404.34	239.85	7.398				
170.00		1.5016	411.22	244.49	7.439				
172.00		1.5218	418.13	249.17	7.479				
174.00		1.5419	425.07	253.87	7.519				
36.00	.2121	-93.66	-117.21	1.711					
38.00	.2148	-89.57	-113.42	1.821					
40.00	.2177	-85.26	-109.44	1.932					
160.00		1.6018	446.02	268.18	7.637				
42.00	.2209	-80.72	-105.25	2.043	182.00	1.6216	453.05	273.00	7.676
44.00	.2243	-75.94	-100.84	2.154	184.00	1.6413	460.08	277.84	7.715
46.00	.2280	-70.89	-96.20	2.266	186.00	1.6611	467.14	282.71	7.753
48.00	.2320	-65.56	-91.32	2.379	188.00	1.6807	474.23	287.62	7.791
50.00	.2364	-59.94	-86.19	2.494	190.00	1.7003	481.35	292.56	7.828
52.00	.2412	-54.00	-80.78	2.610	192.00	1.7199	488.49	297.53	7.866
54.00	.2465	-47.76	-75.12	2.728	194.00	1.7394	495.67	302.54	7.903
56.00	.2523	-41.18	-69.20	2.848	196.00	1.7589	502.88	307.58	7.940
58.00	.2588	-34.17	-62.91	2.971	198.00	1.7783	510.11	312.66	7.977
60.00	.2671	-26.84	-56.50	3.096	200.00	1.7977	517.38	317.78	8.013
62.00	.2754	-18.90	-49.48	3.227	202.00	1.8171	524.68	322.92	8.050
64.00	.2848	-10.46	-42.08	3.362	204.00	1.8364	532.00	328.10	8.086
66.00	.2956	-1.48	-34.30	3.500	206.00	1.8557	539.36	333.32	8.121
68.00	.3082	8.05	-26.17	3.641	208.00	1.8749	546.74	338.57	8.157
70.00	.3228	18.11	-17.73	3.787	210.00	1.8941	554.15	343.84	8.193
72.00	.3398	28.48	-9.25	3.933	212.00	1.9133	561.59	349.16	8.228
74.00	.3594	39.22	-.69	4.080	214.00	1.9324	569.06	354.50	8.263
76.00	.3818	50.27	7.87	4.228	216.00	1.9516	576.56	359.87	8.298
78.00	.4067	61.48	16.32	4.373	218.00	1.9707	584.08	365.27	8.332
80.00	.4335	72.65	24.52	4.515	220.00	1.9897	591.62	370.70	8.367
82.00	.4617	83.62	32.35	4.650	222.00	2.0088	599.19	376.15	8.401
84.00	.4907	94.27	39.79	4.779	224.00	2.0278	606.78	381.64	8.435
86.00	.5198	104.54	46.83	4.899	226.00	2.0468	614.40	387.15	8.469
88.00	.5490	114.44	53.49	5.013	228.00	2.0657	622.05	392.68	8.503
90.00	.5778	123.97	59.81	5.120	230.00	2.0847	629.71	398.24	8.536
92.00	.6064	133.18	65.85	5.221	232.00	2.1036	637.40	403.83	8.569
94.00	.6345	142.08	71.63	5.317	234.00	2.1225	645.11	409.44	8.603
96.00	.6622	150.72	77.20	5.408	236.00	2.1414	652.84	415.08	8.635
98.00	.6894	159.13	82.59	5.495	238.00	2.1603	660.59	420.73	8.668
100.00	.7162	167.33	87.81	5.578	240.00	2.1791	668.36	426.41	8.701
102.00	.7426	175.34	92.89	5.657	242.00	2.1979	676.15	432.11	8.733
104.00	.7686	183.19	97.85	5.733	244.00	2.2167	683.96	437.83	8.765
106.00	.7943	190.89	102.70	5.807	246.00	2.2355	691.78	443.57	8.797
108.00	.8195	198.45	107.46	5.877	248.00	2.2543	699.62	449.32	8.829
110.00	.8445	205.90	112.14	5.946	250.00	2.2731	707.48	455.10	8.860
112.00	.8691	213.25	116.75	6.012	252.00	2.2918	715.36	460.89	8.892
114.00	.8934	220.50	121.30	6.076	254.00	2.3105	723.25	466.70	8.923
116.00	.9175	227.66	125.79	6.138	256.00	2.3293	731.15	472.53	8.954
118.00	.9413	234.76	130.24	6.199	258.00	2.3480	739.06	478.37	8.985
120.00	.9648	241.78	134.66	6.258	260.00	2.3666	746.99	484.22	9.015

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
262.00	2.3853	754.93	490.09	9.046	402.00	3.6668	1306.23	899.10	10.734
264.00	2.4040	762.88	495.96	9.076	404.00	3.6849	1313.83	904.69	10.753
266.00	2.4226	770.84	501.86	9.106	406.00	3.7030	1321.43	910.28	10.772
268.00	2.4412	778.81	507.76	9.136	408.00	3.7211	1329.01	915.86	10.791
270.00	2.4598	786.79	513.67	9.166	410.00	3.7391	1336.58	921.42	10.809
272.00	2.4784	794.75	519.57	9.195	412.00	3.7572	1344.15	926.98	10.828
274.00	2.4970	802.71	525.47	9.224	414.00	3.7753	1351.71	932.53	10.846
276.00	2.5156	810.69	531.38	9.253	416.00	3.7933	1359.25	938.07	10.864
278.00	2.5341	818.66	537.30	9.282	418.00	3.8114	1366.79	943.61	10.882
280.00	2.5526	826.64	543.22	9.310	420.00	3.8294	1374.32	949.13	10.900
282.00	2.5712	834.63	549.15	9.339	422.00	3.8475	1381.84	954.65	10.918
284.00	2.5897	842.62	555.08	9.367	424.00	3.8655	1389.35	960.16	10.936
286.00	2.6082	850.61	561.02	9.395	426.00	3.8836	1396.86	965.66	10.953
288.00	2.6267	858.60	566.96	9.423	428.00	3.9016	1404.35	971.15	10.971
290.00	2.6452	866.60	572.90	9.451	430.00	3.9196	1411.83	976.63	10.988
292.00	2.6636	874.59	578.85	9.478	432.00	3.9377	1419.30	982.10	11.006
294.00	2.6821	882.59	584.79	9.505	434.00	3.9557	1426.77	987.56	11.023
296.00	2.7005	890.59	590.74	9.533	436.00	3.9737	1434.23	993.02	11.040
298.00	2.7189	898.58	596.69	9.559	438.00	3.9917	1441.67	998.46	11.057
300.00	2.7374	906.58	602.65	9.586	440.00	4.0097	1449.11	1003.90	11.074
302.00	2.7558	914.57	608.60	9.613	442.00	4.0277	1456.54	1009.33	11.091
304.00	2.7742	922.57	614.55	9.639	444.00	4.0457	1463.96	1014.75	11.108
306.00	2.7925	930.56	620.50	9.665	446.00	4.0637	1471.37	1020.16	11.124
308.00	2.8109	938.55	626.45	9.691	448.00	4.0817	1478.77	1025.57	11.141
310.00	2.8293	946.53	632.39	9.717	450.00	4.0997	1486.16	1030.96	11.157
312.00	2.8476	954.52	638.34	9.743	452.00	4.1177	1493.56	1036.37	11.174
314.00	2.8660	962.50	644.28	9.768	454.00	4.1357	1500.96	1041.76	11.190
316.00	2.8843	970.47	650.22	9.794	456.00	4.1537	1508.34	1047.15	11.206
318.00	2.9026	978.44	656.16	9.819	458.00	4.1717	1515.72	1052.53	11.222
320.00	2.9210	986.41	662.09	9.844	460.00	4.1896	1523.09	1057.90	11.238
322.00	2.9393	994.37	668.02	9.869	462.00	4.2076	1530.44	1063.27	11.254
324.00	2.9576	1002.33	673.94	9.893	464.00	4.2256	1537.80	1068.62	11.270
326.00	2.9759	1010.28	679.86	9.918	466.00	4.2436	1545.14	1073.97	11.286
328.00	2.9942	1018.22	685.78	9.942	468.00	4.2615	1552.48	1079.31	11.302
330.00	3.0125	1026.16	691.68	9.966	470.00	4.2795	1559.80	1084.65	11.317
332.00	3.0307	1034.10	697.59	9.990	472.00	4.2974	1567.12	1089.97	11.333
334.00	3.0490	1042.02	703.49	10.014	474.00	4.3154	1574.44	1095.29	11.348
336.00	3.0673	1049.94	709.38	10.038	476.00	4.3333	1581.74	1100.60	11.364
338.00	3.0855	1057.85	715.26	10.061	478.00	4.3513	1589.04	1105.91	11.379
340.00	3.1038	1065.76	721.14	10.084	480.00	4.3693	1596.33	1111.20	11.394
342.00	3.1220	1073.65	727.01	10.108	482.00	4.3872	1603.61	1116.50	11.410
344.00	3.1403	1081.54	732.87	10.131	484.00	4.4051	1610.89	1121.78	11.425
346.00	3.1585	1089.42	738.73	10.153	486.00	4.4231	1618.16	1127.06	11.440
348.00	3.1767	1097.30	744.58	10.176	488.00	4.4410	1625.43	1132.33	11.454
350.00	3.1949	1105.16	750.42	10.199	490.00	4.4590	1632.69	1137.60	11.469
352.00	3.2132	1113.02	756.25	10.221	492.00	4.4769	1639.94	1142.86	11.484
354.00	3.2314	1120.86	762.08	10.243	494.00	4.4949	1647.18	1148.11	11.499
356.00	3.2496	1128.70	767.89	10.265	496.00	4.5128	1654.42	1153.36	11.513
358.00	3.2678	1136.53	773.70	10.287	498.00	4.5307	1661.66	1158.60	11.528
360.00	3.2860	1144.35	779.50	10.309	500.00	4.5487	1668.89	1163.84	11.542
362.00	3.3041	1152.15	785.29	10.331	502.00	4.5666	1676.11	1169.08	11.557
364.00	3.3223	1159.95	791.07	10.352	504.00	4.5845	1683.33	1174.30	11.571
366.00	3.3405	1167.73	796.83	10.373	506.00	4.6025	1690.55	1179.53	11.586
368.00	3.3587	1175.51	802.59	10.395	508.00	4.6204	1697.76	1184.75	11.600
370.00	3.3768	1183.28	808.34	10.416	510.00	4.6384	1704.96	1189.96	11.614
372.00	3.3950	1191.04	814.09	10.437	512.00	4.6563	1712.16	1195.17	11.628
374.00	3.4131	1198.78	819.82	10.457	514.00	4.6742	1719.36	1200.37	11.642
376.00	3.4313	1206.52	825.54	10.478	516.00	4.6922	1726.55	1205.58	11.656
378.00	3.4494	1214.25	831.26	10.498	518.00	4.7101	1733.74	1210.77	11.670
380.00	3.4676	1221.97	836.96	10.519	520.00	4.7280	1740.93	1215.97	11.684
382.00	3.4857	1229.68	842.66	10.539	522.00	4.7459	1748.11	1221.16	11.698
384.00	3.5038	1237.38	848.34	10.559	524.00	4.7639	1755.28	1226.34	11.711
386.00	3.5219	1245.07	854.02	10.579	526.00	4.7818	1762.46	1231.53	11.725
388.00	3.5401	1252.75	859.69	10.599	528.00	4.7997	1769.63	1236.70	11.739
390.00	3.5582	1260.42	865.34	10.619	530.00	4.8177	1776.79	1241.88	11.752
392.00	3.5763	1268.08	870.99	10.638	532.00	4.8356	1783.96	1247.05	11.766
394.00	3.5944	1275.73	876.63	10.658	534.00	4.8535	1791.12	1252.22	11.779
396.00	3.6125	1283.37	882.26	10.677	536.00	4.8714	1798.27	1257.39	11.792
398.00	3.6306	1291.00	887.88	10.696	538.00	4.8894	1805.42	1262.55	11.806
400.00	3.6487	1298.62	893.50	10.715	540.00	4.9073	1812.57	1267.71	11.819

700.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	.8432	241.17	131.95	6.115	122.00	.8432	241.17	131.95	6.115
124.00	.8633	248.31	136.49	6.173	124.00	.8633	248.31	136.49	6.173
126.00	.8833	255.40	140.99	6.230	126.00	.8833	255.40	140.99	6.230
128.00	.9031	262.45	145.47	6.285	128.00	.9031	262.45	145.47	6.285
130.00	.9227	269.45	149.92	6.340	130.00	.9227	269.45	149.92	6.340
132.00	.9422	276.41	154.37	6.393	132.00	.9422	276.41	154.37	6.393
134.00	.9615	283.35	158.80	6.445	134.00	.9615	283.35	158.80	6.445
136.00	.9807	290.26	163.22	6.496	136.00	.9807	290.26	163.22	6.496
138.00	.9998	297.15	167.65	6.546	138.00	.9998	297.15	167.65	6.546
140.00	1.0187	304.03	172.07	6.596	140.00	1.0187	304.03	172.07	6.596
					142.00	1.0375	310.89	176.49	6.645
					144.00	1.0562	317.74	180.93	6.692
					146.00	1.0748	324.59	185.37	6.740
					148.00	1.0933	331.44	189.82	6.786
					150.00	1.1116	338.29	194.29	6.834
					152.00	1.1299	345.14	198.78	6.878
					154.00	1.1481	352.00	203.28	6.922
					156.00	1.1662	358.87	207.81	6.967
					158.00	1.1842	365.75	212.35	7.011
					160.00	1.2021	372.65	216.93	7.054
					162.00	1.2200	379.56	221.53	7.097
					164.00	1.2378	386.49	226.15	7.139
					166.00	1.2555	393.43	230.81	7.182
					168.00	1.2731	400.40	235.49	7.223
					170.00	1.2907	407.39	240.20	7.265
					172.00	1.3082	414.40	244.95	7.306
					174.00	1.3256	421.44	249.72	7.346
36.00	.2104	-90.59	-117.85	1.687	176.00	1.3430	428.49	254.53	7.387
38.00	.2130	-86.57	-114.16	1.796	178.00	1.3603	435.57	259.36	7.427
40.00	.2157	-82.34	-110.28	1.905	180.00	1.3776	442.68	264.23	7.466
42.00	.2187	-77.88	-106.21	2.013	182.00	1.3948	449.78	269.10	7.506
44.00	.2219	-73.20	-101.94	2.122	184.00	1.4120	456.89	273.99	7.544
46.00	.2253	-68.27	-97.45	2.232	186.00	1.4291	464.03	278.91	7.583
48.00	.2290	-63.08	-92.74	2.342	188.00	1.4461	471.19	283.87	7.621
50.00	.2330	-57.62	-87.79	2.454	190.00	1.4631	478.38	288.86	7.659
52.00	.2373	-51.87	-82.61	2.566	192.00	1.4801	485.61	293.88	7.697
54.00	.2420	-45.85	-77.20	2.680	194.00	1.4970	492.85	298.94	7.735
56.00	.2472	-39.54	-71.57	2.795	196.00	1.5139	500.13	304.03	7.772
58.00	.2529	-32.86	-65.62	2.912	198.00	1.5307	507.44	309.16	7.809
60.00	.2599	-25.93	-59.60	3.030	200.00	1.5475	514.78	314.32	7.846
62.00	.2669	-18.48	-53.05	3.153	202.00	1.5643	522.14	319.51	7.883
64.00	.2746	-10.65	-46.22	3.278	204.00	1.5810	529.54	324.74	7.919
66.00	.2832	-2.41	-39.10	3.405	206.00	1.5977	536.96	330.00	7.955
68.00	.2929	6.21	-31.74	3.533	208.00	1.6143	544.41	335.29	7.991
70.00	.3039	15.17	-24.19	3.663	210.00	1.6310	551.89	340.62	8.027
72.00	.3162	24.27	-16.69	3.791	212.00	1.6476	559.39	345.97	8.063
74.00	.3301	33.59	-9.17	3.918	214.00	1.6641	566.92	351.36	8.098
76.00	.3457	43.15	-1.62	4.046	216.00	1.6807	574.48	356.77	8.133
78.00	.3629	52.95	5.94	4.173	218.00	1.6972	582.06	362.21	8.168
80.00	.3818	62.91	13.46	4.299	220.00	1.7137	589.66	367.68	8.203
82.00	.4020	72.95	20.88	4.423	222.00	1.7301	597.28	373.17	8.237
84.00	.4234	82.98	28.13	4.544	224.00	1.7466	604.93	378.69	8.272
86.00	.4457	92.91	35.17	4.661	226.00	1.7630	612.61	384.24	8.306
88.00	.4685	102.66	41.97	4.773	228.00	1.7794	620.30	389.81	8.340
90.00	.4917	112.22	48.53	4.880	230.00	1.7957	628.02	395.40	8.373
92.00	.5150	121.55	54.84	4.983	232.00	1.8121	635.76	401.02	8.407
94.00	.5383	130.67	60.94	5.081	234.00	1.8284	643.51	406.66	8.440
96.00	.5615	139.56	66.82	5.175	236.00	1.8447	651.29	412.33	8.473
98.00	.5845	148.24	72.52	5.264	238.00	1.8610	659.09	418.01	8.506
100.00	.6074	156.73	78.05	5.350	240.00	1.8773	666.90	423.72	8.539
102.00	.6300	165.04	83.44	5.432	242.00	1.8936	674.73	429.45	8.571
104.00	.6524	173.19	88.69	5.511	244.00	1.9098	682.58	435.19	8.604
106.00	.6745	181.19	93.82	5.587	246.00	1.9260	690.45	440.95	8.636
108.00	.6964	189.05	98.84	5.661	248.00	1.9423	698.33	446.74	8.668
110.00	.7180	196.79	103.77	5.732	250.00	1.9585	706.23	452.54	8.699
112.00	.7394	204.41	108.63	5.801	252.00	1.9746	714.14	458.35	8.731
114.00	.7606	211.93	113.40	5.867	254.00	1.9908	722.06	464.18	8.762
116.00	.7815	219.36	118.12	5.932	256.00	2.0069	730.00	470.03	8.793
118.00	.8023	226.70	122.78	5.994	258.00	2.0231	737.95	475.89	8.824
120.00	.8228	233.97	127.39	6.056	260.00	2.0392	745.91	481.76	8.855

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
262.00	2.0553	753.88	487.65	8.885	402.00	3.1582	1306.86	897.75	10.579
264.00	2.0714	761.87	493.55	8.916	404.00	3.1738	1314.47	903.35	10.598
266.00	2.0875	769.86	499.46	8.946	406.00	3.1893	1322.07	908.94	10.617
268.00	2.1035	777.86	505.38	8.976	408.00	3.2048	1329.67	914.52	10.636
270.00	2.1196	785.87	511.31	9.006	410.00	3.2204	1337.25	920.09	10.654
272.00	2.1356	793.86	517.22	9.035	412.00	3.2359	1344.82	925.66	10.673
274.00	2.1516	801.86	523.14	9.064	414.00	3.2514	1352.39	931.21	10.691
276.00	2.1676	809.86	529.07	9.094	416.00	3.2669	1359.95	936.76	10.709
278.00	2.1836	817.87	535.01	9.122	418.00	3.2824	1367.50	942.30	10.727
280.00	2.1996	825.88	540.95	9.151	420.00	3.2979	1375.04	947.84	10.745
282.00	2.2156	833.89	546.90	9.180	422.00	3.3135	1382.57	953.36	10.763
284.00	2.2315	841.91	552.85	9.208	424.00	3.3290	1390.10	958.88	10.781
286.00	2.2475	849.93	558.80	9.236	426.00	3.3445	1397.61	964.38	10.799
288.00	2.2634	857.96	564.76	9.264	428.00	3.3599	1405.12	969.88	10.816
290.00	2.2793	865.98	570.72	9.292	430.00	3.3754	1412.62	975.37	10.834
292.00	2.2952	874.01	576.69	9.320	432.00	3.3909	1420.10	980.85	10.851
294.00	2.3111	882.03	582.66	9.347	434.00	3.4064	1427.58	986.33	10.868
296.00	2.3270	890.06	588.63	9.374	436.00	3.4219	1435.05	991.79	10.886
298.00	2.3429	898.09	594.60	9.401	438.00	3.4374	1442.51	997.25	10.903
300.00	2.3587	906.12	600.57	9.428	440.00	3.4528	1449.96	1002.69	10.920
302.00	2.3746	914.14	606.54	9.455	442.00	3.4683	1457.41	1008.13	10.936
304.00	2.3904	922.17	612.52	9.481	444.00	3.4838	1464.84	1013.56	10.953
306.00	2.4063	930.19	618.49	9.507	446.00	3.4992	1472.26	1018.99	10.970
308.00	2.4221	938.21	624.46	9.534	448.00	3.5147	1479.68	1024.40	10.987
310.00	2.4379	946.23	630.43	9.560	450.00	3.5301	1487.09	1029.81	11.003
312.00	2.4537	954.24	636.40	9.585	452.00	3.5456	1494.50	1035.22	11.019
314.00	2.4695	962.25	642.36	9.611	454.00	3.5610	1501.91	1040.62	11.036
316.00	2.4853	970.26	648.32	9.636	456.00	3.5765	1509.31	1046.02	11.052
318.00	2.5011	978.26	654.28	9.662	458.00	3.5919	1516.70	1051.41	11.068
320.00	2.5168	986.26	660.24	9.687	460.00	3.6074	1524.08	1056.79	11.084
322.00	2.5326	994.25	666.19	9.712	462.00	3.6228	1531.45	1062.17	11.100
324.00	2.5483	1002.24	672.14	9.736	464.00	3.6382	1538.82	1067.53	11.116
326.00	2.5641	1010.22	678.08	9.761	466.00	3.6537	1546.17	1072.89	11.132
328.00	2.5798	1018.20	684.02	9.785	468.00	3.6691	1553.52	1078.24	11.148
330.00	2.5956	1026.17	689.95	9.809	470.00	3.6845	1560.86	1083.58	11.163
332.00	2.6113	1034.13	695.87	9.833	472.00	3.6999	1568.20	1088.92	11.179
334.00	2.6270	1042.09	701.79	9.857	474.00	3.7154	1575.52	1094.24	11.195
336.00	2.6427	1050.04	707.71	9.881	476.00	3.7308	1582.84	1099.56	11.210
338.00	2.6584	1057.98	713.61	9.905	478.00	3.7462	1590.15	1104.87	11.225
340.00	2.6741	1065.91	719.51	9.928	480.00	3.7616	1597.45	1110.18	11.240
342.00	2.6898	1073.83	725.40	9.951	482.00	3.7770	1604.74	1115.48	11.256
344.00	2.7055	1081.75	731.29	9.974	484.00	3.7924	1612.03	1120.77	11.271
346.00	2.7212	1089.66	737.16	9.997	486.00	3.8079	1619.31	1126.05	11.286
348.00	2.7369	1097.56	743.03	10.020	488.00	3.8233	1626.59	1131.33	11.301
350.00	2.7525	1105.44	748.89	10.043	490.00	3.8387	1633.85	1136.60	11.316
352.00	2.7682	1113.32	754.74	10.065	492.00	3.8541	1641.12	1141.87	11.330
354.00	2.7839	1121.19	760.58	10.087	494.00	3.8695	1648.37	1147.13	11.345
356.00	2.7995	1129.05	766.41	10.110	496.00	3.8849	1655.62	1152.38	11.360
358.00	2.8152	1136.90	772.23	10.132	498.00	3.9003	1662.86	1157.63	11.374
360.00	2.8308	1144.74	778.05	10.153	500.00	3.9157	1670.10	1162.88	11.389
362.00	2.8465	1152.57	783.84	10.175	502.00	3.9311	1677.33	1168.11	11.403
364.00	2.8621	1160.38	789.63	10.197	504.00	3.9465	1684.56	1173.35	11.418
366.00	2.8777	1168.18	795.41	10.218	506.00	3.9619	1691.78	1178.58	11.432
368.00	2.8933	1175.97	801.18	10.239	508.00	3.9773	1699.00	1183.80	11.446
370.00	2.9090	1183.75	806.93	10.260	510.00	3.9927	1706.21	1189.02	11.460
372.00	2.9246	1191.52	812.68	10.281	512.00	4.0080	1713.42	1194.23	11.474
374.00	2.9402	1199.28	818.42	10.302	514.00	4.0234	1720.63	1199.44	11.488
376.00	2.9558	1207.03	824.15	10.323	516.00	4.0388	1727.83	1204.65	11.502
378.00	2.9714	1214.77	829.87	10.343	518.00	4.0542	1735.02	1209.85	11.516
380.00	2.9870	1222.50	835.58	10.364	520.00	4.0696	1742.22	1215.05	11.530
382.00	3.0026	1230.22	841.28	10.384	522.00	4.0850	1749.40	1220.25	11.544
384.00	3.0181	1237.93	846.97	10.404	524.00	4.1004	1756.59	1225.44	11.558
386.00	3.0337	1245.63	852.65	10.424	526.00	4.1158	1763.77	1230.62	11.571
388.00	3.0493	1253.32	858.32	10.444	528.00	4.1311	1770.95	1235.81	11.585
390.00	3.0649	1260.99	863.98	10.464	530.00	4.1465	1778.12	1240.99	11.599
392.00	3.0804	1268.66	869.63	10.483	532.00	4.1619	1785.29	1246.17	11.612
394.00	3.0960	1276.32	875.27	10.503	534.00	4.1773	1792.46	1251.34	11.626
396.00	3.1116	1283.97	880.91	10.522	536.00	4.1927	1799.62	1256.51	11.639
398.00	3.1271	1291.61	886.53	10.541	538.00	4.2080	1806.78	1261.68	11.652
400.00	3.1427	1299.24	892.15	10.560	540.00	4.2234	1813.94	1266.85	11.666

800.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (8TU/L8)	ENTROPY (8TU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (8TU/L8)
122.00		.7372	234.28	125.14	5.939				
124.00		.7550	241.61	129.83	5.999				
126.00		.7727	248.88	134.49	6.057				
128.00		.7902	256.10	139.12	6.114				
130.00		.8076	263.28	143.72	6.169				
132.00		.8248	270.41	148.31	6.224				
134.00		.8420	277.52	152.87	6.277				
136.00		.8590	284.59	157.42	6.330				
138.00		.8759	291.63	161.97	6.381				
140.00		.8926	298.66	166.51	6.432				
142.00		.9093	305.67	171.05	6.481				
144.00		.9259	312.66	175.60	6.530				
146.00		.9423	319.65	180.14	6.578				
148.00		.9587	326.63	184.70	6.626				
150.00		.9750	333.61	189.27	6.673				
152.00		.9912	340.59	193.85	6.719				
154.00		1.0073	347.57	198.45	6.765				
156.00		1.0233	354.56	203.06	6.810				
158.00		1.0393	361.56	207.70	6.854				
160.00		1.0552	368.56	212.35	6.898				
36.00	.2089	-87.51	-118.43	1.665	176.00	1.0710	375.58	217.03	6.942
38.00	.2113	-83.55	-114.83	1.772	178.00	1.1952	432.37	255.43	7.276
40.00	.2139	-79.38	-111.04	1.879	180.00	1.2105	439.56	260.36	7.316
42.00	.2166	-75.01	-107.08	1.986	182.00	1.2257	446.75	265.30	7.356
44.00	.2196	-70.41	-102.92	2.093	184.00	1.2408	453.94	270.25	7.395
46.00	.2228	-65.58	-98.57	2.200	186.00	1.2560	461.16	275.23	7.434
48.00	.2262	-60.51	-94.00	2.308	188.00	1.2710	468.41	280.24	7.473
50.00	.2299	-55.18	-89.22	2.417	190.00	1.2861	475.68	285.29	7.512
52.00	.2339	-49.59	-84.21	2.526	192.00	1.3010	482.98	290.37	7.550
54.00	.2382	-43.75	-79.01	2.637	194.00	1.3160	490.30	295.48	7.588
56.00	.2428	-37.66	-73.60	2.747	196.00	1.3309	497.65	300.62	7.625
58.00	.2479	-31.23	-67.93	2.860	198.00	1.3458	505.03	305.80	7.663
60.00	.2514	-24.57	-62.18	2.974	200.00	1.3606	512.44	311.01	7.700
62.00	.2600	-17.49	-55.99	3.091	202.00	1.3754	519.87	316.25	7.737
64.00	.2666	-10.08	-49.35	3.209	204.00	1.3902	527.33	321.53	7.774
66.00	.2739	-2.35	-42.89	3.327	206.00	1.4049	534.82	326.83	7.810
68.00	.2819	5.68	-36.04	3.447	208.00	1.4196	542.33	332.17	7.847
70.00	.2907	13.96	-29.07	3.567	210.00	1.4343	549.87	337.53	7.883
72.00	.3004	22.27	-22.20	3.684	212.00	1.4489	557.43	342.93	7.919
74.00	.3112	30.71	-15.37	3.799	214.00	1.4636	565.02	348.35	7.954
76.00	.3231	39.32	-8.52	3.914	216.00	1.4782	572.63	353.80	7.990
78.00	.3361	48.12	-1.64	4.029	218.00	1.4927	580.26	359.27	8.025
80.00	.3503	57.11	5.26	4.142	220.00	1.5073	587.91	364.77	8.060
82.00	.3655	66.26	12.15	4.255	222.00	1.5218	595.59	370.30	8.094
84.00	.3818	75.52	18.99	4.367	224.00	1.5363	603.28	375.85	8.129
86.00	.3990	84.82	25.76	4.476	226.00	1.5508	611.00	381.42	8.163
88.00	.4169	94.12	32.41	4.583	228.00	1.5652	618.74	387.02	8.197
90.00	.4353	103.37	38.92	4.687	230.00	1.5796	626.50	392.64	8.231
92.00	.4542	112.52	45.28	4.788	232.00	1.5941	634.27	398.29	8.265
94.00	.4734	121.55	51.47	4.885	234.00	1.6084	642.07	403.95	8.298
96.00	.4927	130.44	57.50	4.978	236.00	1.6228	649.88	409.64	8.332
98.00	.5121	139.18	63.37	5.069	238.00	1.6372	657.71	415.34	8.365
100.00	.5315	147.78	69.10	5.155	240.00	1.6515	665.56	421.07	8.397
102.00	.5508	156.23	74.69	5.239	242.00	1.6659	673.43	426.81	8.430
104.00	.5701	164.54	80.14	5.320	244.00	1.6802	681.31	432.57	8.463
106.00	.5893	172.72	85.48	5.398	246.00	1.6945	689.20	438.35	8.495
108.00	.6083	180.77	90.72	5.473	248.00	1.7087	697.11	444.15	8.527
110.00	.6272	188.70	95.85	5.546	250.00	1.7230	705.04	449.96	8.559
112.00	.6459	196.53	100.90	5.616	252.00	1.7372	712.98	455.79	8.590
114.00	.6645	204.25	105.88	5.684	254.00	1.7515	720.93	461.64	8.622
116.00	.6829	211.88	110.78	5.751	256.00	1.7657	728.89	467.50	8.653
118.00	.7012	219.42	115.62	5.815	258.00	1.7799	736.87	473.37	8.684
120.00	.7193	226.88	120.40	5.878	260.00	1.7941	744.86	479.26	8.715

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	1.8083	752.85	485.16	8.745	402.00	2.7770	1307.51	896.40	10.445
264.00	1.8224	760.86	491.07	8.776	404.00	2.7906	1315.12	902.00	10.464
266.00	1.8366	768.88	496.99	8.806	406.00	2.8042	1322.73	907.58	10.482
268.00	1.8507	776.91	502.93	8.836	408.00	2.8179	1330.32	913.16	10.501
270.00	1.8648	784.94	508.87	8.866	410.00	2.8315	1337.91	918.73	10.520
272.00	1.8789	792.96	514.80	8.896	412.00	2.8451	1345.48	924.29	10.538
274.00	1.8930	800.99	520.74	8.925	414.00	2.8587	1353.05	929.84	10.556
276.00	1.9071	809.02	526.68	8.954	416.00	2.8723	1360.62	935.40	10.575
278.00	1.9212	817.05	532.64	8.983	418.00	2.8859	1368.18	940.94	10.593
280.00	1.9352	825.09	538.60	9.012	420.00	2.8995	1375.73	946.48	10.611
282.00	1.9493	833.14	544.56	9.041	422.00	2.9131	1383.28	952.01	10.629
284.00	1.9633	841.18	550.53	9.069	424.00	2.9267	1390.81	957.53	10.647
286.00	1.9773	849.24	556.51	9.097	426.00	2.9403	1398.34	963.05	10.664
288.00	1.9913	857.29	562.49	9.125	428.00	2.9539	1405.86	968.56	10.682
290.00	2.0053	865.35	568.48	9.153	430.00	2.9675	1413.37	974.05	10.699
292.00	2.0193	873.41	574.47	9.181	432.00	2.9810	1420.87	979.54	10.717
294.00	2.0333	881.47	580.46	9.209	434.00	2.9946	1428.36	985.03	10.734
296.00	2.0472	889.53	586.45	9.236	436.00	3.0082	1435.84	990.50	10.751
298.00	2.0612	897.60	592.45	9.263	438.00	3.0218	1443.32	995.97	10.768
300.00	2.0751	905.66	598.45	9.290	440.00	3.0353	1450.78	1001.43	10.785
302.00	2.0891	913.72	604.45	9.317	442.00	3.0489	1458.24	1006.88	10.802
304.00	2.1030	921.78	610.45	9.343	444.00	3.0625	1465.69	1012.32	10.819
306.00	2.1169	929.84	616.45	9.370	446.00	3.0760	1473.13	1017.75	10.836
308.00	2.1308	937.90	622.46	9.396	448.00	3.0896	1480.56	1023.18	10.852
310.00	2.1447	945.96	628.46	9.422	450.00	3.1031	1487.99	1028.59	10.869
312.00	2.1586	954.02	634.45	9.448	452.00	3.1167	1495.42	1034.02	10.885
314.00	2.1725	962.07	640.45	9.474	454.00	3.1302	1502.84	1039.44	10.902
316.00	2.1863	970.11	646.45	9.499	456.00	3.1437	1510.25	1044.85	10.918
318.00	2.2002	978.16	652.44	9.525	458.00	3.1573	1517.66	1050.25	10.934
320.00	2.2140	986.20	658.42	9.550	460.00	3.1708	1525.05	1055.64	10.950
322.00	2.2279	994.23	664.41	9.575	462.00	3.1843	1532.44	1061.02	10.967
324.00	2.2417	1002.26	670.39	9.600	464.00	3.1979	1539.82	1066.40	10.982
326.00	2.2555	1010.28	676.36	9.624	466.00	3.2114	1547.19	1071.77	10.998
328.00	2.2694	1018.29	682.33	9.649	468.00	3.2249	1554.55	1077.12	11.014
330.00	2.2832	1026.30	688.29	9.673	470.00	3.2385	1561.90	1082.48	11.030
332.00	2.2970	1034.30	694.25	9.697	472.00	3.2520	1569.25	1087.82	11.045
334.00	2.3108	1042.30	700.20	9.721	474.00	3.2655	1576.58	1093.15	11.061
336.00	2.3246	1050.28	706.14	9.745	476.00	3.2790	1583.91	1098.48	11.076
338.00	2.3384	1058.26	712.08	9.769	478.00	3.2925	1591.23	1103.80	11.092
340.00	2.3522	1066.22	718.00	9.793	480.00	3.3060	1598.55	1109.11	11.107
342.00	2.3660	1074.18	723.92	9.816	482.00	3.3195	1605.85	1114.42	11.122
344.00	2.3797	1082.13	729.83	9.839	484.00	3.3331	1613.15	1119.71	11.137
346.00	2.3935	1090.07	735.73	9.862	486.00	3.3466	1620.44	1125.00	11.152
348.00	2.4073	1098.00	741.62	9.885	488.00	3.3601	1627.72	1130.29	11.167
350.00	2.4210	1105.91	747.50	9.908	490.00	3.3736	1635.00	1135.56	11.182
352.00	2.4348	1113.82	753.37	9.930	492.00	3.3871	1642.26	1140.83	11.197
354.00	2.4485	1121.71	759.23	9.952	494.00	3.4006	1649.53	1146.10	11.212
356.00	2.4623	1129.60	765.08	9.975	496.00	3.4141	1656.78	1151.36	11.226
358.00	2.4760	1137.47	770.92	9.997	498.00	3.4276	1664.03	1156.61	11.241
360.00	2.4897	1145.33	776.74	10.019	500.00	3.4411	1671.28	1161.86	11.255
362.00	2.5035	1153.17	782.55	10.040	502.00	3.4545	1678.52	1167.10	11.270
364.00	2.5172	1160.99	788.34	10.062	504.00	3.4680	1685.75	1172.33	11.284
366.00	2.5309	1168.80	794.12	10.083	506.00	3.4815	1692.98	1177.57	11.298
368.00	2.5446	1176.60	799.89	10.105	508.00	3.4950	1700.20	1182.79	11.313
370.00	2.5583	1184.39	805.65	10.126	510.00	3.5085	1707.42	1188.02	11.327
372.00	2.5720	1192.17	811.40	10.147	512.00	3.5220	1714.64	1193.23	11.341
374.00	2.5857	1199.93	817.14	10.167	514.00	3.5355	1721.85	1198.45	11.355
376.00	2.5994	1207.69	822.87	10.188	516.00	3.5490	1729.05	1203.66	11.369
378.00	2.6131	1215.43	828.58	10.209	518.00	3.5624	1736.26	1208.87	11.383
380.00	2.6267	1223.16	834.29	10.229	520.00	3.5759	1743.46	1214.07	11.397
382.00	2.6404	1230.88	839.98	10.249	522.00	3.5894	1750.65	1219.27	11.411
384.00	2.6541	1238.59	845.67	10.269	524.00	3.6029	1757.84	1224.47	11.424
386.00	2.6678	1246.29	851.34	10.289	526.00	3.6163	1765.03	1229.66	11.438
388.00	2.6814	1253.97	857.01	10.309	528.00	3.6298	1772.22	1234.85	11.452
390.00	2.6951	1261.65	862.66	10.329	530.00	3.6433	1779.40	1240.04	11.465
392.00	2.7087	1269.32	868.31	10.349	532.00	3.6568	1786.58	1245.22	11.479
394.00	2.7224	1276.98	873.95	10.368	534.00	3.6702	1793.75	1250.40	11.492
396.00	2.7361	1284.62	879.57	10.387	536.00	3.6837	1800.93	1255.58	11.506
398.00	2.7497	1292.26	885.19	10.407	538.00	3.6972	1808.10	1260.76	11.519
400.00	2.7633	1299.89	890.80	10.426	540.00	3.7106	1815.26	1265.93	11.532

900.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	.6572	228.11	118.65	5.783	142.00	.8111	300.88	165.79	6.336
124.00	.6731	235.59	123.48	5.844	144.00	.8260	308.00	170.44	6.386
126.00	.6888	243.00	128.28	5.903	146.00	.8407	315.11	175.08	6.435
128.00	.7045	250.37	133.04	5.961	148.00	.8554	322.21	179.74	6.483
130.00	.7200	257.69	137.77	6.018	150.00	.8700	329.30	184.40	6.530
132.00	.7354	264.96	142.48	6.073	152.00	.8846	336.39	189.07	6.577
134.00	.7508	272.20	147.16	6.128	154.00	.8990	343.48	193.75	6.624
136.00	.7660	279.41	151.83	6.181	156.00	.9134	350.58	198.45	6.670
138.00	.7811	286.59	156.49	6.234	158.00	.9277	357.68	203.17	6.715
140.00	.7962	293.74	161.14	6.285	160.00	.9420	364.79	207.91	6.760
36.00	.2074	-84.42	-118.96	1.644	162.00	.9562	371.91	212.66	6.804
38.00	.2097	-80.51	-115.43	1.750	164.00	.9703	379.04	217.44	6.848
40.00	.2121	-76.40	-111.73	1.855	166.00	.9843	386.19	222.25	6.891
42.00	.2148	-72.10	-107.87	1.960	168.00	.9984	393.35	227.07	6.934
44.00	.2176	-67.58	-103.81	2.065	170.00	1.0123	400.52	231.93	6.976
46.00	.2206	-62.84	-99.57	2.170	172.00	1.0262	407.72	236.80	7.018
48.00	.2238	-57.87	-95.13	2.276	174.00	1.0400	414.93	241.71	7.060
50.00	.2272	-52.65	-90.49	2.383	176.00	1.0538	422.16	246.64	7.101
52.00	.2308	-47.19	-85.63	2.490	178.00	1.0676	429.40	251.60	7.142
54.00	.2348	-41.50	-80.60	2.597	180.00	1.0813	436.67	256.59	7.183
56.00	.2390	-35.58	-75.39	2.705	182.00	1.0949	443.94	261.58	7.223
58.00	.2436	-29.36	-69.93	2.814	184.00	1.1085	451.19	266.57	7.263
60.00	.2491	-22.91	-64.40	2.924	186.00	1.1221	458.47	271.59	7.302
62.00	.2544	-16.11	-58.47	3.036	188.00	1.1356	465.78	276.65	7.341
64.00	.2601	-9.02	-52.35	3.149	190.00	1.1491	473.11	281.73	7.380
66.00	.2664	-1.65	-46.02	3.262	192.00	1.1625	480.47	286.85	7.418
68.00	.2732	5.96	-39.55	3.375	194.00	1.1759	487.85	292.00	7.457
70.00	.2807	13.75	-32.99	3.488	196.00	1.1893	495.26	297.19	7.495
72.00	.2888	21.52	-26.57	3.598	198.00	1.2026	502.70	302.40	7.532
74.00	.2976	29.36	-20.21	3.705	200.00	1.2159	510.16	307.65	7.570
76.00	.3073	37.31	-13.86	3.811	202.00	1.2292	517.65	312.93	7.607
78.00	.3177	45.42	-7.49	3.916	204.00	1.2424	525.17	318.24	7.644
80.00	.3289	53.70	-1.09	4.021	206.00	1.2556	532.71	323.59	7.681
82.00	.3410	62.14	5.34	4.125	208.00	1.2688	540.27	328.96	7.717
84.00	.3539	70.72	11.78	4.229	210.00	1.2819	547.87	334.36	7.754
86.00	.3676	79.42	18.20	4.331	212.00	1.2951	555.48	339.80	7.790
88.00	.3819	88.20	24.59	4.432	214.00	1.3081	563.12	345.26	7.826
90.00	.3968	97.01	30.92	4.531	216.00	1.3212	570.79	350.74	7.861
92.00	.4123	105.82	37.16	4.628	218.00	1.3343	578.47	356.25	7.897
94.00	.4281	114.60	43.30	4.722	220.00	1.3473	586.17	361.79	7.932
96.00	.4442	123.31	49.34	4.814	222.00	1.3603	593.90	367.35	7.967
98.00	.4605	131.96	55.26	4.903	224.00	1.3732	601.64	372.93	8.002
100.00	.4770	140.51	61.06	4.990	226.00	1.3862	609.41	378.54	8.036
102.00	.4936	148.96	66.75	5.073	228.00	1.4012	617.19	384.17	8.070
104.00	.5102	157.30	72.33	5.154	230.00	1.4121	625.00	389.82	8.104
106.00	.5268	165.55	77.81	5.233	232.00	1.4250	632.82	395.49	8.138
108.00	.5434	173.68	83.19	5.309	234.00	1.4378	640.65	401.19	8.172
110.00	.5599	181.72	88.47	5.383	236.00	1.4507	648.51	406.90	8.205
112.00	.5764	189.66	93.67	5.454	238.00	1.4635	656.38	412.63	8.239
114.00	.5927	197.52	98.80	5.524	240.00	1.4764	664.27	418.38	8.272
116.00	.6090	205.28	103.85	5.591	242.00	1.4892	672.17	424.15	8.304
118.00	.6252	212.96	108.84	5.657	244.00	1.5020	680.09	429.94	8.337
120.00	.6413	220.57	113.77	5.721	246.00	1.5148	688.02	435.74	8.369

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPER- ATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	1.6165	751.93	482.71	8.621	402.00	2.4806	1308.17	895.03	10.325
264.00	1.6291	759.97	488.64	8.652	404.00	2.4928	1315.78	900.62	10.344
266.00	1.6418	768.02	494.58	8.682	406.00	2.5049	1323.39	906.20	10.363
268.00	1.6544	776.07	500.54	8.712	408.00	2.5170	1330.99	911.78	10.382
270.00	1.6670	784.14	506.50	8.742	410.00	2.5292	1338.58	917.35	10.400
272.00	1.6796	792.19	512.45	8.772	412.00	2.5413	1346.16	922.91	10.419
274.00	1.6922	800.24	518.40	8.801	414.00	2.5534	1353.74	928.47	10.437
276.00	1.7048	808.30	524.37	8.831	416.00	2.5656	1361.31	934.03	10.455
278.00	1.7174	816.36	530.34	8.860	418.00	2.5777	1368.88	939.58	10.474
280.00	1.7299	824.43	536.31	8.889	420.00	2.5898	1376.45	945.12	10.492
282.00	1.7425	832.50	542.30	8.917	422.00	2.6019	1384.00	950.66	10.510
284.00	1.7550	840.58	548.29	8.946	424.00	2.6140	1391.55	956.19	10.527
286.00	1.7675	848.66	554.28	8.974	426.00	2.6261	1399.09	961.71	10.545
288.00	1.7800	856.74	560.29	9.002	428.00	2.6382	1406.62	967.23	10.563
290.00	1.7925	864.83	566.29	9.030	430.00	2.6503	1414.14	972.74	10.580
292.00	1.8050	872.92	572.30	9.058	432.00	2.6624	1421.65	978.24	10.598
294.00	1.8175	881.01	578.32	9.086	434.00	2.6745	1429.16	983.73	10.615
296.00	1.8299	889.11	584.33	9.113	436.00	2.6866	1436.66	989.21	10.632
298.00	1.8424	897.20	590.35	9.141	438.00	2.6987	1444.15	994.69	10.649
300.00	1.8548	905.29	596.37	9.168	440.00	2.7107	1451.63	1000.16	10.667
302.00	1.8673	913.39	602.40	9.195	442.00	2.7228	1459.10	1005.62	10.683
304.00	1.8797	921.48	608.42	9.221	444.00	2.7349	1466.56	1011.07	10.700
306.00	1.8921	929.58	614.45	9.248	446.00	2.7470	1474.02	1016.52	10.717
308.00	1.9045	937.67	620.47	9.274	448.00	2.7590	1481.46	1021.95	10.734
310.00	1.9169	945.76	626.50	9.300	450.00	2.7711	1488.90	1027.38	10.750
312.00	1.9293	953.84	632.52	9.326	452.00	2.7832	1496.35	1032.82	10.767
314.00	1.9417	961.93	638.54	9.352	454.00	2.7952	1503.78	1038.24	10.783
316.00	1.9541	970.01	644.56	9.378	456.00	2.8073	1511.21	1043.66	10.800
318.00	1.9664	978.09	650.58	9.403	458.00	2.8193	1518.63	1049.07	10.816
320.00	1.9788	986.16	656.59	9.429	460.00	2.8314	1526.04	1054.47	10.832
322.00	1.9911	994.22	662.60	9.454	462.00	2.8434	1533.44	1059.87	10.848
324.00	2.0035	1002.29	668.61	9.479	464.00	2.8555	1540.83	1065.25	10.864
326.00	2.0158	1010.34	674.61	9.503	466.00	2.8675	1548.21	1070.63	10.880
328.00	2.0281	1018.39	680.60	9.528	468.00	2.8796	1555.58	1076.00	10.896
330.00	2.0405	1026.43	686.59	9.552	470.00	2.8916	1562.95	1081.36	10.911
332.00	2.0528	1034.46	692.58	9.577	472.00	2.9037	1570.31	1086.71	10.927
334.00	2.0651	1042.49	698.55	9.601	474.00	2.9157	1577.65	1092.05	10.942
336.00	2.0774	1050.50	704.52	9.625	476.00	2.9277	1584.99	1097.38	10.958
338.00	2.0897	1058.51	710.47	9.649	478.00	2.9398	1592.32	1102.71	10.973
340.00	2.1020	1066.51	716.42	9.672	480.00	2.9518	1599.64	1108.03	10.989
342.00	2.1143	1074.49	722.37	9.696	482.00	2.9638	1606.96	1113.34	11.004
344.00	2.1266	1082.47	728.30	9.719	484.00	2.9758	1614.26	1118.64	11.019
346.00	2.1388	1090.44	734.22	9.742	486.00	2.9879	1621.56	1123.94	11.034
348.00	2.1511	1098.39	740.13	9.765	488.00	2.9999	1628.85	1129.23	11.049
350.00	2.1634	1106.33	746.03	9.788	490.00	3.0119	1636.14	1134.51	11.064
352.00	2.1756	1114.26	751.91	9.810	492.00	3.0239	1643.41	1139.78	11.079
354.00	2.1879	1122.18	757.79	9.833	494.00	3.0360	1650.68	1145.05	11.093
356.00	2.2002	1130.09	763.66	9.855	496.00	3.0480	1657.95	1150.32	11.108
358.00	2.2124	1137.98	769.51	9.877	498.00	3.0600	1665.20	1155.57	11.123
360.00	2.2246	1145.86	775.35	9.899	500.00	3.0720	1672.46	1160.82	11.137
362.00	2.2369	1153.71	781.16	9.921	502.00	3.0840	1679.70	1166.07	11.152
364.00	2.2491	1161.54	786.96	9.942	504.00	3.0960	1686.94	1171.31	11.166
366.00	2.2613	1169.37	792.75	9.964	506.00	3.1080	1694.18	1176.54	11.180
368.00	2.2735	1177.18	798.53	9.985	508.00	3.1200	1701.41	1181.77	11.195
370.00	2.2858	1184.98	804.29	10.006	510.00	3.1320	1708.63	1187.00	11.209
372.00	2.2980	1192.76	810.04	10.027	512.00	3.1440	1715.85	1192.22	11.223
374.00	2.3102	1200.53	815.78	10.048	514.00	3.1560	1723.07	1197.44	11.237
376.00	2.3224	1208.29	821.51	10.069	516.00	3.1680	1730.28	1202.66	11.251
378.00	2.3346	1216.04	827.23	10.089	518.00	3.1800	1737.49	1207.87	11.265
380.00	2.3468	1223.78	832.93	10.110	520.00	3.1920	1744.70	1213.08	11.279
382.00	2.3589	1231.50	838.63	10.130	522.00	3.2040	1751.90	1218.28	11.293
384.00	2.3711	1239.21	844.31	10.150	524.00	3.2160	1759.10	1223.48	11.306
386.00	2.3833	1246.92	849.98	10.170	526.00	3.2280	1766.30	1228.68	11.320
388.00	2.3955	1254.61	855.65	10.190	528.00	3.2400	1773.49	1233.88	11.334
390.00	2.4077	1262.29	861.30	10.210	530.00	3.2520	1780.68	1239.07	11.347
392.00	2.4198	1269.96	866.94	10.229	532.00	3.2640	1787.87	1244.26	11.361
394.00	2.4320	1277.62	872.58	10.249	534.00	3.2759	1795.05	1249.45	11.374
396.00	2.4442	1285.27	878.20	10.268	536.00	3.2879	1802.23	1254.64	11.388
398.00	2.4563	1292.91	883.82	10.287	538.00	3.2999	1809.41	1259.82	11.401
400.00	2.4685	1300.54	889.43	10.306	540.00	3.3119	1816.59	1265.00	11.415

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	.5953	222.68	112.52	5.644	142.00	.7339	296.53	160.73	6.205
124.00	.6095	230.26	117.47	5.705	144.00	.7473	303.76	165.47	6.255
126.00	.6236	237.78	122.38	5.766	146.00	.7607	310.97	170.20	6.305
128.00	.6377	245.26	127.25	5.824	148.00	.7740	318.17	174.95	6.354
130.00	.6517	252.69	132.09	5.882	150.00	.7872	325.37	179.69	6.402
132.00	.6656	260.07	136.91	5.938	152.00	.8004	332.56	184.45	6.450
134.00	.6794	267.42	141.70	5.994	154.00	.8135	339.75	189.21	6.497
136.00	.6931	274.74	146.47	6.048	156.00	.8265	346.94	193.99	6.543
138.00	.7068	282.03	151.23	6.101	158.00	.8395	354.13	198.78	6.589
140.00	.7204	289.29	155.98	6.153	160.00	.8524	361.33	203.59	6.634
36.00	.2060	-81.32	-119.44	1.624	162.00	.8652	368.54	208.42	6.679
38.00	.2082	-77.46	-115.98	1.728	164.00	.8781	375.76	213.27	6.723
40.00	.2105	-73.41	-112.36	1.832	166.00	.8908	382.99	218.14	6.767
42.00	.2130	-69.17	-108.58	1.936	168.00	.9035	390.23	223.04	6.811
44.00	.2156	-64.72	-104.62	2.039	170.00	.9161	397.49	227.95	6.854
46.00	.2185	-60.06	-100.48	2.143	172.00	.9287	404.76	232.90	6.896
48.00	.2215	-55.17	-96.15	2.247	174.00	.9413	412.05	237.86	6.938
50.00	.2247	-50.05	-91.63	2.351	176.00	.9538	419.36	242.85	6.980
52.00	.2281	-44.70	-86.91	2.456	178.00	.9663	426.68	247.87	7.021
54.00	.2317	-39.14	-82.02	2.561	180.00	.9787	434.02	252.91	7.062
56.00	.2356	-33.37	-76.97	2.666	182.00	.9911	441.35	257.96	7.103
58.00	.2398	-27.31	-71.69	2.773	184.00	.9938	449.36	263.00	7.143
60.00	.2448	-21.03	-66.33	2.879	186.00	.9958	456.03	268.08	7.183
62.00	.2495	-14.45	-60.62	2.988	188.00	.9979	463.40	273.18	7.222
64.00	.2547	-7.61	-54.74	3.097	190.00	1.0001	470.80	278.32	7.261
66.00	.2602	-.53	-48.68	3.206	192.00	1.0027	478.22	283.49	7.300
68.00	.2662	6.76	-42.50	3.314	194.00	1.0053	485.67	288.69	7.339
70.00	.2727	14.20	-36.26	3.422	196.00	1.0076	493.14	293.91	7.377
72.00	.2796	21.57	-30.18	3.525	198.00	1.0087	500.64	299.18	7.415
74.00	.2872	28.96	-24.18	3.627	200.00	1.0100	508.16	304.47	7.453
76.00	.2953	36.44	-18.20	3.726	202.00	1.1127	515.70	309.79	7.490
78.00	.3040	44.04	-12.22	3.825	204.00	1.1247	523.27	315.14	7.528
80.00	.3133	51.78	-6.20	3.923	206.00	1.1367	530.87	320.52	7.565
82.00	.3233	59.68	-.15	4.021	208.00	1.1486	538.49	325.93	7.601
84.00	.3339	67.73	5.94	4.118	210.00	1.1605	546.13	331.37	7.638
86.00	.3451	75.91	12.04	4.214	212.00	1.1724	553.80	336.84	7.674
88.00	.3569	84.20	18.15	4.309	214.00	1.1843	561.48	342.33	7.710
90.00	.3693	92.58	24.25	4.403	216.00	1.1961	569.19	347.85	7.746
92.00	.3821	101.01	30.31	4.496	218.00	1.2079	576.92	353.39	7.782
94.00	.3953	109.47	36.32	4.587	220.00	1.2197	584.67	358.96	7.817
96.00	.4088	117.93	42.27	4.676	222.00	1.2315	592.44	364.55	7.852
98.00	.4227	126.37	48.15	4.763	224.00	1.2432	600.23	370.16	7.887
100.00	.4368	134.77	53.95	4.848	226.00	1.2550	608.03	375.80	7.922
102.00	.4510	143.12	59.67	4.931	228.00	1.2667	615.86	381.46	7.957
104.00	.4654	151.41	65.29	5.011	230.00	1.2784	623.71	387.14	7.991
106.00	.4798	159.63	70.84	5.089	232.00	1.2900	631.57	392.84	8.025
108.00	.4943	167.77	76.30	5.165	234.00	1.3133	647.35	404.31	8.092
110.00	.5088	175.83	81.67	5.239	236.00	1.3250	655.26	410.07	8.126
112.00	.5233	183.82	86.98	5.311	238.00	1.3366	663.19	415.85	8.159
114.00	.5378	191.73	92.21	5.381	240.00	1.3482	671.13	421.65	8.192
116.00	.5523	199.57	97.37	5.450	242.00	1.3597	679.09	427.47	8.225
118.00	.5667	207.34	102.48	5.516	244.00	1.3713	687.06	433.30	8.257
120.00	.5810	215.04	107.52	5.581	246.00	1.3829	695.05	439.15	8.289

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	1.4633	751.29	480.50	8.510	402.00	2.2436	1308.93	893.75	10.219
264.00	1.4748	759.37	486.46	8.541	404.00	2.2545	1316.57	899.36	10.238
266.00	1.4862	767.45	492.43	8.571	406.00	2.2655	1324.20	904.96	10.257
268.00	1.4976	775.55	498.41	8.602	408.00	2.2764	1331.82	910.56	10.275
270.00	1.5090	783.65	504.40	8.632	410.00	2.2874	1339.43	916.15	10.294
272.00	1.5204	791.73	510.37	8.662	412.00	2.2983	1347.04	921.73	10.312
274.00	1.5318	799.82	516.35	8.691	414.00	2.3093	1354.64	927.30	10.331
276.00	1.5432	807.91	522.34	8.721	416.00	2.3202	1362.23	932.87	10.349
278.00	1.5545	816.01	528.33	8.750	418.00	2.3311	1369.82	938.44	10.367
280.00	1.5659	824.11	534.33	8.779	420.00	2.3420	1377.40	943.99	10.385
282.00	1.5772	832.21	540.34	8.808	422.00	2.3530	1384.97	949.54	10.403
284.00	1.5886	840.32	546.35	8.836	424.00	2.3639	1392.53	955.08	10.421
286.00	1.5999	848.43	552.37	8.865	426.00	2.3748	1400.08	960.62	10.439
288.00	1.6112	856.54	558.39	8.893	428.00	2.3857	1407.62	966.14	10.457
290.00	1.6225	864.65	564.41	8.921	430.00	2.3966	1415.16	971.66	10.474
292.00	1.6338	872.77	570.44	8.949	432.00	2.4075	1422.69	977.17	10.492
294.00	1.6450	880.88	576.47	8.977	434.00	2.4184	1430.20	982.67	10.509
296.00	1.6563	889.00	582.50	9.004	436.00	2.4293	1437.71	988.16	10.526
298.00	1.6675	897.12	588.53	9.032	438.00	2.4402	1445.21	993.64	10.544
300.00	1.6788	905.23	594.57	9.059	440.00	2.4511	1452.70	999.12	10.561
302.00	1.6900	913.34	600.60	9.086	442.00	2.4620	1460.19	1004.58	10.578
304.00	1.7012	921.46	606.64	9.112	444.00	2.4729	1467.66	1010.04	10.594
306.00	1.7125	929.57	612.67	9.139	446.00	2.4838	1475.12	1015.49	10.611
308.00	1.7237	937.67	618.70	9.165	448.00	2.4947	1482.58	1020.94	10.628
310.00	1.7349	945.78	624.74	9.192	450.00	2.5055	1490.02	1026.37	10.645
312.00	1.7461	953.88	630.77	9.218	452.00	2.5164	1497.48	1031.81	10.661
314.00	1.7572	961.98	636.80	9.244	454.00	2.5273	1504.92	1037.24	10.677
316.00	1.7684	970.07	642.82	9.269	456.00	2.5382	1512.36	1042.67	10.694
318.00	1.7796	978.16	648.84	9.295	458.00	2.5490	1519.79	1048.08	10.710
320.00	1.7907	986.24	654.86	9.320	460.00	2.5599	1527.21	1053.49	10.726
322.00	1.8019	994.32	660.87	9.345	462.00	2.5707	1534.62	1058.89	10.742
324.00	1.8130	1002.39	666.88	9.370	464.00	2.5816	1542.02	1064.28	10.758
326.00	1.8242	1010.45	672.88	9.395	466.00	2.5925	1549.41	1069.66	10.774
328.00	1.8353	1018.50	678.88	9.420	468.00	2.6033	1556.79	1075.04	10.790
330.00	1.8464	1026.55	684.87	9.444	470.00	2.6142	1564.16	1080.40	10.806
332.00	1.8575	1034.59	690.85	9.468	472.00	2.6250	1571.53	1085.76	10.821
334.00	1.8687	1042.63	696.83	9.493	474.00	2.6359	1578.89	1091.11	10.837
336.00	1.8798	1050.65	702.79	9.517	476.00	2.6467	1586.23	1096.45	10.852
338.00	1.8909	1058.66	708.75	9.540	478.00	2.6576	1593.57	1101.78	10.868
340.00	1.9020	1066.67	714.70	9.564	480.00	2.6684	1600.91	1107.11	10.883
342.00	1.9131	1074.66	720.65	9.587	482.00	2.6793	1608.23	1112.43	10.898
344.00	1.9241	1082.65	726.58	9.611	484.00	2.6901	1615.55	1117.74	10.913
346.00	1.9352	1090.62	732.50	9.634	486.00	2.7009	1622.86	1123.04	10.929
348.00	1.9463	1098.58	738.42	9.657	488.00	2.7118	1630.16	1128.34	10.944
350.00	1.9574	1106.54	744.32	9.679	490.00	2.7226	1637.45	1133.63	10.958
352.00	1.9684	1114.48	750.21	9.702	492.00	2.7334	1644.74	1138.91	10.973
354.00	1.9795	1122.40	756.09	9.725	494.00	2.7443	1652.02	1144.19	10.988
356.00	1.9905	1130.32	761.96	9.747	496.00	2.7551	1659.29	1149.46	11.003
358.00	2.0016	1138.23	767.82	9.769	498.00	2.7659	1666.56	1154.72	11.017
360.00	2.0126	1146.12	773.67	9.791	500.00	2.7776	1673.82	1159.98	11.032
362.00	2.0237	1153.99	779.50	9.813	502.00	2.7876	1681.08	1165.23	11.046
364.00	2.0347	1161.84	785.31	9.834	504.00	2.7984	1688.33	1170.48	11.061
366.00	2.0457	1169.69	791.12	9.856	506.00	2.8092	1695.57	1175.72	11.075
368.00	2.0568	1177.52	796.91	9.877	508.00	2.8200	1702.81	1180.96	11.089
370.00	2.0678	1185.34	802.69	9.898	510.00	2.8308	1710.05	1186.19	11.104
372.00	2.0788	1193.15	808.46	9.919	512.00	2.8417	1717.28	1191.42	11.118
374.00	2.0898	1200.94	814.22	9.940	514.00	2.8525	1724.51	1196.65	11.132
376.00	2.1008	1208.73	819.96	9.961	516.00	2.8633	1731.73	1201.87	11.146
378.00	2.1118	1216.50	825.70	9.982	518.00	2.8741	1738.95	1207.09	11.160
380.00	2.1228	1224.26	831.42	10.002	520.00	2.8849	1746.16	1212.30	11.174
382.00	2.1338	1232.01	837.14	10.023	522.00	2.8957	1753.37	1217.51	11.188
384.00	2.1448	1239.75	842.84	10.043	524.00	2.9065	1760.58	1222.72	11.201
386.00	2.1558	1247.48	848.54	10.063	526.00	2.9173	1767.78	1227.92	11.215
388.00	2.1668	1255.19	854.22	10.083	528.00	2.9281	1774.98	1233.12	11.229
390.00	2.1778	1262.90	859.90	10.103	530.00	2.9389	1782.18	1238.32	11.242
392.00	2.1887	1270.60	865.56	10.122	532.00	2.9497	1789.37	1243.52	11.256
394.00	2.1997	1278.28	871.22	10.142	534.00	2.9605	1796.56	1248.71	11.269
396.00	2.2107	1285.96	876.86	10.161	536.00	2.9713	1803.75	1253.90	11.283
398.00	2.2217	1293.63	882.50	10.181	538.00	2.9821	1810.93	1259.08	11.296
400.00	2.2326	1301.28	888.13	10.200	540.00	2.9929	1818.11	1264.27	11.310

1250.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
122.00	.4900	212.22	98.88	5.354	124.00	.5010	219.89	104.01	5.416
126.00	.5120	227.53	109.10	5.478	128.00	.5230	235.14	114.17	5.537
130.00	.5339	242.71	119.21	5.596	132.00	.5449	250.26	124.22	5.654
134.00	.5558	257.77	129.21	5.710	136.00	.5667	265.26	134.18	5.766
138.00	.5775	272.72	139.13	5.820	140.00	.5883	280.17	144.08	5.874
142.00	.5991	287.59	149.01	5.926	144.00	.6099	295.00	153.94	5.978
146.00	.6205	302.40	158.86	6.029	148.00	.6312	309.79	163.78	6.079
150.00	.6418	317.17	168.71	6.129	152.00	.6524	324.54	173.64	6.178
154.00	.6629	331.92	178.57	6.226	156.00	.6734	339.29	183.52	6.274
158.00	.6839	346.66	188.48	6.321	160.00	.6943	354.04	193.45	6.367
162.00	.7046	361.43	198.43	6.413	164.00	.7150	368.82	203.44	6.458
166.00	.7253	376.22	208.46	6.503	168.00	.7355	383.63	213.50	6.547
170.00	.7458	391.06	218.55	6.591	172.00	.7559	398.50	223.64	6.635
174.00	.7661	405.95	228.74	6.678	176.00	.7762	413.41	233.86	6.721
36.00	.2028	-73.55	-120.45	1.577	38.00	.2047	-69.79	-117.15	1.679
40.00	.2068	-65.86	-113.70	1.780	180.00	.7963	428.38	244.17	6.805
42.00	.2090	-61.75	-110.11	1.880	182.00	.8064	435.87	249.35	6.846
44.00	.2114	-57.45	-106.35	1.980	184.00	.8163	443.37	254.53	6.887
46.00	.2139	-52.95	-102.42	2.080	186.00	.8263	450.88	259.74	6.928
48.00	.2165	-48.25	-98.32	2.180	188.00	.8362	458.41	264.98	6.968
50.00	.2193	-43.33	-94.05	2.280	190.00	.8461	465.96	270.24	7.008
52.00	.2222	-38.20	-89.60	2.381	192.00	.8560	473.53	275.53	7.048
54.00	.2253	-32.89	-85.00	2.481	194.00	.8658	481.12	280.84	7.087
56.00	.2285	-27.40	-80.26	2.581	196.00	.8756	488.73	286.18	7.126
58.00	.2320	-21.65	-75.32	2.682	198.00	.8854	496.35	291.54	7.165
60.00	.2360	-15.68	-70.26	2.783	200.00	.8952	504.00	296.93	7.203
62.00	.2398	-9.50	-64.97	2.885	202.00	.9049	511.67	302.34	7.241
64.00	.2439	-3.11	-59.53	2.987	204.00	.9146	519.35	307.78	7.279
66.00	.2483	3.48	-53.95	3.088	206.00	.9243	527.05	313.24	7.317
68.00	.2529	10.21	-48.29	3.188	208.00	.9340	534.78	318.73	7.354
70.00	.2578	17.04	-42.60	3.287	210.00	.9436	542.52	324.24	7.391
72.00	.2631	23.75	-37.10	3.382	212.00	.9533	550.29	329.78	7.428
74.00	.2686	30.42	-31.71	3.473	214.00	.9629	558.07	335.34	7.464
76.00	.2745	37.12	-26.37	3.562	216.00	.9725	565.87	340.93	7.501
78.00	.2807	43.89	-21.04	3.650	218.00	.9820	573.69	346.53	7.537
80.00	.2873	50.76	-15.69	3.737	220.00	.9916	581.52	352.16	7.572
82.00	.2942	57.76	-10.30	3.824	222.00	1.0011	589.37	357.81	7.608
84.00	.3015	64.88	-4.87	3.910	224.00	1.0106	597.25	363.48	7.643
86.00	.3092	72.13	.61	3.995	226.00	1.0201	605.14	369.17	7.678
88.00	.3172	79.52	6.13	4.080	228.00	1.0296	613.05	374.89	7.713
90.00	.3256	87.02	11.69	4.164	230.00	1.0390	620.97	380.63	7.748
92.00	.3344	94.63	17.28	4.248	232.00	1.0485	628.92	386.39	7.782
94.00	.3434	102.33	22.89	4.330	234.00	1.0579	636.88	392.17	7.816
96.00	.3528	110.10	28.50	4.412	236.00	1.0673	644.86	397.97	7.850
98.00	.3624	117.94	34.11	4.493	238.00	1.0767	652.85	403.79	7.884
100.00	.3723	125.82	39.70	4.573	240.00	1.0861	660.86	409.63	7.917
102.00	.3824	133.73	45.28	4.651	242.00	1.0955	668.89	415.49	7.951
104.00	.3927	141.65	50.82	4.728	244.00	1.1049	676.93	421.36	7.984
106.00	.4031	149.58	56.33	4.803	246.00	1.1142	684.99	427.26	8.017
108.00	.4137	157.50	61.80	4.877	248.00	1.1235	693.06	433.17	8.049
110.00	.4244	165.41	67.23	4.950	250.00	1.1329	701.15	439.10	8.082
112.00	.4352	173.29	72.61	5.021	252.00	1.1422	709.24	445.04	8.114
114.00	.4461	181.14	77.95	5.091	254.00	1.1515	717.35	451.00	8.146
116.00	.4570	188.96	83.25	5.159	256.00	1.1608	725.48	456.97	8.178
118.00	.4680	196.75	88.50	5.225	258.00	1.1701	733.61	462.96	8.210
120.00	.4790	204.50	93.71	5.290	260.00	1.1793	741.75	468.96	8.241

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
262.00	1.1886	749.91	474.97	8.272	402.00	1.8172	1310.86	890.51	9.992
264.00	1.1978	758.07	480.99	8.303	404.00	1.8260	1318.56	896.16	10.011
266.00	1.2071	766.24	487.02	8.334	406.00	1.8348	1326.24	901.81	10.030
268.00	1.2163	774.41	493.07	8.365	408.00	1.8436	1333.91	907.45	10.049
270.00	1.2255	782.60	499.12	8.395	410.00	1.8524	1341.58	913.08	10.067
272.00	1.2347	790.76	505.16	8.425	412.00	1.8612	1349.23	918.70	10.086
274.00	1.2439	798.93	511.20	8.455	414.00	1.8700	1356.87	924.31	10.104
276.00	1.2531	807.10	517.25	8.485	416.00	1.8788	1364.51	929.91	10.123
278.00	1.2623	815.28	523.30	8.515	418.00	1.8876	1372.13	935.50	10.141
280.00	1.2714	823.46	529.36	8.544	420.00	1.8964	1379.75	941.09	10.159
282.00	1.2806	831.64	535.42	8.573	422.00	1.9051	1387.35	946.66	10.177
284.00	1.2897	839.81	541.48	8.602	424.00	1.9139	1394.95	952.23	10.195
286.00	1.2989	847.99	547.55	8.631	426.00	1.9227	1402.53	957.78	10.213
288.00	1.3080	856.17	553.62	8.659	428.00	1.9315	1410.11	963.33	10.231
290.00	1.3171	864.35	559.69	8.687	430.00	1.9402	1417.67	968.87	10.248
292.00	1.3262	872.53	565.76	8.716	432.00	1.9490	1425.23	974.40	10.266
294.00	1.3353	880.71	571.83	8.743	434.00	1.9577	1432.77	979.91	10.283
296.00	1.3444	888.88	577.90	8.771	436.00	1.9665	1440.31	985.42	10.301
298.00	1.3535	897.05	583.97	8.799	438.00	1.9752	1447.83	990.92	10.318
300.00	1.3625	905.22	590.04	8.826	440.00	1.9840	1455.35	996.42	10.335
302.00	1.3716	913.38	596.10	8.853	442.00	1.9927	1462.85	1001.90	10.352
304.00	1.3807	921.54	602.17	8.880	444.00	2.0015	1470.35	1007.37	10.369
306.00	1.3897	929.69	608.23	8.907	446.00	2.0102	1477.83	1012.84	10.386
308.00	1.3988	937.84	614.28	8.933	448.00	2.0190	1485.31	1018.29	10.403
310.00	1.4078	945.98	620.34	8.960	450.00	2.0277	1492.78	1023.74	10.419
312.00	1.4168	954.12	626.39	8.986	452.00	2.0364	1500.26	1029.20	10.436
314.00	1.4258	962.25	632.43	9.012	454.00	2.0452	1507.72	1034.64	10.452
316.00	1.4348	970.37	638.47	9.038	456.00	2.0539	1515.18	1040.08	10.469
318.00	1.4438	978.49	644.51	9.063	458.00	2.0626	1522.63	1045.51	10.485
320.00	1.4528	986.60	650.53	9.089	460.00	2.0713	1530.07	1050.93	10.501
322.00	1.4618	994.70	656.56	9.114	462.00	2.0801	1537.50	1056.34	10.517
324.00	1.4708	1002.79	662.57	9.139	464.00	2.0888	1544.92	1061.75	10.533
326.00	1.4798	1010.88	668.58	9.164	466.00	2.0975	1552.33	1067.14	10.549
328.00	1.4887	1018.95	674.58	9.188	468.00	2.1062	1559.73	1072.53	10.565
330.00	1.4977	1027.02	680.58	9.213	470.00	2.1149	1567.13	1077.91	10.581
332.00	1.5067	1035.08	686.57	9.237	472.00	2.1236	1574.52	1083.28	10.597
334.00	1.5156	1043.13	692.55	9.261	474.00	2.1324	1581.90	1088.65	10.612
336.00	1.5246	1051.17	698.52	9.285	476.00	2.1411	1589.27	1094.01	10.628
338.00	1.5335	1059.20	704.48	9.309	478.00	2.1498	1596.63	1099.36	10.643
340.00	1.5424	1067.23	710.44	9.333	480.00	2.1585	1603.99	1104.70	10.658
342.00	1.5514	1075.24	716.39	9.356	482.00	2.1672	1611.33	1110.03	10.674
344.00	1.5603	1083.24	722.32	9.380	484.00	2.1759	1618.67	1115.36	10.689
346.00	1.5692	1091.23	728.25	9.403	486.00	2.1846	1626.01	1120.68	10.704
348.00	1.5781	1099.22	734.17	9.426	488.00	2.1933	1633.33	1125.99	10.719
350.00	1.5870	1107.19	740.09	9.449	490.00	2.2020	1640.65	1131.30	10.734
352.00	1.5959	1115.15	745.99	9.472	492.00	2.2107	1647.96	1136.60	10.749
354.00	1.6048	1123.10	751.88	9.494	494.00	2.2193	1655.27	1141.90	10.764
356.00	1.6137	1131.05	757.77	9.516	496.00	2.2280	1662.57	1147.19	10.779
358.00	1.6226	1138.98	763.64	9.539	498.00	2.2367	1669.86	1152.47	10.793
360.00	1.6315	1146.90	769.51	9.561	500.00	2.2454	1677.14	1157.75	10.808
362.00	1.6404	1154.81	775.37	9.583	502.00	2.2541	1684.42	1163.02	10.822
364.00	1.6493	1162.71	781.21	9.604	504.00	2.2628	1691.70	1168.28	10.837
366.00	1.6581	1170.60	787.05	9.626	506.00	2.2715	1698.97	1173.54	10.851
368.00	1.6670	1178.48	792.88	9.647	508.00	2.2801	1706.23	1178.80	10.866
370.00	1.6759	1186.35	798.70	9.669	510.00	2.2888	1713.49	1184.05	10.880
372.00	1.6847	1194.21	804.51	9.690	512.00	2.2975	1720.74	1189.30	10.894
374.00	1.6936	1202.06	810.31	9.711	514.00	2.3062	1727.99	1194.54	10.908
376.00	1.7024	1209.90	816.10	9.732	516.00	2.3148	1735.23	1199.77	10.922
378.00	1.7113	1217.73	821.88	9.753	518.00	2.3235	1742.47	1205.01	10.936
380.00	1.7201	1225.55	827.65	9.773	520.00	2.3322	1749.71	1210.23	10.950
382.00	1.7290	1233.35	833.41	9.794	522.00	2.3408	1756.93	1215.66	10.964
384.00	1.7378	1241.15	839.17	9.814	524.00	2.3495	1764.16	1220.68	10.978
386.00	1.7467	1248.94	844.91	9.834	526.00	2.3582	1771.38	1225.90	10.992
388.00	1.7555	1256.71	850.64	9.854	528.00	2.3668	1778.60	1231.11	11.005
390.00	1.7643	1264.48	856.37	9.874	530.00	2.3755	1785.81	1236.32	11.019
392.00	1.7731	1272.24	862.08	9.894	532.00	2.3842	1793.02	1241.52	11.032
394.00	1.7820	1279.98	867.78	9.914	534.00	2.3928	1800.22	1246.72	11.046
396.00	1.7908	1287.72	873.48	9.934	536.00	2.4015	1807.42	1251.92	11.059
398.00	1.7996	1295.44	879.16	9.953	538.00	2.4101	1814.62	1257.11	11.073
400.00	1.8084	1303.16	884.84	9.972	540.00	2.4188	1821.81	1262.31	11.086

1500.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/L8)	ENTHALPY (BTU/L8)	INTERNAL ENERGY (BTU/L8-R)	ENTROPY (BTU/L8)
122.00	.4254	205.63	87.54	5.127	122.00	.5135	281.22	138.68	5.701
124.00	.4342	213.25	92.74	5.189	124.00	.5223	288.72	143.73	5.754
126.00	.4429	220.85	97.91	5.250	126.00	.5311	296.21	148.78	5.805
128.00	.4517	228.45	103.06	5.310	128.00	.5399	303.69	153.83	5.856
130.00	.4605	236.03	108.19	5.369	130.00	.5487	311.18	158.88	5.906
132.00	.4694	243.59	113.30	5.426	132.00	.5574	318.66	163.93	5.956
134.00	.4782	251.14	118.40	5.483	134.00	.5661	326.14	169.00	6.005
136.00	.4871	258.68	123.48	5.539	136.00	.5748	333.62	174.07	6.053
138.00	.4959	266.20	128.56	5.594	138.00	.5835	341.11	179.15	6.101
140.00	.5047	273.72	133.62	5.648	140.00	.5921	348.61	184.24	6.148
142.00	.5135	281.22	138.68	5.701	142.00	.6007	356.11	189.35	6.195
144.00	.5223	288.72	143.73	5.754	144.00	.6093	363.62	194.47	6.241
146.00	.5311	296.21	148.78	5.805	146.00	.6179	371.13	199.61	6.286
148.00	.5399	303.69	153.83	5.856	148.00	.6265	378.66	204.77	6.331
150.00	.5487	311.18	158.88	5.906	150.00	.6350	386.20	209.94	6.376
152.00	.5574	318.66	163.93	5.956	152.00	.6435	393.76	215.13	6.420
154.00	.5661	326.14	169.00	6.005	154.00	.6520	401.32	220.35	6.464
156.00	.5748	333.62	174.07	6.053	156.00	.6604	408.90	225.58	6.507
158.00	.5835	341.11	179.15	6.101	158.00	.6689	416.50	230.83	6.550
160.00	.5921	348.61	184.24	6.148	160.00	.6773	424.10	236.11	6.593
36.00	.1999	-65.76	-121.25	1.535	176.00	.6857	431.71	241.39	6.635
38.00	.2017	-62.09	-118.08	1.634	178.00	.6940	439.33	246.68	6.676
40.00	.2036	-58.26	-114.78	1.732	180.00	.7024	446.96	252.00	6.717
42.00	.2056	-54.26	-111.33	1.830	182.00	.7107	454.61	257.34	6.758
44.00	.2077	-50.08	-107.73	1.927	184.00	.7190	462.27	262.70	6.799
46.00	.2099	-45.71	-103.98	2.024	186.00	.7273	469.96	268.08	6.839
48.00	.2123	-41.14	-100.06	2.121	188.00	.7355	477.66	273.49	6.879
50.00	.2147	-36.38	-95.98	2.219	190.00	.7438	485.37	278.92	6.919
52.00	.2173	-31.42	-91.74	2.316	192.00	.7520	493.10	284.37	6.958
54.00	.2200	-26.30	-87.36	2.412	194.00	.7602	500.85	289.85	6.997
56.00	.2228	-21.00	-82.86	2.509	196.00	.7683	508.62	295.34	7.035
58.00	.2258	-15.48	-78.16	2.606	198.00	.7765	516.40	300.86	7.074
60.00	.2291	-9.71	-73.30	2.703	200.00	.7846	524.20	306.40	7.112
62.00	.2323	-3.81	-68.31	2.801	202.00	.7927	532.01	311.96	7.150
64.00	.2358	2.27	-63.18	2.898	204.00	.8008	539.85	317.55	7.187
66.00	.2394	8.52	-57.93	2.994	206.00	.8089	547.70	323.15	7.224
68.00	.2432	14.89	-52.62	3.088	208.00	.8170	555.56	328.78	7.261
70.00	.2472	21.33	-47.30	3.182	210.00	.8250	563.45	334.43	7.298
72.00	.2515	27.62	-42.18	3.270	212.00	.8331	571.34	340.10	7.334
74.00	.2559	33.84	-37.19	3.356	214.00	.8411	579.26	345.79	7.370
76.00	.2606	40.07	-32.26	3.439	216.00	.8491	587.19	351.50	7.406
78.00	.2654	46.33	-27.35	3.520	218.00	.8571	595.13	357.23	7.442
80.00	.2705	52.67	-22.42	3.600	220.00	.8650	603.10	362.98	7.477
82.00	.2759	59.12	-17.47	3.680	222.00	.8730	611.08	368.75	7.512
84.00	.2815	65.67	-12.47	3.759	224.00	.8809	619.08	374.54	7.547
86.00	.2873	72.34	-7.42	3.837	226.00	.8889	627.09	380.36	7.582
88.00	.2934	79.13	-2.31	3.915	228.00	.8968	635.12	386.19	7.617
90.00	.2997	86.03	2.84	3.993	230.00	.9047	643.17	392.05	7.651
92.00	.3063	93.05	8.05	4.070	232.00	.9126	651.23	397.92	7.685
94.00	.3130	100.18	13.29	4.147	234.00	.9205	659.31	403.81	7.719
96.00	.3200	107.41	18.57	4.223	236.00	.9283	667.41	409.72	7.752
98.00	.3272	114.72	23.88	4.298	238.00	.9362	675.52	415.65	7.786
100.00	.3347	122.10	29.21	4.373	240.00	.9440	683.64	421.60	7.819
102.00	.3423	129.56	34.55	4.446	242.00	.9519	691.78	427.56	7.852
104.00	.3500	137.06	39.90	4.519	244.00	.9597	699.93	433.54	7.884
106.00	.3580	144.61	45.25	4.591	246.00	.9675	708.09	439.54	7.917
108.00	.3660	152.20	50.60	4.662	248.00	.9753	716.27	445.55	7.949
110.00	.3742	159.81	55.93	4.732	250.00	.9831	724.46	451.57	7.981
112.00	.3826	167.44	61.25	4.801	252.00	.9909	732.66	457.61	8.013
114.00	.3910	175.08	66.55	4.868	254.00	.9987	740.87	463.66	8.045
116.00	.3995	182.72	71.83	4.935	256.00				
118.00	.4081	190.36	77.09	5.000	258.00				
120.00	.4167	198.00	82.33	5.064	260.00				

1500.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/L8)	ENTROPY (BTU/L8-R)
262.00	1.0064	749.09	469.72	8.076	402.00	1.5333	1313.19	887.56	9.806
264.00	1.0142	757.32	475.80	8.108	404.00	1.5407	1320.91	893.24	9.825
266.00	1.0219	765.55	481.88	8.139	406.00	1.5481	1328.62	898.91	9.844
268.00	1.0297	773.80	487.98	8.170	408.00	1.5554	1336.32	904.57	9.863
270.00	1.0374	782.05	494.08	8.200	410.00	1.5628	1344.02	910.21	9.882
272.00	1.0451	790.28	500.17	8.231	412.00	1.5702	1351.70	915.85	9.900
274.00	1.0529	798.51	506.26	8.261	414.00	1.5775	1359.37	921.48	9.919
276.00	1.0606	806.75	512.36	8.291	416.00	1.5849	1367.03	927.10	9.937
278.00	1.0683	814.99	518.46	8.321	418.00	1.5922	1374.68	932.71	9.956
280.00	1.0760	823.23	524.56	8.350	420.00	1.5996	1382.32	938.31	9.974
282.00	1.0837	831.47	530.67	8.379	422.00	1.6069	1389.95	943.91	9.992
284.00	1.0913	839.72	536.78	8.409	424.00	1.6142	1397.57	949.49	10.010
286.00	1.0990	847.96	542.90	8.438	426.00	1.6216	1405.17	955.06	10.028
288.00	1.1067	856.20	549.01	8.466	428.00	1.6289	1412.77	960.62	10.046
290.00	1.1143	864.44	555.13	8.495	430.00	1.6362	1420.36	966.18	10.063
292.00	1.1220	872.68	561.24	8.523	432.00	1.6435	1427.94	971.72	10.081
294.00	1.1296	880.91	567.36	8.551	434.00	1.6509	1435.50	977.26	10.098
296.00	1.1372	889.14	573.47	8.579	436.00	1.6582	1443.06	982.78	10.116
298.00	1.1449	897.37	579.58	8.607	438.00	1.6655	1450.61	988.30	10.133
300.00	1.1525	905.60	585.69	8.634	440.00	1.6728	1458.15	993.81	10.150
302.00	1.1601	913.81	591.80	8.662	442.00	1.6801	1465.68	999.30	10.167
304.00	1.1677	922.03	597.90	8.689	444.00	1.6874	1473.19	1004.79	10.184
306.00	1.1753	930.24	604.00	8.716	446.00	1.6948	1480.70	1010.27	10.201
308.00	1.1829	938.44	610.10	8.742	448.00	1.7021	1488.20	1015.75	10.218
310.00	1.1904	946.63	616.19	8.769	450.00	1.7094	1495.69	1021.21	10.235
312.00	1.1980	954.82	622.28	8.795	452.00	1.7167	1503.19	1026.68	10.251
314.00	1.2056	963.00	628.36	8.821	454.00	1.7240	1510.68	1032.14	10.268
316.00	1.2131	971.17	634.43	8.847	456.00	1.7313	1518.16	1037.59	10.284
318.00	1.2207	979.33	640.50	8.873	458.00	1.7386	1525.62	1043.04	10.301
320.00	1.2282	987.49	646.56	8.899	460.00	1.7458	1533.09	1048.48	10.317
322.00	1.2358	995.64	652.61	8.924	462.00	1.7531	1540.54	1053.90	10.333
324.00	1.2433	1003.77	658.66	8.949	464.00	1.7604	1547.98	1059.32	10.349
326.00	1.2508	1011.90	664.70	8.974	466.00	1.7677	1555.42	1064.74	10.365
328.00	1.2583	1020.02	670.73	8.999	468.00	1.7750	1562.84	1070.14	10.381
330.00	1.2658	1028.13	676.76	9.024	470.00	1.7823	1570.26	1075.54	10.397
332.00	1.2734	1036.23	682.77	9.048	472.00	1.7896	1577.67	1080.92	10.412
334.00	1.2808	1044.32	688.78	9.072	474.00	1.7968	1585.07	1086.30	10.428
336.00	1.2883	1052.40	694.78	9.097	476.00	1.8041	1592.46	1091.68	10.444
338.00	1.2958	1060.47	700.77	9.120	478.00	1.8114	1599.85	1097.04	10.459
340.00	1.3033	1068.53	706.76	9.144	480.00	1.8187	1607.22	1102.40	10.475
342.00	1.3108	1076.58	712.73	9.168	482.00	1.8259	1614.59	1107.75	10.490
344.00	1.3183	1084.61	718.69	9.191	484.00	1.8332	1621.95	1113.09	10.505
346.00	1.3257	1092.64	724.65	9.215	486.00	1.8405	1629.31	1118.43	10.520
348.00	1.3332	1100.66	730.59	9.238	488.00	1.8477	1636.66	1123.76	10.535
350.00	1.3406	1108.67	736.53	9.261	490.00	1.8550	1644.00	1129.08	10.550
352.00	1.3481	1116.66	742.46	9.283	492.00	1.8623	1651.33	1134.40	10.565
354.00	1.3555	1124.65	748.38	9.306	494.00	1.8695	1658.66	1139.71	10.580
356.00	1.3630	1132.62	754.29	9.328	496.00	1.8768	1665.98	1145.01	10.595
358.00	1.3704	1140.59	760.19	9.351	498.00	1.8841	1673.29	1150.31	10.610
360.00	1.3779	1148.54	766.08	9.373	500.00	1.8913	1680.60	1155.60	10.624
362.00	1.3853	1156.49	771.96	9.395	502.00	1.8986	1687.90	1160.89	10.639
364.00	1.3927	1164.42	777.83	9.417	504.00	1.9058	1695.19	1166.17	10.653
366.00	1.4001	1172.35	783.69	9.438	506.00	1.9131	1702.48	1171.45	10.668
368.00	1.4076	1180.26	789.55	9.460	508.00	1.9203	1709.76	1176.72	10.682
370.00	1.4150	1188.17	795.39	9.481	510.00	1.9276	1717.04	1181.98	10.696
372.00	1.4224	1196.06	801.23	9.503	512.00	1.9348	1724.31	1187.24	10.711
374.00	1.4298	1203.94	807.05	9.524	514.00	1.9421	1731.58	1192.50	10.725
376.00	1.4372	1211.81	812.86	9.545	516.00	1.9493	1738.84	1197.75	10.739
378.00	1.4447	1219.68	818.67	9.566	518.00	1.9566	1746.10	1202.99	10.753
380.00	1.4521	1227.53	824.47	9.586	520.00	1.9638	1753.35	1208.24	10.767
382.00	1.4595	1235.37	830.25	9.607	522.00	1.9711	1760.60	1213.47	10.781
384.00	1.4669	1243.20	836.03	9.627	524.00	1.9783	1767.84	1218.71	10.795
386.00	1.4743	1251.02	841.79	9.648	526.00	1.9855	1775.08	1223.93	10.809
388.00	1.4817	1258.82	847.55	9.668	528.00	1.9928	1782.31	1229.16	10.822
390.00	1.4890	1266.62	853.29	9.688	530.00	2.0000	1789.54	1234.38	10.836
392.00	1.4964	1274.41	859.03	9.708	532.00	2.0072	1796.77	1239.60	10.850
394.00	1.5038	1282.19	864.76	9.728	534.00	2.0145	1803.98	1244.81	10.863
396.00	1.5112	1289.95	870.47	9.747	536.00	2.0217	1811.20	1250.20	10.877
398.00	1.5186	1297.71	876.18	9.767	538.00	2.0289	1818.41	1255.22	10.890
400.00	1.5260	1305.45	881.88	9.786	540.00	2.0362	1825.62	1260.42	10.903

1750.00 PSIA 1SOBAR

2000.00 PSIA 1SOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
36.00	.1973	-57.98	-121.89	1.496	36.00	.1950	-50.20	-122.37	1.460
38.00	.1990	-54.38	-118.82	1.593	38.00	.1965	-46.66	-119.40	1.555
40.00	.2007	-50.63	-115.64	1.689	40.00	.1981	-42.99	-116.32	1.650
42.00	.2026	-46.72	-112.32	1.785	42.00	.1998	-39.16	-113.11	1.743
44.00	.2045	-42.64	-108.86	1.880	44.00	.2016	-35.16	-109.77	1.836
46.00	.2065	-38.38	-105.25	1.974	46.00	.2034	-30.99	-106.28	1.929
48.00	.2086	-33.93	-101.48	2.069	48.00	.2054	-26.64	-102.64	2.021
50.00	.2108	-29.29	-97.56	2.164	50.00	.2074	-22.10	-98.85	2.114
52.00	.2131	-24.47	-93.48	2.258	52.00	.2095	-17.39	-94.91	2.206
54.00	.2155	-19.49	-89.28	2.352	54.00	.2116	-12.53	-90.86	2.298
56.00	.2180	-14.35	-84.96	2.446	56.00	.2139	-7.52	-86.68	2.389
58.00	.2207	-9.00	-80.46	2.540	58.00	.2163	-2.30	-82.34	2.481
60.00	.2235	-3.37	-75.74	2.635	60.00	.2187	3.20	-77.74	2.574
62.00	.2263	2.31	-70.97	2.729	62.00	.2212	8.72	-73.15	2.665
64.00	.2293	8.17	-66.08	2.822	64.00	.2239	14.40	-68.45	2.756
66.00	.2324	14.17	-61.08	2.914	66.00	.2266	20.22	-63.65	2.845
68.00	.2357	20.28	-56.03	3.005	68.00	.2295	26.13	-58.81	2.933
70.00	.2391	26.44	-50.98	3.094	70.00	.2325	32.08	-53.96	3.019
72.00	.2426	32.44	-46.14	3.179	72.00	.2356	37.85	-49.34	3.100
74.00	.2464	38.35	-41.43	3.260	74.00	.2388	43.53	-44.85	3.178
76.00	.2502	44.24	-36.79	3.338	76.00	.2421	49.18	-40.43	3.253
78.00	.2543	50.17	-32.18	3.415	78.00	.2456	54.85	-36.05	3.327
80.00	.2585	56.15	-27.56	3.491	80.00	.2492	60.57	-31.66	3.399
82.00	.2629	62.22	-22.91	3.566	82.00	.2529	66.36	-27.24	3.471
84.00	.2674	68.38	-18.22	3.640	84.00	.2567	72.24	-22.78	3.542
86.00	.2721	74.65	-13.48	3.714	86.00	.2607	78.22	-18.27	3.612
88.00	.2770	81.03	-8.68	3.787	88.00	.2648	84.30	-13.71	3.682
90.00	.2821	87.52	-3.83	3.860	90.00	.2690	90.49	-9.08	3.752
92.00	.2873	94.12	1.08	3.933	92.00	.2734	96.78	-4.40	3.821
94.00	.2927	100.83	6.05	4.005	94.00	.2779	103.18	.34	3.890
96.00	.2983	107.64	11.06	4.077	96.00	.2825	109.68	5.13	3.958
98.00	.3040	114.55	16.11	4.148	98.00	.2872	116.27	9.97	4.026
100.00	.3099	121.54	21.20	4.218	100.00	.2921	122.96	14.86	4.093
102.00	.3159	128.61	26.32	4.288	102.00	.2970	129.73	19.79	4.161
104.00	.3220	135.76	31.47	4.358	104.00	.3021	136.58	24.76	4.227
106.00	.3283	142.97	36.64	4.426	106.00	.3073	143.50	29.76	4.293
108.00	.3348	150.23	41.82	4.494	108.00	.3126	150.49	34.79	4.358
110.00	.3413	157.54	47.01	4.561	110.00	.3180	157.53	39.84	4.423
112.00	.3480	164.90	52.21	4.628	112.00	.3235	164.64	44.91	4.487
114.00	.3547	172.28	57.42	4.693	114.00	.3291	171.79	50.00	4.550
116.00	.3615	179.70	62.62	4.757	116.00	.3347	178.98	55.10	4.613
118.00	.3685	187.14	67.82	4.821	118.00	.3405	186.22	60.21	4.675
120.00	.3755	194.60	73.01	4.884	120.00	.3463	193.48	65.33	4.736
122.00	.3825	202.07	78.20	4.946	122.00	.3521	200.78	70.45	4.796
124.00	.3896	209.56	83.38	5.006	124.00	.3581	208.11	75.58	4.855
126.00	.3968	217.05	88.55	5.066	126.00	.3641	215.45	80.71	4.914
128.00	.4040	224.55	93.71	5.125	128.00	.3701	222.82	85.85	4.972
130.00	.4113	232.05	98.87	5.183	130.00	.3762	230.21	90.98	5.030
132.00	.4185	239.55	104.01	5.241	132.00	.3823	237.61	96.12	5.086
134.00	.4258	247.06	109.15	5.297	134.00	.3885	245.03	101.26	5.142
136.00	.4332	254.56	114.29	5.353	136.00	.3946	252.46	106.40	5.197
138.00	.4405	262.07	119.42	5.408	138.00	.4009	259.90	111.54	5.251
140.00	.4479	269.58	124.54	5.462	140.00	.4071	267.36	116.69	5.305
142.00	.4552	277.09	129.67	5.515	142.00	.4133	274.82	121.84	5.358
144.00	.4626	284.60	134.79	5.567	144.00	.4196	282.30	127.00	5.410
146.00	.4700	292.11	139.92	5.619	146.00	.4259	289.79	132.16	5.462
148.00	.4773	299.63	145.04	5.670	148.00	.4322	297.29	137.33	5.513
150.00	.4847	307.15	150.18	5.721	150.00	.4385	304.80	142.51	5.563
152.00	.4921	314.67	155.32	5.771	152.00	.4448	312.33	147.70	5.613
154.00	.4994	322.20	160.46	5.820	154.00	.4511	319.86	152.90	5.662
156.00	.5068	329.74	165.62	5.869	156.00	.4574	327.41	158.11	5.711
158.00	.5141	337.29	170.79	5.917	158.00	.4638	334.98	163.34	5.759
160.00	.5215	344.84	175.97	5.964	160.00	.4701	342.55	168.58	5.807
162.00	.5288	352.41	181.17	6.011	162.00	.4764	350.15	173.84	5.854
164.00	.5361	359.99	186.38	6.058	164.00	.4827	357.75	179.11	5.901
166.00	.5434	367.58	191.61	6.104	166.00	.4890	365.38	184.40	5.947
168.00	.5507	375.18	196.85	6.149	168.00	.4953	373.02	189.70	5.993
170.00	.5579	382.79	202.11	6.194	170.00	.5016	380.67	195.03	6.038
172.00	.5652	390.42	207.39	6.239	172.00	.5079	388.34	200.38	6.083
174.00	.5724	398.07	212.69	6.283	174.00	.5142	396.03	205.74	6.127
176.00	.5797	405.73	218.01	6.327	176.00	.5204	403.74	211.12	6.171
178.00	.5869	413.40	223.35	6.370	178.00	.5267	411.46	216.53	6.215
180.00	.5941	421.08	228.71	6.413	180.00	.5329	419.20	221.95	6.258

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/LB)
36.00	.1909	-34.71	-123.01	1.394	36.00	.1873	-19.31	-123.29	1.336
38.00	.1922	-31.27	-120.19	1.487	38.00	.1885	-15.94	-120.59	1.427
40.00	.1936	-27.71	-117.28	1.579	40.00	.1897	-12.47	-117.81	1.516
42.00	.1951	-24.00	-114.25	1.669	42.00	.1910	-8.87	-114.93	1.604
44.00	.1966	-20.15	-111.10	1.759	44.00	.1924	-5.12	-111.92	1.691
46.00	.1982	-16.12	-107.81	1.848	46.00	.1938	-1.22	-108.79	1.778
48.00	.1998	-11.93	-104.38	1.937	48.00	.1952	2.85	-105.53	1.865
50.00	.2015	-7.56	-100.80	2.027	50.00	.1967	7.09	-102.12	1.951
52.00	.2033	-3.02	-97.08	2.116	52.00	.1983	11.50	-98.57	2.038
54.00	.2052	1.65	-93.26	2.204	54.00	.1999	16.03	-94.92	2.123
56.00	.2071	6.48	-89.32	2.292	56.00	.2015	20.72	-91.15	2.208
58.00	.2090	11.49	-85.22	2.380	58.00	.2032	25.57	-87.24	2.294
60.00	.2110	16.80	-80.81	2.469	60.00	.2049	30.73	-83.00	2.381
62.00	.2131	22.07	-76.50	2.557	62.00	.2066	35.83	-78.89	2.465
64.00	.2152	27.49	-72.08	2.643	64.00	.2085	41.05	-74.69	2.549
66.00	.2175	33.03	-67.58	2.728	66.00	.2104	46.39	-70.41	2.631
68.00	.2198	38.64	-63.04	2.811	68.00	.2124	51.80	-66.10	2.711
70.00	.2222	44.28	-58.51	2.893	70.00	.2144	57.22	-61.80	2.790
72.00	.2247	49.74	-54.20	2.970	72.00	.2165	62.46	-57.72	2.863
74.00	.2272	55.09	-50.04	3.043	74.00	.2186	67.58	-53.78	2.934
76.00	.2299	60.40	-45.95	3.114	76.00	.2208	72.66	-49.92	3.001
78.00	.2326	65.72	-41.89	3.183	78.00	.2231	77.74	-46.10	3.067
80.00	.2354	71.07	-37.83	3.251	80.00	.2254	82.85	-42.27	3.132
82.00	.2383	76.49	-33.74	3.318	82.00	.2277	88.02	-38.41	3.196
84.00	.2412	81.98	-29.62	3.384	84.00	.2302	93.26	-34.52	3.259
86.00	.2443	87.56	-25.45	3.450	86.00	.2326	98.57	-30.58	3.322
88.00	.2474	93.24	-21.22	3.515	88.00	.2352	103.98	-26.58	3.384
90.00	.2506	99.01	-16.93	3.580	90.00	.2378	109.48	-22.52	3.445
92.00	.2539	104.88	-12.57	3.644	92.00	.2404	115.07	-18.40	3.507
94.00	.2572	110.84	-8.16	3.708	94.00	.2431	120.75	-14.22	3.568
96.00	.2607	116.90	-3.69	3.772	96.00	.2459	126.52	-9.97	3.629
98.00	.2642	123.06	.84	3.836	98.00	.2487	132.39	-5.66	3.689
100.00	.2678	129.31	5.42	3.899	100.00	.2515	138.34	-1.30	3.749
102.00	.2715	135.64	10.06	3.962	102.00	.2544	144.38	3.12	3.809
104.00	.2752	142.05	14.74	4.024	104.00	.2574	150.49	7.59	3.868
106.00	.2790	148.55	19.46	4.086	106.00	.2604	156.69	12.11	3.927
108.00	.2829	155.11	24.23	4.147	108.00	.2635	162.96	16.67	3.986
110.00	.2869	161.75	29.03	4.208	110.00	.2666	169.30	21.28	4.044
112.00	.2909	168.45	33.87	4.268	112.00	.2698	175.71	25.94	4.102
114.00	.2950	175.21	38.74	4.328	114.00	.2730	182.19	30.63	4.159
116.00	.2991	182.03	43.64	4.387	116.00	.2763	188.73	35.35	4.216
118.00	.3034	188.91	48.56	4.446	118.00	.2796	195.32	40.11	4.273
120.00	.3076	195.83	53.51	4.504	120.00	.2829	201.98	44.90	4.328
122.00	.3120	202.80	58.48	4.562	122.00	.2863	208.68	49.73	4.384
124.00	.3163	209.82	63.47	4.619	124.00	.2898	215.44	54.58	4.439
126.00	.3208	216.87	68.48	4.675	126.00	.2932	222.25	59.46	4.493
128.00	.3252	223.97	73.51	4.731	128.00	.2967	229.11	64.37	4.547
130.00	.3298	231.10	78.55	4.787	130.00	.3003	236.01	69.30	4.601
132.00	.3343	238.27	83.61	4.841	132.00	.3039	242.96	74.26	4.654
134.00	.3389	245.47	88.68	4.895	134.00	.3075	249.95	79.24	4.706
136.00	.3435	252.70	93.77	4.949	136.00	.3111	256.98	84.25	4.759
138.00	.3482	259.96	98.88	5.002	138.00	.3148	264.05	89.28	4.810
140.00	.3529	267.25	104.00	5.054	140.00	.3185	271.16	94.33	4.861
142.00	.3576	274.56	109.13	5.106	142.00	.3223	278.31	99.41	4.912
144.00	.3623	281.91	114.28	5.158	144.00	.3260	285.49	104.51	4.962
146.00	.3671	289.28	119.45	5.209	146.00	.3298	292.71	109.63	5.012
148.00	.3719	296.67	124.63	5.259	148.00	.3336	299.97	114.77	5.061
150.00	.3767	304.09	129.83	5.309	150.00	.3374	307.26	119.95	5.110
152.00	.3815	311.54	135.05	5.358	152.00	.3412	314.58	125.14	5.159
154.00	.3863	319.01	140.29	5.407	154.00	.3451	321.94	130.36	5.207
156.00	.3912	326.51	145.54	5.455	156.00	.3490	329.34	135.60	5.255
158.00	.3960	334.03	150.81	5.503	158.00	.3529	336.76	140.87	5.302
160.00	.4009	341.57	156.11	5.550	160.00	.3568	344.22	146.16	5.349
162.00	.4058	349.14	161.42	5.597	162.00	.3607	351.71	151.48	5.395
164.00	.4106	356.73	166.75	5.644	164.00	.3646	359.24	156.83	5.442
166.00	.4155	364.35	172.11	5.690	166.00	.3685	366.79	162.20	5.487
168.00	.4204	371.99	177.49	5.736	168.00	.3725	374.38	167.59	5.533
170.00	.4253	379.65	182.89	5.781	170.00	.3764	381.99	173.01	5.578
172.00	.4302	387.34	188.31	5.826	172.00	.3804	389.64	178.46	5.622
174.00	.4351	395.05	193.75	5.871	174.00	.3844	397.31	183.93	5.667
176.00	.4400	402.78	199.21	5.915	176.00	.3883	405.01	189.43	5.711
178.00	.4449	410.53	204.70	5.959	178.00	.3923	412.74	194.94	5.755
180.00	.4498	418.31	210.20	6.002	180.00	.3963	420.50	200.49	5.798

3500.00 PSIA ISOBAR

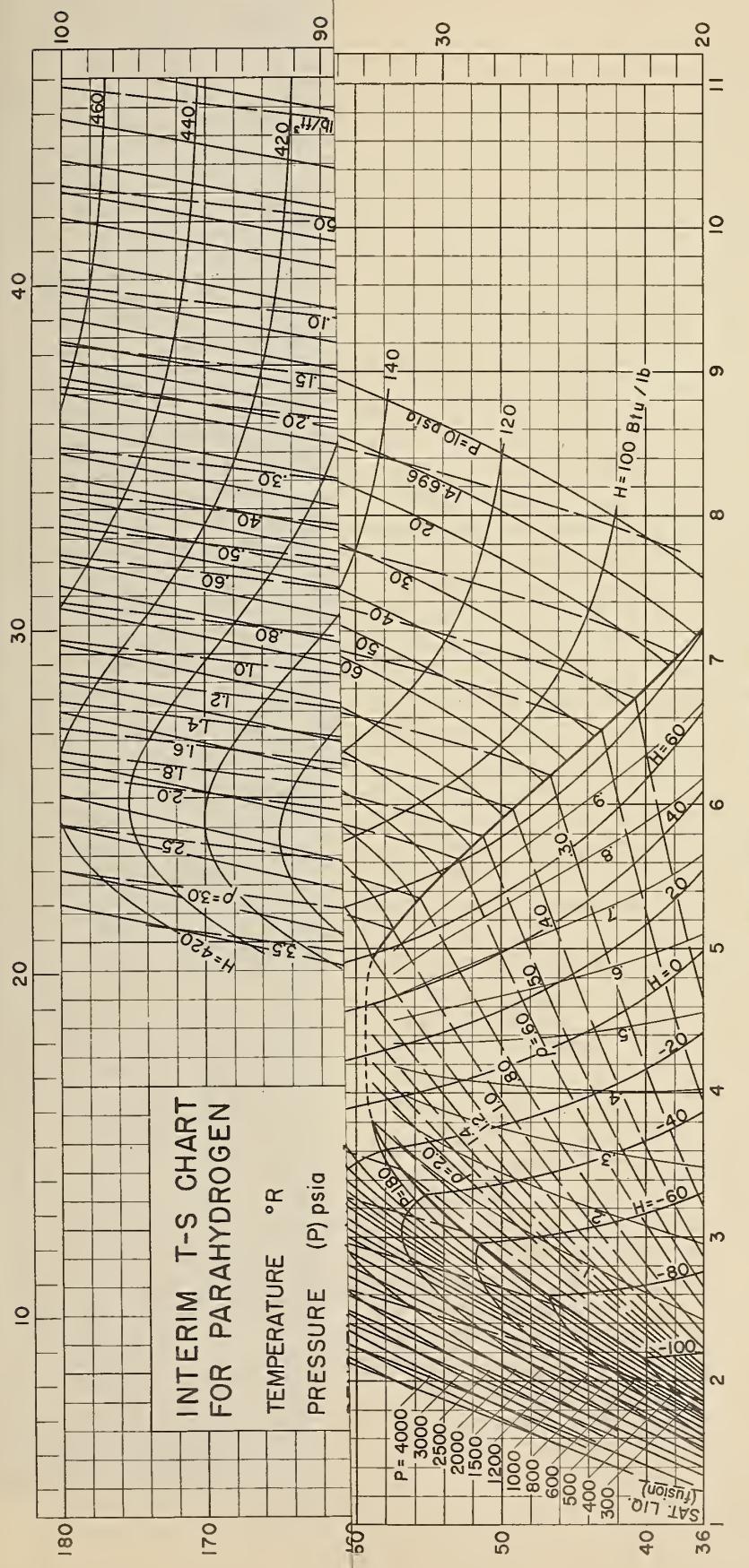
4000.00 PSIA ISOBAR

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
-----------------	----------------------------	-------------------	--------------------------	--------------------

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB)	ENTROPY (BTU/LB-R)
-----------------	----------------------------	-------------------	--------------------------	--------------------

38.00	.1852	- .71	-120.68	1.373							
40.00	.1864	2.69	-118.01	1.460	40.00	.1834	17.77	-117.95	1.410		
42.00	.1875	6.21	-115.25	1.546	42.00	.1844	21.22	-115.29	1.494		
44.00	.1887	9.87	-112.37	1.631	44.00	.1855	24.80	-112.53	1.577		
46.00	.1900	13.67	-109.37	1.716	46.00	.1867	28.52	-109.64	1.660		
48.00	.1913	17.64	-106.24	1.800	48.00	.1878	32.41	-106.62	1.743		
50.00	.1926	21.78	-102.97	1.885	50.00	.1890	36.46	-103.46	1.825		
52.00	.1940	26.08	-99.56	1.969	52.00	.1903	40.66	-100.17	1.908		
54.00	.1954	30.50	-96.05	2.053	54.00	.1915	45.00	-96.78	1.990		
56.00	.1969	35.08	-92.43	2.136	56.00	.1929	49.48	-93.27	2.071		
58.00	.1984	39.81	-88.66	2.219	58.00	.1942	54.12	-89.62	2.153		
60.00	.1998	44.82	-84.59	2.304	60.00	.1955	58.99	-85.73	2.235		
62.00	.2014	49.78	-80.64	2.386	62.00	.1969	63.85	-81.91	2.316		
64.00	.2030	54.87	-76.61	2.468	64.00	.1984	68.82	-78.01	2.396		
66.00	.2047	60.06	-72.49	2.547	66.00	.1998	73.89	-74.04	2.473		
68.00	.2064	65.30	-68.36	2.625	68.00	.2014	79.01	-70.05	2.549		
70.00	.2081	70.57	-64.24	2.701	70.00	.2029	84.14	-66.07	2.624		
72.00	.2099	75.64	-60.34	2.773	72.00	.2045	89.08	-62.31	2.693		
74.00	.2118	80.60	-56.58	2.841	74.00	.2062	93.91	-58.69	2.759		
76.00	.2137	85.51	-52.89	2.906	76.00	.2078	98.69	-55.15	2.823		
78.00	.2156	90.41	-49.24	2.970	78.00	.2095	103.47	-51.64	2.885		
80.00	.2176	95.35	-45.59	3.032	80.00	.2113	108.26	-48.12	2.946		
82.00	.2196	100.33	-41.91	3.094	82.00	.2130	113.11	-44.58	3.006		
84.00	.2217	105.38	-38.19	3.155	84.00	.2148	118.03	-41.00	3.065		
86.00	.2238	110.51	-34.42	3.215	86.00	.2167	123.01	-37.36	3.124		
88.00	.2259	115.73	-30.59	3.275	88.00	.2185	128.08	-33.67	3.182		
90.00	.2281	121.03	-26.71	3.335	90.00	.2204	133.24	-29.92	3.240		
92.00	.2303	126.42	-22.76	3.394	92.00	.2223	138.48	-26.10	3.297		
94.00	.2326	131.90	-18.74	3.453	94.00	.2243	143.81	-22.22	3.355		
96.00	.2349	137.47	-14.66	3.511	96.00	.2263	149.23	-18.27	3.412		
98.00	.2372	143.13	-10.52	3.570	98.00	.2283	154.73	-14.26	3.468		
100.00	.2396	148.87	-6.33	3.628	100.00	.2303	160.31	-10.19	3.525		
102.00	.2420	154.69	-2.07	3.685	102.00	.2324	165.98	-6.07	3.581		
104.00	.2445	160.60	2.24	3.743	104.00	.2345	171.72	-1.88	3.637		
106.00	.2470	166.58	6.60	3.800	106.00	.2367	177.54	2.35	3.692		
108.00	.2495	172.63	11.01	3.856	108.00	.2388	183.43	6.64	3.747		
110.00	.2521	178.76	15.47	3.912	110.00	.2410	189.39	10.98	3.802		
112.00	.2547	184.96	19.98	3.968	112.00	.2432	195.42	15.37	3.856		
114.00	.2574	191.22	24.52	4.024	114.00	.2455	201.52	19.80	3.910		
116.00	.2601	197.54	29.11	4.079	116.00	.2478	207.68	24.27	3.964		
118.00	.2628	203.93	33.73	4.133	118.00	.2501	213.90	28.78	4.017		
120.00	.2655	210.37	38.40	4.187	120.00	.2524	220.18	33.34	4.070		
122.00	.2683	216.87	43.09	4.241	122.00	.2548	226.51	37.93	4.122		
124.00	.2711	223.43	47.83	4.294	124.00	.2572	232.91	42.56	4.174		
126.00	.2740	230.04	52.59	4.347	126.00	.2596	239.36	47.22	4.226		
128.00	.2768	236.70	57.39	4.400	128.00	.2620	245.86	51.93	4.277		
130.00	.2798	243.41	62.22	4.452	130.00	.2645	252.42	56.66	4.328		
132.00	.2827	250.17	67.08	4.503	132.00	.2669	259.02	61.43	4.378		
134.00	.2857	256.98	71.96	4.555	134.00	.2694	265.68	66.23	4.428		
136.00	.2886	263.83	76.88	4.605	136.00	.2720	272.39	71.07	4.478		
138.00	.2917	270.73	81.83	4.656	138.00	.2745	279.14	75.94	4.527		
140.00	.2947	277.68	86.81	4.706	140.00	.2771	285.95	80.84	4.576		
142.00	.2978	284.67	91.81	4.755	142.00	.2797	292.80	85.78	4.625		
144.00	.3008	291.70	96.85	4.804	144.00	.2823	299.69	90.75	4.673		
146.00	.3040	298.78	101.91	4.853	146.00	.2849	306.64	95.75	4.721		
148.00	.3071	305.89	107.00	4.902	148.00	.2876	313.63	100.78	4.768		
150.00	.3102	313.05	112.12	4.950	150.00	.2902	320.66	105.85	4.815		
152.00	.3134	320.25	117.27	4.997	152.00	.2929	327.74	110.94	4.862		
154.00	.3166	327.49	122.45	5.045	154.00	.2956	334.87	116.07	4.909		
156.00	.3198	334.77	127.66	5.092	156.00	.2983	342.04	121.24	4.955		
158.00	.3230	342.09	132.90	5.138	158.00	.3010	349.25	126.44	5.001		
160.00	.3262	349.45	138.17	5.184	160.00	.3038	356.51	131.67	5.047		
162.00	.3294	356.84	143.46	5.230	162.00	.3065	363.80	136.93	5.092		
164.00	.3327	364.28	148.79	5.276	164.00	.3093	371.15	142.22	5.137		
166.00	.3360	371.75	154.15	5.321	166.00	.3120	378.53	147.55	5.182		
168.00	.3392	379.25	159.53	5.366	168.00	.3148	385.95	152.91	5.226		
170.00	.3425	386.80	164.95	5.411	170.00	.3176	393.41	158.30	5.270		
172.00	.3458	394.38	170.39	5.455	172.00	.3204	400.91	163.73	5.314		
174.00	.3491	401.99	175.86	5.499	174.00	.3232	408.45	169.18	5.358		
176.00	.3524	409.63	181.36	5.543	176.00	.3261	416.03	174.67	5.401		
178.00	.3558	417.31	186.88	5.586	178.00	.3289	423.64	180.18	5.444		
180.00	.3591	425.02	192.43	5.629	180.00	.3318	431.29	185.72	5.487		

TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/L8)	TEMPERATURE (R)	SPECIFIC VOLUME (CU FT/LB)	ENTHALPY (BTU/LB)	INTERNAL ENERGY (BTU/LB-R)	ENTROPY (BTU/L8)
42.00	.1816	36.14	-115.12	1.446	42.00	.1791	50.98	-114.76	1.402
44.00	.1826	39.65	-112.44	1.528	44.00	.1801	54.43	-112.16	1.482
46.00	.1837	43.31	-109.65	1.609	46.00	.1810	58.03	-109.45	1.562
48.00	.1848	47.12	-106.73	1.690	48.00	.1820	61.78	-106.62	1.642
50.00	.1859	51.09	-103.67	1.771	50.00	.1830	65.68	-103.65	1.722
52.00	.1870	55.22	-100.48	1.852	52.00	.1841	69.74	-100.55	1.801
54.00	.1881	59.48	-97.19	1.933	54.00	.1851	73.93	-97.35	1.880
56.00	.1893	63.89	-93.78	2.013	56.00	.1862	78.27	-94.02	1.959
58.00	.1906	68.45	-90.23	2.093	58.00	.1873	82.77	-90.56	2.039
60.00	.1918	73.18	-86.52	2.173	60.00	.1885	87.37	-87.04	2.117
62.00	.1931	77.96	-82.81	2.252	62.00	.1897	92.07	-83.42	2.195
64.00	.1944	82.84	-79.02	2.331	64.00	.1909	96.88	-79.73	2.272
66.00	.1957	87.81	-75.17	2.407	66.00	.1921	101.77	-75.97	2.347
68.00	.1971	92.83	-71.30	2.481	68.00	.1934	106.70	-72.21	2.420
70.00	.1985	97.85	-67.44	2.554	70.00	.1946	111.64	-68.46	2.491
72.00	.1999	102.69	-63.81	2.622	72.00	.1960	116.39	-64.92	2.558
74.00	.2014	107.41	-60.30	2.687	74.00	.1973	121.03	-61.52	2.622
76.00	.2029	112.09	-56.88	2.749	76.00	.1986	125.61	-58.19	2.683
78.00	.2044	116.76	-53.47	2.810	78.00	.2000	130.19	-54.88	2.742
80.00	.2060	121.45	-50.07	2.869	80.00	.2014	134.80	-51.57	2.801
82.00	.2075	126.19	-46.64	2.928	82.00	.2029	139.45	-48.24	2.858
84.00	.2091	130.99	-43.17	2.986	84.00	.2043	144.16	-44.86	2.915
86.00	.2108	135.87	-39.65	3.043	86.00	.2058	148.95	-41.43	2.971
88.00	.2124	140.82	-36.07	3.100	88.00	.2072	153.82	-37.94	3.027
90.00	.2141	145.86	-32.42	3.157	90.00	.2088	158.77	-34.38	3.083
92.00	.2158	150.99	-28.71	3.213	92.00	.2103	163.80	-30.76	3.138
94.00	.2175	156.20	-24.93	3.269	94.00	.2118	168.91	-27.07	3.193
96.00	.2193	161.50	-21.09	3.325	96.00	.2134	174.12	-23.32	3.248
98.00	.2210	166.88	-17.19	3.380	98.00	.2150	179.40	-19.51	3.302
100.00	.2228	172.34	-13.23	3.436	100.00	.2166	184.76	-15.63	3.357
102.00	.2247	177.88	-9.20	3.490	102.00	.2182	190.20	-11.69	3.410
104.00	.2265	183.50	-5.12	3.545	104.00	.2198	195.72	-7.69	3.464
106.00	.2284	189.19	-.98	3.599	106.00	.2215	201.31	-3.64	3.517
108.00	.2303	194.95	3.20	3.653	108.00	.2232	206.97	.46	3.570
110.00	.2322	200.79	7.44	3.707	110.00	.2249	212.70	4.62	3.623
112.00	.2341	206.68	11.73	3.760	112.00	.2266	218.49	8.82	3.675
114.00	.2361	212.65	16.06	3.812	114.00	.2283	224.35	13.08	3.727
116.00	.2381	218.68	20.44	3.865	116.00	.2301	230.27	17.38	3.778
118.00	.2401	224.77	24.86	3.917	118.00	.2319	236.26	21.72	3.829
120.00	.2421	230.92	29.33	3.969	120.00	.2337	242.30	26.11	3.880
122.00	.2441	237.12	33.83	4.020	122.00	.2355	248.40	30.53	3.931
124.00	.2462	243.39	38.37	4.071	124.00	.2373	254.56	35.00	3.981
126.00	.2483	249.71	42.95	4.121	126.00	.2391	260.77	39.51	4.030
128.00	.2504	256.08	47.57	4.172	128.00	.2410	267.03	44.06	4.080
130.00	.2525	262.51	52.23	4.221	130.00	.2429	273.35	48.64	4.129
132.00	.2547	268.99	56.92	4.271	132.00	.2448	279.73	53.27	4.177
134.00	.2568	275.52	61.65	4.320	134.00	.2467	286.15	57.93	4.226
136.00	.2590	282.10	66.41	4.369	136.00	.2486	292.63	62.63	4.274
138.00	.2612	288.73	71.21	4.417	138.00	.2505	299.16	67.36	4.321
140.00	.2634	295.41	76.04	4.465	140.00	.2525	305.74	72.13	4.369
142.00	.2657	302.15	80.91	4.513	142.00	.2544	312.37	76.94	4.416
144.00	.2679	308.93	85.82	4.560	144.00	.2564	319.05	81.79	4.462
146.00	.2702	315.76	90.76	4.607	146.00	.2584	325.78	86.67	4.509
148.00	.2725	322.64	95.73	4.654	148.00	.2604	332.56	91.59	4.555
150.00	.2748	329.56	100.74	4.701	150.00	.2625	339.39	96.55	4.601
152.00	.2771	336.53	105.79	4.747	152.00	.2645	346.27	101.55	4.646
154.00	.2794	343.56	110.87	4.793	154.00	.2665	353.19	106.58	4.692
156.00	.2818	350.62	115.99	4.838	156.00	.2686	360.17	111.65	4.737
158.00	.2841	357.74	121.14	4.884	158.00	.2707	367.20	116.76	4.781
160.00	.2865	364.90	126.33	4.929	160.00	.2728	374.27	121.90	4.826
162.00	.2889	372.10	131.55	4.974	162.00	.2748	381.39	127.08	4.870
164.00	.2913	379.35	136.81	5.018	164.00	.2770	388.56	132.30	4.914
166.00	.2937	386.65	142.10	5.062	166.00	.2791	395.77	137.56	4.958
168.00	.2961	393.99	147.43	5.106	168.00	.2812	403.03	142.85	5.001
170.00	.2985	401.37	152.79	5.150	170.00	.2833	410.33	148.18	5.044
172.00	.3009	408.79	158.19	5.193	172.00	.2855	417.68	153.55	5.087
174.00	.3034	416.26	163.62	5.236	174.00	.2876	425.08	158.95	5.130
176.00	.3058	423.76	169.08	5.279	176.00	.2898	432.51	164.38	5.173
178.00	.3083	431.30	174.57	5.322	178.00	.2920	439.99	169.85	5.215
180.00	.3108	438.89	180.09	5.364	180.00	.2941	447.50	175.35	5.257

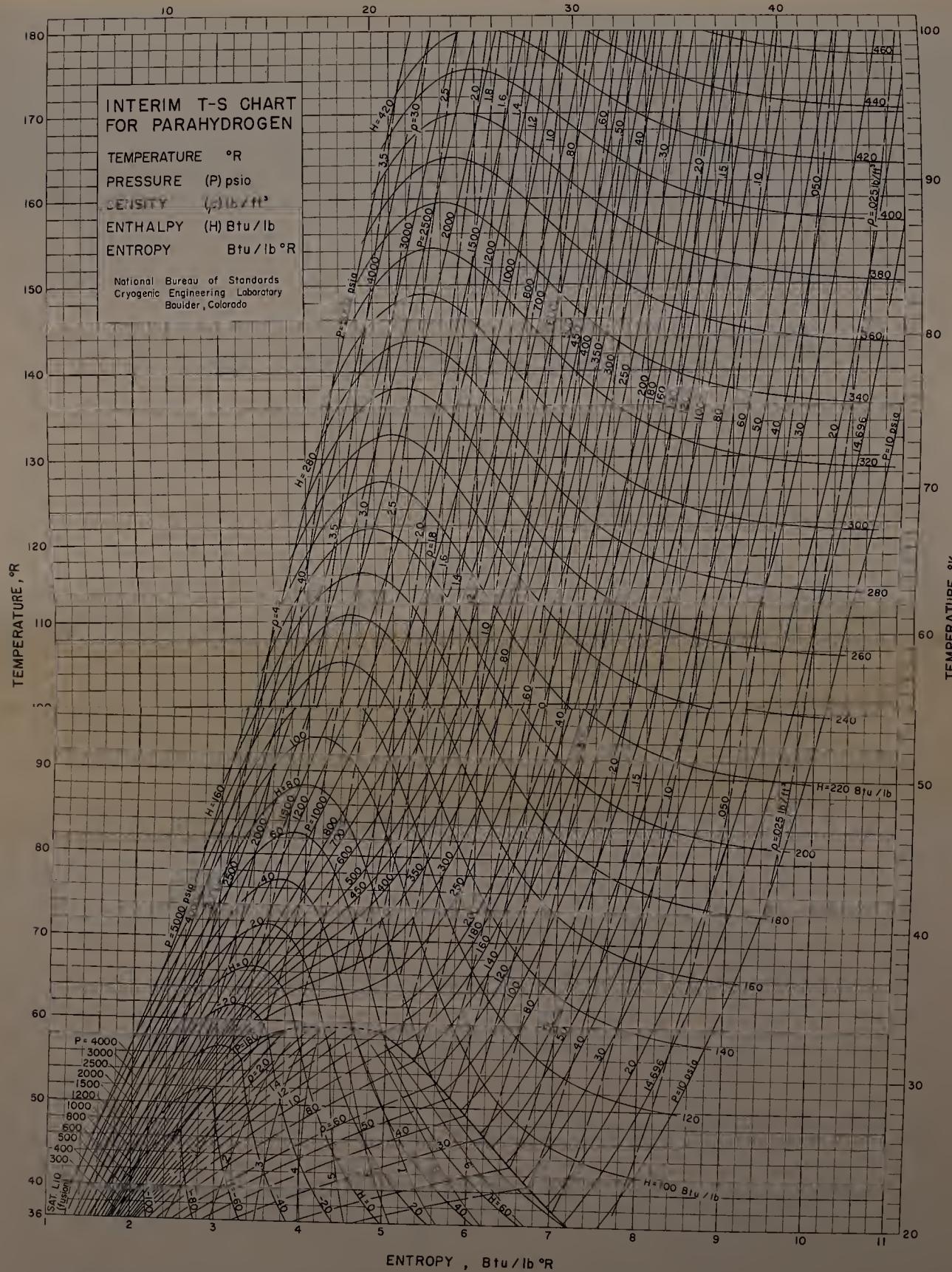


The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

In Metric Units	In English Units
D-20A T-S Chart	20 to 100°K 1 to 340 atm.
D-21A T-S Chart	80 to 300°K 1 to 100 atm.
D-22A H-S Chart	20 to 60°K 1 to 340 atm.
D-20B T-S Chart	36 to 180°R 10 to 2000 psia.
D-21B T-S Chart	140 to 340°R 10 to 2500 psia.
D-22B H-S Chart	36 to 100°R 10 to 2000 psia.

Prepared for: National Bureau of Standards, Technical Note, TN 130 (PB161631), December 1961, Provisional Thermodynamic Functions for Parahydrogen, H. M. Roder and R. D. Goodin, by the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado from property functions reported in NBS TN 130. These functions were used to calculate temperature and entropy for all intersections of isobars and isentropes and for intersections of isobars and derivative lines. Additional points were also calculated as necessary to complete the precise definition of the property lines.

R. B. Stewart, R. D. McCarty, R. D. Weekley (December 1961)



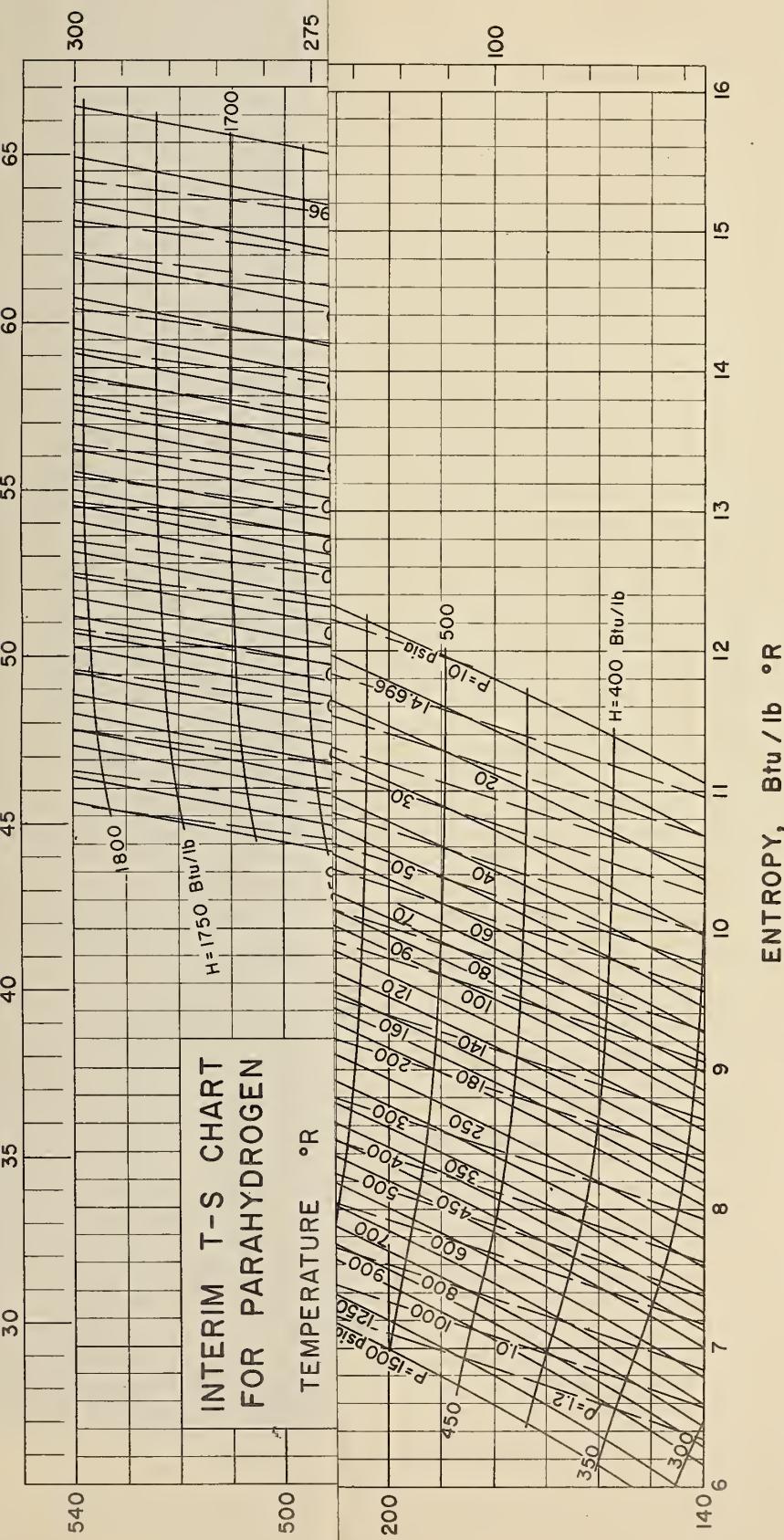
The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center,
National Bureau of Standards, Boulder, Colorado:
In Metric Units

T-0 Chart 20 to 100°K 1 to 360 atm.
T-1A Chart 60 to 200°K 1 to 100 atm.
T-2A Chart 60 to 80°K 1 to 36 atm.

In British Units
T-0 Chart 50 to 180°K 10 to 3600 psia
T-1B Chart 100 to 350°K 10 to 3000 psia
T-2B Chart 100 to 100°K 10 to 360 psia

Prepared for: National Bureau of Standards, Boulder, Colo., D-120 (Revision 1961)
"Provisional Thermodynamic Functions for Parahydrogen," R. W. Soder and R. D. Meekley, by the
Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado from property functions
reported in NBS J. Res. 68, Part A, No. 1, 1963. These functions give temperature and entropy for all
intersections of pressure and temperature and for intersections of density and temperature or entropy.
Additional points were also calculated as necessary to complete the precise definition of the
property lines.

R. B. Stewart, S. D. McCarty, R. D. Meekley (December 1961)



The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

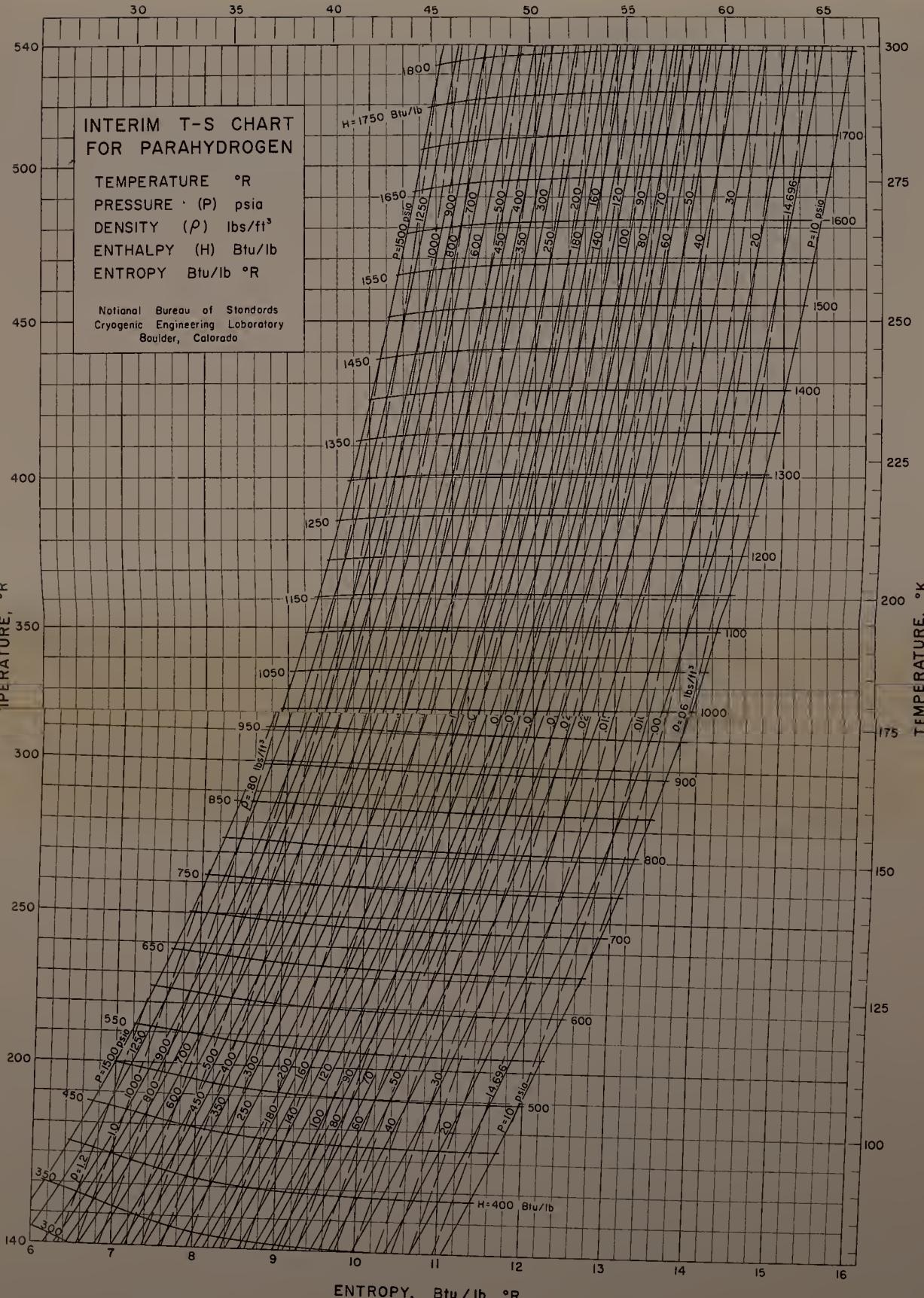
In Metric Units

In English Units

Prepared for: National Bureau of Standards, Technical Note, TN 130 (PB161631) December 1961, Provisional Thermodynamic Functions for Parahydrogen, H. M. Roden and R. D. Goodwin; by the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado, from property functions reported in NBS TN 130. These functions were used to calculate temperature and entropy for all intersections of isobars and isentropes and for intersections of isobars and isometric lines. Additional points were also calculated as necessary to complete the precise definition of the property lines.

R. B. Stewart, R. D. McCarty, T. W. Griffith (December 1961)

D-20A	T-S Chart	20 to 100%	1 to 310 atm.	D-203	T-S Chart	36 to 180°R	10 to 5000 psia.
D-21A	T-S Chart	80 to 300%	1 to 100 atm.	D-213	T-S Chart	36 to 510°R	10 to 1500 psia.
D-22A	H-S Chart	20 to 60°K	1 to 310 atm.	D-223	H-S Chart	36 to 100°R	10 to 5000 psia.



The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

In Metric Units

D-20A T-S Chart 20 to 100°K 1 to 340 atm.

D-21A T-S Chart 20 to 300°K 1 to 100 atm.

D-20B H-S Chart 20 to 300°K 1 to 340 atm.

In British Units

D-20B T-S Chart 36 to 380°R 10 to 5000 psia.

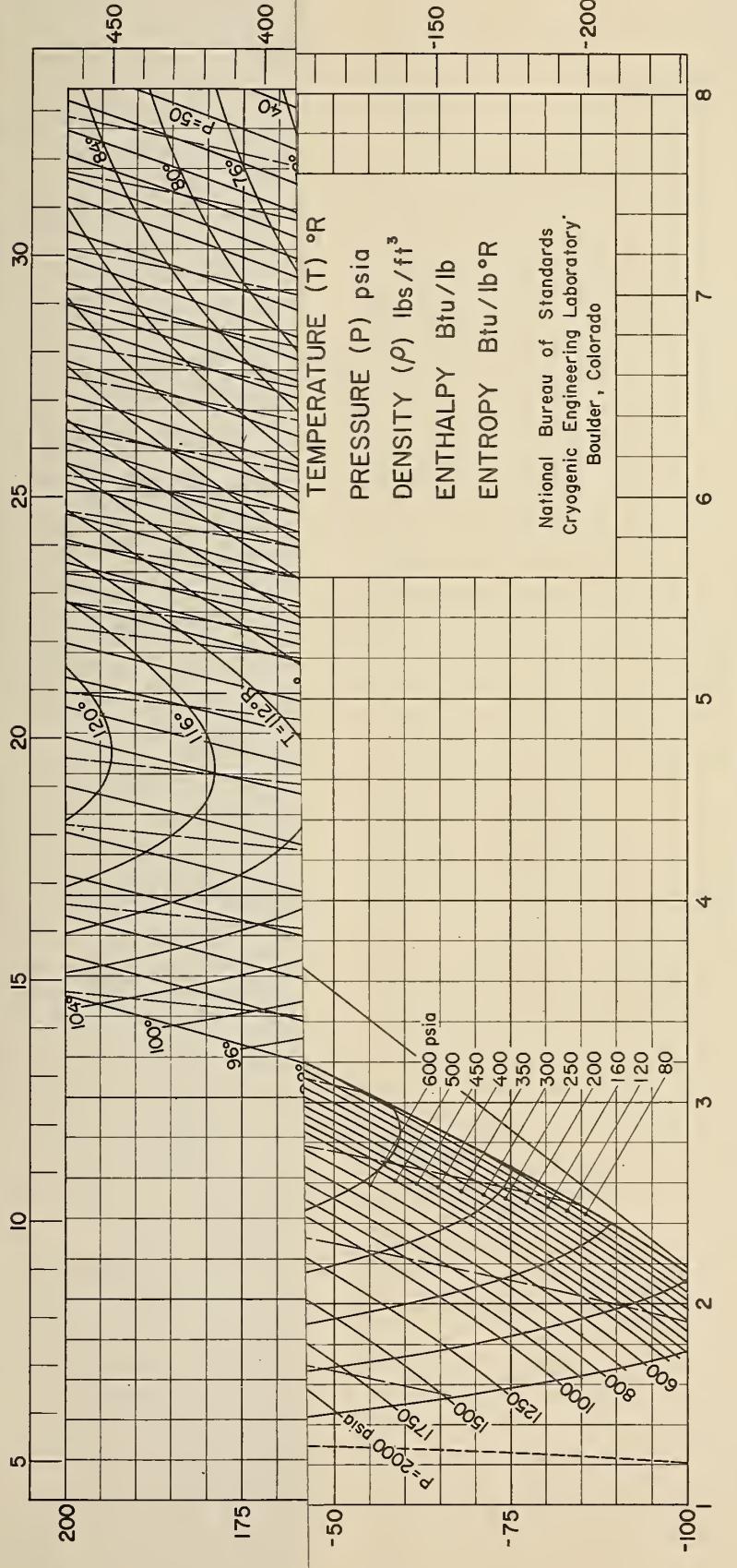
D-21B T-S Chart 140 to 540°R 10 to 5000 psia.

D-22B H-S Chart 36 to 100°R 10 to 5000 psia.

Prepared for: National Bureau of Standards, Technical Note, TN 130 (TMN6101) December 1960.
"Provisional Thermodynamic Functions for Parahydrogen", H. M. Adler and R. D. McDowell by the
Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado, from property functions
reported in NBS Circular 520. These functions were used to calculate temperature and entropy for all
intersections of isobars and isotherms and for intersections of isobars and isometric lines.
Additional points were also calculated as necessary to complete the precise definition of the
property lines.

R. D. Stewart, R. D. McHarry, T. W. Griffith (December 1961)

ENTROPY, Joules / gm°K

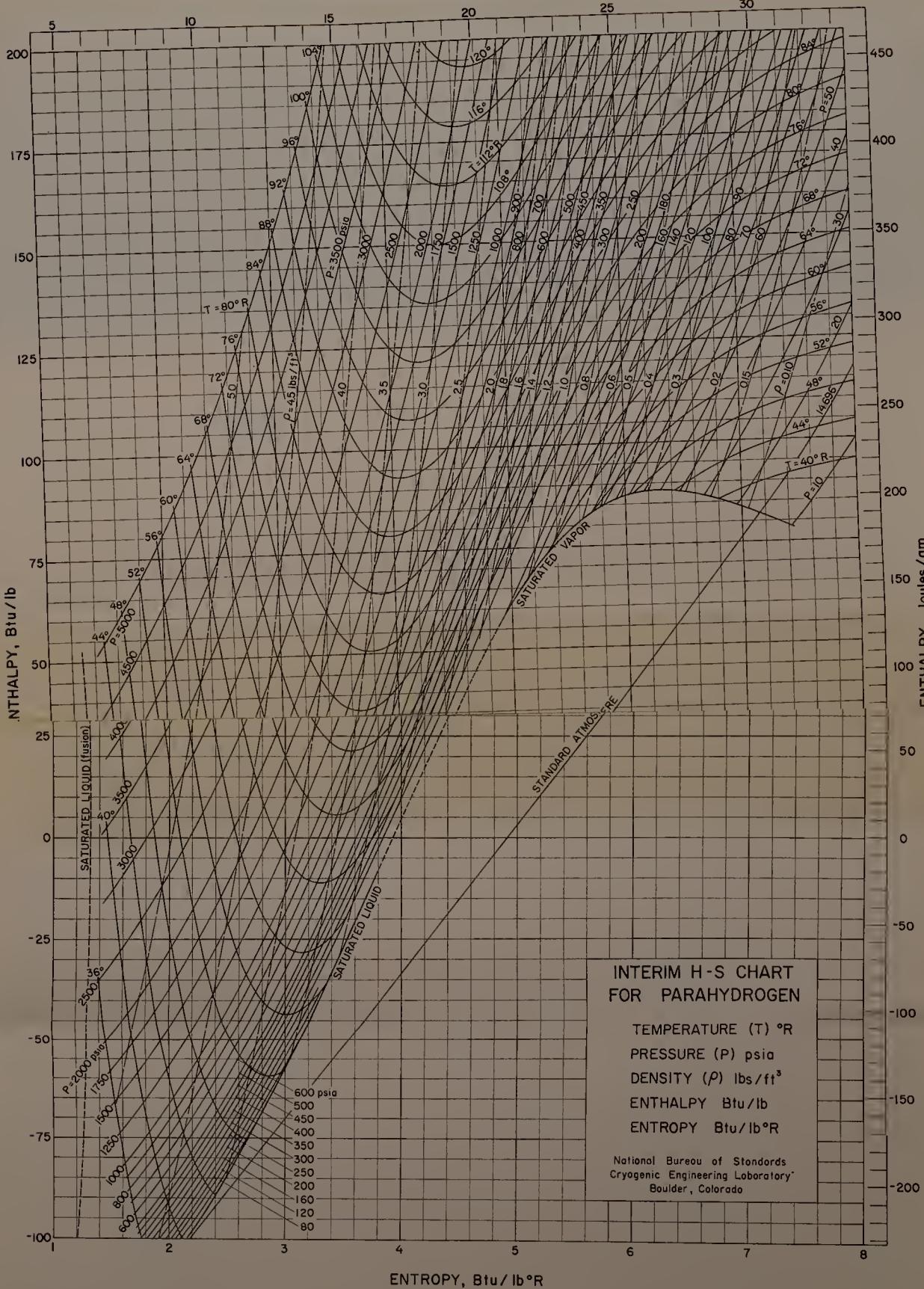


The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center,
National Bureau of Standards, Boulder, Colorado:

In Metric Units	In British Units
D-20A T-S Chart 20 to 100°K 1 to 310 atm.	D-20B T-S Chart 36 to 180°R 10 to 5000 psia,
D-21A T-S Chart 80 to 300°K 1 to 1500 psia,	D-21B T-S Chart 140 to 540°R 10 to 5000 psia,
D-22A H-S Chart 20 to 60°K 1 to 310 atm.	D-22B H-S Chart 36 to 100°R 10 to 5000 psia.

Prepared for: National Bureau of Standards, Technical Note, TN 130 (PB161631) December 1961,
"Provisional Thermodynamic Functions for Parahydrogen", H. M. Roden and R. D. Goodwin; by the
Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado from property functions
reported in PB 161630. These functions were used to calculate temperature and entropy for all
intersections of isobars and isentropes and for intersections of isobars and isometric lines.
Additional points were also calculated as necessary to complete the precise definition of the
property lines.

R. B. Stewart, R. D. McCarty, L. J. Ericka (December 1961)



The following charts for parahydrogen are available in 17" x 22" size from the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado:

In Metric Units

D-20A T-S Chart 20 to 100°K 1 to 340 atm.
 D-21A T-S Chart 80 to 300°K 1 to 100 atm.
 D-22A S-S Chart 20 to 40°K 1 to 340 atm.

In British Units

D-20B T-S Chart 30 to 300°R 10 to 3000 psia.
 D-21B T-S Chart 150 to 540°R 10 to 3500 psia.
 D-22B H-S Chart 30 to 120°R 10 to 3000 psia.

Prepared for: National Bureau of Standards, Technical Note, TN 130 (750-1511) December 1961.
 "Provisional Thermodynamic Functions for Parahydrogen", E. M. Roden and R. D. Goodwin; by the Cryogenic Data Center, National Bureau of Standards, Boulder, Colorado from property functions reported in NBS TN 130. These functions are intended to calculate temperature and entropy for all intersections of isobars and isotherms and for the intersection of isobars and isentropic lines. Additional points were also calculated as necessary to complete the precise definition of the property lines.

R. B. Stewart, R. D. McCarty, L. J. Ericks (December 1961)

U. S. DEPARTMENT OF COMMERCE
Luther H. Hodges, Secretary

NATIONAL BUREAU OF STANDARDS
A. V. Astin, Director



THE NATIONAL BUREAU OF STANDARDS

The scope of activities of the National Bureau of Standards at its major laboratories in Washington, D.C., and Boulder, Colorado, is suggested in the following listing of the divisions and sections engaged in technical work. In general, each section carries out specialized research, development, and engineering in the field indicated by its title. A brief description of the activities, and of the resultant publications, appears on the inside of the front cover.

WASHINGTON, D.C.

Electricity. Resistance and Reactance. Electrochemistry. Electrical Instruments. Magnetic Measurements. Dielectrics. High Voltage.

Metrology. Photometry and Colorimetry. Refractometry. Photographic Research. Length. Engineering Metrology. Mass and Scale. Volumetry and Densimetry.

Heat. Temperature Physics. Heat Measurements. Cryogenic Physics. Equation of State. Statistical Physics. **Radiation Physics.** X-ray. Radioactivity. Radiation Theory. High Energy Radiation. Radiological Equipment. Nucleonic Instrumentation. Neutron Physics.

Analytical and Inorganic Chemistry. Pure Substances. Spectrochemistry. Solution Chemistry. Standard Reference Materials. Applied Analytical Research.

Mechanics. Sound. Pressure and Vacuum. Fluid Mechanics. Engineering Mechanics. Rheology. Combustion Controls.

Organic and Fibrous Materials. Rubber. Textiles. Paper. Leather. Testing and Specifications. Polymer Structure. Plastics. Dental Research.

Metallurgy. Thermal Metallurgy. Chemical Metallurgy. Mechanical Metallurgy. Corrosion. Metal Physics. Electrolysis and Metal Deposition.

Mineral Products. Engineering Ceramics. Glass. Refractories. Enamelled Metals. Crystal Growth. Physical Properties. Constitution and Microstructure.

Building Research. Structural Engineering. Fire Research. Mechanical Systems. Organic Building Materials. Codes and Safety Standards. Heat Transfer. Inorganic Building Materials.

Applied Mathematics. Numerical Analysis. Computation. Statistical Engineering. Mathematical Physics. Operations Research.

Data Processing Systems. Components and Techniques. Computer Technology. Measurements Automation. Engineering Applications. Systems Analysis.

Atomic Physics. Spectroscopy. Infrared Spectroscopy. Solid State Physics. Electron Physics. Atomic Physics. **Instrumentation.** Engineering Electronics. Electron Devices. Electronic Instrumentation. Mechanical Instruments. Basic Instrumentation.

Physical Chemistry. Thermochemistry. Surface Chemistry. Organic Chemistry. Molecular Spectroscopy. Molecular Kinetics. Mass Spectrometry.

Office of Weights and Measures.

BOULDER, COLO.

Cryogenic Engineering. Cryogenic Equipment. Cryogenic Processes. Properties of Materials. Cryogenic Technical Services.

Ionosphere Research and Propagation. Low Frequency and Very Low Frequency Research. Ionosphere Research. Prediction Services. Sun-Earth Relationships. Field Engineering. Radio Warning Services. Vertical Soundings Research.

Radio Propagation Engineering. Data Reduction Instrumentation. Radio Noise. Tropospheric Measurements. Tropospheric Analysis. Propagation-Terrain Effects. Radio-Meteorology. Lower Atmosphere Physics.

Radio Standards. High Frequency Electrical Standards. Radio Broadcast Service. Radio and Microwave Materials. Atomic Frequency and Time Interval Standards. Electronic Calibration Center. Millimeter-Wave Research. Microwave Circuit Standards.

Radio Systems. Applied Electromagnetic Theory. High Frequency and Very High Frequency Research. Modulation Research. Antenna Research. Navigation Systems.

Upper Atmosphere and Space Physics. Upper Atmosphere and Plasma Physics. Ionosphere and Exosphere Scatter. Airglow and Aurora. Ionospheric Radio Astronomy.





